BITNER®

CABLE FACTORY BITNER

2014

CHAPTER I.1

Control cables 300/300V

BiT LiYY

Flexible control cables with coloured conductors, rated 300/300V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with coloured conductors, PVC insulation and sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/300V
Test voltage (50Hz):
≤ 0,34mm^2 1200V
≥ 0,50mm^2 1500V
Insulation resistance: 20 MΩ x km
Approximate capacitance (at 800Hz):
0,14mm2 – 120 pF/m
≥ 0,25mm2 - 150 pF/m
Approximate inductance: 0,65 mH/km
Min. bending radius:
Flexible connections: 7,5 x Ø
Fixed installation: 4 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: colours as per DIN 47100
Core arrangement: cores twisted together or pairs twisted together
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1).
Outer sheath colour: grey

Application:

Cables designed for signalling control circuits, control circuits in industrial applications, in measurement technology, and for analogue and digital signals transmission in electronic industrial and automatic control engineering systems. For fixed installation and mobile/portable devices. Suitable for usage in internal systems, in both dry and damp rooms. Core arrangement ensures asymmetry attenuation of 10 dB. In an environment with considerable electromagnetic interference, we recommend using screened cables type BiT LiYCY or BiT LiY(St)Y


internal application


industrial application


PN-EN 60332-1


high flexibility

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S30001	2x0,14	3,4	16,4	2,7
S30002	3x0,14	3,6	18,9	4,1
S30003	4x0,14	3,9	22,2	5,4
S30004	5x0,14	4,2	26,4	6,8
S30005	6x0,14	4,6	30,6	8,1
S30006	7x0,14	4,6	31,6	9,5
S30007	8x0,14	5,0	34,6	10,8
S30008	10x0,14	5,6	41,0	13,5
S30009	12x0,14	5,8	46,5	16,2
S30010	14x0,14	6,1	52,0	18,9
S30011	16x0,14	6,4	59,0	21,6
S30012	18x0,14	6,7	65,5	24,3
S30013	20x0,14	7,1	72,0	27,0
S30014	21x0,14	7,1	73,2	28,4
S30016	27x0,14	7,9	95,5	36,5
S30017	30x0,14	8,5	102,5	40,5
S30019	37x0,14	9,1	122,0	50,0
S30020	40x0,14	9,4	133,5	54,0
S30021	44x0,14	10,2	146,5	59,4
S30022	48x0,14	10,4	160,5	64,8
S30024	52x0,14	10,6	178,0	70,2
S30025	56x0,14	10,9	181,0	75,2
S30026	61x0,14	11,3	193,5	82,4
S30027	2x0,25	3,7	20,3	4,8

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S30028	3x0,25	3,9	23,9	7,2
S30029	4x0,25	4,3	28,4	9,6
S30030	5x0,25	4,6	34,0	12,0
S30031	6x0,25	5,0	39,8	14,4
S30032	7x0,25	5,0	41,3	16,8
S30033	8x0,25	5,5	45,4	19,2
S30034	10x0,25	6,2	53,7	24,0
S30035	12x0,25	6,4	61,5	28,8
S30036	14x0,25	6,7	69,5	33,6
S30037	16x0,25	7,1	79,0	38,4
S30038	18x0,25	7,7	92,0	43,2
S30039	20x0,25	8,0	101,5	48,0
S30040	21x0,25	8,0	103,0	50,4
S30042	27x0,25	9,3	138,5	64,8
S30043	30x0,25	9,4	139,0	72,0
S30045	37x0,25	10,1	167,0	88,8
S30046	40x0,25	11,1	191,0	96,0
S30047	44x0,25	11,7	208,0	105,6
S30048	48x0,25	11,9	222,5	115,2
S30050	52x0,25	12,5	251,0	124,8
S30051	56x0,25	12,9	265,0	134,4
S30052	61x0,25	13,3	286,0	146,4
S30053	2x0,34	4,0	24,7	6,5
S30054	3x0,34	4,3	29,5	9,8

BITNER®

BiT LiYY Flexible control cables with coloured conductors, rated 300/300V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S30055	4x0,34	4,6	35,4	13,1
S30056	5x0,34	5,0	43,0	16,3
S30057	6x0,34	5,4	49,6	19,6
S30058	7x0,34	5,4	52,5	22,9
S30059	8x0,34	6,0	57,5	26,1
S30060	10x0,34	6,8	68,6	32,7
S30061	12x0,34	7,0	79,0	39,2
S30062	14x0,34	7,6	93,4	45,7
S30063	16x0,34	8,0	106,0	52,2
S30064	18x0,34	8,4	118,0	58,8
S30065	20x0,34	8,8	131,5	65,3
S30066	21x0,34	8,8	133,5	68,6
S30068	27x0,34	10,1	172,5	88,2
S30069	30x0,34	10,6	186,5	98,0
S30071	37x0,34	11,4	224,0	121,0
S30072	40x0,34	11,8	244,0	130,7
S30073	44x0,34	12,8	273,5	143,7
S30074	48x0,34	13,0	294,0	156,7
S30076	52x0,34	13,3	313,5	169,8
S30077	56x0,34	13,8	335,5	182,4
S30078	61x0,34	14,6	375,0	199,2
S30079	2x0,5	4,7	33,2	9,6
S30080	3x0,5	5,0	39,8	14,4
S30081	4x0,5	5,5	48,0	19,2
S30082	5x0,5	6,0	58,2	24,0
S30083	6x0,5	6,5	67,8	28,8
S30084	7x0,5	6,5	71,6	33,6
S30085	8x0,5	7,4	81,5	38,4
S30086	10x0,5	8,4	96,9	48,0
S30087	12x0,5	8,7	111,5	57,6
S30088	14x0,5	9,1	126,8	67,2
S30089	16x0,5	9,6	144,5	76,8
S30090	18x0,5	10,1	161,0	86,4
S30091	20x0,5	10,9	184,0	96,0
S30092	21x0,5	10,9	188,0	100,8
S30094	27x0,5	12,7	252,0	129,6
S30095	30x0,5	13,2	267,5	144,0
S30097	37x0,5	14,2	321,0	177,6
S30098	40x0,5	15,3	359,5	192,0
S30099	44x0,5	16,3	403,0	211,2
S30101	48x0,5	16,6	430,0	230,4
S30102	52x0,5	17,0	460,0	249,6
S30103	56x0,5	17,5	491,0	268,8
S30104	61x0,5	18,1	527,5	298,8
S30105	2x0,75	5,1	41,0	14,4
S30106	3x0,75	5,4	50,0	21,8
S30107	4x0,75	6,0	60,7	28,8
S30108	5x0,75	6,5	73,6	36,0
S30109	6x0,75	7,1	87,1	43,2

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S30110	7x0,75	7,1	92,1	50,4
S30111	8x0,75	8,0	104,3	57,6
S30112	10x0,75	9,2	124,5	72,0
S30113	12x0,75	9,5	144,5	86,4
S30114	14x0,75	10,0	165,0	100,8
S30115	16x0,75	10,8	192,5	115,2
S30116	18x0,75	11,3	216,0	129,6
S30117	20x0,75	11,9	240,0	144,0
S30118	21x0,75	11,9	245,0	151,2
S30120	27x0,75	14,2	330,0	194,4
S30121	30x0,75	14,4	348,0	216,0
S30123	37x0,75	15,8	427,0	266,4
S30124	40x0,75	17,2	465,5	284,0
S30127	2x1	5,8	53,2	19,2
S30128	3x1	6,2	65,2	28,8
S30129	4x1	6,8	79,5	38,4
S30130	5x1	7,6	100,7	48,0
S30131	6x1	8,3	120,0	57,6
S30132	7x1	8,3	125,6	67,2
S30133	8x1	9,2	137,0	76,8
S30134	10x1	10,8	168,7	96,0
S30135	12x1	11,1	195,5	115,2
S30136	14x1	11,7	223,2	134,4
S30137	16x1	12,4	254,5	153,6
S30138	18x1	13,5	299,3	172,8
S30139	20x1	14,1	332,0	192,0
S30149	2x1,5	6,2	64,8	29,0
S30150	3x1,5	6,6	80,7	43,5
S30151	4x1,5	7,5	102,8	58,0
S30152	5x1,5	8,2	125,0	72,5
S30153	6x1,5	8,9	148,5	87,0
S30154	7x1,5	8,9	158,4	101,5
S30155	8x1,5	9,9	172,7	116,0
S30156	10x1,5	11,6	213,4	145,0
S30157	12x1,5	12,0	248,5	174,0
S30158	14x1,5	12,6	285,0	203,0
S30159	16x1,5	13,7	338,0	232,0
S30160	18x1,5	14,5	379,0	261,0
S30161	20x1,5	15,4	427,5	290,0
S30171	2x2,5	7,8	104,3	48,0
S30172	3x2,5	8,4	130,2	72,0
S30173	4x2,5	9,3	160,4	96,0
S30174	5x2,5	10,2	196,3	120,0
S30175	6x2,5	11,3	240,8	144,0
S30176	7x2,5	11,3	255,5	168,0
S30177	8x2,5	13,0	290,0	192,0
S30178	10x2,5	14,9	348,5	240,0
S30179	12x2,5	15,6	414,0	288,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT LiYY Flexible control cables with coloured conductors, rated 300/300V

paired cables

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S30300	2x2x0,14	4,8	27,0	5,4
S30301	3x2x0,14	5,4	29,6	8,1
S30302	4x2x0,14	5,8	36,0	10,8
S30303	5x2x0,14	6,3	44,2	13,5
S30304	6x2x0,14	6,5	48,0	16,2
S30305	7x2x0,14	7,2	55,1	18,9
S30306	8x2x0,14	7,8	64,7	21,6
S30307	10x2x0,14	8,3	76,5	27,0
S30308	12x2x0,14	8,9	88,2	32,4
S30309	14x2x0,14	9,4	100,0	37,8
S30310	16x2x0,14	10,1	114,2	43,2
S30311	18x2x0,14	10,7	128,6	48,6
S30312	20x2x0,14	11,1	140,0	54,0
S30313	24x2x0,14	11,4	161,0	64,8
S30314	2x2x0,25	5,3	32,9	9,6
S30315	3x2x0,25	5,9	38,0	14,4
S30316	4x2x0,25	6,4	46,7	19,2
S30317	5x2x0,25	6,9	58,4	24,0
S30318	6x2x0,25	7,2	63,2	28,8
S30319	7x2x0,25	8,3	77,0	33,6
S30320	8x2x0,25	8,6	85,4	38,4
S30321	10x2x0,25	9,3	102,0	48,0
S30322	12x2x0,25	9,9	118,3	57,6
S30323	14x2x0,25	10,7	140,0	67,2
S30324	16x2x0,25	11,5	160,0	76,8
S30325	18x2x0,25	12,0	173,2	86,4
S30326	20x2x0,25	12,3	189,0	96,0
S30327	24x2x0,25	13,1	231,0	115,2
S30328	2x2x0,34	5,8	41,6	13,1
S30329	3x2x0,34	6,5	47,5	19,6
S30330	4x2x0,34	7,0	59,0	26,2
S30331	5x2x0,34	7,8	77,0	32,7
S30332	6x2x0,34	8,1	84,7	39,2
S30333	7x2x0,34	9,1	98,0	45,8
S30334	8x2x0,34	9,5	109,0	52,3
S30335	10x2x0,34	10,2	131,0	65,4
S30336	12x2x0,34	11,1	158,0	78,5
S30337	14x2x0,34	11,8	180,2	91,6
S30338	16x2x0,34	12,6	206,0	104,6
S30339	18x2x0,34	13,6	237,2	117,7
S30340	20x2x0,34	14,0	258,0	130,8
S30341	24x2x0,34	14,4	300,0	157,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S30342	2x2x0,5	6,9	55,6	19,2
S30343	3x2x0,5	8,0	67,2	28,8
S30344	4x2x0,5	8,7	83,3	38,4
S30345	5x2x0,5	9,4	104,7	48,0
S30346	6x2x0,5	9,7	114,4	57,6
S30347	7x2x0,5	11,2	138,0	67,2
S30348	8x2x0,5	11,7	153,4	76,8
S30349	10x2x0,5	12,6	184,2	96,0
S30350	12x2x0,5	13,8	228,0	115,2
S30351	14x2x0,5	14,7	260,0	134,4
S30352	16x2x0,5	16,0	305,0	153,6
S30353	18x2x0,5	16,7	330,6	172,8
S30354	20x2x0,5	17,2	360,7	192,0
S30355	24x2x0,5	17,7	418,0	230,4
S30360	2x2x0,75	7,7	72,9	28,8
S30361	3x2x0,75	8,7	84,6	43,2
S30362	4x2x0,75	9,5	106,0	57,6
S30363	5x2x0,75	10,3	134,2	72,0
S30365	7x2x0,75	12,2	176,5	100,8
S30367	10x2x0,75	14,2	252,0	144,0
S30368	12x2x0,75	15,4	301,0	172,8
S30369	14x2x0,75	16,3	343,3	201,6
S30370	16x2x0,75	17,5	393,6	230,4
S30371	18x2x0,75	18,5	437,0	259,2
S30377	2x2x1	8,9	93,7	38,8
S30378	3x2x1	10,0	109,6	57,6
S30379	4x2x1	11,1	143,4	76,8
S30380	5x2x1	12,1	181,0	97,0
S30382	7x2x1	14,5	245,0	134,4
S30384	10x2x1	16,6	338,0	192,0
S30385	12x2x1	17,7	394,5	232,8
S30386	14x2x1	19,1	460,3	268,8
S30387	16x2x1	20,4	528,0	307,2
S30388	18x2x1	21,6	585,2	345,6
S30394	2x2x1,5	9,5	116,1	57,6
S30395	3x2x1,5	11,0	142,0	86,4
S30396	4x2x1,5	12,0	180,0	115,2
S30397	5x2x1,5	13,4	240,2	144,0
S30399	7x2x1,5	15,8	315,4	201,6
S30401	10x2x1,5	17,8	427,0	288,0
S30402	12x2x1,5	19,3	510,0	345,6
S30403	14x2x1,5	20,7	593,8	403,2
S30404	16x2x1,5	22,2	681,1	460,8

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Note: On customer's request other cross sections or number of cores can be produced

BiT LiYCY

Flexible control cables with coloured conductors, rated 300/300V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with coloured conductors, PVC insulation and sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/300V
Test voltage (50Hz):
≤ 0,34mm^2 1200V
≥ 0,50mm^2 1500V
Insulation resistance: 20 MΩ x km
Approximate capacitance (at 800Hz):
Core/core 0,14mm^2 – 120 pF/m
Core/core ≥ 0,25mm^2 - 150 pF/m
Core/screen 0,14mm^2 – 240 pF/m
Core/screen ≥ 0,25mmv - 270 pF/m
Approximate inductance: 0,65 mH/km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: colours as per DIN 47100
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid with coverage ≥ 85%
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1)
Outer sheath colour: grey

Application:

The cables are intended for signalling control circuits, control circuits in industrial applications, in measurement technology, and for analogue and digital signals transmission in electronic industrial and automatic control engineering systems. For fixed installation, and mobile/portable devices. Suitable for use indoors, in both dry and damp rooms. A common screen of tinned copper wire braid ensures very good protection against external electromagnetic fields (approximately 50 dB).


internal application


industrial application


PN-EN 60332-1


high flexibility

EMC

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S30500	2x0,14	4,0	24,5	12,0
S30501	3x0,14	4,2	27,0	13,0
S30502	4x0,14	4,5	31,0	14,3
S30503	5x0,14	4,8	36,5	15,5
S30504	6x0,14	5,1	42,0	18,2
S30505	7x0,14	5,1	45,0	19,0
S30506	8x0,14	5,5	50,5	21,2
S30507	10x0,14	6,3	58,0	28,5
S30508	12x0,14	6,5	64,0	30,4
S30509	14x0,14	6,7	72,5	32,0
S30510	16x0,14	7,1	80,0	43,0
S30511	18x0,14	7,4	86,0	48,8
S30512	20x0,14	7,9	94,5	54,0
S30513	21x0,14	7,9	98,0	55,5
S30516	27x0,14	8,8	115,0	64,0
S30517	30x0,14	9,0	123,5	69,0
S30520	37x0,14	9,7	145,0	82,0
S30521	40x0,14	10,3	160,0	87,6
S30522	44x0,14	10,9	173,0	109,5
S30524	48x0,14	11,1	183,5	115,0
S30525	52x0,14	11,3	191,5	124,0
S30526	56x0,14	11,7	205,0	131,0
S30528	61x0,14	12,4	227,0	144,0

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S30529	2x0,25	4,4	28,0	15,9
S30530	3x0,25	4,6	33,5	19,7
S30531	4x0,25	4,9	40,0	22,0
S30532	5x0,25	5,3	47,5	26,8
S30533	6x0,25	5,6	52,0	30,0
S30534	7x0,25	5,6	56,0	34,8
S30535	8x0,25	6,3	63,5	42,0
S30536	10x0,25	7,0	77,0	46,0
S30537	12x0,25	7,2	84,0	53,5
S30538	14x0,25	7,5	93,0	61,0
S30539	16x0,25	8,1	104,5	64,0
S30540	18x0,25	8,4	113,5	78,0
S30541	20x0,25	8,9	124,0	86,0
S30542	21x0,25	8,9	126,5	91,0
S30545	27x0,25	9,9	153,0	112,0
S30546	30x0,25	10,2	170,0	126,0
S30548	37x0,25	11,1	201,0	132,0
S30549	40x0,25	11,8	214,0	149,0
S30550	44x0,25	12,7	240,0	158,0
S30552	48x0,25	12,9	256,5	164,0
S30553	52x0,25	13,3	272,0	174,0
S30554	56x0,25	13,6	290,0	187,0
S30556	61x0,25	14,2	315,0	199,0

BiT LiYCY

Flexible control cables with coloured conductors, rated 300/300V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S30557	2x0,34	4,6	32,0	18,0
S30558	3x0,34	4,9	40,0	21,0
S30559	4x0,34	5,3	47,0	27,5
S30560	5x0,34	5,6	55,5	30,0
S30561	6x0,34	6,2	63,5	43,0
S30562	7x0,34	6,2	67,0	48,0
S30563	8x0,34	6,7	78,0	52,0
S30564	10x0,34	7,6	90,5	65,0
S30565	12x0,34	7,9	104,5	70,0
S30566	14x0,34	8,2	112,5	79,0
S30567	16x0,34	8,7	126,0	84,0
S30568	18x0,34	9,1	140,0	98,0
S30569	20x0,34	9,7	155,0	106,0
S30570	21x0,34	9,7	158,0	112,0
S30573	27x0,34	10,8	197,5	132,0
S30574	30x0,34	11,2	214,0	151,0
S30577	37x0,34	12,4	260,0	179,0
S30578	40x0,34	13,2	280,0	197,0
S30579	44x0,34	14,1	308,5	211,0
S30581	48x0,34	14,3	330,0	126,0
S30582	52x0,34	14,6	352,5	239,0
S30583	56x0,34	15,1	374,5	264,0
S30585	61x0,34	15,5	403,0	291,0
S30587	2x0,5	5,3	42,0	28,0
S30588	3x0,5	5,6	49,5	37,0
S30589	4x0,5	6,2	58,0	43,0
S30590	5x0,5	6,7	73,5	51,0
S30591	6x0,5	7,2	85,0	64,0
S30592	7x0,5	7,2	87,5	65,0
S30593	8x0,5	8,0	100,0	68,0
S30594	10x0,5	9,1	119,5	88,0
S30595	12x0,5	9,3	133,5	98,0
S30596	14x0,5	9,8	150,0	120,0
S30597	16x0,5	10,5	175,0	129,0
S30598	18x0,5	11,0	192,5	138,0
S30599	20x0,5	11,7	211,0	149,0
S30600	21x0,5	11,7	214,0	158,0
S30602	27x0,5	13,4	271,0	209,0
S30603	30x0,5	13,8	294,0	230,0
S30605	37x0,5	15,1	356,0	290,0
S30606	40x0,5	16,3	389,5	311,0
S30607	44x0,5	17,3	441,5	332,0
S30609	48x0,5	17,5	470,0	353,0
S30610	52x0,5	18,0	503,0	385,0
S30611	56x0,5	18,6	537,0	408,0
S30613	61x0,5	19,1	576,5	432,0
S30615	2x0,75	5,8	49,5	36,0
S30616	3x0,75	6,1	58,5	47,0
S30617	4x0,75	6,7	75,0	56,0
S30618	5x0,75	7,2	88,0	65,0
S30619	6x0,75	7,9	104,0	83,0
S30620	7x0,75	7,9	108,5	88,0
S30621	8x0,75	8,7	125,0	102,0
S30622	10x0,75	9,9	147,5	118,0
S30623	12x0,75	10,2	173,0	142,0
S30624	14x0,75	10,8	193,0	153,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S30625	16x0,75	11,5	217,0	167,0
S30626	18x0,75	12,4	250,5	181,0
S30627	20x0,75	13,1	275,0	217,0
S30628	21x0,75	13,1	280,0	226,0
S30631	27x0,75	14,8	347,5	280,0
S30632	30x0,75	15,3	382,5	308,0
S30635	37x0,75	17,8	465,0	342,0
S30636	40x0,75	19,0	522,0	393,0
S30637	2x1	6,5	57,5	43,0
S30638	3x1	6,9	76,0	56,0
S30639	4x1	7,6	91,5	68,0
S30640	5x1	8,3	110,0	79,0
S30641	6x1	9,0	131,0	96,0
S30642	7x1	9,0	136,5	111,0
S30643	8x1	9,9	159,0	128,0
S30644	10x1	11,4	193,5	140,0
S30645	12x1	11,7	219,5	164,0
S30646	14x1	12,7	256,0	196,0
S30647	16x1	13,5	290,5	218,0
S30648	18x1	14,3	330,0	252,0
S30649	20x1	15,2	364,5	268,0
S30650	21x1	15,2	370,0	278,0
S30653	27x1	17,4	478,5	360,0
S30654	30x1	17,9	521,0	392,0
S30656	37x1	19,4	625,0	485,0
S30657	2x1,5	7,1	74,0	58,0
S30658	3x1,5	7,5	93,5	72,0
S30659	4x1,5	8,4	116,0	96,0
S30660	5x1,5	9,1	141,0	116,0
S30661	6x1,5	9,9	168,5	142,0
S30662	7x1,5	9,9	177,0	152,0
S30663	8x1,5	11,0	210,0	168,0
S30664	10x1,5	13,0	258,5	188,0
S30665	12x1,5	13,4	295,0	254,0
S30666	14x1,5	14,2	340,0	272,0
S30667	16x1,5	15,1	386,0	285,0
S30668	18x1,5	15,8	430,5	350,0
S30669	20x1,5	17,2	502,0	387,0
S30670	21x1,5	17,2	510,0	402,0
S30673	27x1,5	19,3	631,5	502,0
S30674	30x1,5	20,0	690,0	546,0
S30676	37x1,5	21,7	834,0	682,0
S30677	2x2,5	8,5	126,0	96,0
S30678	3x2,5	9,0	168,0	118,0
S30679	4x2,5	10,0	195,0	147,0
S30680	5x2,5	10,9	210,0	176,0
S30681	6x2,5	11,9	278,0	212,0
S30682	7x2,5	11,9	296,0	235,0
S30683	8x2,5	13,6	345,0	262,0
S30684	10x2,5	15,8	403,0	313,0
S30685	12x2,5	16,5	540,0	365,0
S30686	14x2,5	17,5	589,0	428,0
S30687	16x2,5	18,7	640,0	512,0
S30688	18x2,5	19,6	681,0	570,0
S30689	20x2,5	21,1	762,0	608,0
S30690	21x2,5	21,1	816,0	632,0

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BiT LiYCY

Flexible control cables with coloured conductors, rated 300/300V

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S30800	2x2x0,14	5,4	40	21,7
S30801	3x2x0,14	6,0	47	24,3
S30802	4x2x0,14	6,4	54	27,0
S30803	5x2x0,14	6,9	67	35,1
S30804	6x2x0,14	7,1	70	37,8
S30805	7x2x0,14	8,0	82	40,5
S30806	8x2x0,14	8,4	89	43,2
S30807	10x2x0,14	8,9	103	51,3
S30808	12x2x0,14	9,5	115	63,9
S30809	14x2x0,14	10,0	132	68,3
S30810	16x2x0,14	10,9	156	79,0
S30811	18x2x0,14	11,3	164	86,0
S30812	20x2x0,14	11,7	175	92,4
S30813	24x2x0,14	12,0	196	110,2
S30817	2x2x0,25	5,9	50	25,9
S30818	3x2x0,25	6,5	56	30,7
S30819	4x2x0,25	7,0	69	40,9
S30820	5x2x0,25	7,7	88	45,7
S30821	6x2x0,25	8,0	90	50,5
S30822	7x2x0,25	8,9	103	58,0
S30823	8x2x0,25	9,2	112	62,8
S30824	10x2x0,25	9,9	131	84,7
S30825	12x2x0,25	10,7	158	93,2
S30826	14x2x0,25	11,3	176	105,6
S30827	16x2x0,25	12,1	200	117,3
S30828	18x2x0,25	12,6	212	130,4
S30829	20x2x0,25	13,3	241	142,6
S30830	24x2x0,25	13,7	272	175,6
S30834	2x2x0,34	6,4	59	29,3
S30835	3x2x0,34	7,1	70	41,3
S30836	4x2x0,34	7,8	85	47,8
S30837	5x2x0,34	8,4	106	64,3
S30838	6x2x0,34	8,7	111	74,1
S30839	7x2x0,34	9,7	126	81,6
S30840	8x2x0,34	10,1	142	89,6
S30841	10x2x0,34	11,0	171	104,6
S30842	12x2x0,34	11,7	194	118,2
S30843	14x2x0,34	12,4	218	135,4
S30844	16x2x0,34	13,6	265	158,8
S30845	18x2x0,34	14,2	281	172,5
S30846	20x2x0,34	14,6	303	187,7
S30847	24x2x0,34	15,0	346	216,9

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S30849	2x2x0,5	7,7	82	40,9
S30850	3x2x0,5	8,6	92	50,5
S30851	4x2x0,5	9,3	111	69,7
S30852	5x2x0,5	10,0	137	82,9
S30853	6x2x0,5	10,3	149	96,3
S30854	7x2x0,5	11,8	174	105,8
S30855	8x2x0,5	12,3	191	117,8
S30856	10x2x0,5	13,6	237	143,5
S30857	12x2x0,5	14,4	272	162,4
S30858	14x2x0,5	15,5	314	185,4
S30859	16x2x0,5	16,8	370	225,7
S30860	18x2x0,5	17,5	399	251,9
S30861	20x2x0,5	18,0	431	276,4
S30862	24x2x0,5	18,7	499	321,1
S30864	2x2x0,75	8,3	97	61,4
S30865	3x2x0,75	9,3	112	75,3
S30866	4x2x0,75	10,1	141	93,1
S30867	5x2x0,75	11,1	177	111,5
S30869	7x2x0,75	13,2	228	144,0
S30871	10x2x0,75	14,8	297	196,6
S30872	12x2x0,75	16,0	349	245,4
S30873	14x2x0,75	17,1	410	281,6
S30874	16x2x0,75	18,5	476	314,2
S30875	18x2x0,75	19,3	512	351,3
S30877	2x2x1	9,5	121	69,7
S30878	3x2x1	10,8	150	91,8
S30879	4x2x1	11,7	179	113,0
S30880	5x2x1	13,1	232	137,3
S30882	7x2x1	15,3	298	179,0
S30884	10x2x1	17,4	405	273,9
S30885	12x2x1	18,7	476	307,2
S30886	14x2x1	19,9	538	364,4
S30887	16x2x1	21,4	622	409,5
S30888	18x2x1	22,4	673	455,9
S30890	2x2x1,5	10,1	145	91,8
S30891	3x2x1,5	11,6	178	122,7
S30892	4x2x1,5	12,6	218	162,2
S30893	5x2x1,5	14,0	285	196,6
S30895	7x2x1,5	16,4	366	267,9
S30897	10x2x1,5	18,8	508	367,7
S30898	12x2x1,5	20,1	588	430,8
S30899	14x2x1,5	21,5	678	494,4
S30900	16x2x1,5	23,0	774	556,4

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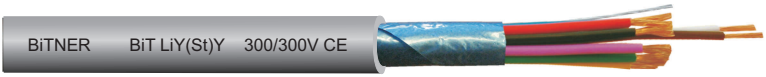
Note: On customer's request other cross sections or number of cores can be produced

BiT LiY(St)Y

Screened, flexible control cables with coloured conductors, rated 300/300V



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Screened, flexible control cable with coloured conductors, PVC insulation and sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/300V
Test voltage (50Hz):
≤ 0,34mm^2 1200V
≥ 0,50mm^2 1500V
Insulation resistance: 20 MΩ x km
Approximate capacitance (at 800Hz):
Core/core 0,14mm^2 – 120 pF/m
Core/core ≥ 0,25mm^2 - 150 pF/m
Core/screen 0,14mm^2 – 240 pF/m
Core/screen ≥ 0,25mm^2 - 270 pF/m
Approximate inductance: 0,65 mH/km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 7,5 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: colours as per DIN 47100
Core arrangement: cores twisted together or pairs twisted together
Screen: aluminium backed polyester tape with tinned copper drain wire 0,5mm^2 for cables with conductors ≤0,75mm^2 and 0,75mm^2 drain wire for cables with conductors ≥ 1,0mm^2
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1).
Outer sheath colour: grey

Application:

Cables designed for signalling control circuits, control circuits in industrial applications, in measurement technology, and for analogue and digital signals transmission in electronic industrial and automatic control engineering systems. For fixed installation and mobile/portable devices. Suitable for usage in internal systems, in both dry and damp rooms. Common screen protects the cable against interferences from external electromagnetic fields.


internal application


industrial application


PN-EN 60332-1


data transmission


high flexibility

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S31000	2x0,34	4,4	29	11,3
S31001	3x0,34	4,7	34	14,6
S31002	4x0,34	5,1	40	18,6
S31003	5x0,34	5,4	47	21,1
S31004	6x0,34	6,0	54	24,4
S31005	7x0,34	6,0	57	27,7
S31006	8x0,34	6,5	62	30,9
S31007	10x0,34	7,4	73	37,5
S31008	12x0,34	7,6	83	44,0
S31009	14x0,34	8,0	98	50,5
S31010	16x0,34	8,5	110	57,0
S31011	18x0,34	8,9	122	63,6
S31012	20x0,34	9,5	136	70,1
S31013	21x0,34	9,5	138	73,4
S31017	27x0,34	10,6	154	93,0
S31019	30x0,34	11,0	191	102,8
S31022	37x0,34	11,8	228	125,8
S31023	40x0,34	13,0	250	135,5
S31024	44x0,34	13,7	278	148,5
S31025	48x0,34	14,1	302	161,5
S31026	52x0,34	14,4	323	174,6
S31027	56x0,34	14,9	345	187,2
S31028	61x0,34	15,3	384	204,0
S31029	2x0,5	5,1	38	14,4

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S31030	3x0,5	5,4	44	19,2
S31031	4x0,5	6,0	52	24,0
S31032	5x0,5	6,5	63	28,8
S31033	6x0,5	7,0	72	33,6
S31034	7x0,5	7,0	76	38,4
S31035	8x0,5	7,7	86	43,2
S31036	10x0,5	8,9	101	52,8
S31037	12x0,5	9,1	116	62,4
S31038	14x0,5	9,6	131	72,0
S31039	16x0,5	10,2	149	81,6
S31040	18x0,5	10,8	165	91,2
S31041	20x0,5	11,5	188	100,8
S31042	21x0,5	11,5	192	105,6
S31046	27x0,5	13,2	216	134,4
S31048	30x0,5	13,6	272	148,8
S31051	37x0,5	14,9	325	182,4
S31052	40x0,5	15,9	382	196,8
S31053	44x0,5	16,9	410	216,0
S31054	48x0,5	17,1	437	235,2
S31055	52x0,5	7,6	468	254,4
S31056	56x0,5	18,1	500	273,6
S31057	61x0,5	18,7	535	303,6
S31058	2x0,75	5,5	45	19,2
S31059	3x0,75	5,9	54	26,6

BITNER®

BiT LiY(St)Y

Screened, flexible control cables with coloured conductors, rated 300/300V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S31060	4x0,75	6,5	65	33,6
S31061	5x0,75	7,0	78	40,8
S31062	6x0,75	7,6	91	48,0
S31063	7x0,75	7,6	96	55,2
S31064	8x0,75	8,5	109	62,4
S31065	10x0,75	9,7	129	76,8
S31066	12x0,75	10,0	149	91,2
S31067	14x0,75	10,6	169	105,6
S31068	16x0,75	11,3	197	120,0
S31069	18x0,75	11,8	220	134,4
S31070	20x0,75	12,9	244	148,8
S31071	21x0,75	12,9	249	156,0
S31075	27x0,75	14,6	293	199,2
S31077	30x0,75	15,1	352	220,8
S31080	37x0,75	16,5	431	271,2
S31081	40x0,75	17,6	473	288,8
S31087	2x1	6,6	60	26,4
S31088	3x1	7,0	72	36,0
S31089	4x1	7,7	86	45,6
S31090	5x1	8,4	107	55,2
S31091	6x1	9,1	127	64,8
S31092	7x1	9,1	132	74,4
S31093	8x1	10,0	144	84,0
S31094	10x1	11,5	175	103,2
S31095	12x1	11,8	202	122,4
S31096	14x1	12,8	230	141,6
S31097	16x1	13,6	261	160,8
S31098	18x1	14,4	306	180,0
S31099	20x1	15,3	339	199,2
S31100	21x1	15,3	345	208,8
S31104	27x1	17,3	394	266,4
S31106	30x1	17,8	477	295,2

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S31109	37x1	19,3	581	362,4
S31114	2x1,5	7,2	71	36,2
S31115	3x1,5	7,6	87	50,7
S31116	4x1,5	8,5	109	65,2
S31117	5x1,5	9,2	132	79,7
S31118	6x1,5	10,0	155	94,2
S31119	7x1,5	10,0	165	108,7
S31120	8x1,5	11,1	179	123,2
S31121	10x1,5	13,1	220	152,2
S31122	12x1,5	13,5	255	181,2
S31124	16x1,5	15,2	345	239,2
S31125	18x1,5	15,9	386	268,2
S31126	20x1,5	17,1	434	297,2
S31127	21x1,5	17,1	445	311,7
S31131	27x1,5	19,2	501	398,7
S31133	30x1,5	19,9	608	442,2
S31136	37x1,5	21,6	743	543,7
S31138	2x2,5	8,6	111	55,2
S31139	3x2,5	9,1	137	79,2
S31140	4x2,5	10,1	167	103,2
S31141	5x2,5	11,0	203	127,2
S31142	6x2,5	12,4	247	151,2
S31143	7x2,5	12,4	262	175,2
S31144	8x2,5	13,7	297	199,2
S31145	10x2,5	15,9	355	247,2
S31146	12x2,5	16,6	421	295,2
S31147	14x2,5	17,4	481	343,2
S31148	16x2,5	18,6	547	391,2
S31149	18x2,5	19,5	624	439,2
S31150	20x2,5	21,0	690	487,2
S31151	21x2,5	21,0	706	511,1

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BiT LiY(St)Y

Screened, flexible control cables with coloured conductors, rated 300/300V

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S31258	2x2x0,14	4,8	27,0	5,4
S31259	3x2x0,14	5,4	29,6	8,1
S31260	4x2x0,14	5,8	36,0	10,8
S31261	5x2x0,14	6,3	44,2	13,5
S31262	6x2x0,14	6,5	48,0	16,2
S31263	7x2x0,14	7,2	55,1	18,9
S31264	8x2x0,14	7,8	64,7	21,6
S31265	10x2x0,14	8,3	76,5	27,0
S31266	12x2x0,14	8,9	88,2	32,4
S31267	14x2x0,14	9,4	100,0	37,8
S31268	16x2x0,14	10,1	114,2	43,2
S31269	18x2x0,14	10,7	128,6	48,6
S31270	20x2x0,14	11,1	140,0	54,0
S31271	24x2x0,14	11,4	161,0	64,8
S31272	2x2x0,25	5,3	32,9	9,6
S31273	3x2x0,25	5,9	38,0	14,4
S31274	4x2x0,25	6,4	46,7	19,2
S31275	5x2x0,25	6,9	58,4	24,0
S31276	6x2x0,25	7,2	63,2	28,8
S31277	7x2x0,25	8,3	77,0	33,6
S31278	8x2x0,25	8,6	85,4	38,4
S31279	10x2x0,25	9,3	102,0	48,0
S31280	12x2x0,25	9,9	118,3	57,6
S31281	14x2x0,25	10,7	140,0	67,2
S31282	16x2x0,25	11,5	160,0	76,8
S31283	18x2x0,25	12,0	173,2	86,4
S31284	20x2x0,25	12,3	189,0	96,0
S31285	24x2x0,25	13,1	231,0	115,2
S31286	2x2x0,34	5,8	41,6	13,1
S31287	3x2x0,34	6,5	47,5	19,6
S31288	4x2x0,34	7,0	59,0	26,2
S31289	5x2x0,34	7,8	77,0	32,7
S31290	6x2x0,34	8,1	84,7	39,2
S31291	7x2x0,34	9,1	98,0	45,8
S31292	8x2x0,34	9,5	109,0	52,3
S31293	10x2x0,34	10,2	131,0	65,4
S31294	12x2x0,34	11,1	158,0	78,5
S31295	14x2x0,34	11,8	180,2	91,6
S31296	16x2x0,34	12,6	206,0	104,6
S31297	18x2x0,34	13,6	237,2	117,7
S31298	20x2x0,34	14,0	258,0	130,8
S31299	24x2x0,34	14,4	300,0	157,0

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S31300	2x2x0,5	6,9	55,6	19,2
S31301	3x2x0,5	8,0	67,2	28,8
S31302	4x2x0,5	8,7	83,3	38,4
S31303	5x2x0,5	9,4	104,7	48,0
S31304	6x2x0,5	9,7	114,4	57,6
S31305	7x2x0,5	11,2	138,0	67,2
S31306	8x2x0,5	11,7	153,4	76,8
S31307	10x2x0,5	12,6	184,2	96,0
S31308	12x2x0,5	13,8	228,0	115,2
S31309	14x2x0,5	14,7	260,0	134,4
S31310	16x2x0,5	16,0	305,0	153,6
S31311	18x2x0,5	16,7	330,6	172,8
S31313	20x2x0,5	17,2	360,7	192,0
S31314	24x2x0,5	17,7	418,0	230,4
S31320	2x2x0,75	7,7	72,9	28,8
S31321	3x2x0,75	8,7	84,6	43,2
S31322	4x2x0,75	9,5	106,0	57,6
S31323	5x2x0,75	10,3	134,2	72,0
S31325	7x2x0,75	12,2	176,5	100,8
S31327	10x2x0,75	14,2	252,0	144,0
S31328	12x2x0,75	15,4	301,0	172,8
S31329	14x2x0,75	16,3	343,3	201,6
S31330	16x2x0,75	17,5	393,6	230,4
S31331	18x2x0,75	18,5	437,0	259,2
S31339	2x2x1	8,9	93,7	38,8
S31340	3x2x1	10,0	109,6	57,6
S31341	4x2x1	11,1	143,4	76,8
S31342	5x2x1	12,1	181,0	97,0
S31344	7x2x1	14,5	245,0	134,4
S31346	10x2x1	16,6	338,0	192,0
S31347	12x2x1	17,7	394,5	232,8
S31348	14x2x1	19,1	460,3	268,8
S31349	16x2x1	20,4	528,0	307,2
S31350	18x2x1	21,6	585,2	345,6
S31358	2x2x1,5	9,5	116,1	57,6
S31359	3x2x1,5	11,0	142,0	86,4
S31360	4x2x1,5	12,0	180,0	115,2
S31361	5x2x1,5	13,4	240,2	144,0
S31363	7x2x1,5	15,8	315,4	201,6
S31365	10x2x1,5	17,8	427,0	288,0
S31366	12x2x1,5	19,3	510,0	345,6
S31367	14x2x1,5	20,7	593,8	403,2
S31368	16x2x1,5	22,2	681,1	460,8

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT LiHH

Flexible, halogen-free control cables
with coloured conductors, 300/300V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Halogen-free, control cable with coloured conductors
Operating temperature:
Fixed instalation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/300V
Test voltage:
≤ 0.34mm^2 1200 V
≥ 0.5 mm^2 1500 V
Insulation resistance: 20 MΩ x km
Approximate capacitance (at 800 Hz):
Core/core 0,14mm^2 – 120 pF/m
Core/core ≥ 0,25mm^2 - 150 pF/m
Approximate inductance: 0,65 mH/km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: multi-stranded copper conductors, EN 60228 cl.5
Conductor construction for:
0,14mm^2 = 18 x 0,1mm
0,25mm^2 = 14 x 0,15mm
0,34mm^2 = 7x0,25mm
Insulation: special halogen-free compound
Conductor marking: colours as per DIN 47100
Core arrangement: cores twisted together or pairs twisted together
Sheath: special halogen-free compound, self-extinguishing and highly flame retardant (as per EN 60332-1, and EN 60332-3-24, IEC 60332-3 cat. C)
Sheath colour: grey, on customer request black

Application:

Cables designed for signalling control circuits, control circuits in industrial applications, in measurement technology, and for analogue and digital signals transmission in electronic industrial and automatic control engineering systems. For fixed installation and mobile/portable devices. Suitable for usage in internal systems, in both dry and damp rooms. Core arrangement ensures asymmetry attenuation of 10 dB. In an environment with considerable electromagnetic interference, we recommend using screened cables type BiT LiHCH or BiT LiH(St)H


internal application


industrial application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

halogen-free

oxygen index


high flexibility


low smoke emission

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S33000	2x0,14	3,4	16,4	2,7
S33001	3x0,14	3,6	18,9	4,1
S33002	4x0,14	3,9	22,2	5,4
S33003	5x0,14	4,2	26,4	6,8
S33004	6x0,14	4,6	30,6	8,1
S33005	7x0,14	4,6	31,6	9,5
S33006	8x0,14	5,0	34,6	10,8
S33007	10x0,14	5,6	41,0	13,5
S33008	12x0,14	5,8	46,5	16,2
S33009	14x0,14	6,1	52,0	18,9
S33010	16x0,14	6,4	59,0	21,6
S33011	18x0,14	6,7	65,5	24,3
S33012	20x0,14	7,1	72,0	27,0
S33013	21x0,14	7,1	73,2	28,4
S33014	27x0,14	7,9	95,5	36,5
S33015	30x0,14	8,5	102,5	40,5
S33016	37x0,14	9,1	122,0	50,0
S33017	40x0,14	9,4	133,5	54,0
S33018	44x0,14	10,2	146,5	59,4
S33019	48x0,14	10,4	160,5	64,8
S33020	52x0,14	10,6	178,0	70,2
S33021	56x0,14	10,9	181,0	75,2
S33022	61x0,14	11,3	193,5	82,4
S33023	2x0,25	3,7	20,3	4,8
S33024	3x0,25	3,9	23,9	7,2
S33025	4x0,25	4,3	28,4	9,6
S33026	5x0,25	4,6	34,0	12,0

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S33027	6x0,25	5,0	39,8	14,4
S33028	7x0,25	5,0	41,3	16,8
S33029	8x0,25	5,5	45,4	19,2
S33030	10x0,25	6,2	53,7	24,0
S33031	12x0,25	6,4	61,5	28,8
S33032	14x0,25	6,7	69,5	33,6
S33033	16x0,25	7,1	79,0	38,4
S33034	18x0,25	7,7	92,0	43,2
S33035	20x0,25	8,0	101,5	48,0
S33036	21x0,25	8,0	103,0	50,4
S33037	27x0,25	9,3	138,5	64,8
S33038	30x0,25	9,4	139,0	72,0
S33039	37x0,25	10,1	167,0	88,8
S33040	40x0,25	11,1	191,0	96,0
S33041	44x0,25	11,7	208,0	105,6
S33042	48x0,25	11,9	222,5	115,2
S33043	52x0,25	12,5	251,0	124,8
S33044	56x0,25	12,9	265,0	134,4
S33045	61x0,25	13,3	286,0	146,4
S33046	2x0,34	4,0	24,7	6,5
S33047	3x0,34	4,3	29,5	9,8
S33048	4x0,34	4,6	35,4	13,1
S33049	5x0,34	5,0	43,0	16,3
S33050	6x0,34	5,4	49,6	19,6
S33051	7x0,34	5,4	52,5	22,9
S33052	8x0,34	6,0	57,5	26,1
S33053	10x0,34	6,8	68,6	32,7

BiT LiHH

Flexible, halogen-free control cables
with coloured conductors, 300/300V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S33054	12x0,34	7,0	79,0	39,2
S33055	14x0,34	7,6	93,4	45,7
S33056	16x0,34	8,0	106,0	52,2
S33057	18x0,34	8,4	118,0	58,8
S33058	20x0,34	8,8	131,5	65,3
S33059	21x0,34	8,8	133,5	68,6
S33060	27x0,34	10,1	172,5	88,2
S33061	30x0,34	10,6	186,5	98,0
S33062	37x0,34	11,4	224,0	121,0
S33063	40x0,34	11,8	244,0	130,7
S33064	44x0,34	12,8	273,5	143,7
S33065	48x0,34	13,0	294,0	156,7
S33066	52x0,34	13,3	313,5	169,8
S33067	56x0,34	13,8	335,5	182,4
S33068	61x0,34	14,6	375,0	199,2
S33069	2x0,5	4,7	33,2	9,6
S33070	3x0,5	5,0	39,8	14,4
S33071	4x0,5	5,5	48,0	19,2
S33072	5x0,5	6,0	58,2	24,0
S33073	6x0,5	6,5	67,8	28,8
S33074	7x0,5	6,5	71,6	33,6
S33075	8x0,5	7,4	81,5	38,4
S33076	10x0,5	8,4	96,9	48,0
S33077	12x0,5	8,7	111,5	57,6
S33078	14x0,5	9,1	126,8	67,2
S33079	16x0,5	9,6	144,5	76,8
S33080	18x0,5	10,1	161,0	86,4
S33081	20x0,5	10,9	184,0	96,0
S33082	21x0,5	10,9	188,0	100,8
S33083	27x0,5	12,7	252,0	129,6
S33084	30x0,5	13,2	267,5	144,0
S33085	37x0,5	14,2	321,0	177,6
S33086	40x0,5	15,3	359,5	192,0
S33087	44x0,5	16,3	403,0	211,2
S33088	48x0,5	16,6	430,0	230,4
S33089	52x0,5	17,0	460,0	249,6
S33090	56x0,5	17,5	491,0	268,8
S33091	61x0,5	18,1	527,5	298,8
S33092	2x0,75	5,1	41,0	14,4
S33093	3x0,75	5,4	50,0	21,8
S33094	4x0,75	6,0	60,7	28,8
S33095	5x0,75	6,5	73,6	36,0
S33096	6x0,75	7,1	87,1	43,2
S33097	7x0,75	7,1	92,1	50,4
S33098	8x0,75	8,0	104,3	57,6
S33099	10x0,75	9,2	124,5	72,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S33100	12x0,75	9,5	144,5	86,4
S33101	14x0,75	10,0	165,0	100,8
S33102	16x0,75	10,8	192,5	115,2
S33103	18x0,75	11,3	216,0	129,6
S33104	20x0,75	11,9	240,0	144,0
S33105	21x0,75	11,9	245,0	151,2
S33106	27x0,75	14,2	330,0	194,4
S33107	30x0,75	14,4	348,0	216,0
S33108	37x0,75	15,8	427,0	266,4
S33109	40x0,75	17,2	465,5	284,0
S33110	2x1	5,8	53,2	19,2
S33111	3x1	6,2	65,2	28,8
S33112	4x1	6,8	79,5	38,4
S33113	5x1	7,6	100,7	48,0
S33114	6x1	8,3	120,0	57,6
S33115	7x1	8,3	125,6	67,2
S33116	8x1	9,2	137,0	76,8
S33117	10x1	10,8	168,7	96,0
S33118	12x1	11,1	195,5	115,2
S33119	14x1	11,7	223,2	134,4
S33120	16x1	12,4	254,5	153,6
S33121	18x1	13,5	299,3	172,8
S33122	20x1	14,1	332,0	192,0
S33123	2x1,5	6,2	64,8	29,0
S33124	3x1,5	6,6	80,7	43,5
S33125	4x1,5	7,5	102,8	58,0
S33126	5x1,5	8,2	125,0	72,5
S33127	6x1,5	8,9	148,5	87,0
S33128	7x1,5	8,9	158,4	101,5
S33129	8x1,5	9,9	172,7	116,0
S33130	10x1,5	11,6	213,4	145,0
S33131	12x1,5	12,0	248,5	174,0
S33132	14x1,5	12,6	285,0	203,0
S33133	16x1,5	13,7	338,0	232,0
S33134	18x1,5	14,5	379,0	261,0
S33135	20x1,5	15,4	427,5	290,0
S33136	2x2,5	7,8	104,3	48,0
S33137	3x2,5	8,4	130,2	72,0
S33138	4x2,5	9,3	160,4	96,0
S33139	5x2,5	10,2	196,3	120,0
S33140	6x2,5	11,3	240,8	144,0
S33141	7x2,5	11,3	255,5	168,0
S33142	8x2,5	13,0	290,0	192,0
S33143	10x2,5	14,9	348,5	240,0
S33144	12x2,5	15,6	414,0	288,0

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BiT LiHH

Flexible, halogen-free control cables
with coloured conductors, 300/300V

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S33400	2x2x0,14	4,8	27,0	5,4
S33401	3x2x0,14	5,4	29,6	8,1
S33402	4x2x0,14	5,8	36,0	10,8
S33403	5x2x0,14	6,3	44,2	13,5
S33404	6x2x0,14	6,5	48,0	16,2
S33405	7x2x0,14	7,2	55,1	18,9
S33406	8x2x0,14	7,8	64,7	21,6
S33407	10x2x0,14	8,3	76,5	27,0
S33408	12x2x0,14	8,9	88,2	32,4
S33409	14x2x0,14	9,4	100,0	37,8
S33410	16x2x0,14	10,1	114,2	43,2
S33411	18x2x0,14	10,7	128,6	48,6
S33412	20x2x0,14	11,1	140,0	54,0
S33413	24x2x0,14	11,4	161,0	64,8
S33414	2x2x0,25	5,3	32,9	9,6
S33415	3x2x0,25	5,9	38,0	14,4
S33416	4x2x0,25	6,4	46,7	19,2
S33417	5x2x0,25	6,9	58,4	24,0
S33418	6x2x0,25	7,2	63,2	28,8
S33419	7x2x0,25	8,3	77,0	33,6
S33420	8x2x0,25	8,6	85,4	38,4
S33421	10x2x0,25	9,3	102,0	48,0
S33422	12x2x0,25	9,9	118,3	57,6
S33423	14x2x0,25	10,7	140,0	67,2
S33424	16x2x0,25	11,5	160,0	76,8
S33425	18x2x0,25	12,0	173,2	86,4
S33426	20x2x0,25	12,3	189,0	96,0
S33427	24x2x0,25	13,1	231,0	115,2
S33428	2x2x0,34	5,8	41,6	13,1
S33429	3x2x0,34	6,5	47,5	19,6
S33430	4x2x0,34	7,0	59,0	26,2
S33431	5x2x0,34	7,8	77,0	32,7
S33432	6x2x0,34	8,1	84,7	39,2
S33433	7x2x0,34	9,1	98,0	45,8
S33434	8x2x0,34	9,5	109,0	52,3
S33435	10x2x0,34	10,2	131,0	65,4
S33436	12x2x0,34	11,1	158,0	78,5
S33437	14x2x0,34	11,8	180,2	91,6
S33438	16x2x0,34	12,6	206,0	104,6
S33439	18x2x0,34	13,6	237,2	117,7
S33440	20x2x0,34	14,0	258,0	130,8
S33441	24x2x0,34	14,4	300,0	157,0

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S33442	2x2x0,5	6,9	55,6	19,2
S33443	3x2x0,5	8,0	67,2	28,8
S33444	4x2x0,5	8,7	83,3	38,4
S33445	5x2x0,5	9,4	104,7	48,0
S33446	6x2x0,5	9,7	114,4	57,6
S33447	7x2x0,5	11,2	138,0	67,2
S33448	8x2x0,5	11,7	153,4	76,8
S33449	10x2x0,5	12,6	184,2	96,0
S33450	12x2x0,5	13,8	228,0	115,2
S33451	14x2x0,5	14,7	260,0	134,4
S33452	16x2x0,5	16,0	305,0	153,6
S33453	18x2x0,5	16,7	330,6	172,8
S33454	20x2x0,5	17,2	360,7	192,0
S33455	24x2x0,5	17,7	418,0	230,4
S33456	2x2x0,75	7,7	72,9	28,8
S33457	3x2x0,75	8,7	84,6	43,2
S33458	4x2x0,75	9,5	106,0	57,6
S33459	5x2x0,75	10,3	134,2	72,0
S33460	7x2x0,75	12,2	176,5	100,8
S33461	10x2x0,75	14,2	252,0	144,0
S33462	12x2x0,75	15,4	301,0	172,8
S33463	14x2x0,75	16,3	343,3	201,6
S33464	16x2x0,75	17,5	393,6	230,4
S33465	18x2x0,75	18,5	437,0	259,2
S33466	2x2x1	8,9	93,7	38,8
S33467	3x2x1	10,0	109,6	57,6
S33468	4x2x1	11,1	143,4	76,8
S33469	5x2x1	12,1	181,0	97,0
S33470	7x2x1	14,5	245,0	134,4
S33471	10x2x1	16,6	338,0	192,0
S33472	12x2x1	17,7	394,5	232,8
S33473	14x2x1	19,1	460,3	268,8
S33474	16x2x1	20,4	528,0	307,2
S33475	18x2x1	21,6	585,2	345,6
S33476	2x2x1,5	9,5	116,1	57,6
S33477	3x2x1,5	11,0	142,0	86,4
S33478	4x2x1,5	12,0	180,0	115,2
S33479	5x2x1,5	13,4	240,2	144,0
S33480	7x2x1,5	15,8	315,4	201,6
S33481	10x2x1,5	17,8	427,0	288,0
S33482	12x2x1,5	19,3	510,0	345,6
S33483	14x2x1,5	20,7	593,8	403,2
S33484	16x2x1,5	22,2	681,1	460,8

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Note: On customer's request other cross sections or number of cores can be produced

BiT LiHCH Flexible, screened, halogen-free control cables with coloured conductors, 300/300V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Halogen-free, screened control cable with coloured conductors
Operating temperature:
Fixed instalation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/300V
Test voltage:
≤ 0.34mm^2 1200 V
≥ 0.5 mm^2 1500 V
Insulation resistance: 20 MΩ x km
Approximate capacitance (at 800 Hz):
Core/core 0,14mm^2 – 120 pF/m
Core/core ≥ 0,25mm^2 - 150 pF/m
Core/screen 0,14mm^2 – 240 pF/m
Core/screen ≥ 0,25mm^2 - 270 pF/m
Approximate inductance: 0,65 mH/km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: multi-stranded copper conductors, EN 60228 cl.5
Conductor construction for:
0,14mm^2 = 8x0,15mm
0,25mm^2 = 14x0,15mm
0,34mm^2 = 7x0,25mm
Insulation: special halogen-free compound
Conductor marking: colours as per DIN 47100
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid with coverage of ≥85%
Sheath: special halogen-free compound, self-extinguishing and highly flame retardant (as per EN 60332-1, and EN 60332-3-24, IEC 60332-3 cat. C)
Sheath colour: grey, on customer request black

Application:

The cables are intended for signalling control circuits, control circuits in industrial applications, in measurement technology, and for analogue and digital signals transmission in electronic industrial and automatic control engineering systems. For fixed installation, and mobile/portable devices. Suitable for use indoors, in both dry and damp rooms. A common screen of tinned copper wire braid ensures very good protection against external electromagnetic fields (approximately 50 dB).

internal application | PN-EN 60332-1 | IEC 60332-3 PN-EN 60332-3 | halogen-free | EMC | oxygen index | high flexibility | low smoke emission

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S32800	2x0,14	4,0	24,5	12,0
S32801	3x0,14	4,2	27,0	13,0
S32802	4x0,14	4,5	31,0	14,3
S32803	5x0,14	4,8	36,5	15,5
S32804	6x0,14	5,1	42,0	18,2
S32805	7x0,14	5,1	45,0	19,0
S32806	8x0,14	5,5	50,5	21,2
S32807	10x0,14	6,3	58,0	28,5
S32808	12x0,14	6,5	64,0	30,4
S32809	14x0,14	6,7	72,5	32,0
S32810	16x0,14	7,1	80,0	43,0
S32811	18x0,14	7,4	86,0	48,8
S32812	20x0,14	7,9	94,5	54,0
S32813	21x0,14	7,9	98,0	55,5
S32814	27x0,14	8,8	115,0	64,0
S32815	30x0,14	9,0	123,5	69,0
S32816	37x0,14	9,7	145,0	82,0
S32817	40x0,14	10,3	160,0	87,6
S32818	44x0,14	10,9	173,0	109,5
S32819	48x0,14	11,1	183,5	115,0
S32820	52x0,14	11,3	191,5	124,0
S32821	56x0,14	11,7	205,0	131,0
S32822	61x0,14	12,4	227,0	144,0
S32823	2x0,25	4,4	28,0	15,9
S32824	3x0,25	4,6	33,5	19,7
S32825	4x0,25	4,9	40,0	22,0

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S32826	5x0,25	5,3	47,5	26,8
S32827	6x0,25	5,6	52,0	30,0
S32828	7x0,25	5,6	56,0	34,8
S32829	8x0,25	6,3	63,5	42,0
S32830	10x0,25	7,0	77,0	46,0
S32831	12x0,25	7,2	84,0	53,5
S32832	14x0,25	7,5	93,0	61,0
S32833	16x0,25	8,1	104,5	64,0
S32834	18x0,25	8,4	113,5	78,0
S32835	20x0,25	8,9	124,0	86,0
S32836	21x0,25	8,9	126,5	91,0
S32837	27x0,25	9,9	153,0	112,0
S32838	30x0,25	10,2	170,0	126,0
S32839	37x0,25	11,1	201,0	132,0
S32840	40x0,25	11,8	214,0	149,0
S32841	44x0,25	12,7	240,0	158,0
S32842	48x0,25	12,9	256,5	164,0
S32843	52x0,25	13,3	272,0	174,0
S32844	56x0,25	13,6	290,0	187,0
S32845	61x0,25	14,2	315,0	199,0
S32846	2x0,34	4,6	32,0	18,0
S32847	3x0,34	4,9	40,0	21,0
S32848	4x0,34	5,3	47,0	27,5
S32849	5x0,34	5,6	55,5	30,0
S32850	6x0,34	6,2	63,5	43,0
S32851	7x0,34	6,2	67,0	48,0

BiT LiHCH Flexible, screened, halogen-free control cables with coloured conductors, 300/300V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S32852	8x0,34	6,7	78,0	52,0
S32853	10x0,34	7,6	90,5	65,0
S32854	12x0,34	7,9	104,5	70,0
S32855	14x0,34	8,2	112,5	79,0
S32856	16x0,34	8,7	126,0	84,0
S32857	18x0,34	9,1	140,0	98,0
S32858	20x0,34	9,7	155,0	106,0
S32859	21x0,34	9,7	158,0	112,0
S32860	27x0,34	10,8	197,5	132,0
S32861	30x0,34	11,2	214,0	151,0
S32862	37x0,34	12,4	260,0	179,0
S32863	40x0,34	13,2	280,0	197,0
S32864	44x0,34	14,1	308,5	211,0
S32865	48x0,34	14,3	330,0	126,0
S32866	52x0,34	14,6	352,5	239,0
S32867	56x0,34	15,1	374,5	264,0
S32868	61x0,34	15,5	403,0	291,0
S32869	2x0,5	5,3	42,0	28,0
S32870	3x0,5	5,6	49,5	37,0
S32871	4x0,5	6,2	58,0	43,0
S32872	5x0,5	6,7	73,5	51,0
S32873	6x0,5	7,2	85,0	64,0
S32874	7x0,5	7,2	87,5	65,0
S32875	8x0,5	8,0	100,0	68,0
S32876	10x0,5	9,1	119,5	88,0
S32877	12x0,5	9,3	133,5	98,0
S32878	14x0,5	9,8	150,0	120,0
S32879	16x0,5	10,5	175,0	129,0
S32880	18x0,5	11,0	192,5	138,0
S32881	20x0,5	11,7	211,0	149,0
S32882	21x0,5	11,7	214,0	158,0
S32883	27x0,5	13,4	271,0	209,0
S32884	30x0,5	13,8	294,0	230,0
S32885	37x0,5	15,1	356,0	290,0
S32886	40x0,5	16,3	389,5	311,0
S32887	44x0,5	17,3	441,5	332,0
S32888	48x0,5	17,5	470,0	353,0
S32889	52x0,5	18,0	503,0	385,0
S32890	56x0,5	18,6	537,0	408,0
S32891	61x0,5	19,1	576,5	432,0
S32892	2x0,75	5,8	49,5	36,0
S32893	3x0,75	6,1	58,5	47,0
S32894	4x0,75	6,7	75,0	56,0
S32895	5x0,75	7,2	88,0	65,0
S32896	6x0,75	7,9	104,0	83,0
S32897	7x0,75	7,9	108,5	88,0
S32898	8x0,75	8,7	125,0	102,0
S32899	10x0,75	9,9	147,5	118,0
S32900	12x0,75	10,2	173,0	142,0
S32901	14x0,75	10,8	193,0	153,0
S32902	16x0,75	11,5	217,0	167,0
S32903	18x0,75	12,4	250,5	181,0
S32904	20x0,75	13,1	275,0	217,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S32905	21x0,75	13,1	280,0	226,0
S32906	27x0,75	14,8	347,5	280,0
S32907	30x0,75	15,3	382,5	308,0
S32908	37x0,75	17,8	465,0	342,0
S32909	40x0,75	19,0	522,0	393,0
S32910	2x1	6,5	57,5	43,0
S32911	3x1	6,9	76,0	56,0
S32912	4x1	7,6	91,5	68,0
S32913	5x1	8,3	110,0	79,0
S32914	6x1	9,0	131,0	96,0
S32915	7x1	9,0	136,5	111,0
S32916	8x1	9,9	159,0	128,0
S32917	10x1	11,4	193,5	140,0
S32918	12x1	11,7	219,5	164,0
S32919	14x1	12,7	256,0	196,0
S32920	16x1	13,5	290,5	218,0
S32921	18x1	14,3	330,0	252,0
S32922	20x1	15,2	364,5	268,0
S32923	21x1	15,2	370,0	278,0
S32924	27x1	17,4	478,5	360,0
S32925	30x1	17,9	521,0	392,0
S32926	37x1	19,4	625,0	485,0
S32927	2x1,5	7,1	74,0	58,0
S32928	3x1,5	7,5	93,5	72,0
S32929	4x1,5	8,4	116,0	96,0
S32930	5x1,5	9,1	141,0	116,0
S32931	6x1,5	9,9	168,5	142,0
S32932	7x1,5	9,9	177,0	152,0
S32933	8x1,5	11,0	210,0	168,0
S32934	10x1,5	13,0	258,5	188,0
S32935	12x1,5	13,4	295,0	254,0
S32936	14x1,5	14,2	340,0	272,0
S32937	16x1,5	15,1	386,0	285,0
S32938	18x1,5	15,8	430,5	350,0
S32939	20x1,5	17,2	502,0	387,0
S32940	21x1,5	17,2	510,0	402,0
S32941	27x1,5	19,3	631,5	502,0
S32942	30x1,5	20,0	690,0	546,0
S32943	37x1,5	21,7	834,0	682,0
S32944	2x2,5	8,5	126,0	96,0
S32945	3x2,5	9,0	168,0	118,0
S32946	4x2,5	10,0	195,0	147,0
S32947	5x2,5	10,9	210,0	176,0
S32948	6x2,5	11,9	278,0	212,0
S32949	7x2,5	11,9	296,0	235,0
S32950	8x2,5	13,6	345,0	262,0
S32951	10x2,5	15,8	403,0	313,0
S32952	12x2,5	16,5	540,0	365,0
S32953	14x2,5	17,5	589,0	428,0
S32954	16x2,5	18,7	640,0	512,0
S32955	18x2,5	19,6	681,0	570,0
S32956	20x2,5	21,1	762,0	608,0
S32957	21x2,5	21,1	816,0	632,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT LiHCH Flexible, screened, halogen-free control cables with coloured conductors, 300/300V

paired cables

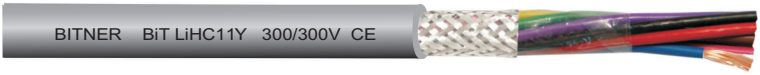
Cat. no.	n x 2 x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S33200	2x2x0,14	5,4	40	21,7
S33201	3x2x0,14	6,0	47	24,3
S33202	4x2x0,14	6,4	54	27,0
S33203	5x2x0,14	6,9	67	35,1
S33204	6x2x0,14	7,1	70	37,8
S33205	7x2x0,14	8,0	82	40,5
S33206	8x2x0,14	8,4	89	43,2
S33207	10x2x0,14	8,9	103	51,3
S33208	12x2x0,14	9,5	115	63,9
S33209	14x2x0,14	10,0	132	68,3
S33210	16x2x0,14	10,9	156	79,0
S33211	18x2x0,14	11,3	164	86,0
S33212	20x2x0,14	11,7	175	92,4
S33213	24x2x0,14	12,0	196	110,2
S33214	2x2x0,25	5,9	50	25,9
S33215	3x2x0,25	6,5	56	30,7
S33216	4x2x0,25	7,0	69	40,9
S33217	5x2x0,25	7,7	88	45,7
S33218	6x2x0,25	8,0	90	50,5
S33219	7x2x0,25	8,9	103	58,0
S33220	8x2x0,25	9,2	112	62,8
S33221	10x2x0,25	9,9	131	84,7
S33222	12x2x0,25	10,7	158	93,2
S33223	14x2x0,25	11,3	176	105,6
S33224	16x2x0,25	12,1	200	117,3
S33225	18x2x0,25	12,6	212	130,4
S33226	20x2x0,25	13,3	241	142,6
S33227	24x2x0,25	13,7	272	175,6
S33228	2x2x0,34	6,4	59	29,3
S33229	3x2x0,34	7,1	70	41,3
S33230	4x2x0,34	7,8	85	47,8
S33231	5x2x0,34	8,4	106	64,3
S33232	6x2x0,34	8,7	111	74,1
S33233	7x2x0,34	9,7	126	81,6

Cat. no.	n x 2 x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S33234	8x2x0,34	10,1	142	89,6
S33235	10x2x0,34	11,0	171	104,6
S33236	12x2x0,34	11,7	194	118,2
S33237	14x2x0,34	12,4	218	135,4
S33238	16x2x0,34	13,6	265	158,8
S33239	18x2x0,34	14,2	281	172,5
S33240	20x2x0,34	14,6	303	187,7
S33241	24x2x0,34	15,0	346	216,9
S33242	2x2x0,5	7,7	82	40,9
S33243	3x2x0,5	8,6	92	50,5
S33244	4x2x0,5	9,3	111	69,7
S33245	5x2x0,5	10,0	137	82,9
S33246	6x2x0,5	10,3	149	96,3
S33247	7x2x0,5	11,8	174	105,8
S33248	8x2x0,5	12,3	191	117,8
S33249	10x2x0,5	13,6	237	143,5
S33250	12x2x0,5	14,4	272	162,4
S33251	14x2x0,5	15,5	314	185,4
S33252	16x2x0,5	16,8	370	225,7
S33253	18x2x0,5	17,5	399	251,9
S33254	20x2x0,5	18,0	431	276,4
S33255	24x2x0,5	18,7	499	321,1
S33256	2x2x0,75	8,3	97	61,4
S33257	3x2x0,75	9,3	112	75,3
S33258	4x2x0,75	10,1	141	93,1
S33259	5x2x0,75	11,1	177	111,5
S33261	7x2x0,75	13,2	228	144,0
S33263	10x2x0,75	14,8	297	196,6
S33264	12x2x0,75	16,0	349	245,4
S33265	14x2x0,75	17,1	410	281,6
S33266	16x2x0,75	18,5	476	314,2
S33267	18x2x0,75	19,3	512	351,3
S33269	2x2x1	9,5	121	69,7
S33270	3x2x1	10,8	150	91,8

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT LiHC11Y

Flexible, screened, halogen-free, PUR sheathed control cables with coloured conductors, 300/300V



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Halogen-free, screened control cable with coloured conductors and PUR outer sheath
Operating temperature:
Fixed instalation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/300V
Test voltage:
≤ 0.34mm^2 1200 V
≥ 0.5 mm^2 1500 V
Insulation resistance: 20 MΩ x km
Approximate capacitance (at 800 Hz):
Core/core 0,14mm^2 – 120 pF/m
Core/core ≥ 0,25mm^2 - 150 pF/m
Core/screen 0,14mm^2 – 240 pF/m
Core/screen ≥ 0,25mm^2 - 270 pF/m
Approximate inductance: 0,65 mH/km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: bare annealed multi-stranded copper conductors, EN 60228 cl.5
Conductor construction for:
0,14mm^2 = 18 x 0,1mm
0,25mm^2 = 14 x 0,15mm
0,34mm^2 = 7x0,25mm
Insulation: special halogen-free compound
Conductor marking: colours as per DIN 47100
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid with coverage of ≥85%
Outer sheath: special PUR compound, oil resistant (EN 60811-2-1), resistant to hydrocarbons, industrial coolants and UV radiation flame retardant and halogen free (as per EN 60332-1, EN 50267)
Sheath colour: grey

Application:

The cables are intended for signalling control circuits, control circuits in industrial applications,in measurement technology, and for analogue and digital signals transmission in electronic industrial and automatic control engineering systems. For fixed installation, and mobile/portable devices. A common screen of tinned copper wire braid ensures very good protection against external electromagnetic fields (approximately 50 dB). Suitable for use indoors, in both dry and damp rooms. They can also be installed outdoors – UV resistance and increased mechanical protection due to special outer sheath compound (PUR).

internal application | external application | industrial application

PN-EN 60332-1 | halogen-free | EMC | high flexibility | low smoke emission | UV resistant | oil resistant EN 60811-2-1 | chemical resistance

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S33500	2x0,14	4,0	24,5	12,0
S33501	3x0,14	4,2	27,0	13,0
S33502	4x0,14	4,5	31,0	14,3
S33503	5x0,14	4,8	36,5	15,5
S33504	6x0,14	5,1	42,0	18,2
S33505	7x0,14	5,1	45,0	19,0
S33506	8x0,14	5,5	50,5	21,2
S33507	10x0,14	6,3	58,0	28,5
S33508	12x0,14	6,5	64,0	30,4
S33509	14x0,14	6,7	72,5	32,0
S33510	16x0,14	7,1	80,0	43,0
S33511	18x0,14	7,4	86,0	48,8
S33512	20x0,14	7,9	94,5	54,0
S33513	21x0,14	7,9	98,0	55,5
S33514	27x0,14	8,8	115,0	64,0
S33515	30x0,14	9,0	123,5	69,0
S33516	37x0,14	9,7	145,0	82,0
S33517	40x0,14	10,3	160,0	87,6
S33518	44x0,14	10,9	173,0	109,5
S33519	48x0,14	11,1	183,5	115,0
S33520	52x0,14	11,3	191,5	124,0
S33521	56x0,14	11,7	205,0	131,0
S33522	61x0,14	12,4	227,0	144,0

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S33523	2x0,25	4,4	28,0	15,9
S33524	3x0,25	4,6	33,5	19,7
S33525	4x0,25	4,9	40,0	22,0
S33526	5x0,25	5,3	47,5	26,8
S33527	6x0,25	5,6	52,0	30,0
S33528	7x0,25	5,6	56,0	34,8
S33529	8x0,25	6,3	63,5	42,0
S33530	10x0,25	7,0	77,0	46,0
S33531	12x0,25	7,2	84,0	53,5
S33532	14x0,25	7,5	93,0	61,0
S33533	16x0,25	8,1	104,5	64,0
S33534	18x0,25	8,4	113,5	78,0
S33535	20x0,25	8,9	124,0	86,0
S33536	21x0,25	8,9	126,5	91,0
S33537	27x0,25	9,9	153,0	112,0
S33538	30x0,25	10,2	170,0	126,0
S33539	37x0,25	11,1	201,0	132,0
S33540	40x0,25	11,8	214,0	149,0
S33541	44x0,25	12,7	240,0	158,0
S33542	48x0,25	12,9	256,5	164,0
S33543	52x0,25	13,3	272,0	174,0
S33544	56x0,25	13,6	290,0	187,0
S33545	61x0,25	14,2	315,0	199,0

BiT LiHC11Y

Flexible, screened, halogen-free, PUR sheathed control cables with coloured conductors, 300/300V

Cat. no.	nxmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S33546	2x0,34	4,6	32,0	18,0
S33547	3x0,34	4,9	40,0	21,0
S33548	4x0,34	5,3	47,0	27,5
S33549	5x0,34	5,6	55,5	30,0
S33550	6x0,34	6,2	63,5	43,0
S33551	7x0,34	6,2	67,0	48,0
S33552	8x0,34	6,7	78,0	52,0
S33553	10x0,34	7,6	90,5	65,0
S33554	12x0,34	7,9	104,5	70,0
S33555	14x0,34	8,2	112,5	79,0
S33556	16x0,34	8,7	126,0	84,0
S33557	18x0,34	9,1	140,0	98,0
S33558	20x0,34	9,7	155,0	106,0
S33559	21x0,34	9,7	158,0	112,0
S33560	27x0,34	10,8	197,5	132,0
S33561	30x0,34	11,2	214,0	151,0
S33562	37x0,34	12,4	260,0	179,0
S33563	40x0,34	13,2	280,0	197,0
S33564	44x0,34	14,1	308,5	211,0
S33565	48x0,34	14,3	330,0	126,0
S33566	52x0,34	14,6	352,5	239,0
S33567	56x0,34	15,1	374,5	264,0
S33568	61x0,34	15,5	403,0	291,0
S33569	2x0,5	5,3	42,0	28,0
S33570	3x0,5	5,6	49,5	37,0
S33571	4x0,5	6,2	58,0	43,0
S33572	5x0,5	6,7	73,5	51,0
S33573	6x0,5	7,2	85,0	64,0
S33574	7x0,5	7,2	87,5	65,0
S33575	8x0,5	8,0	100,0	68,0
S33576	10x0,5	9,1	119,5	88,0
S33577	12x0,5	9,3	133,5	98,0
S33578	14x0,5	9,8	150,0	120,0
S33579	16x0,5	10,5	175,0	129,0
S33580	18x0,5	11,0	192,5	138,0
S33581	20x0,5	11,7	211,0	149,0
S33582	21x0,5	11,7	214,0	158,0
S33583	27x0,5	13,4	271,0	209,0
S33584	30x0,5	13,8	294,0	230,0
S33585	37x0,5	15,1	356,0	290,0
S33586	40x0,5	16,3	389,5	311,0
S33587	44x0,5	17,3	441,5	332,0
S33588	48x0,5	17,5	470,0	353,0
S33589	52x0,5	18,0	503,0	385,0
S33590	56x0,5	18,6	537,0	408,0
S33591	61x0,5	19,1	576,5	432,0
S33592	2x0,75	5,8	49,5	36,0
S33593	3x0,75	6,1	58,5	47,0
S33594	4x0,75	6,7	75,0	56,0
S33595	5x0,75	7,2	88,0	65,0
S33596	6x0,75	7,9	104,0	83,0
S33597	7x0,75	7,9	108,5	88,0
S33598	8x0,75	8,7	125,0	102,0
S33599	10x0,75	9,9	147,5	118,0
S33600	12x0,75	10,2	173,0	142,0
S33601	14x0,75	10,8	193,0	153,0

Cat. no.	nxmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S33602	16x0,75	11,5	217,0	167,0
S33603	18x0,75	12,4	250,5	181,0
S33604	20x0,75	13,1	275,0	217,0
S33605	21x0,75	13,1	280,0	226,0
S33606	27x0,75	14,8	347,5	280,0
S33607	30x0,75	15,3	382,5	308,0
S33608	37x0,75	17,8	465,0	342,0
S33609	40x0,75	19,0	522,0	393,0
S33610	2x1	6,5	57,5	43,0
S33611	3x1	6,9	76,0	56,0
S33612	4x1	7,6	91,5	68,0
S33613	5x1	8,3	110,0	79,0
S33614	6x1	9,0	131,0	96,0
S33615	7x1	9,0	136,5	111,0
S33616	8x1	9,9	159,0	128,0
S33617	10x1	11,4	193,5	140,0
S33618	12x1	11,7	219,5	164,0
S33619	14x1	12,7	256,0	196,0
S33620	16x1	13,5	290,5	218,0
S33621	18x1	14,3	330,0	252,0
S33622	20x1	15,2	364,5	268,0
S33623	21x1	15,2	370,0	278,0
S33624	27x1	17,4	478,5	360,0
S33625	30x1	17,9	521,0	392,0
S33626	37x1	19,4	625,0	485,0
S33627	2x1,5	7,1	74,0	58,0
S33628	3x1,5	7,5	93,5	72,0
S33629	4x1,5	8,4	116,0	96,0
S33630	5x1,5	9,1	141,0	116,0
S33631	6x1,5	9,9	168,5	142,0
S33632	7x1,5	9,9	177,0	152,0
S33633	8x1,5	11,0	210,0	168,0
S33634	10x1,5	13,0	258,5	188,0
S33635	12x1,5	13,4	295,0	254,0
S33636	14x1,5	14,2	340,0	272,0
S33637	16x1,5	15,1	386,0	285,0
S33638	18x1,5	15,8	430,5	350,0
S33639	20x1,5	17,2	502,0	387,0
S33640	21x1,5	17,2	510,0	402,0
S33641	27x1,5	19,3	631,5	502,0
S33642	30x1,5	20,0	690,0	546,0
S33643	37x1,5	21,7	834,0	682,0
S33644	2x2,5	8,5	126,0	96,0
S33645	3x2,5	9,0	168,0	118,0
S33646	4x2,5	10,0	195,0	147,0
S33647	5x2,5	10,9	210,0	176,0
S33648	6x2,5	11,9	278,0	212,0
S33649	7x2,5	11,9	296,0	235,0
S33650	8x2,5	13,6	345,0	262,0
S33651	10x2,5	15,8	403,0	313,0
S33652	12x2,5	16,5	540,0	365,0
S33653	14x2,5	17,5	589,0	428,0
S33654	16x2,5	18,7	640,0	512,0
S33655	18x2,5	19,6	681,0	570,0
S33656	20x2,5	21,1	762,0	608,0
S33657	21x2,5	21,1	816,0	632,0

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BiT LiHC11Y

Flexible, screened, halogen-free, PUR sheathed control cables with coloured conductors, 300/300V

paired cables

Cat. no.	n x 2 x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S33658	2x2x0,14	5,4	40	21,7
S33659	3x2x0,14	6,0	47	24,3
S33660	4x2x0,14	6,4	54	27,0
S33661	5x2x0,14	6,9	67	35,1
S33662	6x2x0,14	7,1	70	37,8
S33663	7x2x0,14	8,0	82	40,5
S33664	8x2x0,14	8,4	89	43,2
S33665	10x2x0,14	8,9	103	51,3
S33666	12x2x0,14	9,5	115	63,9
S33667	14x2x0,14	10,0	132	68,3
S33668	16x2x0,14	10,9	156	79,0
S33669	18x2x0,14	11,3	164	86,0
S33670	20x2x0,14	11,7	175	92,4
S33671	24x2x0,14	12,0	196	110,2
S33672	2x2x0,25	5,9	50	25,9
S33673	3x2x0,25	6,5	56	30,7
S33674	4x2x0,25	7,0	69	40,9
S33675	5x2x0,25	7,7	88	45,7
S33676	6x2x0,25	8,0	90	50,5
S33677	7x2x0,25	8,9	103	58,0
S33678	8x2x0,25	9,2	112	62,8
S33679	10x2x0,25	9,9	131	84,7
S33680	12x2x0,25	10,7	158	93,2
S33681	14x2x0,25	11,3	176	105,6
S33682	16x2x0,25	12,1	200	117,3
S33683	18x2x0,25	12,6	212	130,4
S33684	20x2x0,25	13,3	241	142,6
S33685	24x2x0,25	13,7	272	175,6
S33686	2x2x0,34	6,4	59	29,3
S33687	3x2x0,34	7,1	70	41,3
S33688	4x2x0,34	7,8	85	47,8
S33689	5x2x0,34	8,4	106	64,3
S33690	6x2x0,34	8,7	111	74,1
S33691	7x2x0,34	9,7	126	81,6

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S33692	8x2x0,34	10,1	142	89,6
S33693	10x2x0,34	11,0	171	104,6
S33694	12x2x0,34	11,7	194	118,2
S33695	14x2x0,34	12,4	218	135,4
S33696	16x2x0,34	13,6	265	158,8
S33697	18x2x0,34	14,2	281	172,5
S33698	20x2x0,34	14,6	303	187,7
S33699	24x2x0,34	15,0	346	216,9
S33700	2x2x0,5	7,7	82	40,9
S33701	3x2x0,5	8,6	92	50,5
S33702	4x2x0,5	9,3	111	69,7
S33703	5x2x0,5	10,0	137	82,9
S33704	6x2x0,5	10,3	149	96,3
S33705	7x2x0,5	11,8	174	105,8
S33706	8x2x0,5	12,3	191	117,8
S33707	10x2x0,5	13,6	237	143,5
S33708	12x2x0,5	14,4	272	162,4
S33709	14x2x0,5	15,5	314	185,4
S33710	16x2x0,5	16,8	370	225,7
S33711	18x2x0,5	17,5	399	251,9
S33712	20x2x0,5	18,0	431	276,4
S33713	24x2x0,5	18,7	499	321,1
S33714	2x2x0,75	8,3	97	61,4
S33715	3x2x0,75	9,3	112	75,3
S33716	4x2x0,75	10,1	141	93,1
S33717	5x2x0,75	11,1	177	111,5
S33718	7x2x0,75	13,2	228	144,0
S33719	10x2x0,75	14,8	297	196,6
S33720	12x2x0,75	16,0	349	245,4
S33721	14x2x0,75	17,1	410	281,6
S33722	16x2x0,75	18,5	476	314,2
S33723	18x2x0,75	19,3	512	351,3
S33724	2x2x1	9,5	121	69,7
S33725	3x2x1	10,8	150	91,8

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

CHAPTER I.2

Control cables 300/500V

BiT LiYY

Flexible control cables with coloured conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with coloured conductors, PVC insulation and sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Approximate capacitance (at 800Hz): 150 pF/m
Approximate inductance: 0,65 mH/km
Min. bending radius:
Flexible connections: 7,5 x Ø
Fixed installation: 4 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: colours as per DIN 47100
Core arrangement: cores twisted together or pairs twisted together
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1)
Outer sheath colour: grey

Application:

Cables designed for signalling control circuits, control circuits in industrial applications, in measurement technology, and for analogue and digital signals transmission in electronic industrial and automatic control engineering systems. For fixed installation and mobile/portable devices. Suitable for usage in internal systems, in both dry and damp rooms. Core arrangement ensures asymmetry attenuation of 10 dB. In an environment with considerable electromagnetic interference, we recommend using screened cables type BiT LiYCY or BiT LiY(St)Y


industrial application


internal application


PN-EN 60332-1


high flexibility

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S53600	2x0,5	5,0	36	9,6
S53601	3x0,5	5,3	44	14,4
S53602	4x0,5	5,8	52	19,2
S53603	5x0,5	6,3	62	24,0
S53605	7x0,5	7,0	78	33,6
S53606	8x0,5	7,7	92	38,4
S53607	10x0,5	9,4	126	48,0
S53608	12x0,5	9,4	135	57,6
S53609	14x0,5	9,8	150	67,2
S53610	16x0,5	10,4	170	76,8
S53611	18x0,5	10,9	185	86,4
S53720	19x0,5	10,9	190	91,2
S53613	21x0,5	11,6	215	100,8
S53709	25x0,5	13,1	255	120,0
S53615	27x0,5	13,1	265	129,6
S53616	30x0,5	13,8	290	144,0
S53711	34x0,5	14,8	335	163,2
S53618	37x0,5	14,8	345	177,6
S53619	40x0,5	15,3	370	192,0
S53721	42x0,5	16,9	415	201,6
S53712	50x0,5	17,6	475	240,0
S53722	56x0,5	18,4	525	268,8
S53625	61x0,5	18,9	560	292,8
S53626	2x0,75	5,4	45	14,4
S53627	3x0,75	5,7	54	21,6
S53628	4x0,75	6,3	64	28,8
S53629	5x0,75	7,0	80	36,0
S53630	6x0,75	7,6	94	43,2
S53631	7x0,75	7,6	100	50,4
S53632	8x0,75	8,4	116	57,6
S53633	10x0,75	10,2	158	72,0
S53634	12x0,75	10,2	168	86,4

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S53635	14x0,75	10,7	190	100,8
S53636	16x0,75	11,5	220	115,2
S53637	18x0,75	12,1	245	129,6
S53723	19x0,75	12,1	250	136,8
S53639	21x0,75	12,7	275	151,2
S53713	25x0,75	14,5	335	180,0
S53641	27x0,75	14,5	345	194,4
S53642	30x0,75	15,0	375	216,0
S53715	34x0,75	16,6	450	244,8
S53644	37x0,75	16,6	465	266,4
S53645	40x0,75	17,2	500	288,0
S53724	42x0,75	18,7	545	302,4
S53716	50x0,75	19,5	625	360,0
S53725	56x0,75	20,1	675	403,2
S53726	61x0,75	20,7	725	439,2
S53648	2x1,0	5,7	52	19,2
S53649	3x1,0	6,1	64	28,8
S53650	4x1,0	6,8	80	38,4
S53651	5x1,0	7,4	96	48,0
S53652	6x1,0	8,0	112	57,6
S53653	7x1,0	8,0	118	67,2
S53654	8x1,0	9,3	148	76,8
S53655	10x1,0	10,9	188	96,0
S53656	12x1,0	10,9	204	115,2
S53657	14x1,0	11,6	235	134,4
S53658	16x1,0	12,2	264	153,6
S53659	18x1,0	12,8	294	172,8
S53727	19x1,0	12,8	300	182,4
S53661	21x1,0	13,7	336	201,6
S53717	25x1,0	15,5	405	240,0
S53663	27x1,0	15,5	415	259,2
S53664	30x1,0	16,4	470	288,0

BITNER®

BiT LiYY

Flexible control cables with coloured conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S53719	34x1,0	17,6	540	326,4
S53666	37x1,0	17,6	560	355,2
S53667	40x1,0	18,5	610	384,0
S53728	42x1,0	19,9	655	403,2
S53729	50x1,0	20,8	755	480,0
S53730	56x1,0	21,6	830	537,6
S53731	61x1,0	22,2	890	585,6
S53670	2x1,5	6,7	71	28,8
S53671	3x1,5	7,1	87	43,2
S53672	4x1,5	7,8	110	57,6
S53673	5x1,5	8,5	130	72,0
S53674	6x1,5	9,6	162	86,4
S53675	7x1,5	9,6	172	100,8
S53676	8x1,5	10,6	202	115,2
S53677	10x1,5	12,7	265	144,0
S53678	12x1,5	12,7	285	172,8
S53679	14x1,5	13,5	325	201,6
S53680	16x1,5	14,3	370	230,4
S53681	18x1,5	15,0	410	259,2
S53732	19x1,5	15,0	420	273,6
S53683	21x1,5	16,2	475	302,4
S53733	25x1,5	18,5	580	360,0
S53685	27x1,5	18,5	600	388,8
S53686	30x1,5	19,2	655	432,0
S53734	34x1,5	20,6	755	489,6
S53688	37x1,5	20,6	785	532,8
S53689	40x1,5	21,6	855	576,0
S53735	42x1,5	23,3	920	604,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S53736	50x1,5	24,7	1080	720,0
S53737	56x1,5	25,5	1180	806,4
S53738	61x1,5	26,2	1270	878,4
S53692	2x2,5	7,8	102	48,0
S53693	3x2,5	8,3	126	72,0
S53694	4x2,5	9,5	166	96,0
S53695	5x2,5	10,4	200	120,0
S53696	6x2,5	11,5	240	144,0
S53697	7x2,5	11,5	260	168,0
S53699	10x2,5	15,2	390	240,0
S53700	12x2,5	15,2	425	288,0
S53701	14x2,5	16,4	495	336,0
S53702	16x2,5	17,3	560	384,0
S53703	18x2,5	18,4	630	432,0
S53705	21x2,5	19,3	710	504,0
S53706	25x2,5	22,1	870	600,0
S53739	30x2,5	22,9	985	720,0
S53707	34x2,5	25,1	1160	816,0
S53740	37x2,5	25,1	1210	888,0
S53741	42x2,5	28,1	1390	1008,0
S53708	50x2,5	29,4	1610	1200,0
S53742	2x4,0	9,3	152	76,8
S53743	3x4,0	10,3	202	115,2
S53744	4x4,0	11,3	255	153,6
S53745	5x4,0	12,6	310	192,0
S53746	7x4,0	13,7	395	268,8
S53747	10x4,0	18,7	615	384,0
S53748	12x4,0	18,7	675	460,8

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Note: On customer's request other cross sections or number of cores can be produced

BiT LiYY Flexible control cables with coloured conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4800	2x2x0,5	7,3	63	19,2
SB4801	3x2x0,5	8,2	72	28,8
SB4802	4x2x0,5	9,3	97	38,4
SB4803	5x2x0,5	10,0	122	48,0
SB4804	6x2x0,5	10,4	130	57,6
SB4805	7x2x0,5	11,8	156	67,2
SB4806	8x2x0,5	12,3	172	76,8
SB4807	10x2x0,5	13,2	205	96,0
SB4808	12x2x0,5	14,3	245	115,2
SB4809	14x2x0,5	15,1	275	134,4
SB4810	16x2x0,5	16,6	335	153,6
SB4811	18x2x0,5	17,3	360	172,8
SB4812	20x2x0,5	17,8	390	192,0
SB4813	24x2x0,5	18,5	455	230,4
SB4814	2x2x0,75	8,0	80	28,8
SB4815	3x2x0,75	9,4	98	43,2
SB4816	4x2x0,75	10,1	122	57,6
SB4817	5x2x0,75	10,9	152	72,0
SB4818	6x2x0,75	11,5	170	86,4
SB4819	7x2x0,75	12,9	196	100,8
SB4820	8x2x0,75	13,7	225	115,2
SB4821	10x2x0,75	14,6	270	144,0
SB4822	12x2x0,75	16,0	325	172,8
SB4823	14x2x0,75	17,0	370	201,6
SB4824	16x2x0,75	18,4	435	230,4
SB4825	18x2x0,75	19,1	470	259,2
SB4826	20x2x0,75	19,7	510	288,0
SB4827	24x2x0,75	20,3	590	345,6
SB4828	2x2x1,0	8,5	92	38,4
SB4829	3x2x1,0	9,9	116	57,6
SB4830	4x2x1,0	10,8	142	76,8
SB4831	5x2x1,0	11,8	184	96,0
SB4832	6x2x1,0	12,2	202	115,2

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4833	7x2x1,0	13,9	240	134,4
SB4834	8x2x1,0	14,5	270	153,6
SB4835	10x2x1,0	15,6	320	192,0
SB4836	12x2x1,0	17,0	390	230,4
SB4837	14x2x1,0	18,3	450	268,8
SB4838	16x2x1,0	19,5	515	307,2
SB4839	18x2x1,0	20,4	560	345,6
SB4840	20x2x1,0	21,0	610	384,0
SB4841	24x2x1,0	21,8	720	460,8
SB4842	2x2x1,5	10,1	132	57,6
SB4843	3x2x1,5	11,6	160	86,4
SB4844	4x2x1,5	12,6	198	115,2
SB4845	5x2x1,5	13,8	258	144,0
SB4846	6x2x1,5	14,3	280	172,8
SB4847	7x2x1,5	16,4	340	201,6
SB4848	8x2x1,5	17,2	380	230,4
SB4849	10x2x1,5	18,6	465	288,0
SB4850	12x2x1,5	19,9	540	345,6
SB4851	14x2x1,5	21,1	620	403,2
SB4852	16x2x1,5	22,8	720	460,8
SB4853	18x2x1,5	23,8	785	518,4
SB4854	20x2x1,5	25,0	880	576,0
SB4855	24x2x1,5	25,7	1020	691,2
SB4856	2x2x2,5	12,1	192	96,0
SB4857	3x2x2,5	13,8	235	144,0
SB4858	4x2x2,5	15,1	295	192,0
SB4859	5x2x2,5	16,7	385	240,0
SB4860	6x2x2,5	17,3	425	288,0
SB4861	7x2x2,5	19,6	500	336,0
SB4862	8x2x2,5	20,5	560	384,0
SB4863	10x2x2,5	22,3	690	480,0
SB4864	12x2x2,5	23,8	805	576,0
SB4865	14x2x2,5	25,7	945	672,0
SB4866	16x2x2,5	27,5	1085	768,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT LiYCY Flexible control cables with coloured conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with coloured conductors, PVC insulation and sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Approximate capacitance (at 800Hz):
Core/core: 150 pF/m
Core/screen: 270 pF/m
Approximate inductance: 0,65 mH/km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: colours as per DIN 47100
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid with coverage ≥ 85%
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1).
Outer sheath colour: grey

Application:

The cables are intended for signalling control circuits, control circuits in industrial applications, in measurement technology, and for analogue and digital signals transmission in electronic industrial and automatic control engineering systems. For fixed installation, and mobile/portable devices. Suitable for use indoors, in both dry and damp rooms. A common screen of tinned copper wire braid ensures very good protection against external electromagnetic fields (approximately 50 dB).


industrial application


internal application


PN-EN 60332-1


high flexibility

EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S53801	2x0,5	5,4	44	35
S53802	3x0,5	5,7	48	42
S53803	4x0,5	6,2	58	46
S53804	5x0,5	6,9	72	55
S53805	6x0,5	7,4	84	63
S53806	7x0,5	7,4	88	68
S53807	8x0,5	8,3	110	81
S53808	10x0,5	10,0	145	94
S53809	12x0,5	10,0	155	108
S53810	14x0,5	10,4	170	116
S53811	16x0,5	11,0	190	128
S53812	18x0,5	11,7	220	145
S53773	19x0,5	11,8	220	160
S53814	21x0,5	12,2	240	180
S53774	25x0,5	13,9	295	234
S53816	27x0,5	13,9	300	244
S53817	30x0,5	14,4	325	270
S53775	34x0,5	15,4	370	301
S53819	37x0,5	15,4	385	315
S53820	40x0,5	16,3	425	335
S53776	42x0,5	17,5	455	359
S53777	50x0,5	18,2	525	405
S53825	56x0,5	19,0	570	439
S53827	61x0,5	19,5	610	471
S53829	2x0,75	5,8	52	40
S53830	3x0,75	6,1	58	49
S53831	4x0,75	6,9	74	59
S53832	5x0,75	7,4	88	70
S53833	6x0,75	8,2	112	80
S53834	7x0,75	8,2	118	90
S53835	8x0,75	9,4	142	110

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S53836	10x0,75	10,8	180	138
S53837	12x0,75	10,6	190	142
S53838	14x0,75	11,5	220	179
S53839	16x0,75	12,1	245	197
S53840	18x0,75	12,7	275	217
S53778	19x0,75	12,7	280	224
S53842	21x0,75	13,3	305	244
S53844	25x0,75	15,1	370	286
S53845	27x0,75	15,1	380	300
S53846	30x0,75	16,0	425	326
S53847	34x0,75	17,2	490	345
S53849	37x0,75	17,2	505	360
S53850	40x0,75	17,8	540	398
S53779	42x0,75	19,3	590	421
S53780	50x0,75	20,1	670	470
S53781	56x0,75	20,7	725	518
S53782	61x0,75	21,5	790	550
S53851	2x1,0	6,1	57	50
S53852	3x1,0	6,5	69	60
S53853	4x1,0	7,0	84	70
S53854	5x1,0	8,0	111	87
S53855	6x1,0	8,6	129	95
S53856	7x1,0	8,6	138	110
S53857	8x1,0	9,9	165	125
S53858	10x1,0	11,5	215	150
S53859	12x1,0	11,5	230	180
S53860	14x1,0	12,2	260	197
S53861	16x1,0	12,8	290	210
S53862	18x1,0	13,6	330	250
S53918	19x1,0	13,6	335	260
S53864	21x1,0	14,3	365	297

BiT LiYCY Flexible control cables with coloured conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S53866	25x1,0	16,5	455	335
S53867	27x1,0	16,5	465	400
S53868	30x1,0	17,0	505	440
S53915	34x1,0	18,4	590	485
S53870	37x1,0	18,4	610	495
S53916	40x1,0	19,1	655	510
S53919	42x1,0	20,5	700	530
S53917	50x1,0	21,6	815	600
S53920	56x1,0	22,2	885	661
S53921	61x1,0	22,8	950	700
S53871	2x1,5	7,1	88	62
S53872	3x1,5	7,5	99	79
S53873	4x1,5	8,4	122	96
S53874	5x1,5	9,5	156	120
S53875	6x1,5	10,2	182	130
S53876	7x1,5	10,2	192	145
S53877	8x1,5	11,0	220	173
S53878	10x1,5	13,3	290	193
S53879	12x1,5	13,3	310	243
S53880	14x1,5	14,1	355	276
S53881	16x1,5	14,9	410	310
S53882	18x1,5	16,0	455	352
S53783	19x1,5	16,0	465	367
S53884	21x1,5	16,8	515	393
S53784	25x1,5	19,1	620	464
S53887	27x1,5	19,1	640	493
S53888	30x1,5	19,8	700	540
S53785	34x1,5	21,4	810	608
S53890	37x1,5	21,4	840	651

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S53786	40x1,5	22,2	910	700
S53787	42x1,5	23,9	970	740
S53788	50x1,5	25,3	1140	862
S53789	56x1,5	26,1	1240	955
S53790	61x1,5	26,8	1330	1030
S53891	2x2,5	8,4	112	90
S53892	3x2,5	9,3	144	117
S53893	4x2,5	10,1	180	147
S53894	5x2,5	11,0	216	176
S53895	6x2,5	12,1	265	206
S53896	7x2,5	12,1	280	230
S53898	10x2,5	16,2	430	326
S53899	12x2,5	16,2	465	374
S53900	14x2,5	17,0	525	427
S53901	16x2,5	17,9	590	481
S53902	18x2,5	19,0	665	536
S53904	21x2,5	19,9	750	614
S53905	25x2,5	22,7	910	728
S53791	30x2,5	23,5	1030	853
S53907	34x2,5	25,7	1210	960
S53792	37x2,5	25,7	1260	1032
S53908	42x2,5	28,9	1470	1216
S53912	50x2,5	30,2	1700	1418
S53793	2x4,0	10,3	170	128
S53794	3x4,0	10,9	200	171
S53795	4x4,0	12,1	270	216
S53796	5x4,0	13,2	325	262
S53797	7x4,0	14,5	425	346
S53798	10x4,0	19,5	645	491
S53799	12x4,0	19,5	705	568

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT LiYCY Flexible control cables with coloured conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S53925	2x2x0,5	7,7	80	52
S53926	3x2x0,5	9,2	105	70
S53927	4x2x0,5	9,9	125	91
S53928	5x2x0,5	10,6	155	105
S53929	6x2x0,5	11,0	165	122
S53930	7x2x0,5	12,4	195	139
S53931	8x2x0,5	12,9	210	151
S53932	10x2x0,5	14,0	255	171
S53933	12x2x0,5	14,9	290	198
S53934	14x2x0,5	16,1	340	208
S53935	16x2x0,5	17,2	385	241
S53936	18x2x0,5	17,9	415	279
S53937	20x2x0,5	18,6	455	300
S53938	24x2x0,5	19,1	515	325
S53939	2x2x0,75	8,6	102	58
S53940	3x2x0,75	10,0	126	85
S53941	4x2x0,75	10,7	152	110
S53942	5x2x0,75	11,7	192	128
S53943	6x2x0,75	12,1	205	148
S53944	7x2x0,75	13,7	245	168
S53945	8x2x0,75	14,3	270	182
S53946	10x2x0,75	15,2	315	220
S53947	12x2x0,75	16,6	375	260
S53948	14x2x0,75	17,6	425	290
S53949	16x2x0,75	19,0	490	319
S53950	18x2x0,75	19,7	530	345
S53951	20x2x0,75	20,3	570	368
S53952	24x2x0,75	20,9	655	404
S53953	2x2x1,0	9,5	126	82
S53954	3x2x1,0	10,5	146	105
S53955	4x2x1,0	11,6	182	130
S53956	5x2x1,0	12,4	225	160
S53957	6x2x1,0	12,8	240	185
S53958	7x2x1,0	14,5	285	220

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S53959	8x2x1,0	15,1	315	237
S53960	10x2x1,0	16,6	385	280
S53961	12x2x1,0	17,6	445	325
S53962	14x2x1,0	18,9	510	389
S53963	16x2x1,0	20,1	580	420
S53964	18x2x1,0	21,0	625	462
S53965	20x2x1,0	21,8	690	492
S53966	24x2x1,0	22,4	790	541
S53967	2x2x1,5	10,7	162	106
S53968	3x2x1,5	12,2	196	133
S53969	4x2x1,5	13,2	240	157
S53970	5x2x1,5	14,4	300	181
S53971	6x2x1,5	14,9	325	200
S53972	7x2x1,5	17,0	395	230
S53973	8x2x1,5	17,8	435	310
S53974	10x2x1,5	19,2	525	380
S53975	12x2x1,5	20,5	605	455
S53976	14x2x1,5	21,9	695	507
S53977	16x2x1,5	23,4	795	561
S53978	18x2x1,5	24,8	885	607
S53979	20x2x1,5	25,6	960	700
S53980	24x2x1,5	26,3	1105	825
S53981	2x2x2,5	12,7	230	148
S53982	3x2x2,5	14,4	280	220
S53983	4x2x2,5	16,1	355	295
S53984	5x2x2,5	17,3	440	350
S53985	6x2x2,5	17,9	480	385
S53986	7x2x2,5	20,2	565	444
S53987	8x2x2,5	21,1	625	483
S53988	10x2x2,5	22,9	760	559
S53989	12x2x2,5	24,4	880	629
S53990	14x2x2,5	26,3	1030	709
S53991	16x2x2,5	28,1	1175	787

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT LiHH

Flexible, halogen-free control cables
with coloured conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Halogen-free, control cable with coloured conductors
Operating temperature:
Fixed instalation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500V
Test voltage: 3000V
Insulation resistance: 20 MΩ x km
Approximate capacitance (at 800 Hz): 150 pF/m
Approximate inductance: 0,65 mH/km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: multi-stranded copper conductors, EN 60228 cl.5
Insulation: special halogen-free compound
Conductor marking: colours as per DIN 47100
Core arrangement: cores twisted together or pairs twisted together
Outer sheath: special halogen-free compound, self-extinguishing and highly flame retardant (as per EN 60332-1, and EN 60332-3-24, IEC 60332-3 cat. C)
Outer sheath colour: grey, on customer request black

Application:

Cables designed for signalling control circuits, control circuits in industrial applications, in measurement technology, and for analogue and digital signals transmission in electronic industrial and automatic control engineering systems. For fixed installation and mobile/portable devices. Suitable for usage in internal systems, in both dry and damp rooms. Core arrangement ensures asymmetry attenuation of 10 dB. In an environment with considerable electromagnetic interference, we recommend using screened cables type BiT LiHCH or BiT LiH(St)H


industrial application


internal application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

halogen-free

flame retardant sheath


high flexibility


low smoke emission

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4900	2x0,5	5,0	36	9,6
SB4901	3x0,5	5,3	44	14,4
SB4902	4x0,5	5,8	52	19,2
SB4903	5x0,5	6,3	62	24,0
SB4904	7x0,5	7,0	78	33,6
SB4905	8x0,5	7,7	92	38,4
SB4906	10x0,5	9,4	126	48,0
SB4907	12x0,5	9,4	135	57,6
SB4908	14x0,5	9,8	150	67,2
SB4909	16x0,5	10,4	170	76,8
SB4910	18x0,5	10,9	185	86,4
SB4911	19x0,5	10,9	190	91,2
SB4912	21x0,5	11,6	215	100,8
SB4913	25x0,5	13,1	255	120,0
SB4914	27x0,5	13,1	265	129,6
SB4915	30x0,5	13,8	290	144,0
SB4916	34x0,5	14,8	335	163,2
SB4917	37x0,5	14,8	345	177,6
SB4918	40x0,5	15,3	370	192,0
SB4919	42x0,5	16,9	415	201,6
SB4920	50x0,5	17,6	475	240,0
SB4921	56x0,5	18,4	525	268,8
SB4922	61x0,5	18,9	560	292,8
SB4923	2x0,75	5,4	45	14,4
SB4924	3x0,75	5,7	54	21,6
SB4925	4x0,75	6,3	64	28,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4926	5x0,75	7,0	80	36,0
SB4927	6x0,75	7,6	94	43,2
SB4928	7x0,75	7,6	100	50,4
SB4929	8x0,75	8,4	116	57,6
SB4930	10x0,75	10,2	158	72,0
SB4931	12x0,75	10,2	168	86,4
SB4932	14x0,75	10,7	190	100,8
SB4933	16x0,75	11,5	220	115,2
SB4934	18x0,75	12,1	245	129,6
SB4935	19x0,75	12,1	250	136,8
SB4936	21x0,75	12,7	275	151,2
SB4937	25x0,75	14,5	335	180,0
SB4938	27x0,75	14,5	345	194,4
SB4939	30x0,75	15,0	375	216,0
SB4940	34x0,75	16,6	450	244,8
SB4941	37x0,75	16,6	465	266,4
SB4942	40x0,75	17,2	500	288,0
SB4943	42x0,75	18,7	545	302,4
SB4944	50x0,75	19,5	625	360,0
SB4945	56x0,75	20,1	675	403,2
SB4946	61x0,75	20,7	725	439,2
SB4947	2x1,0	5,7	52	19,2
SB4948	3x1,0	6,1	64	28,8
SB4949	4x1,0	6,8	80	38,4
SB4950	5x1,0	7,4	96	48,0
SB4951	6x1,0	8,0	112	57,6
SB4952	7x1,0	8,0	118	67,2

BITNER®

BiT LiHH

Flexible, halogen-free control cables
with coloured conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4953	8x1,0	9,3	148	76,8
SB4954	10x1,0	10,9	188	96,0
SB4955	12x1,0	10,9	204	115,2
SB4956	14x1,0	11,6	235	134,4
SB4957	16x1,0	12,2	264	153,6
SB4958	18x1,0	12,8	294	172,8
SB4959	19x1,0	12,8	300	182,4
SB4960	21x1,0	13,7	336	201,6
SB4961	25x1,0	15,5	405	240,0
SB4962	27x1,0	15,5	415	259,2
SB4963	30x1,0	16,4	470	288,0
SB4964	34x1,0	17,6	540	326,4
SB4965	37x1,0	17,6	560	355,2
SB4966	40x1,0	18,5	610	384,0
SB4967	42x1,0	19,9	655	403,2
SB4968	50x1,0	20,8	755	480,0
SB4969	56x1,0	21,6	830	537,6
SB4970	61x1,0	22,2	890	585,6
SB4971	2x1,5	6,7	71	28,8
SB4972	3x1,5	7,1	87	43,2
SB4973	4x1,5	7,8	110	57,6
SB4974	5x1,5	8,5	130	72,0
SB4975	6x1,5	9,6	162	86,4
SB4976	7x1,5	9,6	172	100,8
SB4977	8x1,5	10,6	202	115,2
SB4978	10x1,5	12,7	265	144,0
SB4979	12x1,5	12,7	285	172,8
SB4980	14x1,5	13,5	325	201,6
SB4981	16x1,5	14,3	370	230,4
SB4982	18x1,5	15,0	410	259,2
SB4983	19x1,5	15,0	420	273,6
SB4984	21x1,5	16,2	475	302,4
SB4985	25x1,5	18,5	580	360,0
SB4986	27x1,5	18,5	600	388,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4987	30x1,5	19,2	655	432,0
SB4988	34x1,5	20,6	755	489,6
SB4989	37x1,5	20,6	785	532,8
SB4990	40x1,5	21,6	855	576,0
SB4991	42x1,5	23,3	920	604,8
SB4992	50x1,5	24,7	1080	720,0
SB4993	56x1,5	25,5	1180	806,4
SB4994	61x1,5	26,2	1270	878,4
SB4995	2x2,5	7,8	102	48,0
SB4996	3x2,5	8,3	126	72,0
SB4997	4x2,5	9,5	166	96,0
SB4998	5x2,5	10,4	200	120,0
SB4999	6x2,5	11,5	240	144,0
SB5000	7x2,5	11,5	260	168,0
SB5001	10x2,5	15,2	390	240,0
SB5002	12x2,5	15,2	425	288,0
SB5003	14x2,5	16,4	495	336,0
SB5004	16x2,5	17,3	560	384,0
SB5005	18x2,5	18,4	630	432,0
SB5006	21x2,5	19,3	710	504,0
SB5007	25x2,5	22,1	870	600,0
SB5008	30x2,5	22,9	985	720,0
SB5009	34x2,5	25,1	1160	816,0
SB5010	37x2,5	25,1	1210	888,0
SB5011	42x2,5	28,1	1390	1008,0
SB5012	50x2,5	29,4	1610	1200,0
SB5013	2x4,0	9,3	152	76,8
SB5014	3x4,0	10,3	202	115,2
SB5015	4x4,0	11,3	255	153,6
SB5016	5x4,0	12,6	310	192,0
SB5017	7x4,0	13,7	395	268,8
SB5018	10x4,0	18,7	615	384,0
SB5019	12x4,0	18,7	675	460,8

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT LiHH

Flexible, halogen-free control cables
with coloured conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5021	2x2x0,5	7,3	63	19,2
SB5022	3x2x0,5	8,2	72	28,8
SB5023	4x2x0,5	9,3	97	38,4
SB5024	5x2x0,5	10,0	122	48,0
SB5025	6x2x0,5	10,4	130	57,6
SB5026	7x2x0,5	11,8	156	67,2
SB5027	8x2x0,5	12,3	172	76,8
SB5028	10x2x0,5	13,2	205	96,0
SB5029	12x2x0,5	14,3	245	115,2
SB5030	14x2x0,5	15,1	275	134,4
SB5031	16x2x0,5	16,6	335	153,6
SB5032	18x2x0,5	17,3	360	172,8
SB5033	20x2x0,5	17,8	390	192,0
SB5034	24x2x0,5	18,5	455	230,4
SB5035	2x2x0,75	8,0	80	28,8
SB5036	3x2x0,75	9,4	98	43,2
SB5037	4x2x0,75	10,1	122	57,6
SB5038	5x2x0,75	10,9	152	72,0
SB5039	6x2x0,75	11,5	170	86,4
SB5040	7x2x0,75	12,9	196	100,8
SB5041	8x2x0,75	13,7	225	115,2
SB5042	10x2x0,75	14,6	270	144,0
SB5043	12x2x0,75	16,0	325	172,8
SB5044	14x2x0,75	17,0	370	201,6
SB5045	16x2x0,75	18,4	435	230,4
SB5046	18x2x0,75	19,1	470	259,2
SB5047	20x2x0,75	19,7	510	288,0
SB5048	24x2x0,75	20,3	590	345,6
SB5049	2x2x1,0	8,5	92	38,4
SB5050	3x2x1,0	9,9	116	57,6
SB5051	4x2x1,0	10,8	142	76,8
SB5052	5x2x1,0	11,8	184	96,0
SB5053	6x2x1,0	12,2	202	115,2

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5054	7x2x1,0	13,9	240	134,4
SB5055	8x2x1,0	14,5	270	153,6
SB5056	10x2x1,0	15,6	320	192,0
SB5057	12x2x1,0	17,0	390	230,4
SB5058	14x2x1,0	18,3	450	268,8
SB5059	16x2x1,0	19,5	515	307,2
SB5060	18x2x1,0	20,4	560	345,6
SB5061	20x2x1,0	21,0	610	384,0
SB5062	24x2x1,0	21,8	720	460,8
SB5063	2x2x1,5	10,1	132	57,6
SB5064	3x2x1,5	11,6	160	86,4
SB5065	4x2x1,5	12,6	198	115,2
SB5066	5x2x1,5	13,8	258	144,0
SB5067	6x2x1,5	14,3	280	172,8
SB5068	7x2x1,5	16,4	340	201,6
SB5069	8x2x1,5	17,2	380	230,4
SB5070	10x2x1,5	18,6	465	288,0
SB5071	12x2x1,5	19,9	540	345,6
SB5072	14x2x1,5	21,1	620	403,2
SB5073	16x2x1,5	22,8	720	460,8
SB5074	18x2x1,5	23,8	785	518,4
SB5075	20x2x1,5	25,0	880	576,0
SB5076	24x2x1,5	25,7	1020	691,2
SB5077	2x2x2,5	12,1	192	96,0
SB5078	3x2x2,5	13,8	235	144,0
SB5079	4x2x2,5	15,1	295	192,0
SB5080	5x2x2,5	16,7	385	240,0
SB5081	6x2x2,5	17,3	425	288,0
SB5082	7x2x2,5	19,6	500	336,0
SB5083	8x2x2,5	20,5	560	384,0
SB5084	10x2x2,5	22,3	690	480,0
SB5085	12x2x2,5	23,8	805	576,0
SB5086	14x2x2,5	25,7	945	672,0
SB5087	16x2x2,5	27,5	1085	768,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT LiHCH

Flexible, screened, halogen-free control cables with coloured conductors, 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Halogen-free, screened control cable with coloured conductors
Operating temperature:
Fixed instalation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500V
Test voltage: 3000V
Insulation resistance: 20 MΩ x km
Approximate capacitance (at 800 Hz):
Core/core: 150 pF/m
Core/screen: 270 pF/m
Approximate inductance: 0,65 mH/km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: multi-stranded copper conductors, EN 60228 cl.5
Insulation: special halogen-free compound
Conductor marking: colours as per DIN 47100
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid with coverage of ≥85%
Sheath: special halogen-free compound, self-extinguishing and highly flame retardant (as per EN 60332-1, and EN 60332-3-24, IEC 60332-3 cat. C)
Sheath colour: grey, on customer request black

Application:

Cables are intended for signalling control circuits, control circuits in industrial applications, in measurement technology, and for analogue and digital signals transmission in electronic industrial and automatic control engineering systems. For fixed installation, and mobile/portable devices. Suitable for use indoors, in both dry and damp rooms. A common screen of tinned copper wire braid ensures very good protection against external electromagnetic fields (approximately 50 dB).

industrial application | internal application | PN-EN 60332-1 | IEC 60332-3 PN-EN 60332-3 | flame retardant sheath | halogen-free | low smoke emission | high flexibility | EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5100	2x0,5	5,4	44	35
SB5101	3x0,5	5,7	48	42
SB5102	4x0,5	6,2	58	46
SB5103	5x0,5	6,9	72	55
SB5104	6x0,5	7,4	84	63
SB5105	7x0,5	7,4	88	68
SB5106	8x0,5	8,3	110	81
SB5107	10x0,5	10,0	145	94
SB5108	12x0,5	10,0	155	108
SB5109	14x0,5	10,4	170	116
SB5110	16x0,5	11,0	190	128
SB5111	18x0,5	11,7	220	145
SB5112	19x0,5	11,8	220	160
SB5113	21x0,5	12,2	240	180
SB5114	25x0,5	13,9	295	234
SB5115	27x0,5	13,9	300	244
SB5116	30x0,5	14,4	325	270
SB5117	34x0,5	15,4	370	301
SB5118	37x0,5	15,4	385	315
SB5119	40x0,5	16,3	425	335
SB5120	42x0,5	17,5	455	359
SB5121	50x0,5	18,2	525	405
SB5122	56x0,5	19,0	570	439
SB5123	61x0,5	19,5	610	471

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5124	2x0,75	5,8	52	40
SB5125	3x0,75	6,1	58	49
SB5126	4x0,75	6,9	74	59
SB5127	5x0,75	7,4	88	70
SB5128	6x0,75	8,2	112	80
SB5129	7x0,75	8,2	118	90
SB5130	8x0,75	9,4	142	110
SB5131	10x0,75	10,8	180	138
SB5132	12x0,75	10,6	190	142
SB5133	14x0,75	11,5	220	179
SB5134	16x0,75	12,1	245	197
SB5135	18x0,75	12,7	275	217
SB5136	19x0,75	12,7	280	224
SB5137	21x0,75	13,3	305	244
SB5138	25x0,75	15,1	370	286
SB5139	27x0,75	15,1	380	300
SB5140	30x0,75	16,0	425	326
SB5141	34x0,75	17,2	490	345
SB5142	37x0,75	17,2	505	360
SB5143	40x0,75	17,8	540	398
SB5144	42x0,75	19,3	590	421
SB5145	50x0,75	20,1	670	470
SB5146	56x0,75	20,7	725	518
SB5147	61x0,75	21,5	790	550

BiT LiHCH

Flexible, screened, halogen-free control cables
with coloured conductors, 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5148	2x1,0	6,1	57	50
SB5149	3x1,0	6,5	69	60
SB5150	4x1,0	7,0	84	70
SB5151	5x1,0	8,0	111	87
SB5152	6x1,0	8,6	129	95
SB5153	7x1,0	8,6	138	110
SB5154	8x1,0	9,9	165	125
SB5155	10x1,0	11,5	215	150
SB5156	12x1,0	11,5	230	180
SB5157	14x1,0	12,2	260	197
SB5158	16x1,0	12,8	290	210
SB5159	18x1,0	13,6	330	250
SB5160	19x1,0	13,6	335	260
SB5161	21x1,0	14,3	365	297
SB5162	25x1,0	16,5	455	335
SB5163	27x1,0	16,5	465	400
SB5164	30x1,0	17,0	505	440
SB5165	34x1,0	18,4	590	485
SB5166	37x1,0	18,4	610	495
SB5167	40x1,0	19,1	655	510
SB5168	42x1,0	20,5	700	530
SB5169	50x1,0	21,6	815	600
SB5170	56x1,0	22,2	885	661
SB5171	61x1,0	22,8	950	700
SB5172	2x1,5	7,1	88	62
SB5173	3x1,5	7,5	99	79
SB5174	4x1,5	8,4	122	96
SB5175	5x1,5	9,5	156	120
SB5176	6x1,5	10,2	182	130
SB5177	7x1,5	10,2	192	145
SB5178	8x1,5	11,0	220	173
SB5179	10x1,5	13,3	290	193
SB5180	12x1,5	13,3	310	243
SB5181	14x1,5	14,1	355	276
SB5182	16x1,5	14,9	410	310
SB5183	18x1,5	16,0	455	352

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5184	19x1,5	16,0	465	367
SB5185	21x1,5	16,8	515	393
SB5186	25x1,5	19,1	620	464
SB5187	27x1,5	19,1	640	493
SB5188	30x1,5	19,8	700	540
SB5189	34x1,5	21,4	810	608
SB5190	37x1,5	21,4	840	651
SB5191	40x1,5	22,2	910	700
SB5192	42x1,5	23,9	970	740
SB5193	50x1,5	25,3	1140	862
SB5194	56x1,5	26,1	1240	955
SB5195	61x1,5	26,8	1330	1030
SB5196	2x2,5	8,4	112	90
SB5197	3x2,5	9,3	144	117
SB5198	4x2,5	10,1	180	147
SB5199	5x2,5	11,0	216	176
SB5200	6x2,5	12,1	265	206
SB5201	7x2,5	12,1	280	230
SB5202	10x2,5	16,2	430	326
SB5203	12x2,5	16,2	465	374
SB5204	14x2,5	17,0	525	427
SB5205	16x2,5	17,9	590	481
SB5206	18x2,5	19,0	665	536
SB5207	21x2,5	19,9	750	614
SB5208	25x2,5	22,7	910	728
SB5209	30x2,5	23,5	1030	853
SB5210	34x2,5	25,7	1210	960
SB5211	37x2,5	25,7	1260	1032
SB5212	42x2,5	28,9	1470	1216
SB5213	50x2,5	30,2	1700	1418
SB5214	2x4,0	10,3	170	128
SB5215	3x4,0	10,9	200	171
SB5216	4x4,0	12,1	270	216
SB5217	5x4,0	13,2	325	262
SB5218	7x4,0	14,5	425	346
SB5219	10x4,0	19,5	645	491
SB5220	12x4,0	19,5	705	568

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT LiHCH

Flexible, screened, halogen-free control cables with coloured conductors, 300/500V

paired cables

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5222	2x2x0,5	7,7	80	52
SB5223	3x2x0,5	9,2	105	70
SB5224	4x2x0,5	9,9	125	91
SB5225	5x2x0,5	10,6	155	105
SB5226	6x2x0,5	11,0	165	122
SB5227	7x2x0,5	12,4	195	139
SB5228	8x2x0,5	12,9	210	151
SB5229	10x2x0,5	14,0	255	171
SB5230	12x2x0,5	14,9	290	198
SB5231	14x2x0,5	16,1	340	208
SB5232	16x2x0,5	17,2	385	241
SB5233	18x2x0,5	17,9	415	279
SB5234	20x2x0,5	18,6	455	300
SB5235	24x2x0,5	19,1	515	325
SB5236	2x2x0,75	8,6	102	58
SB5237	3x2x0,75	10,0	126	85
SB5238	4x2x0,75	10,7	152	110
SB5239	5x2x0,75	11,7	192	128
SB5240	6x2x0,75	12,1	205	148
SB5241	7x2x0,75	13,7	245	168
SB5242	8x2x0,75	14,3	270	182
SB5243	10x2x0,75	15,2	315	220
SB5244	12x2x0,75	16,6	375	260
SB5245	14x2x0,75	17,6	425	290
SB5246	16x2x0,75	19,0	490	319
SB5247	18x2x0,75	19,7	530	345
SB5248	20x2x0,75	20,3	570	368
SB5249	24x2x0,75	20,9	655	404
SB5250	2x2x1,0	9,5	126	82
SB5251	3x2x1,0	10,5	146	105
SB5252	4x2x1,0	11,6	182	130
SB5253	5x2x1,0	12,4	225	160
SB5254	6x2x1,0	12,8	240	185
SB5255	7x2x1,0	14,5	285	220

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5256	8x2x1,0	15,1	315	237
SB5257	10x2x1,0	16,6	385	280
SB5258	12x2x1,0	17,6	445	325
SB5259	14x2x1,0	18,9	510	389
SB5260	16x2x1,0	20,1	580	420
SB5261	18x2x1,0	21,0	625	462
SB5262	20x2x1,0	21,8	690	492
SB5263	24x2x1,0	22,4	790	541
SB5264	2x2x1,5	10,7	162	106
SB5265	3x2x1,5	12,2	196	133
SB5266	4x2x1,5	13,2	240	157
SB5267	5x2x1,5	14,4	300	181
SB5268	6x2x1,5	14,9	325	200
SB5269	7x2x1,5	17,0	395	230
SB5270	8x2x1,5	17,8	435	310
SB5271	10x2x1,5	19,2	525	380
SB5272	12x2x1,5	20,5	605	455
SB5273	14x2x1,5	21,9	695	507
SB5274	16x2x1,5	23,4	795	561
SB5275	18x2x1,5	24,8	885	607
SB5276	20x2x1,5	25,6	960	700
SB5277	24x2x1,5	26,3	1105	825
SB5278	2x2x2,5	12,7	230	148
SB5279	3x2x2,5	14,4	280	220
SB5280	4x2x2,5	16,1	355	295
SB5281	5x2x2,5	17,3	440	350
SB5282	6x2x2,5	17,9	480	385
SB5283	7x2x2,5	20,2	565	444
SB5284	8x2x2,5	21,1	625	483
SB5285	10x2x2,5	22,9	760	559
SB5286	12x2x2,5	24,4	880	629
SB5287	14x2x2,5	26,3	1030	709
SB5288	16x2x2,5	28,1	1175	787

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT LiHC11Y

Flexible, screened, halogen-free, PUR sheathed control cables with coloured conductors, 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Halogen-free, screened control cable with coloured conductors and PUR outer sheath
Operating temperature:
Fixed instalation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500V
Test voltage: 3000V
Insulation resistance: 20 MΩ x km
Approximate capacitance (at 800 Hz):
Core/core: 150 pF/m
Core/screen: 270 pF/m
Approximate inductance: 0,65 mH/km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: multi-stranded copper conductors, EN 60228 cl.5
Insulation: special halogen-free compound
Conductor marking: colours as per DIN 47100
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid with coverage of ≥85%
Outer sheath: special PUR compound, oil resistant (EN 60811-2-1), resistant to hydrocarbons, industrial coolants and UV radiation, flame retardant and halogen free (EN 60332-1, EN 50267)
Sheath colour: grey

Application:

Cables are intended for signalling control circuits, control circuits in industrial applications, in measurement technology, and for analogue and digital signals transmission in electronic industrial and automatic control engineering systems. For fixed installation, and mobile/portable devices. A common screen of tinned copper wire braid ensures very good protection against external electromagnetic fields (approximately 50 dB). Suitable for use indoors, in both dry and damp rooms. They can also be installed outdoors – UV resistance and increased mechanical protection due to special outer sheath compound (PUR).

industrial application | internal application | external application

PN-EN 60332-1 | halogen-free | EMC | high flexibility | low smoke emission | UV resistant | oil resistant EN 60811-2-1 | chemical resistance

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5300	2x0,5	5,4	44	35
SB5301	3x0,5	5,7	48	42
SB5302	4x0,5	6,2	58	46
SB5303	5x0,5	6,9	72	55
SB5304	6x0,5	7,4	84	63
SB5305	7x0,5	7,4	88	68
SB5306	8x0,5	8,3	110	81
SB5307	10x0,5	10,0	145	94
SB5308	12x0,5	10,0	155	108
SB5309	14x0,5	10,4	170	116
SB5310	16x0,5	11,0	190	128
SB5311	18x0,5	11,7	220	145
SB5312	19x0,5	11,8	220	160
SB5313	21x0,5	12,2	240	180
SB5314	25x0,5	13,9	295	234
SB5315	27x0,5	13,9	300	244
SB5316	30x0,5	14,4	325	270
SB5317	34x0,5	15,4	370	301
SB5318	37x0,5	15,4	385	315
SB5319	40x0,5	16,3	425	335
SB5320	42x0,5	17,5	455	359
SB5321	50x0,5	18,2	525	405
SB5322	56x0,5	19,0	570	439
SB5323	61x0,5	19,5	610	471

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5324	2x0,75	5,8	52	40
SB5325	3x0,75	6,1	58	49
SB5326	4x0,75	6,9	74	59
SB5327	5x0,75	7,4	88	70
SB5328	6x0,75	8,2	112	80
SB5329	7x0,75	8,2	118	90
SB5330	8x0,75	9,4	142	110
SB5331	10x0,75	10,8	180	138
SB5332	12x0,75	10,6	190	142
SB5333	14x0,75	11,5	220	179
SB5334	16x0,75	12,1	245	197
SB5335	18x0,75	12,7	275	217
SB5336	19x0,75	12,7	280	224
SB5337	21x0,75	13,3	305	244
SB5338	25x0,75	15,1	370	286
SB5339	27x0,75	15,1	380	300
SB5340	30x0,75	16,0	425	326
SB5341	34x0,75	17,2	490	345
SB5342	37x0,75	17,2	505	360
SB5343	40x0,75	17,8	540	398
SB5344	42x0,75	19,3	590	421
SB5345	50x0,75	20,1	670	470
SB5346	56x0,75	20,7	725	518
SB5347	61x0,75	21,5	790	550

BiT LiHC11Y

Flexible, screened, halogen-free, PUR sheathed control cables with coloured conductors, 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5348	2x1,0	16,5	455	335
SB5349	3x1,0	16,5	465	400
SB5350	4x1,0	17,0	505	440
SB5351	5x1,0	18,4	590	485
SB5352	6x1,0	18,4	610	495
SB5353	7x1,0	19,1	655	510
SB5354	8x1,0	20,5	700	530
SB5355	10x1,0	21,6	815	600
SB5356	12x1,0	22,2	885	661
SB5357	14x1,0	22,8	950	700
SB5358	16x1,0	7,1	88	62
SB5359	18x1,0	7,5	99	79
SB5360	19x1,0	8,4	122	96
SB5361	21x1,0	9,5	156	120
SB5362	25x1,0	10,2	182	130
SB5363	27x1,0	10,2	192	145
SB5364	30x1,0	11,0	220	173
SB5365	34x1,0	13,3	290	193
SB5366	37x1,0	13,3	310	243
SB5367	40x1,0	14,1	355	276
SB5368	42x1,0	14,9	410	310
SB5369	50x1,0	16,0	455	352
SB5370	56x1,0	16,0	465	367
SB5371	61x1,0	16,8	515	393
SB5372	2x1,5	19,1	620	464
SB5373	3x1,5	19,1	640	493
SB5374	4x1,5	19,8	700	540
SB5375	5x1,5	21,4	810	608
SB5376	6x1,5	21,4	840	651
SB5377	7x1,5	6,1	57	50
SB5378	8x1,5	6,5	69	60
SB5379	10x1,5	7,0	84	70
SB5380	12x1,5	8,0	111	87
SB5381	14x1,5	8,6	129	95
SB5382	16x1,5	8,6	138	110
SB5383	18x1,5	9,9	165	125

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5384	19x1,5	11,5	215	150
SB5385	21x1,5	11,5	230	180
SB5386	25x1,5	12,2	260	197
SB5387	27x1,5	12,8	290	210
SB5388	30x1,5	13,6	330	250
SB5389	34x1,5	13,6	335	260
SB5390	37x1,5	14,3	365	297
SB5391	40x1,5	22,2	910	700
SB5392	42x1,5	23,9	970	740
SB5393	50x1,5	25,3	1140	862
SB5394	56x1,5	26,1	1240	955
SB5395	61x1,5	26,8	1330	1030
SB5396	2x2,5	8,4	112	90
SB5397	3x2,5	9,3	144	117
SB5398	4x2,5	10,1	180	147
SB5399	5x2,5	11,0	216	176
SB5400	6x2,5	12,1	265	206
SB5401	7x2,5	12,1	280	230
SB5402	10x2,5	16,2	430	326
SB5403	12x2,5	16,2	465	374
SB5404	14x2,5	17,0	525	427
SB5405	16x2,5	17,9	590	481
SB5406	18x2,5	19,0	665	536
SB5407	21x2,5	19,9	750	614
SB5408	25x2,5	22,7	910	728
SB5409	30x2,5	23,5	1030	853
SB5410	34x2,5	25,7	1210	960
SB5411	37x2,5	25,7	1260	1032
SB5412	42x2,5	28,9	1470	1216
SB5413	50x2,5	30,2	1700	1418
SB5414	2x4,0	10,3	170	128
SB5415	3x4,0	10,9	200	171
SB5416	4x4,0	12,1	270	216
SB5417	5x4,0	13,2	325	262
SB5418	7x4,0	14,5	425	346
SB5419	10x4,0	19,5	645	491
SB5420	12x4,0	19,5	705	568

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT LiHC11Y

Flexible, screened, halogen-free, PUR sheathed control cables with coloured conductors, 300/500V

paired cables

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5422	2x2x0,5	7,7	80	52
SB5423	3x2x0,5	9,2	105	70
SB5424	4x2x0,5	9,9	125	91
SB5425	5x2x0,5	10,6	155	105
SB5426	6x2x0,5	11,0	165	122
SB5427	7x2x0,5	12,4	195	139
SB5428	8x2x0,5	12,9	210	151
SB5429	10x2x0,5	14,0	255	171
SB5430	12x2x0,5	14,9	290	198
SB5431	14x2x0,5	16,1	340	208
SB5432	16x2x0,5	17,2	385	241
SB5433	18x2x0,5	17,9	415	279
SB5434	20x2x0,5	18,6	455	300
SB5435	24x2x0,5	19,1	515	325
SB5436	2x2x0,75	8,6	102	58
SB5437	3x2x0,75	10,0	126	85
SB5438	4x2x0,75	10,7	152	110
SB5439	5x2x0,75	11,7	192	128
SB5440	6x2x0,75	12,1	205	148
SB5441	7x2x0,75	13,7	245	168
SB5442	8x2x0,75	14,3	270	182
SB5443	10x2x0,75	15,2	315	220
SB5444	12x2x0,75	16,6	375	260
SB5445	14x2x0,75	17,6	425	290
SB5446	16x2x0,75	19,0	490	319
SB5447	18x2x0,75	19,7	530	345
SB5448	20x2x0,75	20,3	570	368
SB5449	24x2x0,75	20,9	655	404
SB5450	2x2x1,0	9,5	126	82
SB5451	3x2x1,0	10,5	146	105
SB5452	4x2x1,0	11,6	182	130
SB5453	5x2x1,0	12,4	225	160
SB5454	6x2x1,0	12,8	240	185
SB5455	7x2x1,0	14,5	285	220

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5456	8x2x1,0	15,1	315	237
SB5457	10x2x1,0	16,6	385	280
SB5458	12x2x1,0	17,6	445	325
SB5459	14x2x1,0	18,9	510	389
SB5460	16x2x1,0	20,1	580	420
SB5461	18x2x1,0	21,0	625	462
SB5462	20x2x1,0	21,8	690	492
SB5463	24x2x1,0	22,4	790	541
SB5464	2x2x1,5	10,7	162	106
SB5465	3x2x1,5	12,2	196	133
SB5466	4x2x1,5	13,2	240	157
SB5467	5x2x1,5	14,4	300	181
SB5468	6x2x1,5	14,9	325	200
SB5469	7x2x1,5	17,0	395	230
SB5470	8x2x1,5	17,8	435	310
SB5471	10x2x1,5	19,2	525	380
SB5472	12x2x1,5	20,5	605	455
SB5473	14x2x1,5	21,9	695	507
SB5474	16x2x1,5	23,4	795	561
SB5475	18x2x1,5	24,8	885	607
SB5476	20x2x1,5	25,6	960	700
SB5477	24x2x1,5	26,3	1105	825
SB5478	2x2x2,5	12,7	230	148
SB5479	3x2x2,5	14,4	280	220
SB5480	4x2x2,5	16,1	355	295
SB5481	5x2x2,5	17,3	440	350
SB5482	6x2x2,5	17,9	480	385
SB5483	7x2x2,5	20,2	565	444
SB5484	8x2x2,5	21,1	625	483
SB5485	10x2x2,5	22,9	760	559
SB5486	12x2x2,5	24,4	880	629
SB5487	14x2x2,5	26,3	1030	709
SB5488	16x2x2,5	28,1	1175	787

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500®

Flexible control cables with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, PVC insulation and sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Occasional flexing: -15°C * to 70°C
Operating voltage: U_0 /U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 7,5 x Ø
Fixed installation: 4 x Ø


industrial application


internal application


PN-EN 60332-1


high flexibility

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1).
Outer sheath colour: grey

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. High flexibility of BIT 500® cable enables easy and fast connections and ensures their high durability.

** minimum temperature for occasional flexing with bending radius not smaller than 15xD. Bending test at low temperature (-15°C acc. to EN 60811-1-4).*

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54400	2x0,5	5,0	36	9,6
S54401	3G0,5	5,3	44	14,4
S54402	3x0,5	5,3	44	14,4
S54403	4G0,5	5,8	52	19,2
S54404	4x0,5	5,8	52	19,2
S54405	5G0,5	6,3	62	24,0
S54406	5x0,5	6,3	62	24,0
S54407	6G0,5	7,0	74	28,8
S54408	7G0,5	7,0	78	33,6
S54409	7x0,5	7,0	78	33,6
S54410	8G0,5	7,7	92	38,4
S54411	8x0,5	7,7	92	38,4
S54412	10G0,5	9,4	126	48,0
S54413	12G0,5	9,4	135	57,6
S54414	12x0,5	9,4	135	57,6
S54415	14G0,5	9,8	150	67,2
S54416	16G0,5	10,4	170	76,8
S54417	18G0,5	10,9	185	86,4
S54418	19G0,5	10,9	190	91,2
S54420	21G0,5	11,6	215	100,8
S54505	25G0,5	13,1	255	120,0
S54422	27G0,5	13,1	265	129,6
S54423	30G0,5	13,8	290	144,0
S54506	34G0,5	14,8	335	163,2
S54424	37G0,5	14,8	345	177,6
S54507	40G0,5	15,3	370	192,0
S54508	42G0,5	16,9	415	201,6
S54509	50G0,5	17,6	475	240,0
S54510	56G0,5	18,4	525	268,8
S54511	61G0,5	18,9	560	292,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54425	2x0,75	5,4	45	14,4
S54426	3G0,75	5,7	54	21,6
S54427	3x0,75	5,7	54	21,6
S54428	4G0,75	6,3	64	28,8
S54429	4x0,75	6,3	64	28,8
S54430	5G0,75	7,0	80	36,0
S54431	5x0,75	7,0	80	36,0
S54432	6G0,75	7,6	94	43,2
S54433	6x0,75	7,6	94	43,2
S54434	7G0,75	7,6	100	50,4
S54435	7x0,75	7,6	100	50,4
S54436	8G0,75	8,4	116	57,6
S54437	8x0,75	8,4	116	57,6
S54438	10G0,75	10,2	158	72,0
S54439	12G0,75	10,2	168	86,4
S54440	12x0,75	10,2	168	86,4
S54441	14G0,75	10,7	190	100,8
S54442	16G0,75	11,5	220	115,2
S54443	18G0,75	12,1	245	129,6
S54444	19G0,75	12,1	250	136,8
S54446	21G0,75	12,7	275	151,2
S54512	25G0,75	14,5	335	180,0
S54513	27G0,75	14,5	345	194,4
S54514	30G0,75	15,0	375	216,0
S54515	34G0,75	16,6	450	244,8
S54516	37G0,75	16,6	465	266,4
S54517	40G0,75	17,2	500	288,0
S54518	42G0,75	18,7	545	302,4
S54519	50G0,75	19,5	625	360,0
S54520	56G0,75	20,1	675	403,2
S54521	61G0,75	20,7	725	439,2

BiT 500® Flexible control cables with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54448	2x1,0	5,7	52	19,2
S54449	3G1,0	6,1	64	28,8
S54450	3x1,0	6,1	64	28,8
S54451	4G1,0	6,8	80	38,4
S54452	4x1,0	6,8	80	38,4
S54453	5G1,0	7,4	96	48,0
S54454	5x1,0	7,4	96	48,0
S54455	6G1,0	8,0	112	57,6
S54456	6x1,0	8,0	112	57,6
S54457	7G1,0	8,0	118	67,2
S54458	7x1,0	8,0	118	67,2
S54459	8G1,0	9,3	148	76,8
S54460	10G1,0	10,9	188	96,0
S54461	10x1,0	10,9	188	96,0
S54462	12G1,0	10,9	204	115,2
S54463	12x1,0	10,9	204	115,2
S54464	14G1,0	11,6	235	134,4
S54465	16G1,0	12,2	264	153,6
S54466	18G1,0	12,8	294	172,8
S54467	18x1,0	12,8	294	172,8
S54468	19G1,0	12,8	300	182,4
S54471	21G1,0	13,7	336	201,6
S54522	25G1,0	15,5	405	240,0
S54523	27G1,0	15,5	415	259,2
S54524	30G1,0	16,4	470	288,0
S54525	34G1,0	17,6	540	326,4
S54526	37G1,0	17,6	560	355,2
S54527	40G1,0	18,5	610	384,0
S54528	42G1,0	19,9	655	403,2
S54529	50G1,0	20,8	755	480,0
S54530	56G1,0	21,6	830	537,6
S54531	61G1,0	22,2	890	585,6
S54473	2x1,5	6,7	71	28,8
S54474	3G1,5	7,1	87	43,2
S54475	3x1,5	7,1	87	43,2
S54476	4G1,5	7,8	110	57,6
S54477	4x1,5	7,8	110	57,6
S54478	5G1,5	8,5	130	72,0
S54479	5x1,5	8,5	130	72,0
S54480	6G1,5	9,6	162	86,4
S54532	6x1,5	9,6	162	86,4
S54481	7G1,5	9,6	172	100,8
S54482	7x1,5	9,6	172	100,8
S54483	8G1,5	10,6	202	115,2
S54484	10G1,5	12,7	265	144,0
S54533	10x1,5	12,7	265	144,0
S54485	12G1,5	12,7	285	172,8
S54486	12x1,5	12,7	285	172,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54534	14G1,5	13,5	325	201,6
S54535	16G1,5	14,3	370	230,4
S54536	18G1,5	15,0	410	259,2
S54537	19G1,5	15,0	420	273,6
S54538	21G1,5	16,2	475	302,4
S54539	25G1,5	18,5	580	360,0
S54540	27G1,5	18,5	600	388,8
S54541	30G1,5	19,2	655	432,0
S54542	34G1,5	20,6	755	489,6
S54543	37G1,5	20,6	785	532,8
S54544	40G1,5	21,6	855	576,0
S54545	42G1,5	23,3	920	604,8
S54546	50G1,5	24,7	1080	720,0
S54547	56G1,5	25,5	1180	806,4
S54548	61G1,5	26,2	1270	878,4
S54487	2x2,5	7,8	102	48,0
S54488	3G2,5	8,3	126	72,0
S54489	3x2,5	8,3	126	72,0
S54490	4G2,5	9,5	166	96,0
S54491	4x2,5	9,5	166	96,0
S54492	5G2,5	10,4	200	120,0
S54493	5x2,5	10,4	200	120,0
S54549	6x2,5	11,5	240	144,0
S54494	6G2,5	11,5	240	144,0
S54495	7G2,5	11,5	260	168,0
S54496	7x2,5	11,5	260	168,0
S54498	10G2,5	15,2	390	240,0
S54499	12G2,5	15,2	425	288,0
S54500	12x2,5	15,2	425	288,0
S54550	14G2,5	16,4	495	336,0
S54551	16G2,5	17,3	560	384,0
S54552	18G2,5	18,4	630	432,0
S54553	21G2,5	19,3	710	504,0
S54554	25G2,5	22,1	870	600,0
S54555	30G2,5	22,9	985	720,0
S54556	34G2,5	25,1	1160	816,0
S54557	37G2,5	25,1	1210	888,0
S54558	42G2,5	28,1	1390	1008,0
S54559	50G2,5	29,4	1610	1200,0
S54560	2x4,0	9,3	152	76,8
S54561	3G4,0	10,3	202	115,2
S54562	3x4,0	10,3	202	115,2
S54563	4G4,0	11,3	255	153,6
S54564	5G4,0	12,6	310	192,0
S54565	7G4,0	13,7	395	268,8
S54566	10G4,0	18,7	615	384,0
S54567	12G4,0	18,7	675	460,8

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500®

Flexible control cables with number coded conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54568	2x2x0,5	7,3	63	19,2
S54569	3x2x0,5	8,2	72	28,8
S54570	4x2x0,5	9,3	97	38,4
S54571	5x2x0,5	10,0	122	48,0
S54572	6x2x0,5	10,4	130	57,6
S54573	7x2x0,5	11,8	156	67,2
S54574	8x2x0,5	12,3	172	76,8
S54575	10x2x0,5	13,2	205	96,0
S54576	12x2x0,5	14,3	245	115,2
S54577	14x2x0,5	15,1	275	134,4
S54578	16x2x0,5	16,6	335	153,6
S54579	18x2x0,5	17,3	360	172,8
S54580	20x2x0,5	17,8	390	192,0
S54581	24x2x0,5	18,5	455	230,4
S54582	2x2x0,75	8,0	80	28,8
S54583	3x2x0,75	9,4	98	43,2
S54584	4x2x0,75	10,1	122	57,6
S54585	5x2x0,75	10,9	152	72,0
S54586	6x2x0,75	11,5	170	86,4
S54587	7x2x0,75	12,9	196	100,8
S54588	8x2x0,75	13,7	225	115,2
S54589	10x2x0,75	14,6	270	144,0
S54590	12x2x0,75	16,0	325	172,8
S54591	14x2x0,75	17,0	370	201,6
S54592	16x2x0,75	18,4	435	230,4
S54593	18x2x0,75	19,1	470	259,2
S54594	20x2x0,75	19,7	510	288,0
S54595	24x2x0,75	20,3	590	345,6
S54596	2x2x1,0	8,5	92	38,4
S54597	3x2x1,0	9,9	116	57,6
S54598	4x2x1,0	10,8	142	76,8
S54599	5x2x1,0	11,8	184	96,0
S54600	6x2x1,0	12,2	202	115,2

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54601	7x2x1,0	13,9	240	134,4
S54602	8x2x1,0	14,5	270	153,6
S54603	10x2x1,0	15,6	320	192,0
S54604	12x2x1,0	17,0	390	230,4
S54605	14x2x1,0	18,3	450	268,8
S54606	16x2x1,0	19,5	515	307,2
S54607	18x2x1,0	20,4	560	345,6
S54608	20x2x1,0	21,0	610	384,0
S54609	24x2x1,0	21,8	720	460,8
S54610	2x2x1,5	10,1	132	57,6
S54611	3x2x1,5	11,6	160	86,4
S54612	4x2x1,5	12,6	198	115,2
S54613	5x2x1,5	13,8	258	144,0
S54614	6x2x1,5	14,3	280	172,8
S54615	7x2x1,5	16,4	340	201,6
S54616	8x2x1,5	17,2	380	230,4
S54617	10x2x1,5	18,6	465	288,0
S54618	12x2x1,5	19,9	540	345,6
S54619	14x2x1,5	21,1	620	403,2
S54620	16x2x1,5	22,8	720	460,8
S54621	18x2x1,5	23,8	785	518,4
S54622	20x2x1,5	25,0	880	576,0
S54623	24x2x1,5	25,7	1020	691,2
S54624	2x2x2,5	12,1	192	96,0
S54625	3x2x2,5	13,8	235	144,0
S54626	4x2x2,5	15,1	295	192,0
S54627	5x2x2,5	16,7	385	240,0
S54628	6x2x2,5	17,3	425	288,0
S54629	7x2x2,5	19,6	500	336,0
S54630	8x2x2,5	20,5	560	384,0
S54631	10x2x2,5	22,3	690	480,0
S54632	12x2x2,5	23,8	805	576,0
S54633	14x2x2,5	25,7	945	672,0
S54634	16x2x2,5	27,5	1085	768,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® C

Flexible, screened control cables
with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, PVC insulation and sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø


industrial application


internal application


PN-EN 60332-1


high flexibility

EMC

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid, coverage ≥85%
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1).
Outer sheath colour: grey

Application:

Flexible power and control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field (screen attenuation ca. 50dB). Cables are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms.
High flexibility of BIT 500® C cable simplifies installation and compounds used enable easy and fast connections and ensure their high durability.

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4020	2x0,5	5,4	44	35
SB4021	3G0,5	5,7	48	42
SB4022	3x0,5	5,7	48	42
SB4023	4G0,5	6,2	58	46
SB4024	4x0,5	6,2	58	46
SB4025	5G0,5	6,9	72	55
SB4026	5x0,5	6,9	72	55
SB4027	6G0,5	7,4	84	63
SB4028	7G0,5	7,4	88	68
SB4029	7x0,5	7,4	88	68
SB4030	8G0,5	8,3	110	81
SB4031	8x0,5	8,3	110	81
SB4032	10G0,5	10,0	145	94
SB4033	12G0,5	10,0	155	108
SB4034	12x0,5	10,0	155	108
SB4035	14G0,5	10,4	170	116
SB4036	16G0,5	11,0	190	128
SB4037	18G0,5	11,7	220	145
SB4038	19G0,5	11,8	220	160
SB4039	21G0,5	12,2	240	180
SB4040	25G0,5	13,9	295	234
SB4041	27G0,5	13,9	300	244
SB4042	30G0,5	14,4	325	270
SB4043	34G0,5	15,4	370	301
SB4044	37G0,5	15,4	385	315
SB4045	40G0,5	16,3	425	335
SB4046	42G0,5	17,5	455	359
SB4047	50G0,5	18,2	525	405
SB4048	56G0,5	19,0	570	439
SB4049	61G0,5	19,5	610	471

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4050	2x0,75	5,8	52	40
SB4051	3G0,75	6,1	58	49
SB4052	3x0,75	6,1	58	49
SB4053	4G0,75	6,9	74	59
SB4054	4x0,75	6,9	74	59
SB4055	5G0,75	7,4	88	70
SB4056	5x0,75	7,4	88	70
SB4057	6G0,75	8,2	112	80
SB4058	6x0,75	8,2	112	80
SB4059	7G0,75	8,2	118	90
SB4060	7x0,75	8,2	118	90
SB4061	8G0,75	9,4	142	110
SB4062	8x0,75	9,4	142	110
SB4063	10G0,75	10,8	180	138
SB4064	12G0,75	10,6	190	142
SB4065	12x0,75	10,6	190	142
SB4066	14G0,75	11,5	220	179
SB4067	16G0,75	12,1	245	197
SB4068	18G0,75	12,7	275	217
SB4069	19G0,75	12,7	280	224
SB4070	21G0,75	13,3	305	244
SB4071	25G0,75	15,1	370	286
SB4072	27G0,75	15,1	380	300
SB4073	30G0,75	16,0	425	326
SB4074	34G0,75	17,2	490	345
SB4075	37G0,75	17,2	505	360
SB4076	40G0,75	17,8	540	398
SB4077	42G0,75	19,3	590	421
SB4078	50G0,75	20,1	670	470
SB4079	56G0,75	20,7	725	518
SB4080	61G0,75	21,5	790	550

BITNER®

BiT 500® C Flexible, screened control cables with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4081	2x1,0	6,1	57	50
SB4082	3G1,0	6,5	69	60
SB4083	3x1,0	6,5	69	60
SB4084	4G1,0	7,0	84	70
SB4085	4x1,0	7,0	84	70
SB4086	5G1,0	8,0	111	87
SB4087	5x1,0	8,0	111	87
SB4088	6G1,0	8,6	129	95
SB4089	6x1,0	8,6	129	95
SB4090	7G1,0	8,6	138	110
SB4091	7x1,0	8,6	138	110
SB4092	8G1,0	9,9	165	125
SB4093	10G1,0	11,5	215	150
SB4094	10x1,0	11,5	215	150
SB4095	12G1,0	11,5	230	180
SB4096	12x1,0	11,5	230	180
SB4097	14G1,0	12,2	260	197
SB4098	16G1,0	12,8	290	210
SB4099	18G1,0	13,6	330	250
SB4100	18x1,0	13,6	330	250
SB4101	19G1,0	13,6	335	260
SB4102	21G1,0	14,3	365	297
SB4103	25G1,0	16,5	455	335
SB4104	27G1,0	16,5	465	400
SB4105	30G1,0	17,0	505	440
SB4106	34G1,0	18,4	590	485
SB4107	37G1,0	18,4	610	495
SB4108	40G1,0	19,1	655	510
SB4109	42G1,0	20,5	700	530
SB4110	50G1,0	21,6	815	600
SB4111	56G1,0	22,2	885	661
SB4112	61G1,0	22,8	950	700
SB4113	2x1,5	7,1	88	62
SB4114	3G1,5	7,5	99	79
SB4115	3x1,5	7,5	99	79
SB4116	4G1,5	8,4	122	96
SB4117	4x1,5	8,4	122	96
SB4118	5G1,5	9,5	156	120
SB4119	5x1,5	9,5	156	120
SB4120	6G1,5	10,2	182	130
SB4121	6x1,5	10,2	182	130
SB4122	7G1,5	10,2	192	145
SB4123	7x1,5	10,2	192	145
SB4124	8G1,5	11,0	220	173
SB4125	10G1,5	13,3	290	193
SB4126	10x1,5	13,3	290	193
SB4127	12G1,5	13,3	310	243
SB4128	12x1,5	13,3	310	243

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4129	14G1,5	14,1	355	276
SB4130	16G1,5	14,9	410	310
SB4131	18G1,5	16,0	455	352
SB4132	19G1,5	16,0	465	367
SB4133	21G1,5	16,8	515	393
SB4134	25G1,5	19,1	620	464
SB4135	27G1,5	19,1	640	493
SB4136	30G1,5	19,8	700	540
SB4137	34G1,5	21,4	810	608
SB4138	37G1,5	21,4	840	651
SB4139	40G1,5	22,2	910	700
SB4140	42G1,5	23,9	970	740
SB4141	50G1,5	25,3	1140	862
SB4142	56G1,5	26,1	1240	955
SB4143	61G1,5	26,8	1330	1030
SB4144	2x2,5	8,4	112	90
SB4145	3G2,5	9,3	144	117
SB4146	3x2,5	9,3	144	117
SB4147	4G2,5	10,1	180	147
SB4148	4x2,5	10,1	180	147
SB4149	5G2,5	11,0	216	176
SB4150	5x2,5	11,0	216	176
SB4151	6G2,5	12,1	265	206
SB4152	6x2,5	12,1	265	206
SB4153	7G2,5	12,1	280	230
SB4154	7x2,5	12,1	280	230
SB4155	10G2,5	16,2	430	326
SB4156	12G2,5	16,2	465	374
SB4157	12x2,5	16,2	465	374
SB4158	14G2,5	17,0	525	427
SB4159	16G2,5	17,9	590	481
SB4160	18G2,5	19,0	665	536
SB4161	21G2,5	19,9	750	614
SB4162	25G2,5	22,7	910	728
SB4163	30G2,5	23,5	1030	853
SB4164	34G2,5	25,7	1210	960
SB4165	37G2,5	25,7	1260	1032
SB4166	42G2,5	28,9	1470	1216
SB4167	50G2,5	30,2	1700	1418
SB4168	2x4,0	10,3	170	128
SB4169	3G4,0	10,9	200	171
SB4170	3x4,0	10,9	200	171
SB4171	4G4,0	12,1	270	216
SB4172	5G4,0	13,2	325	262
SB4173	7G4,0	14,5	425	346
SB4174	10G4,0	19,5	645	491
SB4175	12G4,0	19,5	705	568

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® C

Flexible, screened control cables
with number coded conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4176	2x2x0,5	7,7	80	52
SB4177	3x2x0,5	9,2	105	70
SB4178	4x2x0,5	9,9	125	91
SB4179	5x2x0,5	10,6	155	105
SB4180	6x2x0,5	11,0	165	122
SB4181	7x2x0,5	12,4	195	139
SB4182	8x2x0,5	12,9	210	151
SB4183	10x2x0,5	14,0	255	171
SB4184	12x2x0,5	14,9	290	198
SB4185	14x2x0,5	16,1	340	208
SB4186	16x2x0,5	17,2	385	241
SB4187	18x2x0,5	17,9	415	279
SB4188	20x2x0,5	18,6	455	300
SB4189	24x2x0,5	19,1	515	325
SB4190	2x2x0,75	8,6	102	58
SB4191	3x2x0,75	10,0	126	85
SB4192	4x2x0,75	10,7	152	110
SB4193	5x2x0,75	11,7	192	128
SB4194	6x2x0,75	12,1	205	148
SB4195	7x2x0,75	13,7	245	168
SB4196	8x2x0,75	14,3	270	182
SB4197	10x2x0,75	15,2	315	220
SB4198	12x2x0,75	16,6	375	260
SB4199	14x2x0,75	17,6	425	290
SB4200	16x2x0,75	19,0	490	319
SB4201	18x2x0,75	19,7	530	345
SB4202	20x2x0,75	20,3	570	368
SB4203	24x2x0,75	20,9	655	404
SB4204	2x2x1,0	9,5	126	82
SB4205	3x2x1,0	10,5	146	105
SB4206	4x2x1,0	11,6	182	130
SB4207	5x2x1,0	12,4	225	160
SB4208	6x2x1,0	12,8	240	185
SB4209	7x2x1,0	14,5	285	220

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4210	8x2x1,0	15,1	315	237
SB4211	10x2x1,0	16,6	385	280
SB4212	12x2x1,0	17,6	445	325
SB4213	14x2x1,0	18,9	510	389
SB4214	16x2x1,0	20,1	580	420
SB4215	18x2x1,0	21,0	625	462
SB4216	20x2x1,0	21,8	690	492
SB4217	24x2x1,0	22,4	790	541
SB4218	2x2x1,5	10,7	162	106
SB4219	3x2x1,5	12,2	196	133
SB4220	4x2x1,5	13,2	240	157
SB4221	5x2x1,5	14,4	300	181
SB4222	6x2x1,5	14,9	325	200
SB4223	7x2x1,5	17,0	395	230
SB4224	8x2x1,5	17,8	435	310
SB4225	10x2x1,5	19,2	525	380
SB4226	12x2x1,5	20,5	605	455
SB4227	14x2x1,5	21,9	695	507
SB4228	16x2x1,5	23,4	795	561
SB4229	18x2x1,5	24,8	885	607
SB4230	20x2x1,5	25,6	960	700
SB4231	24x2x1,5	26,3	1105	825
SB4232	2x2x2,5	12,7	230	148
SB4233	3x2x2,5	14,4	280	220
SB4234	4x2x2,5	16,1	355	295
SB4235	5x2x2,5	17,3	440	350
SB4236	6x2x2,5	17,9	480	385
SB4237	7x2x2,5	20,2	565	444
SB4238	8x2x2,5	21,1	625	483
SB4239	10x2x2,5	22,9	760	559
SB4240	12x2x2,5	24,4	880	629
SB4241	14x2x2,5	26,3	1030	709
SB4242	16x2x2,5	28,1	1175	787

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® CY

Flexible, screened control cables with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, PVC insulation, PVC inner sheath and transparent outer sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø


industrial application


internal application


PN-EN 60332-1


high flexibility

EMC

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Inner sheath: special PVC
Screen: tinned copper wire braid, coverage ≥85%
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1)
Outer sheath colour: transparent

Application:

Flexible power and control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field especially in industrial environment. Reciprocal connection of screen to earth ensures full electromagnetic compatibility (EMC). Cables are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. High flexibility of BIT 500® CY cable simplifies installation and compounds used enable easy and fast connections and ensure their high durability.

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54300	2x0,5	7,1	79,6	37,0
S54301	3G0,5	7,4	87,2	43,0
S54302	4G0,5	7,8	98,4	49,0
S54303	5G0,5	8,3	112,7	58,0
S54304	6G0,5	9,3	134,7	66,0
S54305	7G0,5	9,3	138,5	72,0
S54306	8G0,5	10,0	156,8	81,0
S54307	10G0,5	11,0	183,3	97,0
S54308	12G0,5	11,5	203,9	110,0
S54309	14G0,5	11,9	222,4	123,0
S54310	16G0,5	12,4	245,2	138,0
S54311	18G0,5	13,0	266,4	152,0
S54312	19G0,5	13,0	270,2	158,0
S54314	21G0,5	13,7	298,5	172,0
S54260	25G0,5	14,9	336,2	198,0
S54316	27G0,5	15,2	358,7	213,0
S54317	30G0,5	16,0	398,7	232,0
S54318	37G0,5	17,1	461,1	278,0
S54319	2x0,75	7,5	89,5	42,0
S54320	3G0,75	7,8	100,2	52,0
S54321	4G0,75	8,3	115,1	63,0
S54322	5G0,75	9,3	141,4	74,0
S54323	6G0,75	9,9	159,9	85,0
S54324	7G0,75	9,9	163,9	94,0
S54325	8G0,75	10,6	186,6	107,0
S54326	10G0,75	12,0	224,2	128,0
S54327	12G0,75	12,3	245,5	147,0
S54328	14G0,75	12,8	268,8	165,0
S54329	16G0,75	13,6	303,7	185,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54330	18G0,75	14,2	331,7	205,0
S54331	19G0,75	14,2	335,7	213,0
S54333	21G0,75	14,7	363,6	232,0
S54275	25G0,75	16,5	425,4	270,0
S54335	2x1,0	7,8	98,8	49,0
S54336	3G1,0	8,1	112,6	62,0
S54337	4G1,0	9,1	137,4	75,0
S54338	5G1,0	9,7	158,8	89,0
S54339	6G1,0	10,3	181,5	103,0
S54340	7G1,0	10,3	186,2	115,0
S54341	8G1,0	11,3	216,4	129,0
S54342	10G1,0	12,6	256,4	158,0
S54343	12G1,0	12,9	281,3	181,0
S54344	14G1,0	13,6	316,0	206,0
S54345	16G1,0	14,3	350,3	231,0
S54346	18G1,0	14,9	384,9	256,0
S54347	19G1,0	14,9	389,6	268,0
S54349	21G1,0	15,9	437,4	293,0
S54290	25G1,0	17,4	494,1	342,0
S54351	2x1,5	8,5	121,2	62,0
S54352	3G1,5	9,3	147,3	80,0
S54353	4G1,5	9,9	171,1	99,0
S54354	5G1,5	10,6	200,8	120,0
S54355	6G1,5	11,6	234,6	138,0
S54356	7G1,5	11,6	242,5	154,0
S54357	8G1,5	12,5	277,4	175,0
S54358	10G1,5	14,2	335,9	214,0
S54359	12G1,5	14,6	371,3	248,0

BiT 500® CY

Flexible, screened control cables with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54360	2x2,5	10,0	169,8	90,0
S54361	3G2,5	10,5	199,0	122,0
S54362	4G2,5	11,5	237,9	151,0
S54363	5G2,5	12,3	280,2	184,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54364	6G2,5	13,2	324,9	215,0
S54365	7G2,5	13,2	338,3	242,0
S54367	10G2,5	16,8	487,3	339,0
S54368	12G2,5	17,3	542,3	397,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® SY

Flexible, control cables with number coded conductors and steel wire braid, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, control cable with number coded conductors, galvanized steel wire braid, PVC insulation, PVC inner sheath and transparent outer sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 12 x Ø
Fixed installation: 6 x Ø


industrial application


internal application


PN-EN 60332-1


high flexibility


mechanical resistance

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together
Inner sheath: special PVC, grey or white
Screen: galvanized steel wire braid
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1).
Outer sheath colour: transparent

Application:

Flexible power and control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. Steel wire braid and special reinforcing inner sheath make this cable more resistant to mechanical damages keeping its flexibility. Cables are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. BIT 500® SY cables are dedicated for applications in harsh conditions of industrial environment.

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S56800	2x0,5	7,3	84	9,6
S56801	3G0,5	7,6	92	14,4
S56802	4G0,5	8,1	106	19,2
S56803	5G0,5	8,5	118	24,0
S56804	6G0,5	9,5	141	28,8
S56805	7G0,5	9,5	144	33,6
S56806	8G0,5	10,2	160	38,4
S56807	10G0,5	11,7	205	48,0
S56808	12G0,5	11,7	213	57,6
S56809	14G0,5	12,1	232	67,2
S56810	16G0,5	12,6	254	76,8
S56811	18G0,5	13,2	276	86,4
S56812	19G0,5	13,2	280	91,2
S56813	2x0,75	7,7	94	14,4
S56814	3G0,75	8,0	108	21,6
S56815	4G0,75	8,6	122	28,8
S56816	5G0,75	9,5	147	36,0
S56817	6G0,75	10,1	166	43,2
S56818	7G0,75	10,1	171	50,4
S56819	8G0,75	10,8	194	57,6
S56820	10G0,75	12,5	246	72,0
S56821	12G0,75	12,5	256	86,4
S56822	14G0,75	13,0	280	100,8
S56823	16G0,75	13,8	314	115,2
S56824	18G0,75	14,4	343	129,6
S56825	19G0,75	14,4	348	136,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S56826	2x1,0	8,0	106	19,2
S56827	3G1,0	8,3	119	28,8
S56828	4G1,0	9,9	166	38,4
S56829	5G1,0	9,9	166	48,0
S56830	6G1,0	10,5	188	57,6
S56831	7G1,0	10,5	194	67,2
S56832	8G1,0	11,5	227	76,8
S56833	10G1,0	13,1	280	96,0
S56834	12G1,0	13,1	293	115,0
S56835	14G1,0	13,8	328	134,0
S56836	16G1,0	14,5	364	153,0
S56837	18G1,0	16,5	462	172,0
S56838	19G1,0	15,1	404	182,0
S56839	2x1,5	9,2	137	28,0
S56840	3G1,5	9,6	157	43,0
S56841	4G1,5	11,0	192	57,0
S56842	5G1,5	11,0	210	72,0
S56843	6G1,5	11,9	245	86,0
S56844	7G1,5	11,9	255	100,0
S56845	8G1,5	12,9	292	115,0
S56846	10G1,5	15,0	369	144,0
S56847	12G1,5	15,0	389	172,0
S56848	14G1,5	16,0	444	201,0
S56849	16G1,5	16,8	493	230,0
S56850	18G1,5	17,5	541	259,0
S56851	19G1,5	17,5	551	273,0

BiT 500® SY

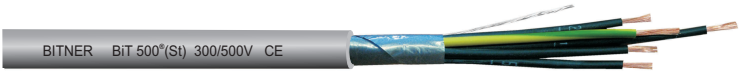
Flexible, control cables with number coded conductors and steel wire braid, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S56852	2x2,5	10,3	178	48,0
S56853	3G2,5	10,8	206	72,0
S56854	4G2,5	11,9	249	96,0
S56855	5G2,5	12,6	289	120,0
S56856	6G2,5	13,8	339	144,0
S56857	7G2,5	13,8	354	168,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S56859	10G2,5	17,7	526	240,0
S56860	12G2,5	17,7	557	288,0
S56861	14G2,5	18,6	627	336,0
S56862	16G2,5	19,5	698	384,0
S56863	18G2,5	20,9	794	432,0
S56864	19G2,5	20,9	809	456,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® (St) Flexible, screened control cables, with number coded conductors, rated 300/500V



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, PVC insulation and sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 5 x Ø
Flexible connections: 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors
Core arrangement: cores twisted together or pairs twisted together
Screen: Aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1)
Outer sheath colour: grey

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Common screen improves protection of transmitted signals against external electromagnetic field. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Insulation materials and conductor construction in BIT 500® (St) cable enable easy and fast connections and ensure their high durability.


industrial application


internal application


PN-EN 60332-1


high flexibility

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0250	2x0,5	5,2	40	14,4
SB0251	3G0,5	5,5	44	19,2
SB0252	3x0,5	5,5	44	19,2
SB0253	4G0,5	6,0	52	24,0
SB0254	4x0,5	6,0	52	24,0
SB0255	5G0,5	6,5	64	28,8
SB0256	5x0,5	6,5	64	28,8
SB0257	6G0,5	7,2	76	33,6
SB0258	7G0,5	7,2	80	38,4
SB0259	7x0,5	7,2	80	38,4
SB0260	8G0,5	8,1	94	43,2
SB0261	8x0,5	8,1	94	43,2
SB0262	10G0,5	9,8	126	52,8
SB0263	12G0,5	9,8	134	62,4
SB0264	12x0,5	9,8	134	62,4
SB0265	14G0,5	10,2	150	72,0
SB0266	16G0,5	10,8	168	81,6
SB0267	18G0,5	11,5	192	91,2
SB0268	19G0,5	11,5	196	96,0
SB0269	21G0,5	12,0	215	105,6
SB0270	25G0,5	13,7	260	124,8
SB0271	27G0,5	13,7	270	134,4
SB0272	30G0,5	14,2	295	148,8
SB0273	34G0,5	15,2	335	168,0
SB0274	37G0,5	15,2	345	182,4
SB0275	40G0,5	16,1	390	196,8
SB0276	42G0,5	17,3	415	206,4
SB0277	50G0,5	18,2	485	244,8
SB0278	56G0,5	18,8	525	273,6
SB0279	61G0,5	19,3	560	297,6
SB0280	2x0,75	5,6	48	19,2
SB0281	3G0,75	5,9	54	26,4

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0282	3x0,75	5,9	54	26,4
SB0283	4G0,75	6,5	66	33,6
SB0284	4x0,75	6,5	66	33,6
SB0285	5G0,75	7,2	81	40,8
SB0286	5x0,75	7,2	81	40,8
SB0287	6G0,75	7,8	96	48,0
SB0288	6x0,75	7,8	96	48,0
SB0289	7G0,75	7,8	102	55,2
SB0290	7x0,75	7,8	102	55,2
SB0291	8G0,75	9,2	126	62,4
SB0292	8x0,75	9,2	126	62,4
SB0293	10G0,75	10,6	159	76,8
SB0294	12G0,75	10,6	168	91,2
SB0295	12x0,75	10,6	168	91,2
SB0296	14G0,75	11,3	195	105,6
SB0297	16G0,75	11,9	220	120,0
SB0298	18G0,75	12,5	245	134,4
SB0299	19G0,75	12,5	250	141,6
SB0300	21G0,75	13,1	275	156,0
SB0301	25G0,75	14,9	335	184,8
SB0302	27G0,75	14,9	345	199,2
SB0303	30G0,75	15,4	375	220,8
SB0304	34G0,75	17,0	450	249,6
SB0305	37G0,75	17,0	465	271,2
SB0306	40G0,75	17,6	500	292,8
SB0307	42G0,75	19,1	540	307,2
SB0308	50G0,75	19,9	620	364,8
SB0309	56G0,75	20,5	675	408,0
SB0310	61G0,75	21,1	725	444,0
SB0311	2x1,0	5,9	54	26,4
SB0312	3G1,0	6,3	64	36,0
SB0313	3x1,0	6,3	64	36,0

BiT 500® (St)

Flexible, screened control cables, with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0314	4G1,0	7,0	80	45,6
SB0315	4x1,0	7,0	80	45,6
SB0316	5G1,0	7,6	98	55,2
SB0317	5x1,0	7,6	98	55,2
SB0318	6G1,0	8,2	114	64,8
SB0319	6x1,0	8,2	114	64,8
SB0320	7G1,0	8,2	120	74,4
SB0321	7x1,0	8,2	120	74,4
SB0322	8G1,0	9,7	148	84,0
SB0323	10G1,0	11,5	194	103,2
SB0324	10x1,0	11,5	194	103,2
SB0325	12G1,0	11,5	210	122,4
SB0326	12x1,0	11,5	210	122,4
SB0327	14G1,0	12,0	235	141,6
SB0328	16G1,0	12,6	265	160,8
SB0329	18G1,0	13,2	295	180,0
SB0330	18x1,0	13,2	295	180,0
SB0331	19G1,0	13,2	300	189,6
SB0332	21G1,0	14,1	335	208,8
SB0333	25G1,0	16,3	415	247,2
SB0334	27G1,0	16,3	430	266,4
SB0335	30G1,0	16,8	470	295,2
SB0336	34G1,0	18,2	550	333,6
SB0337	37G1,0	18,2	565	362,4
SB0338	40G1,0	18,9	610	391,2
SB0339	42G1,0	20,3	650	410,4
SB0340	50G1,0	21,2	750	487,2
SB0341	56G1,0	22,0	830	544,8
SB0342	61G1,0	22,6	890	592,8
SB0343	2x1,5	6,9	74	36,0
SB0344	3G1,5	7,3	86	50,4
SB0345	3x1,5	7,3	86	50,4
SB0346	4G1,5	8,0	108	64,8
SB0347	4x1,5	8,0	108	64,8
SB0348	5G1,5	9,1	138	79,2
SB0349	5x1,5	9,1	138	79,2
SB0350	6G1,5	9,8	162	93,6
SB0351	6x1,5	9,8	162	93,6
SB0352	7G1,5	9,8	172	108,0
SB0353	7x1,5	9,8	172	108,0
SB0354	8G1,5	11,0	200	122,4
SB0355	10G1,5	13,1	260	151,2
SB0356	10x1,5	13,1	260	151,2
SB0357	12G1,5	13,1	280	180,0
SB0358	12x1,5	13,1	280	180,0
SB0359	14G1,5	13,9	325	208,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0360	16G1,5	14,7	365	237,6
SB0361	18G1,5	15,4	410	266,4
SB0362	19G1,5	15,4	420	280,8
SB0363	21G1,5	16,6	475	309,6
SB0364	25G1,5	18,9	575	367,2
SB0365	27G1,5	18,9	595	396,0
SB0366	30G1,5	19,6	650	439,2
SB0367	34G1,5	21,0	750	496,8
SB0368	37G1,5	21,0	780	540,0
SB0369	40G1,5	22,0	850	583,2
SB0370	42G1,5	23,7	910	612,0
SB0371	50G1,5	25,1	1080	727,2
SB0372	56G1,5	25,9	1180	813,6
SB0373	61G1,5	26,6	1260	885,6
SB0374	2x2,5	8,0	96	55,2
SB0375	3G2,5	8,5	118	79,2
SB0376	3x2,5	8,5	118	79,2
SB0377	4G2,5	9,7	160	103,2
SB0378	4x2,5	9,7	160	103,2
SB0379	5G2,5	10,6	192	127,2
SB0380	5x2,5	10,6	192	127,2
SB0381	6G2,5	11,9	240	151,2
SB0382	6x2,5	11,9	240	151,2
SB0383	7G2,5	11,9	255	175,2
SB0384	7x2,5	11,9	255	175,2
SB0385	10G2,5	16,0	395	247,2
SB0386	12G2,5	16,0	430	295,2
SB0387	12x2,5	16,0	430	295,2
SB0388	14G2,5	16,8	485	343,2
SB0389	16G2,5	17,7	550	391,2
SB0390	18G2,5	18,8	625	439,2
SB0391	21G2,5	19,7	705	511,2
SB0392	25G2,5	22,5	855	607,2
SB0393	30G2,5	23,3	970	727,2
SB0394	34G2,5	25,5	1150	823,2
SB0395	37G2,5	25,5	1190	895,2
SB0396	42G2,5	28,5	1370	1015,2
SB0397	50G2,5	29,8	1590	1207,2
SB0398	2x4,0	9,9	150	84,0
SB0399	3G4,0	10,5	190	122,4
SB0400	3x4,0	10,5	190	122,4
SB0401	4G4,0	11,7	240	160,8
SB0402	5G4,0	12,7	300	199,2
SB0403	7G4,0	14,0	390	276,0
SB0404	10G4,0	18,9	600	391,2
SB0405	12G4,0	18,9	660	468,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® (St) Flexible, screened control cables, with number coded conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0406	2x2x0,5	7,7	70	24,0
SB0407	3x2x0,5	8,6	80	33,6
SB0408	4x2x0,5	9,7	106	43,2
SB0409	5x2x0,5	10,4	130	52,8
SB0410	6x2x0,5	10,8	138	62,4
SB0411	7x2x0,5	12,2	166	72,0
SB0412	8x2x0,5	12,7	182	81,6
SB0413	10x2x0,5	13,8	220	100,8
SB0414	12x2x0,5	14,7	255	120,0
SB0415	14x2x0,5	15,5	290	139,2
SB0416	16x2x0,5	17,0	345	158,4
SB0417	18x2x0,5	17,7	370	177,6
SB0418	20x2x0,5	18,4	410	196,8
SB0419	24x2x0,5	18,9	470	235,2
SB0420	2x2x0,75	8,4	86	33,6
SB0421	3x2x0,75	9,8	106	48,0
SB0422	4x2x0,75	10,5	130	62,4
SB0423	5x2x0,75	11,5	168	76,8
SB0424	6x2x0,75	11,9	180	91,2
SB0425	7x2x0,75	13,3	205	105,6
SB0426	8x2x0,75	14,1	235	120,0
SB0427	10x2x0,75	15,0	280	148,8
SB0428	12x2x0,75	16,4	340	177,6
SB0429	14x2x0,75	17,4	380	206,4
SB0430	16x2x0,75	18,8	445	235,2
SB0431	18x2x0,75	19,5	480	264,0
SB0432	20x2x0,75	20,1	520	292,8
SB0433	24x2x0,75	20,7	600	350,4
SB0434	2x2x1,0	9,3	110	45,6
SB0435	3x2x1,0	10,3	126	64,8
SB0436	4x2x1,0	11,2	154	84,0
SB0437	5x2x1,0	12,2	196	103,2
SB0438	6x2x1,0	12,6	214	122,4

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0439	7x2x1,0	14,3	255	141,6
SB0440	8x2x1,0	14,9	280	160,8
SB0441	10x2x1,0	16,4	350	199,2
SB0442	12x2x1,0	17,4	405	237,6
SB0443	14x2x1,0	18,7	465	276,0
SB0444	16x2x1,0	19,9	530	314,4
SB0445	18x2x1,0	20,8	575	352,8
SB0446	20x2x1,0	21,6	635	391,2
SB0447	24x2x1,0	22,2	735	468,0
SB0448	2x2x1,5	10,5	142	64,8
SB0449	3x2x1,5	12,0	172	93,6
SB0450	4x2x1,5	13,0	210	122,4
SB0451	5x2x1,5	14,2	270	151,2
SB0452	6x2x1,5	14,7	295	180,0
SB0453	7x2x1,5	16,8	355	208,8
SB0454	8x2x1,5	17,6	395	237,6
SB0455	10x2x1,5	19,0	480	295,2
SB0456	12x2x1,5	20,3	555	352,8
SB0457	14x2x1,5	21,7	645	410,4
SB0458	16x2x1,5	23,2	735	468,0
SB0459	18x2x1,5	24,2	800	525,6
SB0460	20x2x1,5	25,4	895	583,2
SB0461	24x2x1,5	26,1	1035	698,4
SB0462	2x2x2,5	12,5	205	103,2
SB0463	3x2x2,5	14,2	245	151,2
SB0464	4x2x2,5	15,5	305	199,2
SB0465	5x2x2,5	17,1	400	247,2
SB0466	6x2x2,5	17,7	440	295,2
SB0467	7x2x2,5	20,0	515	343,2
SB0468	8x2x2,5	20,9	575	391,2
SB0469	10x2x2,5	22,7	705	487,2
SB0470	12x2x2,5	24,2	820	583,2
SB0471	14x2x2,5	26,1	960	679,2
SB0472	16x2x2,5	27,9	1100	775,2

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® 2(St)

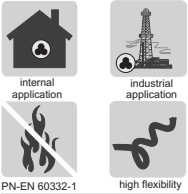
Flexible, paired control cables, individually and collectively screened with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, PVC insulation and sheath, with individually and collectively screened pairs.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 5 x Ø
Flexible connections: 10 x Ø



Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors
Core arrangement: twisted screened pairs
Individual screen: Aluminium backed polyester tape with tinned copper drain wire on each pair
Collective screen: Aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1)
Outer sheath colour: grey

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Double screening improves protection of transmitted signals against external electromagnetic field. Individual screening of pairs decreases signal interferences from adjacent pairs. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Insulation materials and conductor construction in BiT 500® 2(St) cable enable easy and fast connections and ensure their high durability.

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0500	2x2x0,5	7,7	82	33,6
SB0501	3x2x0,5	8,6	96	48,0
SB0502	4x2x0,5	9,7	128	62,4
SB0503	5x2x0,5	10,4	158	76,8
SB0504	6x2x0,5	10,8	172	91,2
SB0505	7x2x0,5	12,2	205	105,6
SB0506	8x2x0,5	12,7	230	120,0
SB0507	10x2x0,5	13,8	280	148,8
SB0508	12x2x0,5	14,7	325	177,6
SB0509	14x2x0,5	15,5	365	206,4
SB0510	16x2x0,5	17,0	435	235,2
SB0511	18x2x0,5	17,7	470	264,0
SB0512	20x2x0,5	18,4	525	292,8
SB0513	24x2x0,5	18,9	605	350,4
SB0514	2x2x0,75	8,4	98	43,2
SB0515	3x2x0,75	9,8	124	62,4
SB0516	4x2x0,75	10,5	154	81,6
SB0517	5x2x0,75	11,5	196	100,8
SB0518	6x2x0,75	11,9	215	120,0
SB0519	7x2x0,75	13,3	250	139,2
SB0520	8x2x0,75	14,1	285	158,4
SB0521	10x2x0,75	15,0	340	196,8
SB0522	12x2x0,75	16,4	410	235,2
SB0523	14x2x0,75	17,4	465	273,6
SB0524	16x2x0,75	18,8	540	312,0
SB0525	18x2x0,75	19,5	590	350,4
SB0526	20x2x0,75	20,1	640	388,8
SB0527	24x2x0,75	20,7	745	465,6
SB0528	2x2x1,0	9,3	126	60,0
SB0529	3x2x1,0	10,3	150	86,4
SB0530	4x2x1,0	11,2	186	112,8
SB0531	5x2x1,0	12,2	240	139,2
SB0532	6x2x1,0	12,6	265	165,6

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0533	7x2x1,0	14,3	310	192,0
SB0534	8x2x1,0	14,9	345	218,4
SB0535	10x2x1,0	16,4	430	271,2
SB0536	12x2x1,0	17,4	500	324,0
SB0537	14x2x1,0	18,7	580	376,8
SB0538	16x2x1,0	19,9	660	429,6
SB0539	18x2x1,0	20,8	720	482,4
SB0540	20x2x1,0	21,6	800	535,2
SB0541	24x2x1,0	22,2	930	640,8
SB0542	2x2x1,5	10,5	158	79,2
SB0543	3x2x1,5	12,0	196	115,2
SB0544	4x2x1,5	13,0	245	151,2
SB0545	5x2x1,5	14,2	310	187,2
SB0546	6x2x1,5	14,7	345	223,2
SB0547	7x2x1,5	16,8	415	259,2
SB0548	8x2x1,5	17,6	460	295,2
SB0549	10x2x1,5	19,0	560	367,2
SB0550	12x2x1,5	20,3	655	439,2
SB0551	14x2x1,5	21,7	760	511,2
SB0552	16x2x1,5	23,2	870	583,2
SB0553	18x2x1,5	24,2	945	655,2
SB0554	20x2x1,5	25,4	1060	727,2
SB0555	24x2x1,5	26,1	1240	871,2
SB0556	2x2x2,5	12,5	220	117,6
SB0557	3x2x2,5	14,2	275	172,8
SB0558	4x2x2,5	15,5	340	228,0
SB0559	5x2x2,5	17,1	445	283,2
SB0560	6x2x2,5	17,7	490	338,4
SB0561	7x2x2,5	20,0	580	393,6
SB0562	8x2x2,5	20,9	645	448,8
SB0563	10x2x2,5	22,7	790	559,2
SB0564	12x2x2,5	24,2	925	669,6
SB0565	14x2x2,5	26,1	1090	780,0
SB0566	16x2x2,5	27,9	1240	890,4

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

BiT 500® FR

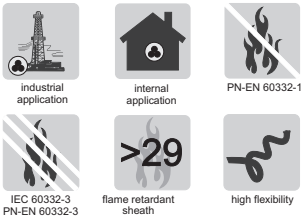
Flexible highly flame retardant control cables with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, PVC insulation and sheath, highly flame retardant
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Occasional flexing: -15°C * to 70°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 7,5 x Ø
Fixed installation: 4 x Ø



Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C).
Outer sheath colour: grey

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation). They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. High flexibility of BIT 500® FR cable enables easy and fast connections and ensures their high durability.

* minimum temperature for occasional flexing with bending radius not smaller than 15xD. Bending test at low temperature (-15°C acc. to EN 60811-1-4).

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S58855	2x0,5	5,0	36	9,6
S58856	3G0,5	5,3	43	14,4
S58857	3x0,5	5,3	43	14,4
S58858	4G0,5	5,8	51	19,2
S58859	4x0,5	5,8	51	19,2
S58860	5G0,5	6,3	62	24,0
S58861	5x0,5	6,3	62	24,0
S58862	6G0,5	7,0	75	28,8
S58863	7G0,5	7,0	79	33,6
S58864	7x0,5	7,0	79	33,6
S58865	8G0,5	7,7	93	38,4
S58866	8x0,5	7,7	93	38,4
S58867	10G0,5	9,4	126	48,0
S58868	12G0,5	9,4	135	57,6
S58869	12x0,5	9,4	135	57,6
S58870	14G0,5	9,8	150	67,2
S58871	16G0,5	10,4	168	76,8
S58872	18G0,5	10,9	186	86,4
S58873	19G0,5	10,9	189	91,2
S58874	21G0,5	11,6	213	100,8
S58875	25G0,5	13,1	255	120,0
S58876	27G0,5	13,1	264	129,6
S58877	30G0,5	13,8	294	144,0
S58878	34G0,5	14,8	335	163,2
S58879	37G0,5	14,8	350	177,6
S58880	40G0,5	15,3	375	192,0
S58881	42G0,5	16,9	420	201,6
S58882	50G0,5	17,6	475	240,0
S58883	56G0,5	18,4	525	268,8
S58884	61G0,5	18,9	560	292,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S58885	2x0,75	5,4	45	14,4
S58886	3G0,75	5,7	54	21,6
S58887	3x0,75	5,7	54	21,6
S58888	4G0,75	6,3	64	28,8
S58889	4x0,75	6,3	64	28,8
S58890	5G0,75	7,0	82	36,0
S58891	5x0,75	7,0	82	36,0
S58892	6G0,75	7,6	96	43,2
S58893	6x0,75	7,6	96	43,2
S58894	7G0,75	7,6	100	50,4
S58895	7x0,75	7,6	100	50,4
S58896	8G0,75	8,4	120	57,6
S58897	8x0,75	8,4	120	57,6
S58898	10G0,75	10,2	160	72,0
S58899	12G0,75	10,2	170	86,4
S58900	12x0,75	10,2	170	86,4
S58901	14G0,75	10,7	190	100,8
S58902	16G0,75	11,5	220	115,2
S58903	18G0,75	12,1	245	129,6
S58904	19G0,75	12,1	250	136,8
S58905	21G0,75	12,7	275	151,2
S58906	25G0,75	14,5	335	180,0
S58907	27G0,75	14,5	345	194,4
S58908	30G0,75	15,0	380	216,0
S58909	34G0,75	16,6	450	244,8
S58910	37G0,75	16,6	465	266,4
S58911	40G0,75	17,2	500	288,0
S58912	42G0,75	18,7	550	302,4
S58913	50G0,75	19,5	625	360,0
S58914	56G0,75	20,1	680	403,2

BiT 500® FR

Flexible highly flame retardant control cables with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S58915	61G0,75	20,7	730	439,2
S58916	2x1,0	5,7	52	19,2
S58917	3G1,0	6,1	64	28,8
S58918	3x1,0	6,1	64	28,8
S58919	4G1,0	6,8	80	38,4
S58920	4x1,0	6,8	80	38,4
S58921	5G1,0	7,4	96	48,0
S58922	5x1,0	7,4	96	48,0
S58923	6G1,0	8,0	114	57,6
S58924	6x1,0	8,0	114	57,6
S58925	7G1,0	8,0	120	67,2
S58926	7x1,0	8,0	120	67,2
S58927	8G1,0	9,3	150	76,8
S58928	10G1,0	10,9	190	96,0
S58929	10x1,0	10,9	190	96,0
S58930	12G1,0	10,9	205	115,2
S58931	12x1,0	10,9	205	115,2
S58932	14G1,0	11,6	235	134,4
S58933	16G1,0	12,2	265	153,6
S58934	18G1,0	12,8	295	172,8
S58935	18x1,0	12,8	295	172,8
S58936	19G1,0	12,8	300	182,4
S58937	21G1,0	13,7	335	201,6
S58938	25G1,0	15,5	405	240,0
S58939	27G1,0	15,5	415	259,2
S58940	30G1,0	16,4	470	288,0
S58941	34G1,0	17,6	540	326,4
S58942	37G1,0	17,6	560	355,2
S58943	40G1,0	18,5	610	384,0
S58944	42G1,0	19,9	660	403,2
S58945	50G1,0	20,8	755	480,0
S58946	56G1,0	21,6	835	537,6
S58947	61G1,0	22,2	895	585,6
S58948	2x1,5	6,7	72	28,8
S58949	3G1,5	7,1	88	43,2
S58950	3x1,5	7,1	88	43,2
S58951	4G1,5	7,8	109	57,6
S58952	4x1,5	7,8	109	57,6
S58953	5G1,5	8,5	131	72,0
S58954	5x1,5	8,5	131	72,0
S58955	6G1,5	9,6	163	86,4
S58956	6x1,5	9,6	163	86,4
S58957	7G1,5	9,6	172	100,8
S58958	7x1,5	9,6	172	100,8
S58959	8G1,5	10,6	205	115,2
S58960	10G1,5	12,7	265	144,0
S58961	10x1,5	12,7	265	144,0
S58962	12G1,5	12,7	285	172,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S58963	12x1,5	12,7	285	172,8
S58964	14G1,5	13,5	330	201,6
S58965	16G1,5	14,3	370	230,4
S58966	18G1,5	15,0	410	259,2
S58967	19G1,5	15,0	420	273,6
S58968	21G1,5	16,2	483	302,4
S58969	25G1,5	18,5	590	360,0
S58970	27G1,5	18,5	610	388,8
S58971	30G1,5	19,2	670	432,0
S58972	34G1,5	20,6	765	489,6
S58973	37G1,5	20,6	790	532,8
S58974	40G1,5	21,6	860	576,0
S58975	42G1,5	23,3	924	604,8
S58976	50G1,5	24,7	1090	720,0
S58977	56G1,5	25,5	1190	806,4
S58978	61G1,5	26,2	1270	878,4
S58979	2x2,5	7,8	102	48,0
S58980	3G2,5	8,3	128	72,0
S58981	3x2,5	8,3	128	72,0
S58982	4G2,5	9,5	168	96,0
S58983	4x2,5	9,5	168	96,0
S58984	5G2,5	10,4	200	120,0
S58985	5x2,5	10,4	200	120,0
S58986	6x2,5	11,5	245	144,0
S58987	6G2,5	11,5	245	144,0
S58988	7G2,5	11,5	260	168,0
S58989	7x2,5	11,5	260	168,0
S58990	10G2,5	15,2	395	240,0
S58991	12G2,5	15,2	425	288,0
S58992	12x2,5	15,2	425	288,0
S58993	14G2,5	16,4	495	336,0
S58994	16G2,5	17,3	560	384,0
S58995	18G2,5	18,4	635	432,0
S58996	21G2,5	19,3	715	504,0
S58997	25G2,5	22,1	870	600,0
S58998	30G2,5	22,9	985	720,0
S58999	34G2,5	25,1	1160	816,0
S59000	37G2,5	25,1	1210	888,0
S59001	42G2,5	28,1	1400	1008,0
S59002	50G2,5	29,4	1620	1200,0
S59003	2x4,0	9,3	152	76,8
S59004	3G4,0	10,3	202	115,2
S59005	3x4,0	10,3	202	115,2
S59006	4G4,0	11,3	255	153,6
S59007	5G4,0	12,6	310	192,0
S59008	7G4,0	13,7	395	268,8
S59009	10G4,0	18,7	615	384,0
S59010	12G4,0	18,7	675	460,8

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® FR

Flexible highly flame retardant control cables with number coded conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59011	2x2x0,5	7,3	65	19,2
S59012	3x2x0,5	8,2	70	28,8
S59013	4x2x0,5	9,3	98	38,4
S59014	5x2x0,5	10,0	120	48,0
S59015	6x2x0,5	10,4	130	57,6
S59016	7x2x0,5	11,8	156	67,2
S59017	8x2x0,5	12,3	172	76,8
S59018	10x2x0,5	13,2	205	96,0
S59019	12x2x0,5	14,3	245	115,2
S59020	14x2x0,5	15,1	275	134,4
S59021	16x2x0,5	16,6	335	153,6
S59022	18x2x0,5	17,3	360	172,8
S59023	20x2x0,5	17,8	395	192,0
S59024	24x2x0,5	18,5	455	230,4
S59025	2x2x0,75	8,0	78	28,8
S59026	3x2x0,75	9,4	100	43,2
S59027	4x2x0,75	10,1	122	57,6
S59028	5x2x0,75	10,9	152	72,0
S59029	6x2x0,75	11,5	170	86,4
S59030	7x2x0,75	12,9	196	100,8
S59031	8x2x0,75	13,7	225	115,2
S59032	10x2x0,75	14,6	270	144,0
S59033	12x2x0,75	16,0	325	172,8
S59034	14x2x0,75	17,0	370	201,6
S59035	16x2x0,75	18,4	435	230,4
S59036	18x2x0,75	19,1	470	259,2
S59037	20x2x0,75	19,7	515	288,0
S59038	24x2x0,75	20,3	595	345,6
S59039	2x2x1,0	8,5	92	38,4
S59040	3x2x1,0	9,9	116	57,6
S59041	4x2x1,0	10,8	145	76,8
S59042	5x2x1,0	11,8	184	96,0
S59043	6x2x1,0	12,2	202	115,2

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59044	7x2x1,0	13,9	240	134,4
S59045	8x2x1,0	14,5	270	153,6
S59046	10x2x1,0	15,6	320	192,0
S59047	12x2x1,0	17,0	390	230,4
S59048	14x2x1,0	18,3	450	268,8
S59049	16x2x1,0	19,5	515	307,2
S59050	18x2x1,0	20,4	560	345,6
S59051	20x2x1,0	21,0	615	384,0
S59052	24x2x1,0	21,8	725	460,8
S59053	2x2x1,5	10,1	132	57,6
S59054	3x2x1,5	11,6	167	86,4
S59055	4x2x1,5	12,6	198	115,2
S59056	5x2x1,5	13,8	258	144,0
S59057	6x2x1,5	14,3	280	172,8
S59058	7x2x1,5	16,4	340	201,6
S59059	8x2x1,5	17,2	380	230,4
S59060	10x2x1,5	18,6	465	288,0
S59061	12x2x1,5	19,9	550	345,6
S59062	14x2x1,5	21,1	625	403,2
S59063	16x2x1,5	22,8	725	460,8
S59064	18x2x1,5	23,8	780	518,4
S59065	20x2x1,5	25,0	885	576,0
S59066	24x2x1,5	25,7	1030	691,2
S59067	2x2x2,5	12,1	195	96,0
S59068	3x2x2,5	13,8	235	144,0
S59069	4x2x2,5	15,1	305	192,0
S59070	5x2x2,5	16,7	385	240,0
S59071	6x2x2,5	17,3	425	288,0
S59072	7x2x2,5	19,6	505	336,0
S59073	8x2x2,5	20,5	560	384,0
S59074	10x2x2,5	22,3	695	480,0
S59075	12x2x2,5	23,8	810	576,0
S59076	14x2x2,5	25,7	950	672,0
S59077	16x2x2,5	27,5	1096	768,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® C FR

Flexible, highly flame retardant, screened control cables with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, PVC insulation and sheath, highly flame retardant

Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid, coverage ≥85%
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C).
Outer sheath colour: grey

Application:

Flexible power and control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation). Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field (screen attenuation ca. 50dB). Cables are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. High flexibility of BIT 500® C FR cable simplifies installation and compounds used enable easy and fast connections and ensure their high durability.


industrial application


internal application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

flame retardant sheath


high flexibility

EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1300	2x0,5	5,4	44	35
SB1301	3G0,5	5,7	48	42
SB1302	3x0,5	5,7	48	42
SB1303	4G0,5	6,2	58	46
SB1304	4x0,5	6,2	58	46
SB1305	5G0,5	6,9	72	55
SB1306	5x0,5	6,9	72	55
SB1307	6G0,5	7,4	84	63
SB1308	7G0,5	7,4	88	68
SB1309	7x0,5	7,4	88	68
SB1310	8G0,5	8,3	110	81
SB1311	8x0,5	8,3	110	81
SB1312	10G0,5	10,0	145	94
SB1313	12G0,5	10,0	155	108
SB1314	12x0,5	10,0	155	108
SB1315	14G0,5	10,4	170	116
SB1316	16G0,5	11,0	190	128
SB1317	18G0,5	11,7	220	145
SB1318	19G0,5	11,8	220	160
SB1319	21G0,5	12,2	240	180
SB1320	25G0,5	13,9	295	234
SB1321	27G0,5	13,9	300	244
SB1322	30G0,5	14,4	325	270
SB1323	34G0,5	15,4	370	301
SB1324	37G0,5	15,4	385	315
SB1325	40G0,5	16,3	425	335

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1326	42G0,5	17,5	455	359
SB1327	50G0,5	18,2	525	405
SB1328	56G0,5	19,0	570	439
SB1329	61G0,5	19,5	610	471
SB1330	2x0,75	5,8	52	40
SB1331	3G0,75	6,1	58	49
SB1332	3x0,75	6,1	58	49
SB1333	4G0,75	6,9	74	59
SB1334	4x0,75	6,9	74	59
SB1335	5G0,75	7,4	88	70
SB1336	5x0,75	7,4	88	70
SB1337	6G0,75	8,2	112	80
SB1338	6x0,75	8,2	112	80
SB1339	7G0,75	8,2	118	90
SB1340	7x0,75	8,2	118	90
SB1341	8G0,75	9,4	142	110
SB1342	8x0,75	9,4	142	110
SB1343	10G0,75	10,8	180	138
SB1344	12G0,75	10,6	190	142
SB1345	12x0,75	10,6	190	142
SB1346	14G0,75	11,5	220	179
SB1347	16G0,75	12,1	245	197
SB1348	18G0,75	12,7	275	217
SB1349	19G0,75	12,7	280	224
SB1350	21G0,75	13,3	305	244
SB1351	25G0,75	15,1	370	286

BITNER®

BiT 500® C FR

Flexible, highly flame retardant, screened control cables with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1352	27G0,75	15,1	380	300
SB1353	30G0,75	16,0	425	326
SB1354	34G0,75	17,2	490	345
SB1355	37G0,75	17,2	505	360
SB1356	40G0,75	17,8	540	398
SB1357	42G0,75	19,3	590	421
SB1358	50G0,75	20,1	670	470
SB1359	56G0,75	20,7	725	518
SB1360	61G0,75	21,5	790	550
SB1361	2x1,0	6,1	57	50
SB1362	3G1,0	6,5	69	60
SB1363	3x1,0	6,5	69	60
SB1364	4G1,0	7,0	84	70
SB1365	4x1,0	7,0	84	70
SB1366	5G1,0	8,0	111	87
SB1367	5x1,0	8,0	111	87
SB1368	6G1,0	8,6	129	95
SB1369	6x1,0	8,6	129	95
SB1370	7G1,0	8,6	138	110
SB1371	7x1,0	8,6	138	110
SB1372	8G1,0	9,9	165	125
SB1373	10G1,0	11,5	215	150
SB1374	10x1,0	11,5	215	150
SB1375	12G1,0	11,5	230	180
SB1376	12x1,0	11,5	230	180
SB1377	14G1,0	12,2	260	197
SB1378	16G1,0	12,8	290	210
SB1379	18G1,0	13,6	330	250
SB1380	18x1,0	13,6	330	250
SB1381	19G1,0	13,6	335	260
SB1382	21G1,0	14,3	365	297
SB1383	25G1,0	16,5	455	335
SB1384	27G1,0	16,5	465	400
SB1385	30G1,0	17,0	505	440
SB1386	34G1,0	18,4	590	485
SB1387	37G1,0	18,4	610	495
SB1388	40G1,0	19,1	655	510
SB1389	42G1,0	20,5	700	530
SB1390	50G1,0	21,6	815	600
SB1391	56G1,0	22,2	885	661
SB1392	61G1,0	22,8	950	700
SB1393	2x1,5	7,1	88	62
SB1394	3G1,5	7,5	99	79
SB1395	3x1,5	7,5	99	79
SB1396	4G1,5	8,4	122	96
SB1397	4x1,5	8,4	122	96
SB1398	5G1,5	9,5	156	120
SB1399	5x1,5	9,5	156	120
SB1400	6G1,5	10,2	182	130
SB1401	6x1,5	10,2	182	130
SB1402	7G1,5	10,2	192	145
SB1403	7x1,5	10,2	192	145

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1404	8G1,5	11,0	220	173
SB1405	10G1,5	13,3	290	193
SB1406	10x1,5	13,3	290	193
SB1407	12G1,5	13,3	310	243
SB1408	12x1,5	13,3	310	243
SB1409	14G1,5	14,1	355	276
SB1410	16G1,5	14,9	410	310
SB1411	18G1,5	16,0	455	352
SB1412	19G1,5	16,0	465	367
SB1413	21G1,5	16,8	515	393
SB1414	25G1,5	19,1	620	464
SB1415	27G1,5	19,1	640	493
SB1416	30G1,5	19,8	700	540
SB1417	34G1,5	21,4	810	608
SB1418	37G1,5	21,4	840	651
SB1419	40G1,5	22,2	910	700
SB1420	42G1,5	23,9	970	740
SB1421	50G1,5	25,3	1140	862
SB1422	56G1,5	26,1	1240	955
SB1423	61G1,5	26,8	1330	1030
SB1424	2x2,5	8,4	112	90
SB1425	3G2,5	9,3	144	117
SB1426	3x2,5	9,3	144	117
SB1427	4G2,5	10,1	180	147
SB1428	4x2,5	10,1	180	147
SB1429	5G2,5	11,0	216	176
SB1430	5x2,5	11,0	216	176
SB1431	6G2,5	12,1	265	206
SB1432	6x2,5	12,1	265	206
SB1433	7G2,5	12,1	280	230
SB1434	7x2,5	12,1	280	230
SB1435	10G2,5	16,2	430	326
SB1436	12G2,5	16,2	465	374
SB1437	12x2,5	16,2	465	374
SB1438	14G2,5	17,0	525	427
SB1439	16G2,5	17,9	590	481
SB1440	18G2,5	19,0	665	536
SB1441	21G2,5	19,9	750	614
SB1442	25G2,5	22,7	910	728
SB1443	30G2,5	23,5	1030	853
SB1444	34G2,5	25,7	1210	960
SB1445	37G2,5	25,7	1260	1032
SB1446	42G2,5	28,9	1470	1216
SB1447	50G2,5	30,2	1700	1418
SB1448	2x4,0	10,3	170	128
SB1449	3G4,0	10,9	200	171
SB1450	3x4,0	10,9	200	171
SB1451	4G4,0	12,1	270	216
SB1452	5G4,0	13,2	325	262
SB1453	7G4,0	14,5	425	346
SB1454	10G4,0	19,5	645	491
SB1455	12G4,0	19,5	705	568

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® C FR

Flexible, highly flame retardant, screened control cables with number coded conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1456	2x2x0,5	7,7	80	52
SB1457	3x2x0,5	9,2	105	70
SB1458	4x2x0,5	9,9	125	91
SB1459	5x2x0,5	10,6	155	105
SB1460	6x2x0,5	11,0	165	122
SB1461	7x2x0,5	12,4	195	139
SB1462	8x2x0,5	12,9	210	151
SB1463	10x2x0,5	14,0	255	171
SB1464	12x2x0,5	14,9	290	198
SB1465	14x2x0,5	16,1	340	208
SB1466	16x2x0,5	17,2	385	241
SB1467	18x2x0,5	17,9	415	279
SB1468	20x2x0,5	18,6	455	300
SB1469	24x2x0,5	19,1	515	325
SB1470	2x2x0,75	8,6	102	58
SB1471	3x2x0,75	10,0	126	85
SB1472	4x2x0,75	10,7	152	110
SB1473	5x2x0,75	11,7	192	128
SB1474	6x2x0,75	12,1	205	148
SB1475	7x2x0,75	13,7	245	168
SB1476	8x2x0,75	14,3	270	182
SB1477	10x2x0,75	15,2	315	220
SB1478	12x2x0,75	16,6	375	260
SB1479	14x2x0,75	17,6	425	290
SB1480	16x2x0,75	19,0	490	319
SB1481	18x2x0,75	19,7	530	345
SB1482	20x2x0,75	20,3	570	368
SB1483	24x2x0,75	20,9	655	404
SB1484	2x2x1,0	9,5	126	82
SB1485	3x2x1,0	10,5	146	105
SB1486	4x2x1,0	11,6	182	130
SB1487	5x2x1,0	12,4	225	160
SB1488	6x2x1,0	12,8	240	185
SB1489	7x2x1,0	14,5	285	220

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1490	8x2x1,0	15,1	315	237
SB1491	10x2x1,0	16,6	385	280
SB1492	12x2x1,0	17,6	445	325
SB1493	14x2x1,0	18,9	510	389
SB1494	16x2x1,0	20,1	580	420
SB1495	18x2x1,0	21,0	625	462
SB1496	20x2x1,0	21,8	690	492
SB1497	24x2x1,0	22,4	790	541
SB1498	2x2x1,5	10,7	162	106
SB1499	3x2x1,5	12,2	196	133
SB1500	4x2x1,5	13,2	240	157
SB1501	5x2x1,5	14,4	300	181
SB1502	6x2x1,5	14,9	325	200
SB1503	7x2x1,5	17,0	395	230
SB1504	8x2x1,5	17,8	435	310
SB1505	10x2x1,5	19,2	525	380
SB1506	12x2x1,5	20,5	605	455
SB1507	14x2x1,5	21,9	695	507
SB1508	16x2x1,5	23,4	795	561
SB1509	18x2x1,5	24,8	885	607
SB1510	20x2x1,5	25,6	960	700
SB1511	24x2x1,5	26,3	1105	825
SB1512	2x2x2,5	12,7	230	148
SB1513	3x2x2,5	14,4	280	220
SB1514	4x2x2,5	16,1	355	295
SB1515	5x2x2,5	17,3	440	350
SB1516	6x2x2,5	17,9	480	385
SB1517	7x2x2,5	20,2	565	444
SB1518	8x2x2,5	21,1	625	483
SB1519	10x2x2,5	22,9	760	559
SB1520	12x2x2,5	24,4	880	629
SB1521	14x2x2,5	26,3	1030	709
SB1522	16x2x2,5	28,1	1175	787

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Note: On customer's request other cross sections or number of cores can be produced

BiT 500® (St) FR

Flexible,screened control cables, highly flame retardant, with number coded conductors, rated 300/500V

BITNER BiT 500® (St) FR 300/500V CE

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cables with number coded conductors, PVC insulation and sheath, highly flame retardant
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 5 x Ø
Flexible connections: 10 x Ø


industrial application


internal application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

flame retardant sheath


high flexibility

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors
Core arrangement: pairs twisted together or cores twisted together
Screen: aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C)
Outer sheath colour: grey

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Common screen improves protection of transmitted signals against external electromagnetic field. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation). They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Insulation materials and conductor construction in BIT 500® (St) FR cable enable easy and fast connections and ensure their high durability.

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0600	2x0,5	5,2	40	14,4
SB0601	3G0,5	5,5	45	19,2
SB0602	3x0,5	5,5	45	19,2
SB0603	4G0,5	6,0	52	24,0
SB0604	4x0,5	6,0	52	24,0
SB0605	5G0,5	6,5	64	28,8
SB0606	5x0,5	6,5	64	28,8
SB0607	6G0,5	7,2	76	33,6
SB0608	7G0,5	7,2	80	38,4
SB0609	7x0,5	7,2	80	38,4
SB0610	8G0,5	8,2	95	43,2
SB0611	8x0,5	8,2	95	43,2
SB0612	10G0,5	9,8	126	52,8
SB0613	12G0,5	9,8	134	62,4
SB0614	12x0,5	9,8	134	62,4
SB0615	14G0,5	10,2	150	72,0
SB0616	16G0,5	10,8	168	81,6
SB0617	18G0,5	11,5	192	91,2
SB0618	19G0,5	11,5	196	96,0
SB0619	21G0,5	12,0	215	105,6
SB0620	25G0,5	13,7	260	124,8
SB0621	27G0,5	13,7	270	134,4
SB0622	30G0,5	14,2	295	148,8
SB0623	34G0,5	15,2	335	168,0
SB0624	37G0,5	15,2	345	182,4
SB0625	40G0,5	16,1	390	196,8
SB0626	42G0,5	17,3	415	206,4
SB0627	50G0,5	18,2	485	244,8
SB0628	56G0,5	18,8	525	273,6
SB0629	61G0,5	19,3	560	297,6
SB0630	2x0,75	5,6	48	19,2
SB0631	3G0,75	5,9	54	26,4

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0632	3x0,75	5,9	54	26,4
SB0633	4G0,75	6,5	66	33,6
SB0634	4x0,75	6,5	66	33,6
SB0635	5G0,75	7,2	81	40,8
SB0636	5x0,75	7,2	81	40,8
SB0637	6G0,75	7,8	96	48,0
SB0638	6x0,75	7,8	96	48,0
SB0639	7G0,75	7,8	102	55,2
SB0640	7x0,75	7,8	102	55,2
SB0641	8G0,75	9,2	126	62,4
SB0642	8x0,75	9,2	126	62,4
SB0643	10G0,75	10,6	159	76,8
SB0644	12G0,75	10,6	168	91,2
SB0645	12x0,75	10,6	168	91,2
SB0646	14G0,75	11,3	195	105,6
SB0647	16G0,75	11,9	220	120,0
SB0648	18G0,75	12,5	245	134,4
SB0649	19G0,75	12,5	250	141,6
SB0650	21G0,75	13,1	275	156,0
SB0651	25G0,75	14,9	335	184,8
SB0652	27G0,75	14,9	345	199,2
SB0653	30G0,75	15,4	375	220,8
SB0654	34G0,75	17,0	450	249,6
SB0655	37G0,75	17,0	465	271,2
SB0656	40G0,75	17,6	500	292,8
SB0657	42G0,75	19,1	540	307,2
SB0658	50G0,75	19,9	620	364,8
SB0659	56G0,75	20,5	675	408,0
SB0660	61G0,75	21,1	725	444,0
SB0661	2x1,0	5,9	54	26,4
SB0662	3G1,0	6,3	64	36,0
SB0663	3x1,0	6,3	64	36,0

BiT 500® (St) FR

Flexible,screened control cables, highly flame retardant, with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0664	4G1,0	7,0	80	45,6
SB0665	4x1,0	7,0	80	45,6
SB0666	5G1,0	7,6	98	55,2
SB0667	5x1,0	7,6	98	55,2
SB0668	6G1,0	8,2	114	64,8
SB0669	6x1,0	8,2	114	64,8
SB0670	7G1,0	8,2	120	74,4
SB0671	7x1,0	8,2	120	74,4
SB0672	8G1,0	9,7	148	84,0
SB0673	10G1,0	11,5	194	103,2
SB0674	10x1,0	11,5	194	103,2
SB0675	12G1,0	11,5	210	122,4
SB0676	12x1,0	11,5	210	122,4
SB0677	14G1,0	12,0	235	141,6
SB0678	16G1,0	12,6	265	160,8
SB0679	18G1,0	13,2	295	180,0
SB0680	18x1,0	13,2	295	180,0
SB0681	19G1,0	13,2	300	189,6
SB0682	21G1,0	14,1	335	208,8
SB0683	25G1,0	16,3	415	247,2
SB0684	27G1,0	16,3	430	266,4
SB0685	30G1,0	16,8	470	295,2
SB0686	34G1,0	18,2	550	333,6
SB0687	37G1,0	18,2	565	362,4
SB0688	40G1,0	18,9	610	391,2
SB0689	42G1,0	20,3	650	410,4
SB0690	50G1,0	21,2	750	487,2
SB0691	56G1,0	22,0	830	544,8
SB0692	61G1,0	22,6	890	592,8
SB0693	2x1,5	6,9	74	36,0
SB0694	3G1,5	7,3	86	50,4
SB0695	3x1,5	7,3	86	50,4
SB0696	4G1,5	8,0	108	64,8
SB0697	4x1,5	8,0	108	64,8
SB0698	5G1,5	9,1	138	79,2
SB0699	5x1,5	9,1	138	79,2
SB0700	6G1,5	9,8	162	93,6
SB0701	6x1,5	9,8	162	93,6
SB0702	7G1,5	9,8	172	108,0
SB0703	7x1,5	9,8	172	108,0
SB0704	8G1,5	11,0	200	122,4
SB0705	10G1,5	13,1	260	151,2
SB0706	10x1,5	13,1	260	151,2
SB0707	12G1,5	13,1	280	180,0
SB0708	12x1,5	13,1	280	180,0
SB0709	14G1,5	13,9	325	208,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0710	16G1,5	14,7	365	237,6
SB0711	18G1,5	15,4	410	266,4
SB0712	19G1,5	15,4	420	280,8
SB0713	21G1,5	16,6	475	309,6
SB0714	25G1,5	18,9	575	367,2
SB0715	27G1,5	18,9	595	396,0
SB0716	30G1,5	19,6	650	439,2
SB0717	34G1,5	21,0	750	496,8
SB0718	37G1,5	21,0	780	540,0
SB0719	40G1,5	22,0	850	583,2
SB0720	42G1,5	23,7	910	612,0
SB0721	50G1,5	25,1	1080	727,2
SB0722	56G1,5	25,9	1180	813,6
SB0723	61G1,5	26,6	1260	885,6
SB0724	2x2,5	8,0	96	55,2
SB0725	3G2,5	8,5	118	79,2
SB0726	3x2,5	8,5	118	79,2
SB0727	4G2,5	9,7	160	103,2
SB0728	4x2,5	9,7	160	103,2
SB0729	5G2,5	10,6	192	127,2
SB0730	5x2,5	10,6	192	127,2
SB0731	6G2,5	11,9	240	151,2
SB0732	6x2,5	11,9	240	151,2
SB0733	7G2,5	11,9	255	175,2
SB0734	7x2,5	11,9	255	175,2
SB0735	10G2,5	16,0	395	247,2
SB0736	12G2,5	16,0	430	295,2
SB0737	12x2,5	16,0	430	295,2
SB0738	14G2,5	16,8	485	343,2
SB0739	16G2,5	17,7	550	391,2
SB0740	18G2,5	18,8	625	439,2
SB0741	21G2,5	19,7	705	511,2
SB0742	25G2,5	22,5	855	607,2
SB0743	30G2,5	23,3	970	727,2
SB0744	34G2,5	25,5	1150	823,2
SB0745	37G2,5	25,5	1190	895,2
SB0746	42G2,5	28,5	1370	1015,2
SB0747	50G2,5	29,8	1590	1207,2
SB0748	2x4,0	9,9	150	84,0
SB0749	3G4,0	10,5	190	122,4
SB0750	3x4,0	10,5	190	122,4
SB0751	4G4,0	11,7	240	160,8
SB0752	5G4,0	12,7	300	199,2
SB0753	7G4,0	14,0	390	276,0
SB0754	10G4,0	18,9	600	391,2
SB0755	12G4,0	18,9	660	468,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® (St) FR

Flexible,screened control cables, highly flame retardant, with number coded conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0756	2x2x0,5	7,7	70	24,0
SB0757	3x2x0,5	8,6	80	33,6
SB0758	4x2x0,5	9,7	106	43,2
SB0759	5x2x0,5	10,4	130	52,8
SB0760	6x2x0,5	10,8	138	62,4
SB0761	7x2x0,5	12,2	166	72,0
SB0762	8x2x0,5	12,7	182	81,6
SB0763	10x2x0,5	13,8	220	100,8
SB0764	12x2x0,5	14,7	255	120,0
SB0765	14x2x0,5	15,5	290	139,2
SB0766	16x2x0,5	17,0	345	158,4
SB0767	18x2x0,5	17,7	370	177,6
SB0768	20x2x0,5	18,4	410	196,8
SB0769	24x2x0,5	18,9	470	235,2
SB0770	2x2x0,75	8,4	86	33,6
SB0771	3x2x0,75	9,8	106	48,0
SB0772	4x2x0,75	10,5	130	62,4
SB0773	5x2x0,75	11,5	168	76,8
SB0774	6x2x0,75	11,9	180	91,2
SB0775	7x2x0,75	13,3	205	105,6
SB0776	8x2x0,75	14,1	235	120,0
SB0777	10x2x0,75	15,0	280	148,8
SB0778	12x2x0,75	16,4	340	177,6
SB0779	14x2x0,75	17,4	380	206,4
SB0780	16x2x0,75	18,8	445	235,2
SB0781	18x2x0,75	19,5	480	264,0
SB0782	20x2x0,75	20,1	520	292,8
SB0783	24x2x0,75	20,7	600	350,4
SB0784	2x2x1,0	9,3	110	45,6
SB0785	3x2x1,0	10,3	126	64,8
SB0786	4x2x1,0	11,2	154	84,0
SB0787	5x2x1,0	12,2	196	103,2
SB0788	6x2x1,0	12,6	214	122,4

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0789	7x2x1,0	14,3	255	141,6
SB0790	8x2x1,0	14,9	280	160,8
SB0791	10x2x1,0	16,4	350	199,2
SB0792	12x2x1,0	17,4	405	237,6
SB0793	14x2x1,0	18,7	465	276,0
SB0794	16x2x1,0	19,9	530	314,4
SB0795	18x2x1,0	20,8	575	352,8
SB0796	20x2x1,0	21,6	635	391,2
SB0797	24x2x1,0	22,2	735	468,0
SB0798	2x2x1,5	10,5	142	64,8
SB0799	3x2x1,5	12,0	172	93,6
SB0800	4x2x1,5	13,0	210	122,4
SB0801	5x2x1,5	14,2	270	151,2
SB0802	6x2x1,5	14,7	295	180,0
SB0803	7x2x1,5	16,8	355	208,8
SB0804	8x2x1,5	17,6	395	237,6
SB0805	10x2x1,5	19,0	480	295,2
SB0806	12x2x1,5	20,3	555	352,8
SB0807	14x2x1,5	21,7	645	410,4
SB0808	16x2x1,5	23,2	735	468,0
SB0809	18x2x1,5	24,2	800	525,6
SB0810	20x2x1,5	25,4	895	583,2
SB0811	24x2x1,5	26,1	1035	698,4
SB0812	2x2x2,5	12,5	205	103,2
SB0813	3x2x2,5	14,2	245	151,2
SB0814	4x2x2,5	15,5	305	199,2
SB0815	5x2x2,5	17,1	400	247,2
SB0816	6x2x2,5	17,7	440	295,2
SB0817	7x2x2,5	20,0	515	343,2
SB0818	8x2x2,5	20,9	575	391,2
SB0819	10x2x2,5	22,7	705	487,2
SB0820	12x2x2,5	24,2	820	583,2
SB0821	14x2x2,5	26,1	960	679,2
SB0822	16x2x2,5	27,9	1100	775,2

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® 2(St) FR

Flexible, paired control cables, individually and collectively screened, highly flame retardant, with number coded conductors, rated 300/500V

BITNER BiT 500® 2(St) FR 300/500V CE

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, PVC insulation and sheath, highly flame retardant, with individually and collectively screened pairs.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 5 x Ø
Flexible connections: 10 x Ø


internal application


industrial application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

flame retardant sheath


high flexibility

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors
Core arrangement: twisted screened pairs
Individual screen: aluminium backed polyester tape with tinned copper drain wire on each pair
Collective screen: aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C)
Outer sheath colour: grey

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Individual screening of pairs decreases signal interferences from adjacent pairs. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation). They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Insulation materials and conductor construction in BiT 500® 2(St) FR cable enable easy and fast connections and ensure their high durability.

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0850	2x2x0,5	7,7	82	33,6
SB0851	3x2x0,5	8,6	96	48,0
SB0852	4x2x0,5	9,7	128	62,4
SB0853	5x2x0,5	10,4	158	76,8
SB0854	6x2x0,5	10,8	172	91,2
SB0855	7x2x0,5	12,2	205	105,6
SB0856	8x2x0,5	12,7	230	120,0
SB0857	10x2x0,5	13,8	280	148,8
SB0858	12x2x0,5	14,7	325	177,6
SB0859	14x2x0,5	15,5	365	206,4
SB0860	16x2x0,5	17,0	435	235,2
SB0861	18x2x0,5	17,7	470	264,0
SB0862	20x2x0,5	18,4	525	292,8
SB0863	24x2x0,5	18,9	605	350,4
SB0864	2x2x0,75	8,4	98	43,2
SB0865	3x2x0,75	9,8	124	62,4
SB0866	4x2x0,75	10,5	154	81,6
SB0867	5x2x0,75	11,5	196	100,8
SB0868	6x2x0,75	11,9	215	120,0
SB0869	7x2x0,75	13,3	250	139,2
SB0870	8x2x0,75	14,1	285	158,4
SB0871	10x2x0,75	15,0	340	196,8
SB0872	12x2x0,75	16,4	410	235,2
SB0873	14x2x0,75	17,4	465	273,6

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0874	16x2x0,75	18,8	540	312,0
SB0875	18x2x0,75	19,5	590	350,4
SB0876	20x2x0,75	20,1	640	388,8
SB0877	24x2x0,75	20,7	745	465,6
SB0878	2x2x1,0	9,3	126	60,0
SB0879	3x2x1,0	10,3	150	86,4
SB0880	4x2x1,0	11,2	186	112,8
SB0881	5x2x1,0	12,2	240	139,2
SB0882	6x2x1,0	12,6	265	165,6
SB0883	7x2x1,0	14,3	310	192,0
SB0884	8x2x1,0	14,9	345	218,4
SB0885	10x2x1,0	16,4	430	271,2
SB0886	12x2x1,0	17,4	500	324,0
SB0887	14x2x1,0	18,7	580	376,8
SB0888	16x2x1,0	19,9	660	429,6
SB0889	18x2x1,0	20,8	720	482,4
SB0890	20x2x1,0	21,6	800	535,2
SB0891	24x2x1,0	22,2	930	640,8
SB0892	2x2x1,5	10,5	158	79,2
SB0893	3x2x1,5	12,0	196	115,2
SB0894	4x2x1,5	13,0	245	151,2
SB0895	5x2x1,5	14,2	310	187,2
SB0896	6x2x1,5	14,7	345	223,2
SB0897	7x2x1,5	16,8	415	259,2

BITNER®

BiT 500® 2(St) FR

Flexible, paired control cables, individually and collectively screened, highly flame retardant, with number coded conductors, rated 300/500V

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0898	8x2x1,5	17,6	460	295,2
SB0899	10x2x1,5	19,0	560	367,2
SB0900	12x2x1,5	20,3	655	439,2
SB0901	14x2x1,5	21,7	760	511,2
SB0902	16x2x1,5	23,2	870	583,2
SB0903	18x2x1,5	24,2	945	655,2
SB0904	20x2x1,5	25,4	1060	727,2
SB0905	24x2x1,5	26,1	1240	871,2
SB0906	2x2x2,5	12,5	220	117,6
SB0907	3x2x2,5	14,2	275	172,8

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0908	4x2x2,5	15,5	340	228,0
SB0909	5x2x2,5	17,1	445	283,2
SB0910	6x2x2,5	17,7	490	338,4
SB0911	7x2x2,5	20,0	580	393,6
SB0912	8x2x2,5	20,9	645	448,8
SB0913	10x2x2,5	22,7	790	559,2
SB0914	12x2x2,5	24,2	925	669,6
SB0915	14x2x2,5	26,1	1090	780,0
SB0916	16x2x2,5	27,9	1240	890,4

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® OR

Flexible, highly flame retardant, oil resistant control cables with number coded conductors, rated 300/500V

BITNER BiT 500® OR 300/500V CE

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, control cable with number coded conductors, PVC insulation and sheath, highly flame retardant and oil resistant
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Occasional flexing: -15°C * to 70°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C).
Outer sheath colour: grey

Application:

Flexible power and control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation) and in places exposed to oil or industrial coolants. Cables are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. High flexibility of BIT 500® OR cable simplifies installation and compounds used enable easy and fast connections and ensure their high durability.

* minimum temperature for occasional flexing with bending radius not smaller than 15xD. Bending test at low temperature (-15°C acc. to EN 60811-1-4).


internal application


industrial application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

flame retardant sheath


high flexibility


oil resistant
EN 60811-2-1

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0001	2x0,5	5,0	37	9,6
SB0002	3G0,5	5,3	44	14,4
SB0003	3x0,5	5,3	44	14,4
SB0004	4G0,5	5,8	51	19,2
SB0005	4x0,5	5,8	51	19,2
SB0006	5G0,5	6,3	62	24,0
SB0007	5x0,5	6,3	62	24,0
SB0008	6G0,5	7,1	75	28,8
SB0009	7G0,5	7,1	80	33,6
SB0010	7x0,5	7,1	80	33,6
SB0011	8G0,5	7,7	95	38,4
SB0012	8x0,5	7,7	95	38,4
SB0013	10G0,5	9,4	126	48,0
SB0014	12G0,5	9,4	135	57,6
SB0015	12x0,5	9,4	135	57,6
SB0016	14G0,5	9,8	150	67,2
SB0017	16G0,5	10,4	169	76,8
SB0018	18G0,5	10,9	169	86,4
SB0019	19G0,5	10,9	189	91,2
SB0020	21G0,5	11,6	213	100,8
SB0021	25G0,5	13,1	255	120,0
SB0022	27G0,5	13,1	264	129,6
SB0023	30G0,5	13,8	294	144,0
SB0024	34G0,5	14,8	335	163,2
SB0025	37G0,5	14,8	350	177,6

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0026	40G0,5	15,3	375	192,0
SB0027	42G0,5	16,9	420	201,6
SB0028	50G0,5	17,6	475	240,0
SB0029	56G0,5	18,4	525	268,8
SB0030	61G0,5	18,9	560	292,8
SB0031	2x0,75	5,4	45	14,4
SB0032	3G0,75	5,7	55	21,6
SB0033	3x0,75	5,7	55	21,6
SB0034	4G0,75	6,3	64	28,8
SB0035	4x0,75	6,3	64	28,8
SB0036	5G0,75	7,0	82	36,0
SB0037	5x0,75	7,0	82	36,0
SB0038	6G0,75	7,6	96	43,2
SB0039	6x0,75	7,6	96	43,2
SB0040	7G0,75	7,6	104	50,4
SB0041	7x0,75	7,6	104	50,4
SB0042	8G0,75	8,4	120	57,6
SB0043	8x0,75	8,4	120	57,6
SB0044	10G0,75	10,2	160	72,0
SB0045	12G0,75	10,2	170	86,4
SB0046	12x0,75	10,2	170	86,4
SB0047	14G0,75	10,7	190	100,8
SB0048	16G0,75	11,5	220	115,2
SB0049	18G0,75	12,1	245	129,6
SB0050	19G0,75	12,1	250	136,8

BITNER®

BiT 500® OR

Flexible, highly flame retardant, oil resistant control cables with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0051	21G0,75	12,7	275	151,2
SB0052	25G0,75	14,5	335	180,0
SB0053	27G0,75	14,5	345	194,4
SB0054	30G0,75	15,0	380	216,0
SB0055	34G0,75	16,6	450	244,8
SB0056	37G0,75	16,6	467	266,4
SB0057	40G0,75	17,2	500	288,0
SB0058	42G0,75	18,7	550	302,4
SB0059	50G0,75	19,5	625	360,0
SB0060	56G0,75	20,1	680	403,2
SB0061	61G0,75	20,7	730	439,2
SB0062	2x1,0	5,7	52	19,2
SB0063	3G1,0	6,1	64	28,8
SB0064	3x1,0	6,1	64	28,8
SB0065	4G1,0	6,8	80	38,4
SB0066	4x1,0	6,8	80	38,4
SB0067	5G1,0	7,4	96	48,0
SB0068	5x1,0	7,4	96	48,0
SB0069	6G1,0	8,1	114	57,6
SB0070	6x1,0	8,1	114	57,6
SB0071	7G1,0	8,1	122	67,2
SB0072	7x1,0	8,1	122	67,2
SB0073	8G1,0	9,3	150	76,8
SB0074	10G1,0	10,9	190	96,0
SB0075	10x1,0	10,9	190	96,0
SB0076	12G1,0	10,9	205	115,2
SB0077	12x1,0	10,9	205	115,2
SB0078	14G1,0	11,6	235	134,4
SB0079	16G1,0	12,2	265	153,6
SB0080	18G1,0	12,8	295	172,8
SB0081	18x1,0	12,8	295	172,8
SB0082	19G1,0	12,8	300	182,4
SB0083	21G1,0	13,7	335	201,6
SB0084	25G1,0	15,5	405	240,0
SB0085	27G1,0	15,5	415	259,2
SB0086	30G1,0	16,4	470	288,0
SB0087	34G1,0	17,6	540	326,4
SB0088	37G1,0	17,6	560	355,2
SB0089	40G1,0	18,5	610	384,0
SB0090	42G1,0	19,9	660	403,2
SB0091	50G1,0	20,8	755	480,0
SB0092	56G1,0	21,6	835	537,6
SB0093	61G1,0	22,2	895	585,6
SB0094	2x1,5	6,7	72	28,8
SB0095	3G1,5	7,1	88	43,2
SB0096	3x1,5	7,1	88	43,2
SB0097	4G1,5	7,8	109	57,6
SB0098	4x1,5	7,8	109	57,6
SB0099	5G1,5	8,5	131	72,0
SB0100	5x1,5	8,5	131	72,0
SB0101	6G1,5	9,6	163	86,4
SB0102	6x1,5	9,6	163	86,4
SB0103	7G1,5	9,6	172	100,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0104	7x1,5	9,6	172	100,8
SB0105	8G1,5	10,6	205	115,2
SB0106	10G1,5	12,7	265	144,0
SB0107	10x1,5	12,7	265	144,0
SB0108	12G1,5	12,7	285	172,8
SB0109	12x1,5	12,7	285	172,8
SB0110	14G1,5	13,5	330	201,6
SB0111	16G1,5	14,3	370	230,4
SB0112	18G1,5	15,0	410	259,2
SB0113	19G1,5	15,0	420	273,6
SB0114	21G1,5	16,2	483	302,4
SB0115	25G1,5	18,5	590	360,0
SB0116	27G1,5	18,5	610	388,8
SB0117	30G1,5	19,2	670	432,0
SB0118	34G1,5	20,6	765	489,6
SB0119	37G1,5	20,6	790	532,8
SB0120	40G1,5	21,6	860	576,0
SB0121	42G1,5	23,3	924	604,8
SB0122	50G1,5	24,7	1090	720,0
SB0123	56G1,5	25,5	1190	806,4
SB0124	61G1,5	26,2	1270	878,4
SB0125	2x2,5	7,8	102	48,0
SB0126	3G2,5	8,3	128	72,0
SB0127	3x2,5	8,3	128	72,0
SB0128	4G2,5	9,5	168	96,0
SB0129	4x2,5	9,5	168	96,0
SB0130	5G2,5	10,4	200	120,0
SB0131	5x2,5	10,4	200	120,0
SB0132	6x2,5	11,5	245	144,0
SB0133	6G2,5	11,5	245	144,0
SB0134	7G2,5	11,5	260	168,0
SB0135	7x2,5	11,5	260	168,0
SB0136	10G2,5	15,2	395	240,0
SB0137	12G2,5	15,2	425	288,0
SB0138	12x2,5	15,2	425	288,0
SB0139	14G2,5	16,4	495	336,0
SB0140	16G2,5	17,3	560	384,0
SB0141	18G2,5	18,4	635	432,0
SB0142	21G2,5	19,3	715	504,0
SB0143	25G2,5	22,1	870	600,0
SB0144	30G2,5	22,9	985	720,0
SB0145	34G2,5	25,1	1160	816,0
SB0146	37G2,5	25,1	1210	888,0
SB0147	42G2,5	28,1	1400	1008,0
SB0148	50G2,5	29,4	1620	1200,0
SB0149	2x4,0	9,3	152	76,8
SB0150	3G4,0	10,3	202	115,2
SB0151	3x4,0	10,3	202	115,2
SB0152	4G4,0	11,3	255	153,6
SB0153	5G4,0	12,6	310	192,0
SB0154	7G4,0	13,7	395	268,8
SB0155	10G4,0	18,7	615	384,0
SB0156	12G4,0	18,7	675	460,8

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® OR

Flexible, highly flame retardant, oil resistant control cables with number coded conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0157	2x2x0,5	7,3	64	19,2
SB0158	3x2x0,5	8,2	70	28,8
SB0159	4x2x0,5	9,3	100	38,4
SB0160	5x2x0,5	10,0	120	48,0
SB0161	6x2x0,5	10,4	130	57,6
SB0162	7x2x0,5	11,8	156	67,2
SB0163	8x2x0,5	12,3	172	76,8
SB0164	10x2x0,5	13,2	205	96,0
SB0165	12x2x0,5	14,3	245	115,2
SB0166	14x2x0,5	15,1	275	134,4
SB0167	16x2x0,5	16,6	335	153,6
SB0168	18x2x0,5	17,3	360	172,8
SB0169	20x2x0,5	17,8	395	192,0
SB0170	24x2x0,5	18,5	455	230,4
SB0171	2x2x0,75	8,0	78	28,8
SB0172	3x2x0,75	9,4	100	43,2
SB0173	4x2x0,75	10,1	122	57,6
SB0174	5x2x0,75	10,9	152	72,0
SB0175	6x2x0,75	11,5	170	86,4
SB0176	7x2x0,75	12,9	196	100,8
SB0177	8x2x0,75	13,7	225	115,2
SB0178	10x2x0,75	14,6	270	144,0
SB0179	12x2x0,75	16,0	325	172,8
SB0180	14x2x0,75	17,0	370	201,6
SB0181	16x2x0,75	18,4	435	230,4
SB0182	18x2x0,75	19,1	470	259,2
SB0183	20x2x0,75	19,7	515	288,0
SB0184	24x2x0,75	20,3	595	345,6
SB0185	2x2x1,0	8,5	92	38,4
SB0186	3x2x1,0	9,9	116	57,6
SB0187	4x2x1,0	10,8	145	76,8
SB0188	5x2x1,0	11,8	184	96,0
SB0189	6x2x1,0	12,2	202	115,2

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0190	7x2x1,0	13,9	240	134,4
SB0191	8x2x1,0	14,5	270	153,6
SB0192	10x2x1,0	15,6	320	192,0
SB0193	12x2x1,0	17,0	390	230,4
SB0194	14x2x1,0	18,3	450	268,8
SB0195	16x2x1,0	19,5	515	307,2
SB0196	18x2x1,0	20,4	560	345,6
SB0197	20x2x1,0	21,0	615	384,0
SB0198	24x2x1,0	21,8	725	460,8
SB0199	2x2x1,5	10,1	132	57,6
SB0200	3x2x1,5	11,6	167	86,4
SB0201	4x2x1,5	12,6	198	115,2
SB0202	5x2x1,5	13,8	258	144,0
SB0203	6x2x1,5	14,3	280	172,8
SB0204	7x2x1,5	16,4	340	201,6
SB0205	8x2x1,5	17,2	380	230,4
SB0206	10x2x1,5	18,6	465	288,0
SB0207	12x2x1,5	19,9	550	345,6
SB0208	14x2x1,5	21,1	625	403,2
SB0209	16x2x1,5	22,8	725	460,8
SB0210	18x2x1,5	23,8	780	518,4
SB0211	20x2x1,5	25,0	885	576,0
SB0212	24x2x1,5	25,7	1030	691,2
SB0213	2x2x2,5	12,1	195	96,0
SB0214	3x2x2,5	13,8	235	144,0
SB0215	4x2x2,5	15,1	305	192,0
SB0216	5x2x2,5	16,7	385	240,0
SB0217	6x2x2,5	17,3	425	288,0
SB0218	7x2x2,5	19,6	505	336,0
SB0219	8x2x2,5	20,5	560	384,0
SB0220	10x2x2,5	22,3	695	480,0
SB0221	12x2x2,5	23,8	810	576,0
SB0222	14x2x2,5	25,7	945	672,0
SB0223	16x2x2,5	27,5	1010	768,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® C OR

Flexible, highly flame retardant, oil resistant, screened control cables with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, PVC insulation and sheath, highly flame retardant and oil resistant
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid, coverage ≥85%
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C).
Outer sheath colour: grey

Application:

Flexible power and control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation) and in places exposed to oil or industrial coolants. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field (screen attenuation ca. 50dB). Cables are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. High flexibility of BIT 500® C OR cable simplifies installation and compounds used enable easy and fast connections and ensure their high durability.


industrial application


internal application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

flame retardant sheath


high flexibility


oil resistant
EN 60811-2-1

EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1550	2x0,5	5,4	44	35
SB1551	3G0,5	5,7	48	42
SB1552	3x0,5	5,7	48	42
SB1553	4G0,5	6,2	58	46
SB1554	4x0,5	6,2	58	46
SB1555	5G0,5	6,9	72	55
SB1556	5x0,5	6,9	72	55
SB1557	6G0,5	7,4	84	63
SB1558	7G0,5	7,4	88	68
SB1559	7x0,5	7,4	88	68
SB1560	8G0,5	8,3	110	81
SB1561	8x0,5	8,3	110	81
SB1562	10G0,5	10,0	145	94
SB1563	12G0,5	10,0	155	108
SB1564	12x0,5	10,0	155	108
SB1565	14G0,5	10,4	170	116
SB1566	16G0,5	11,0	190	128
SB1567	18G0,5	11,7	220	145
SB1568	19G0,5	11,8	220	160
SB1569	21G0,5	12,2	240	180
SB1570	25G0,5	13,9	295	234
SB1571	27G0,5	13,9	300	244
SB1572	30G0,5	14,4	325	270
SB1573	34G0,5	15,4	370	301

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1574	37G0,5	15,4	385	315
SB1575	40G0,5	16,3	425	335
SB1576	42G0,5	17,5	455	359
SB1577	50G0,5	18,2	525	405
SB1578	56G0,5	19,0	570	439
SB1579	61G0,5	19,5	610	471
SB1580	2x0,75	5,8	52	40
SB1581	3G0,75	6,1	58	49
SB1582	3x0,75	6,1	58	49
SB1583	4G0,75	6,9	74	59
SB1584	4x0,75	6,9	74	59
SB1585	5G0,75	7,4	88	70
SB1586	5x0,75	7,4	88	70
SB1587	6G0,75	8,2	112	80
SB1588	6x0,75	8,2	112	80
SB1589	7G0,75	8,2	118	90
SB1590	7x0,75	8,2	118	90
SB1591	8G0,75	9,4	142	110
SB1592	8x0,75	9,4	142	110
SB1593	10G0,75	10,8	180	138
SB1594	12G0,75	10,6	190	142
SB1595	12x0,75	10,6	190	142
SB1596	14G0,75	11,5	220	179
SB1597	16G0,75	12,1	245	197

BiT 500® C OR

Flexible, highly flame retardant, oil resistant, screened control cables with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1598	18G0,75	12,7	275	217
SB1599	19G0,75	12,7	280	224
SB1600	21G0,75	13,3	305	244
SB1601	25G0,75	15,1	370	286
SB1602	27G0,75	15,1	380	300
SB1603	30G0,75	16,0	425	326
SB1604	34G0,75	17,2	490	345
SB1605	37G0,75	17,2	505	360
SB1606	40G0,75	17,8	540	398
SB1607	42G0,75	19,3	590	421
SB1608	50G0,75	20,1	670	470
SB1609	56G0,75	20,7	725	518
SB1610	61G0,75	21,5	790	550
SB1611	2x1,0	6,1	57	50
SB1612	3G1,0	6,5	69	60
SB1613	3x1,0	6,5	69	60
SB1614	4G1,0	7,0	84	70
SB1615	4x1,0	7,0	84	70
SB1616	5G1,0	8,0	111	87
SB1617	5x1,0	8,0	111	87
SB1618	6G1,0	8,6	129	95
SB1619	6x1,0	8,6	129	95
SB1620	7G1,0	8,6	138	110
SB1621	7x1,0	8,6	138	110
SB1622	8G1,0	9,9	165	125
SB1623	10G1,0	11,5	215	150
SB1624	10x1,0	11,5	215	150
SB1625	12G1,0	11,5	230	180
SB1626	12x1,0	11,5	230	180
SB1627	14G1,0	12,2	260	197
SB1628	16G1,0	12,8	290	210
SB1629	18G1,0	13,6	330	250
SB1630	18x1,0	13,6	330	250
SB1631	19G1,0	13,6	335	260
SB1632	21G1,0	14,3	365	297
SB1633	25G1,0	16,5	455	335
SB1634	27G1,0	16,5	465	400
SB1635	30G1,0	17,0	505	440
SB1636	34G1,0	18,4	590	485
SB1637	37G1,0	18,4	610	495
SB1638	40G1,0	19,1	655	510
SB1639	42G1,0	20,5	700	530
SB1640	50G1,0	21,6	815	600
SB1641	56G1,0	22,2	885	661
SB1642	61G1,0	22,8	950	700
SB1643	2x1,5	7,1	88	62
SB1644	3G1,5	7,5	99	79
SB1645	3x1,5	7,5	99	79
SB1646	4G1,5	8,4	122	96
SB1647	4x1,5	8,4	122	96
SB1648	5G1,5	9,5	156	120
SB1649	5x1,5	9,5	156	120
SB1650	6G1,5	10,2	182	130
SB1651	6x1,5	10,2	182	130

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1652	7G1,5	10,2	192	145
SB1653	7x1,5	10,2	192	145
SB1654	8G1,5	11,0	220	173
SB1655	10G1,5	13,3	290	193
SB1656	10x1,5	13,3	290	193
SB1657	12G1,5	13,3	310	243
SB1658	12x1,5	13,3	310	243
SB1659	14G1,5	14,1	355	276
SB1660	16G1,5	14,9	410	310
SB1661	18G1,5	16,0	455	352
SB1662	19G1,5	16,0	465	367
SB1663	21G1,5	16,8	515	393
SB1664	25G1,5	19,1	620	464
SB1665	27G1,5	19,1	640	493
SB1666	30G1,5	19,8	700	540
SB1667	34G1,5	21,4	810	608
SB1668	37G1,5	21,4	840	651
SB1669	40G1,5	22,2	910	700
SB1670	42G1,5	23,9	970	740
SB1671	50G1,5	25,3	1140	862
SB1672	56G1,5	26,1	1240	955
SB1673	61G1,5	26,8	1330	1030
SB1674	2x2,5	8,4	112	90
SB1675	3G2,5	9,3	144	117
SB1676	3x2,5	9,3	144	117
SB1677	4G2,5	10,1	180	147
SB1678	4x2,5	10,1	180	147
SB1679	5G2,5	11,0	216	176
SB1680	5x2,5	11,0	216	176
SB1681	6G2,5	12,1	265	206
SB1682	6x2,5	12,1	265	206
SB1683	7G2,5	12,1	280	230
SB1684	7x2,5	12,1	280	230
SB1685	10G2,5	16,2	430	326
SB1686	12G2,5	16,2	465	374
SB1687	12x2,5	16,2	465	374
SB1688	14G2,5	17,0	525	427
SB1689	16G2,5	17,9	590	481
SB1690	18G2,5	19,0	665	536
SB1691	21G2,5	19,9	750	614
SB1692	25G2,5	22,7	910	728
SB1693	30G2,5	23,5	1030	853
SB1694	34G2,5	25,7	1210	960
SB1695	37G2,5	25,7	1260	1032
SB1696	42G2,5	28,9	1470	1216
SB1697	50G2,5	30,2	1700	1418
SB1698	2x4,0	10,3	170	128
SB1699	3G4,0	10,9	200	171
SB1700	3x4,0	10,9	200	171
SB1701	4G4,0	12,1	270	216
SB1702	5G4,0	13,2	325	262
SB1703	7G4,0	14,5	425	346
SB1704	10G4,0	19,5	645	491
SB1705	12G4,0	19,5	705	568

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® C OR

Flexible, highly flame retardant, oil resistant screened control cables with number coded conductors, rated 300/500V

paired cables

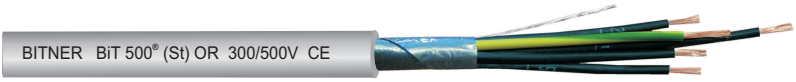
Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1706	2x2x0,5	7,7	80	52
SB1707	3x2x0,5	9,2	105	70
SB1708	4x2x0,5	9,9	125	91
SB1709	5x2x0,5	10,6	155	105
SB1710	6x2x0,5	11,0	165	122
SB1711	7x2x0,5	12,4	195	139
SB1712	8x2x0,5	12,9	210	151
SB1713	10x2x0,5	14,0	255	171
SB1714	12x2x0,5	14,9	290	198
SB1715	14x2x0,5	16,1	340	208
SB1716	16x2x0,5	17,2	385	241
SB1717	18x2x0,5	17,9	415	279
SB1718	20x2x0,5	18,6	455	300
SB1719	24x2x0,5	19,1	515	325
SB1720	2x2x0,75	8,6	102	58
SB1721	3x2x0,75	10,0	126	85
SB1722	4x2x0,75	10,7	152	110
SB1723	5x2x0,75	11,7	192	128
SB1724	6x2x0,75	12,1	205	148
SB1725	7x2x0,75	13,7	245	168
SB1726	8x2x0,75	14,3	270	182
SB1727	10x2x0,75	15,2	315	220
SB1728	12x2x0,75	16,6	375	260
SB1729	14x2x0,75	17,6	425	290
SB1730	16x2x0,75	19,0	490	319
SB1731	18x2x0,75	19,7	530	345
SB1732	20x2x0,75	20,3	570	368
SB1733	24x2x0,75	20,9	655	404
SB1734	2x2x1,0	9,5	126	82
SB1735	3x2x1,0	10,5	146	105
SB1736	4x2x1,0	11,6	182	130
SB1737	5x2x1,0	12,4	225	160
SB1738	6x2x1,0	12,8	240	185
SB1739	7x2x1,0	14,5	285	220

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1740	8x2x1,0	15,1	315	237
SB1741	10x2x1,0	16,6	385	280
SB1742	12x2x1,0	17,6	445	325
SB1743	14x2x1,0	18,9	510	389
SB1744	16x2x1,0	20,1	580	420
SB1745	18x2x1,0	21,0	625	462
SB1746	20x2x1,0	21,8	690	492
SB1747	24x2x1,0	22,4	790	541
SB1748	2x2x1,5	10,7	162	106
SB1749	3x2x1,5	12,2	196	133
SB1750	4x2x1,5	13,2	240	157
SB1751	5x2x1,5	14,4	300	181
SB1752	6x2x1,5	14,9	325	200
SB1753	7x2x1,5	17,0	395	230
SB1754	8x2x1,5	17,8	435	310
SB1755	10x2x1,5	19,2	525	380
SB1756	12x2x1,5	20,5	605	455
SB1757	14x2x1,5	21,9	695	507
SB1758	16x2x1,5	23,4	795	561
SB1759	18x2x1,5	24,8	885	607
SB1760	20x2x1,5	25,6	960	700
SB1761	24x2x1,5	26,3	1105	825
SB1762	2x2x2,5	12,7	230	148
SB1763	3x2x2,5	14,4	280	220
SB1764	4x2x2,5	16,1	355	295
SB1765	5x2x2,5	17,3	440	350
SB1766	6x2x2,5	17,9	480	385
SB1767	7x2x2,5	20,2	565	444
SB1768	8x2x2,5	21,1	625	483
SB1769	10x2x2,5	22,9	760	559
SB1770	12x2x2,5	24,4	880	629
SB1771	14x2x2,5	26,3	1030	709
SB1772	16x2x2,5	28,1	1175	787

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® (St) OR

Flexible, screened control cables, highly flame retardant, oil resistant, with number coded conductors, rated 300/500V



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cables with number coded conductors, PVC insulation and sheath, highly flame retardant, oil resistant
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 5 x Ø
Flexible connections: 10 x Ø


internal application


industrial application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

flame retardant sheath


high flexibility


oil resistant
EN 60811-2-1

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors
Core arrangement: pairs twisted together or cores twisted together
Screen: Aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C)
Outer sheath colour: grey

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Common screen improves protection of transmitted signals against external electromagnetic field. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation) and in places exposed to oil or industrial coolants. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Insulation materials and conductor construction in BIT 500® (St) OR cable enable easy and fast connections and ensure their high durability.

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0950	2x0,5	5,2	40	14,4
SB0951	3G0,5	5,5	45	19,2
SB0952	3x0,5	5,5	45	19,2
SB0953	4G0,5	6,0	52	24,0
SB0954	4x0,5	6,0	52	24,0
SB0955	5G0,5	6,5	64	28,8
SB0956	5x0,5	6,5	64	28,8
SB0957	6G0,5	7,2	76	33,6
SB0958	7G0,5	7,2	80	38,4
SB0959	7x0,5	7,2	80	38,4
SB0960	8G0,5	8,2	95	43,2
SB0961	8x0,5	8,2	95	43,2
SB0962	10G0,5	9,8	126	52,8
SB0963	12G0,5	9,8	134	62,4
SB0964	12x0,5	9,8	134	62,4
SB0965	14G0,5	10,2	150	72,0
SB0966	16G0,5	10,8	168	81,6
SB0967	18G0,5	11,5	192	91,2
SB0968	19G0,5	11,5	196	96,0
SB0969	21G0,5	12,0	215	105,6
SB0970	25G0,5	13,7	260	124,8
SB0971	27G0,5	13,7	270	134,4
SB0972	30G0,5	14,2	295	148,8
SB0973	34G0,5	15,2	335	168,0
SB0974	37G0,5	15,2	345	182,4

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB0975	40G0,5	16,1	390	196,8
SB0976	42G0,5	17,3	415	206,4
SB0977	50G0,5	18,2	485	244,8
SB0978	56G0,5	18,8	525	273,6
SB0979	61G0,5	19,3	560	297,6
SB0980	2x0,75	5,6	48	19,2
SB0981	3G0,75	5,9	54	26,4
SB0982	3x0,75	5,9	54	26,4
SB0983	4G0,75	6,5	66	33,6
SB0984	4x0,75	6,5	66	33,6
SB0985	5G0,75	7,2	81	40,8
SB0986	5x0,75	7,2	81	40,8
SB0987	6G0,75	7,8	96	48,0
SB0988	6x0,75	7,8	96	48,0
SB0989	7G0,75	7,8	102	55,2
SB0990	7x0,75	7,8	102	55,2
SB0991	8G0,75	9,2	126	62,4
SB0992	8x0,75	9,2	126	62,4
SB0993	10G0,75	10,6	159	76,8
SB0994	12G0,75	10,6	168	91,2
SB0995	12x0,75	10,6	168	91,2
SB0996	14G0,75	11,3	195	105,6
SB0997	16G0,75	11,9	220	120,0
SB0998	18G0,75	12,5	245	134,4
SB0999	19G0,75	12,5	250	141,6

BITNER®

BiT 500® (St) OR

Flexible, screened control cables, highly flame retardant, oil resistant, with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1000	21G0,75	13,1	275	156,0
SB1001	25G0,75	14,9	335	184,8
SB1002	27G0,75	14,9	345	199,2
SB1003	30G0,75	15,4	375	220,8
SB1004	34G0,75	17,0	450	249,6
SB1005	37G0,75	17,0	465	271,2
SB1006	40G0,75	17,6	500	292,8
SB1007	42G0,75	19,1	540	307,2
SB1008	50G0,75	19,9	620	364,8
SB1009	56G0,75	20,5	675	408,0
SB1010	61G0,75	21,1	725	444,0
SB1011	2x1,0	5,9	54	26,4
SB1012	3G1,0	6,3	64	36,0
SB1013	3x1,0	6,3	64	36,0
SB1014	4G1,0	7,0	80	45,6
SB1015	4x1,0	7,0	80	45,6
SB1016	5G1,0	7,6	98	55,2
SB1017	5x1,0	7,6	98	55,2
SB1018	6G1,0	8,2	114	64,8
SB1019	6x1,0	8,2	114	64,8
SB1020	7G1,0	8,2	120	74,4
SB1021	7x1,0	8,2	120	74,4
SB1022	8G1,0	9,7	148	84,0
SB1023	10G1,0	11,5	194	103,2
SB1024	10x1,0	11,5	194	103,2
SB1025	12G1,0	11,5	210	122,4
SB1026	12x1,0	11,5	210	122,4
SB1027	14G1,0	12,0	235	141,6
SB1028	16G1,0	12,6	265	160,8
SB1029	18G1,0	13,2	295	180,0
SB1030	18x1,0	13,2	295	180,0
SB1031	19G1,0	13,2	300	189,6
SB1032	21G1,0	14,1	335	208,8
SB1033	25G1,0	16,3	415	247,2
SB1034	27G1,0	16,3	430	266,4
SB1035	30G1,0	16,8	470	295,2
SB1036	34G1,0	18,2	550	333,6
SB1037	37G1,0	18,2	565	362,4
SB1038	40G1,0	18,9	610	391,2
SB1039	42G1,0	20,3	650	410,4
SB1040	50G1,0	21,2	750	487,2
SB1041	56G1,0	22,0	830	544,8
SB1042	61G1,0	22,6	890	592,8
SB1043	2x1,5	6,9	74	36,0
SB1044	3G1,5	7,3	86	50,4
SB1045	3x1,5	7,3	86	50,4
SB1046	4G1,5	8,0	108	64,8
SB1047	4x1,5	8,0	108	64,8
SB1048	5G1,5	9,1	138	79,2
SB1049	5x1,5	9,1	138	79,2
SB1050	6G1,5	9,8	162	93,6
SB1051	6x1,5	9,8	162	93,6
SB1052	7G1,5	9,8	172	108,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1053	7x1,5	9,8	172	108,0
SB1054	8G1,5	11,0	200	122,4
SB1055	10G1,5	13,1	260	151,2
SB1056	10x1,5	13,1	260	151,2
SB1057	12G1,5	13,1	280	180,0
SB1058	12x1,5	13,1	280	180,0
SB1059	14G1,5	13,9	325	208,8
SB1060	16G1,5	14,7	365	237,6
SB1061	18G1,5	15,4	410	266,4
SB1062	19G1,5	15,4	420	280,8
SB1063	21G1,5	16,6	475	309,6
SB1064	25G1,5	18,9	575	367,2
SB1065	27G1,5	18,9	595	396,0
SB1066	30G1,5	19,6	650	439,2
SB1067	34G1,5	21,0	750	496,8
SB1068	37G1,5	21,0	780	540,0
SB1069	40G1,5	22,0	850	583,2
SB1070	42G1,5	23,7	910	612,0
SB1071	50G1,5	25,1	1080	727,2
SB1072	56G1,5	25,9	1180	813,6
SB1073	61G1,5	26,6	1260	885,6
SB1074	2x2,5	8,0	96	55,2
SB1075	3G2,5	8,5	118	79,2
SB1076	3x2,5	8,5	118	79,2
SB1077	4G2,5	9,7	160	103,2
SB1078	4x2,5	9,7	160	103,2
SB1079	5G2,5	10,6	192	127,2
SB1080	5x2,5	10,6	192	127,2
SB1081	6G2,5	11,9	240	151,2
SB1082	6x2,5	11,9	240	151,2
SB1083	7G2,5	11,9	255	175,2
SB1084	7x2,5	11,9	255	175,2
SB1085	10G2,5	16,0	395	247,2
SB1086	12G2,5	16,0	430	295,2
SB1087	12x2,5	16,0	430	295,2
SB1088	14G2,5	16,8	485	343,2
SB1089	16G2,5	17,7	550	391,2
SB1090	18G2,5	18,8	625	439,2
SB1091	21G2,5	19,7	705	511,2
SB1092	25G2,5	22,5	855	607,2
SB1093	30G2,5	23,3	970	727,2
SB1094	34G2,5	25,5	1150	823,2
SB1095	37G2,5	25,5	1190	895,2
SB1096	42G2,5	28,5	1370	1015,2
SB1097	50G2,5	29,8	1590	1207,2
SB1098	2x4,0	9,9	150	84,0
SB1099	3G4,0	10,5	190	122,4
SB1100	3x4,0	10,5	190	122,4
SB1101	4G4,0	11,7	240	160,8
SB1102	5G4,0	12,7	300	199,2
SB1103	7G4,0	14,0	390	276,0
SB1104	10G4,0	18,9	600	391,2
SB1105	12G4,0	18,9	660	468,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® (St) OR

Flexible, screened control cables, highly flame retardant, oil resistant, with number coded conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1106	2x2x0,5	7,7	70	24,0
SB1107	3x2x0,5	8,6	80	33,6
SB1108	4x2x0,5	9,7	106	43,2
SB1109	5x2x0,5	10,4	130	52,8
SB1110	6x2x0,5	10,8	138	62,4
SB1111	7x2x0,5	12,2	166	72,0
SB1112	8x2x0,5	12,7	182	81,6
SB1113	10x2x0,5	13,8	220	100,8
SB1114	12x2x0,5	14,7	255	120,0
SB1115	14x2x0,5	15,5	290	139,2
SB1116	16x2x0,5	17,0	345	158,4
SB1117	18x2x0,5	17,7	370	177,6
SB1118	20x2x0,5	18,4	410	196,8
SB1119	24x2x0,5	18,9	470	235,2
SB1120	2x2x0,75	8,4	86	33,6
SB1121	3x2x0,75	9,8	106	48,0
SB1122	4x2x0,75	10,5	130	62,4
SB1123	5x2x0,75	11,5	168	76,8
SB1124	6x2x0,75	11,9	180	91,2
SB1125	7x2x0,75	13,3	205	105,6
SB1126	8x2x0,75	14,1	235	120,0
SB1127	10x2x0,75	15,0	280	148,8
SB1128	12x2x0,75	16,4	340	177,6
SB1129	14x2x0,75	17,4	380	206,4
SB1130	16x2x0,75	18,8	445	235,2
SB1131	18x2x0,75	19,5	480	264,0
SB1132	20x2x0,75	20,1	520	292,8
SB1133	24x2x0,75	20,7	600	350,4
SB1134	2x2x1,0	9,3	110	45,6
SB1135	3x2x1,0	10,3	126	64,8
SB1136	4x2x1,0	11,2	154	84,0
SB1137	5x2x1,0	12,2	196	103,2
SB1138	6x2x1,0	12,6	214	122,4
SB1139	7x2x1,0	14,3	255	141,6

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1140	8x2x1,0	14,9	280	160,8
SB1141	10x2x1,0	16,4	350	199,2
SB1142	12x2x1,0	17,4	405	237,6
SB1143	14x2x1,0	18,7	465	276,0
SB1144	16x2x1,0	19,9	530	314,4
SB1145	18x2x1,0	20,8	575	352,8
SB1146	20x2x1,0	21,6	635	391,2
SB1147	24x2x1,0	22,2	735	468,0
SB1148	2x2x1,5	10,5	142	64,8
SB1149	3x2x1,5	12,0	172	93,6
SB1150	4x2x1,5	13,0	210	122,4
SB1151	5x2x1,5	14,2	270	151,2
SB1152	6x2x1,5	14,7	295	180,0
SB1153	7x2x1,5	16,8	355	208,8
SB1154	8x2x1,5	17,6	395	237,6
SB1155	10x2x1,5	19,0	480	295,2
SB1156	12x2x1,5	20,3	555	352,8
SB1157	14x2x1,5	21,7	645	410,4
SB1158	16x2x1,5	23,2	735	468,0
SB1159	18x2x1,5	24,2	800	525,6
SB1160	20x2x1,5	25,4	895	583,2
SB1161	24x2x1,5	26,1	1035	698,4
SB1162	2x2x2,5	12,5	205	103,2
SB1163	3x2x2,5	14,2	245	151,2
SB1164	4x2x2,5	15,5	305	199,2
SB1165	5x2x2,5	17,1	400	247,2
SB1166	6x2x2,5	17,7	440	295,2
SB1167	7x2x2,5	20,0	515	343,2
SB1168	8x2x2,5	20,9	575	391,2
SB1169	10x2x2,5	22,7	705	487,2
SB1170	12x2x2,5	24,2	820	583,2
SB1171	14x2x2,5	26,1	960	679,2
SB1172	16x2x2,5	27,9	1100	775,2

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® 2(St) OR

Flexible, paired control cables, individually and collectively screened, highly flame retardant and oil resistant, with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

BITNER BiT 500® 2(St) OR 300/500V CE

Technical data:

Flexible control cable with number coded conductors, PVC insulation and sheath, highly flame retardant, oil resistant with individually and collectively screened pairs.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 5 x Ø
Flexible connections: 10 x Ø


internal application


industrial application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

flame retardant sheath


high flexibility


oil resistant
EN 60811-2-1

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors
Core arrangement: twisted screened pairs
Individual screen: Aluminium backed polyester tape with tinned copper drain wire on each pair
Collective screen: Aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat.C)
Outer sheath colour: grey

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Collective screening improves protection of transmitted signals against external electomagnetic interferences. Individual screening of pairs decreases signal interferences from adjacent pairs. Desgined especially for installation in industrial areas with increased fire safety requirements (limited flame propagation) and in places exposed to oil or industrial coolants. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Insulation materials and conductor construction in BiT 500® 2(St) OR cable enable easy and fast connections and ensure their high durability.

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1190	2x2x0,5	7,7	82	33,6
SB1191	3x2x0,5	8,6	96	48,0
SB1192	4x2x0,5	9,7	128	62,4
SB1193	5x2x0,5	10,4	158	76,8
SB1194	6x2x0,5	10,8	172	91,2
SB1195	7x2x0,5	12,2	205	105,6
SB1196	8x2x0,5	12,7	230	120,0
SB1197	10x2x0,5	13,8	280	148,8
SB1198	12x2x0,5	14,7	325	177,6
SB1199	14x2x0,5	15,5	365	206,4
SB1200	16x2x0,5	17,0	435	235,2
SB1201	18x2x0,5	17,7	470	264,0
SB1202	20x2x0,5	18,4	525	292,8
SB1203	24x2x0,5	18,9	605	350,4
SB1204	2x2x0,75	8,4	98	43,2
SB1205	3x2x0,75	9,8	124	62,4
SB1206	4x2x0,75	10,5	154	81,6
SB1207	5x2x0,75	11,5	196	100,8
SB1208	6x2x0,75	11,9	215	120,0
SB1209	7x2x0,75	13,3	250	139,2
SB1210	8x2x0,75	14,1	285	158,4
SB1211	10x2x0,75	15,0	340	196,8
SB1212	12x2x0,75	16,4	410	235,2
SB1213	14x2x0,75	17,4	465	273,6
SB1214	16x2x0,75	18,8	540	312,0
SB1215	18x2x0,75	19,5	590	350,4
SB1216	20x2x0,75	20,1	640	388,8
SB1217	24x2x0,75	20,7	745	465,6
SB1218	2x2x1,0	9,3	126	60,0
SB1219	3x2x1,0	10,3	150	86,4
SB1220	4x2x1,0	11,2	186	112,8
SB1221	5x2x1,0	12,2	240	139,2
SB1222	6x2x1,0	12,6	265	165,6

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1223	7x2x1,0	14,3	310	192,0
SB1224	8x2x1,0	14,9	345	218,4
SB1225	10x2x1,0	16,4	430	271,2
SB1226	12x2x1,0	17,4	500	324,0
SB1227	14x2x1,0	18,7	580	376,8
SB1228	16x2x1,0	19,9	660	429,6
SB1229	18x2x1,0	20,8	720	482,4
SB1230	20x2x1,0	21,6	800	535,2
SB1231	24x2x1,0	22,2	930	640,8
SB1232	2x2x1,5	10,5	158	79,2
SB1233	3x2x1,5	12,0	196	115,2
SB1234	4x2x1,5	13,0	245	151,2
SB1235	5x2x1,5	14,2	310	187,2
SB1236	6x2x1,5	14,7	345	223,2
SB1237	7x2x1,5	16,8	415	259,2
SB1238	8x2x1,5	17,6	460	295,2
SB1239	10x2x1,5	19,0	560	367,2
SB1240	12x2x1,5	20,3	655	439,2
SB1241	14x2x1,5	21,7	760	511,2
SB1242	16x2x1,5	23,2	870	583,2
SB1243	18x2x1,5	24,2	945	655,2
SB1244	20x2x1,5	25,4	1060	727,2
SB1245	24x2x1,5	26,1	1240	871,2
SB1246	2x2x2,5	12,5	220	117,6
SB1247	3x2x2,5	14,2	275	172,8
SB1248	4x2x2,5	15,5	340	228,0
SB1249	5x2x2,5	17,1	445	283,2
SB1250	6x2x2,5	17,7	490	338,4
SB1251	7x2x2,5	20,0	580	393,6
SB1252	8x2x2,5	20,9	645	448,8
SB1253	10x2x2,5	22,7	790	559,2
SB1254	12x2x2,5	24,2	925	669,6
SB1255	14x2x2,5	26,1	1090	780,0
SB1256	16x2x2,5	27,9	1240	890,4

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® BLACK

Flexible control cables for outdoor applications
with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, PVC insulation and sheath for outdoor and direct burial applications.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Occasional flexing: -15°C * to 70°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø


internal application


external application


underground installation


industrial application


PN-EN 60332-1


high flexibility

UV resistant

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1), UV resistant
Outer sheath colour: black

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables suitable for outdoor installation - outer sheath is UV resistant. Cables designed also for direct burial in ground. Insulation and sheath materials and conductor construction in BIT 500® BLACK cable enable easy and fast connections and ensure their high durability.

** minimum temperature for occasional flexing with bending radius not smaller than 15xD. Bending test at low temperature (-15°C acc. to EN 60811-1-4).*

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S58300	2x0,5	6,8	62	14,4
S58301	3G0,5	7,1	70	19,2
S58302	3x0,5	7,1	70	19,2
S58303	4G0,5	7,6	80	24,0
S58304	4x0,5	7,6	80	24,0
S58305	5G0,5	8,1	92	28,8
S58306	5x0,5	8,1	92	28,8
S58307	6G0,5	8,6	105	33,6
S58308	7G0,5	8,6	110	38,4
S58309	7x0,5	8,6	110	38,4
S58310	8G0,5	9,3	125	43,2
S58311	8x0,5	9,3	125	43,2
S58312	10G0,5	10,6	155	52,8
S58313	12G0,5	10,6	165	62,4
S58314	12x0,5	10,6	165	62,4
S58315	14G0,5	11,0	180	72,0
S58316	16G0,5	11,6	200	81,6
S58317	18G0,5	12,1	220	91,2
S58318	19G0,5	12,1	220	96,0
S58320	21G0,5	12,6	240	105,6
S58321	25G0,5	14,1	285	124,8
S58408	27G0,5	14,1	295	134,4
S58322	30G0,5	14,6	320	148,8
S58409	34G0,5	15,6	365	168,0
S58410	37G0,5	15,6	375	182,4
S58411	40G0,5	16,1	400	196,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S58412	42G0,5	17,9	455	206,4
S58413	50G0,5	18,6	515	244,8
S58414	56G0,5	19,4	570	273,6
S58415	61G0,5	19,9	605	297,6
S58324	2x0,75	7,2	70	19,2
S58325	3G0,75	7,5	82	26,4
S58326	3x0,75	7,5	82	26,4
S58327	4G0,75	8,1	94	33,6
S58328	4x0,75	8,1	94	33,6
S58329	5G0,75	8,6	110	40,8
S58330	5x0,75	8,6	110	40,8
S58331	6G0,75	9,2	126	48,0
S58332	6x0,75	9,2	126	48,0
S58333	7G0,75	9,2	132	55,2
S58334	7x0,75	9,2	132	55,2
S58335	8G0,75	10,0	152	62,4
S58336	8x0,75	10,0	152	62,4
S58337	10G0,75	11,4	188	76,8
S58338	12G0,75	11,4	200	91,2
S58339	12x0,75	11,4	200	91,2
S58340	14G0,75	11,9	225	105,6
S58341	16G0,75	12,5	250	120,0
S58342	18G0,75	13,1	275	134,4
S58343	19G0,75	13,1	280	141,6
S58345	21G0,75	13,7	305	156,0
S58346	25G0,75	15,3	365	184,8

BITNER®

BiT 500® BLACK

Flexible control cables for outdoor applications
with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S58416	27G0,75	15,3	375	199,2
S58417	30G0,75	15,8	405	220,8
S58418	34G0,75	17,6	490	249,6
S58419	37G0,75	17,6	505	271,2
S58420	40G0,75	18,2	540	292,8
S58421	42G0,75	19,7	590	307,2
S58422	50G0,75	20,5	670	364,8
S58423	56G0,75	21,1	725	408,0
S58424	61G0,75	21,7	775	444,0
S58347	2x1,0	7,5	80	26,4
S58348	3G1,0	7,9	92	36,0
S58349	3x1,0	7,9	92	36,0
S58350	4G1,0	8,4	108	45,6
S58351	4x1,0	8,4	108	45,6
S58352	5G1,0	9,0	126	55,2
S58353	5x1,0	9,0	126	55,2
S58354	6G1,0	9,6	146	64,8
S58355	6x1,0	9,6	146	64,8
S58356	7G1,0	9,6	152	74,4
S58357	7x1,0	9,6	152	74,4
S58358	8G1,0	10,5	155	84,0
S58359	10G1,0	12,1	220	103,2
S58360	10x1,0	12,1	220	103,2
S58361	12G1,0	12,1	235	122,4
S58362	12x1,0	12,1	235	122,4
S58363	14G1,0	12,6	260	141,6
S58364	16G1,0	13,2	295	160,8
S58365	18G1,0	13,8	325	180,0
S58366	18x1,0	13,8	325	180,0
S58367	19G1,0	13,8	330	189,6
S58370	21G1,0	14,5	360	208,8
S58371	25G1,0	16,3	430	247,2
S58425	27G1,0	16,3	445	266,4
S58372	30G1,0	17,4	510	295,2
S58373	34G1,0	18,6	580	333,6
S58374	37G1,0	18,6	600	362,4
S58375	40G1,0	19,5	655	391,2
S58376	42G1,0	20,9	705	410,4
S58377	50G1,0	21,8	805	487,2
S58378	56G1,0	22,8	895	544,8
S58379	61G1,0	23,4	955	592,8
S58380	2x1,5	8,3	100	36,0
S58381	3G1,5	8,7	118	50,4
S58382	3x1,5	8,7	118	50,4
S58383	4G1,5	9,4	142	64,8
S58384	4x1,5	9,4	142	64,8
S58385	5G1,5	10,1	166	79,2
S58386	5x1,5	10,1	166	79,2
S58387	6G1,5	10,8	190	93,6
S58426	6x1,5	10,8	190	93,6
S58388	7G1,5	10,8	200	108,0
S58389	7x1,5	10,8	200	108,0
S58390	8G1,5	11,8	235	122,4
S58391	10G1,5	13,7	295	151,2
S58427	10x1,5	13,7	295	151,2
S58392	12G1,5	13,7	315	180,0
S58393	12x1,5	13,7	315	180,0
S58428	14G1,5	14,3	355	208,8
S58429	16G1,5	15,1	395	237,6
S58430	18G1,5	15,8	440	266,4
S58431	19G1,5	15,8	450	280,8
S58432	21G1,5	17,2	515	309,6

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S58433	25G1,5	19,5	625	367,2
S58434	27G1,5	19,5	645	396,0
S58435	30G1,5	20,2	705	439,2
S58436	34G1,5	21,6	805	496,8
S58437	37G1,5	21,6	835	540,0
S58438	40G1,5	22,8	920	583,2
S58439	42G1,5	24,5	985	612,0
S58440	50G1,5	26,1	1170	727,2
S58441	56G1,5	26,9	1270	813,6
S58442	61G1,5	27,6	1360	885,6
S58394	2x2,5	9,4	134	55,2
S58395	3G2,5	9,9	160	79,2
S58396	3x2,5	9,9	160	79,2
S58397	4G2,5	10,7	194	103,2
S58398	4x2,5	10,7	194	103,2
S58399	5G2,5	11,6	230	127,2
S58400	5x2,5	11,6	230	127,2
S58401	6G2,5	12,5	270	151,2
S58443	6x2,5	12,5	270	151,2
S58402	7G2,5	12,5	285	175,2
S58403	7x2,5	12,5	285	175,2
S58405	10G2,5	16,0	420	247,2
S58406	12G2,5	16,0	450	295,2
S58407	12x2,5	16,0	450	295,2
S58444	14G2,5	17,4	535	343,2
S58445	16G2,5	18,3	600	391,2
S58446	18G2,5	19,4	675	439,2
S58447	21G2,5	20,3	760	511,2
S58448	25G2,5	23,3	930	607,2
S58449	30G2,5	24,1	1050	727,2
S58450	34G2,5	26,5	1240	823,2
S58451	37G2,5	26,5	1290	895,2
S58452	42G2,5	29,5	1490	1015,2
S58453	50G2,5	30,8	1710	1207,2
S58454	2x4,0	11,1	194	84,0
S58455	3G4,0	11,7	240	122,4
S58456	3x4,0	11,7	240	122,4
S58457	4G4,0	12,8	290	160,8
S58458	5G4,0	13,9	350	199,2
S58459	7G4,0	15,0	435	276,0
S58460	10G4,0	20,3	680	391,2
S58461	12G4,0	20,3	740	468,0
S58462	2x6,0	11,7	240	115,2
S58463	3G6,0	12,4	300	172,8
S58464	3x6,0	12,4	300	172,8
S58465	4G6,0	13,6	380	230,4
S58466	5G6,0	14,7	455	288,0
S58467	7G6,0	15,9	575	403,2
S58468	2x10	13,9	365	192,0
S58469	3G10	14,7	460	288,0
S58470	3x10	14,7	460	288,0
S58471	4G10	16,9	605	384,0
S58472	5G10	18,3	730	480,0
S58473	7G10	20,0	940	672,0
S58474	2x16	15,7	505	307,2
S58475	3G16	17,3	675	460,8
S58476	3x16	17,3	675	460,8
S58477	4G16	19,3	865	614,4
S58478	5G16	20,9	1050	768,0
S58479	2x25	20,1	750	480,0
S58480	3G25	21,3	1040	720,0
S58481	3x25	21,3	1040	720,0
S58482	4G25	24,1	1340	960,0

BiT 500® BLACK

Flexible control cables for outdoor applications
with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S58483	5G25	26,7	1650	1200,0
S58484	2x35	22,5	980	672,0
S58485	3G35	23,9	1350	1008,0
S58486	3x35	23,9	1350	1008,0
S58487	4G35	27,2	1750	1344,0
S58488	5G35	29,4	2110	1680,0
S58489	2x50	27,1	1490	960,0
S58490	3G50	28,8	1940	1440,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S58491	3x50	28,8	1940	1440,0
S58492	4G50	32,3	2480	1920,0
S58493	5G50	35,0	3100	2400,0
S58494	2x70	30,7	2030	1344,0
S58495	3G70	32,9	2080	2016,0
S58496	3x70	32,9	2080	2016,0
S58497	4G70	37,1	3470	2688,0
S58498	5G70	40,5	4240	3360,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59390	2x2x0,5	8,9	94	24,0
S59391	3x2x0,5	9,8	106	33,6
S59392	4x2x0,5	10,5	126	43,2
S59393	5x2x0,5	11,2	152	52,8
S59394	6x2x0,5	11,6	160	62,4
S59395	7x2x0,5	12,8	184	72,0
S59396	8x2x0,5	13,3	205	81,6
S59397	10x2x0,5	14,2	240	100,8
S59398	12x2x0,5	15,1	270	120,0
S59399	14x2x0,5	15,9	305	139,2
S59400	16x2x0,5	17,6	375	158,4
S59401	18x2x0,5	18,3	400	177,6
S59402	20x2x0,5	18,8	430	196,8
S59403	24x2x0,5	19,5	500	235,2
S59404	2x2x0,75	9,6	110	33,6
S59405	3x2x0,75	10,6	130	48,0
S59406	4x2x0,75	11,3	155	62,4
S59407	5x2x0,75	12,1	185	76,8
S59408	6x2x0,75	12,5	200	91,2
S59409	7x2x0,75	13,9	230	105,6
S59410	8x2x0,75	14,5	250	120,0
S59411	10x2x0,75	15,4	295	148,8
S59412	12x2x0,75	17,0	365	177,6
S59413	14x2x0,75	18,0	410	206,4
S59414	16x2x0,75	19,4	475	235,2
S59415	18x2x0,75	20,1	515	264,0
S59416	20x2x0,75	20,7	555	292,8
S59417	24x2x0,75	21,3	635	350,4
S59418	2x2x1,0	10,1	128	45,6
S59419	3x2x1,0	11,1	144	64,8
S59420	4x2x1,0	12,0	174	84,0
S59421	5x2x1,0	12,8	215	103,2
S59422	6x2x1,0	13,2	235	122,4
S59423	7x2x1,0	14,7	270	141,6

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59424	8x2x1,0	15,3	295	160,8
S59425	10x2x1,0	16,4	350	199,2
S59426	12x2x1,0	18,0	430	237,6
S59427	14x2x1,0	19,3	495	276,0
S59428	16x2x1,0	20,5	565	314,4
S59429	18x2x1,0	21,4	610	352,8
S59430	20x2x1,0	22,0	660	391,2
S59431	24x2x1,0	23,0	780	468,0
S59432	2x2x1,5	11,3	162	64,8
S59433	3x2x1,5	12,6	188	93,6
S59434	4x2x1,5	13,6	230	122,4
S59435	5x2x1,5	14,6	285	151,2
S59436	6x2x1,5	15,1	310	180,0
S59437	7x2x1,5	17,4	380	208,8
S59438	8x2x1,5	18,2	420	237,6
S59439	10x2x1,5	19,6	510	295,2
S59440	12x2x1,5	20,9	590	352,8
S59441	14x2x1,5	22,1	670	410,4
S59442	16x2x1,5	24,0	785	468,0
S59443	18x2x1,5	25,0	850	525,6
S59444	20x2x1,5	26,4	965	583,2
S59445	24x2x1,5	27,1	1110	698,4
S59446	2x2x2,5	13,1	225	103,2
S59447	3x2x2,5	14,6	260	151,2
S59448	4x2x2,5	15,9	325	199,2
S59449	5x2x2,5	17,7	430	247,2
S59450	6x2x2,5	18,3	470	295,2
S59451	7x2x2,5	20,6	550	343,2
S59452	8x2x2,5	21,5	610	391,2
S59453	10x2x2,5	23,5	750	487,2
S59454	12x2x2,5	25,0	875	583,2
S59455	14x2x2,5	27,1	1030	679,2
S59456	16x2x2,5	28,9	1180	775,2

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® C BLACK

Flexible, screened control cables for outdoor applications, with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, PVC insulation and sheath, for outdoor applications and direct burial, UV resistant

Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid, coverage ≥85%
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1), UV resistant.
Outer sheath colour: black

Application:

Flexible power and control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field (screen attenuation ca. 50dB). Cables are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables suitable for outdoor installation - outer sheath is UV resistant. Cables designed also for direct burial in ground.Insulation and sheath materials and conductor construction in BiT 500® C BLACK cable enable easy and fast connections and ensure their high durability.
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internal application


external application


underground installation


industrial application


PN-EN 60332-1


high flexibility

UV resistant

EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3170	2x0,5	7,2	72	35
SB3171	3G0,5	7,5	76	42
SB3172	3x0,5	7,5	76	42
SB3173	4G0,5	8,0	88	46
SB3174	4x0,5	8,0	88	46
SB3175	5G0,5	8,5	102	55
SB3176	5x0,5	8,5	102	55
SB3177	6G0,5	9,0	114	63
SB3178	7G0,5	9,0	118	68
SB3179	7x0,5	9,0	118	68
SB3180	8G0,5	9,9	144	81
SB3181	8x0,5	9,9	144	81
SB3182	10G0,5	11,2	176	94
SB3183	12G0,5	11,2	184	108
SB3184	12x0,5	11,2	184	108
SB3185	14G0,5	11,6	205	116
SB3186	16G0,5	12,2	225	128
SB3187	18G0,5	12,7	245	145
SB3188	19G0,5	12,5	250	160
SB3189	21G0,5	13,2	270	180
SB3190	25G0,5	14,7	320	234
SB3191	27G0,5	14,7	330	244

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3192	30G0,5	15,2	355	270
SB3193	34G0,5	16,2	400	301
SB3194	37G0,5	16,2	415	315
SB3195	40G0,5	17,3	465	335
SB3196	42G0,5	18,5	500	359
SB3197	50G0,5	19,2	570	405
SB3198	56G0,5	20,0	615	439
SB3199	61G0,5	20,5	655	471
SB3200	2x0,75	7,6	80	40
SB3201	3G0,75	7,9	88	49
SB3202	3x0,75	7,9	88	49
SB3203	4G0,75	8,5	102	59
SB3204	4x0,75	8,5	102	59
SB3205	5G0,75	9,0	120	70
SB3206	5x0,75	9,0	120	70
SB3207	6G0,75	9,8	146	80
SB3208	6x0,75	9,8	146	80
SB3209	7G0,75	9,8	150	90
SB3210	7x0,75	9,8	150	90
SB3211	8G0,75	10,6	170	110
SB3212	8x0,75	10,6	170	110
SB3213	10G0,75	12,0	215	138

BiT 500® C BLACK

Flexible, screened control cables for outdoor applications, with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3214	12G0,75	11,8	220	142
SB3215	12x0,75	11,8	220	142
SB3216	14G0,75	12,5	250	179
SB3217	16G0,75	13,1	275	197
SB3218	18G0,75	13,7	305	217
SB3219	19G0,75	13,7	310	224
SB3220	21G0,75	14,3	335	244
SB3221	25G0,75	15,9	400	286
SB3222	27G0,75	15,9	410	300
SB3223	30G0,75	17,0	465	326
SB3224	34G0,75	18,2	530	345
SB3225	37G0,75	18,2	545	360
SB3226	40G0,75	18,8	585	398
SB3227	42G0,75	20,3	635	421
SB3228	50G0,75	21,1	720	470
SB3229	56G0,75	21,7	775	518
SB3230	61G0,75	22,7	850	550
SB3231	2x1,0	7,9	88	50
SB3232	3G1,0	8,3	98	60
SB3233	3x1,0	8,3	98	60
SB3234	4G1,0	8,6	114	70
SB3235	4x1,0	8,6	114	70
SB3236	5G1,0	9,6	144	87
SB3237	5x1,0	9,6	144	87
SB3238	6G1,0	10,2	166	95
SB3239	6x1,0	10,2	166	95
SB3240	7G1,0	10,2	172	110
SB3241	7x1,0	10,2	172	110
SB3242	8G1,0	11,1	196	125
SB3243	10G1,0	12,5	245	150
SB3244	10x1,0	12,5	245	150
SB3245	12G1,0	12,5	260	180
SB3246	12x1,0	12,5	260	180
SB3247	14G1,0	13,2	290	197
SB3248	16G1,0	13,8	320	210
SB3249	18G1,0	14,4	355	250
SB3250	18x1,0	14,4	355	250
SB3251	19G1,0	14,4	360	260
SB3252	21G1,0	15,1	395	297
SB3253	25G1,0	17,5	495	335
SB3254	27G1,0	17,5	505	400
SB3255	30G1,0	18,0	550	440
SB3256	34G1,0	19,4	635	485
SB3257	37G1,0	19,4	655	495
SB3258	40G1,0	20,1	700	510
SB3259	42G1,0	21,5	750	530
SB3260	50G1,0	22,8	875	600
SB3261	56G1,0	23,4	945	661
SB3262	61G1,0	24,0	1010	700
SB3263	2x1,5	8,7	108	62
SB3264	3G1,5	9,1	122	79
SB3265	3x1,5	9,1	122	79
SB3266	4G1,5	10,0	156	96
SB3267	4x1,5	10,0	156	96
SB3268	5G1,5	10,7	184	120
SB3269	5x1,5	10,7	184	120

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3270	6G1,5	11,4	215	130
SB3271	6x1,5	11,4	215	130
SB3272	7G1,5	11,4	225	145
SB3273	7x1,5	11,4	225	145
SB3274	8G1,5	12,2	255	173
SB3275	10G1,5	14,3	320	193
SB3276	10x1,5	14,3	320	193
SB3277	12G1,5	14,3	340	243
SB3278	12x1,5	14,3	340	243
SB3279	14G1,5	14,9	380	276
SB3280	16G1,5	15,7	430	310
SB3281	18G1,5	17,0	495	352
SB3282	19G1,5	17,0	505	367
SB3283	21G1,5	17,8	555	393
SB3284	25G1,5	20,1	665	464
SB3285	27G1,5	20,1	685	493
SB3286	30G1,5	20,8	745	540
SB3287	34G1,5	22,6	875	608
SB3288	37G1,5	22,6	905	651
SB3289	40G1,5	23,4	970	700
SB3290	42G1,5	25,1	1040	740
SB3291	50G1,5	26,7	1230	862
SB3292	56G1,5	27,5	1330	955
SB3293	61G1,5	28,2	1420	1030
SB3294	2x2,5	10,0	146	90
SB3295	3G2,5	10,5	172	117
SB3296	3x2,5	10,5	172	117
SB3297	4G2,5	11,3	210	147
SB3298	4x2,5	11,3	210	147
SB3299	5G2,5	12,2	250	176
SB3300	5x2,5	12,2	250	176
SB3301	6G2,5	13,1	290	206
SB3302	6 x2,5	13,1	290	206
SB3303	7G2,5	13,1	310	230
SB3304	7x2,5	13,1	310	230
SB3305	10G2,5	17,2	470	326
SB3306	12G2,5	17,2	500	374
SB3307	12x2,5	17,2	500	374
SB3308	14G2,5	18,0	565	427
SB3309	16G2,5	18,9	635	481
SB3310	18G2,5	20,0	715	536
SB3311	21G2,5	20,9	800	614
SB3312	25G2,5	23,9	975	728
SB3313	30G2,5	24,7	1100	853
SB3314	34G2,5	27,1	1300	960
SB3315	37G2,5	27,1	1340	1032
SB3316	42G2,5	30,3	1570	1216
SB3317	50G2,5	31,6	1800	1418
SB3318	2x4,0	11,5	205	128
SB3319	3G4,0	12,1	235	171
SB3320	3x4,0	12,1	235	171
SB3321	4G4,0	13,1	300	216
SB3322	5G4,0	14,2	360	262
SB3323	7G4,0	15,3	450	346
SB3324	10G4,0	20,5	695	491
SB3325	12G4,0	20,5	755	568

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G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® C BLACK

Flexible, screened control cables for outdoor applications, with number coded conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3326	2x2x0,5	9,3	110	52
SB3327	3x2x0,5	10,4	134	70
SB3328	4x2x0,5	11,1	154	91
SB3329	5x2x0,5	11,8	184	105
SB3330	6x2x0,5	12,2	194	122
SB3331	7x2x0,5	13,4	225	139
SB3332	8x2x0,5	13,9	245	151
SB3333	10x2x0,5	14,8	280	171
SB3334	12x2x0,5	15,7	320	198
SB3335	14x2x0,5	17,1	380	208
SB3336	16x2x0,5	18,2	425	241
SB3337	18x2x0,5	18,9	455	279
SB3338	20x2x0,5	19,6	500	300
SB3339	24x2x0,5	20,1	560	325
SB3340	2x2x0,75	10,2	138	58
SB3341	3x2x0,75	11,2	156	85
SB3342	4x2x0,75	11,9	184	110
SB3343	5x2x0,75	12,7	225	128
SB3344	6x2x0,75	13,1	235	148
SB3345	7x2x0,75	14,5	270	168
SB3346	8x2x0,75	15,1	295	182
SB3347	10x2x0,75	16,0	345	220
SB3348	12x2x0,75	17,6	415	260
SB3349	14x2x0,75	18,6	465	290
SB3350	16x2x0,75	20,0	535	319
SB3351	18x2x0,75	20,7	575	345
SB3352	20x2x0,75	21,3	620	368
SB3353	24x2x0,75	21,9	705	404
SB3354	2x2x1,0	10,7	155	82
SB3355	3x2x1,0	11,7	180	105
SB3356	4x2x1,0	12,6	210	130
SB3357	5x2x1,0	13,4	255	160
SB3358	6x2x1,0	13,8	270	185
SB3359	7x2x1,0	15,3	315	220

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3360	8x2x1,0	15,9	345	237
SB3361	10x2x1,0	17,6	425	280
SB3362	12x2x1,0	18,6	485	325
SB3363	14x2x1,0	19,9	555	389
SB3364	16x2x1,0	21,1	625	420
SB3365	18x2x1,0	22,0	675	462
SB3366	20x2x1,0	23,0	750	492
SB3367	24x2x1,0	23,6	855	541
SB3368	2x2x1,5	11,9	194	106
SB3369	3x2x1,5	13,2	225	133
SB3370	4x2x1,5	14,2	270	157
SB3371	5x2x1,5	15,2	330	181
SB3372	6x2x1,5	15,7	355	200
SB3373	7x2x1,5	18,0	435	230
SB3374	8x2x1,5	18,8	480	310
SB3375	10x2x1,5	20,2	570	380
SB3376	12x2x1,5	21,5	655	455
SB3377	14x2x1,5	23,1	760	507
SB3378	16x2x1,5	24,6	860	561
SB3379	18x2x1,5	26,2	970	607
SB3380	20x2x1,5	27,0	1050	700
SB3381	24x2x1,5	27,7	1200	825
SB3382	2x2x2,5	13,7	260	148
SB3383	3x2x2,5	15,2	305	220
SB3384	4x2x2,5	17,1	395	295
SB3385	5x2x2,5	18,3	480	350
SB3386	6x2x2,5	18,9	525	385
SB3387	7x2x2,5	21,2	615	444
SB3388	8x2x2,5	22,1	680	483
SB3389	10x2x2,5	24,1	825	559
SB3390	12x2x2,5	25,6	950	629
SB3391	14x2x2,5	27,7	1120	709
SB3392	16x2x2,5	29,5	1270	787

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BiT 500® (St) BLACK

Flexible, screened control cables for outdoor applications, with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, PVC insulation and sheath, for outdoor applications and direct burial, UV resistant.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 10 x Ø
Flexible connections: 6 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors
Core arrangement: cores twisted together or pairs twisted together
Screen: Aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1),UV resistant.
Outer sheath colour: black

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Common screen improves protection of transmitted signals against external electromagnetic field.They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables suitable for outdoor installation. Outer sheath is UV resistant. Designed for direct burial in ground. Insulation materials and conductor construction in BiT 500® (St) BLACK cable enable easy and fast connections and ensure their high durability.


internal application


external application


underground installation


industrial application


PN-EN 60332-1


high flexibility

UV resistant

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59078	2x0,5	7,0	66	14,4
S59079	3G0,5	7,3	70	19,2
S59080	3x0,5	7,3	70	19,2
S59081	4G0,5	7,8	82	24,0
S59082	4x0,5	7,8	82	24,0
S59083	5G0,5	8,3	94	28,8
S59084	5x0,5	8,3	94	28,8
S59085	6G0,5	8,8	106	33,6
S59086	7G0,5	8,8	110	38,4
S59087	7x0,5	8,8	110	38,4
S59088	8G0,5	9,7	126	43,2
S59089	8x0,5	9,7	126	43,2
S59090	10G0,5	11,0	154	52,8
S59091	12G0,5	11,0	162	62,4
S59092	12x0,5	11,0	162	62,4
S59093	14G0,5	11,4	180	72,0
S59094	16G0,5	12,0	200	81,6
S59095	18G0,5	12,5	220	91,2
S59096	19G0,5	12,5	225	96,0
S59097	21G0,5	13,0	245	105,6
S59098	25G0,5	14,5	290	124,8
S59099	27G0,5	14,5	295	134,4
S59100	30G0,5	15,0	320	148,8
S59101	34G0,5	16,0	365	168,0
S59102	37G0,5	16,0	375	182,4
S59103	40G0,5	17,1	425	196,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59104	42G0,5	18,3	455	206,4
S59105	50G0,5	19,2	525	244,8
S59106	56G0,5	19,8	570	273,6
S59107	61G0,5	20,3	605	297,6
S59108	2x0,75	7,4	74	19,2
S59109	3G0,75	7,7	82	26,4
S59110	3x0,75	7,7	82	26,4
S59111	4G0,75	8,3	96	33,6
S59112	4x0,75	8,3	96	33,6
S59113	5G0,75	8,8	112	40,8
S59114	5x0,75	8,8	112	40,8
S59115	6G0,75	9,4	128	48,0
S59116	6x0,75	9,4	128	48,0
S59117	7G0,75	9,4	132	55,2
S59118	7x0,75	9,4	132	55,2
S59119	8G0,75	10,4	152	62,4
S59120	8x0,75	10,4	152	62,4
S59121	10G0,75	11,8	188	76,8
S59122	12G0,75	11,8	198	91,2
S59123	12x0,75	11,8	198	91,2
S59124	14G0,75	12,3	225	105,6
S59125	16G0,75	12,9	250	120,0
S59126	18G0,75	13,5	275	134,4
S59127	19G0,75	13,5	280	141,6
S59128	21G 0,75	14,1	305	156,0
S59129	25G0,75	15,7	365	184,8

BITNER®

BiT 500® (St) BLACK

Flexible, screened control cables for outdoor applications, with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59130	27G0,75	15,7	375	199,2
S59131	30G0,75	16,2	405	220,8
S59132	34G0,75	18,0	490	249,6
S59133	37G0,75	18,0	505	271,2
S59134	40G0,75	18,6	540	292,8
S59135	42G0,75	20,1	590	307,2
S59136	50G0,75	20,9	670	364,8
S59137	56G0,75	21,5	725	408,0
S59138	61G0,75	22,1	775	444,0
S59139	2x1,0	7,7	84	26,4
S59140	3G1,0	8,1	94	36,0
S59141	3x1,0	8,1	94	36,0
S59142	4G1,0	8,6	110	45,6
S59143	4x1,0	8,6	110	45,6
S59144	5G1,0	9,2	128	55,2
S59145	5x1,0	9,2	128	55,2
S59146	6G1,0	9,8	148	64,8
S59147	6x1,0	9,8	148	64,8
S59148	7G1,0	9,8	154	74,4
S59149	7x1,0	9,8	154	74,4
S59150	8G1,0	10,9	178	84,0
S59151	10G1,0	12,5	225	103,2
S59152	10x1,0	12,5	225	103,2
S59153	12G1,0	12,5	235	122,4
S59154	12x1,0	12,5	235	122,4
S59155	14G1,0	13,0	265	141,6
S59156	16G1,0	13,6	295	160,8
S59157	18G1,0	14,2	325	180,0
S59158	18x1,0	14,2	325	180,0
S59159	19G1,0	14,2	330	189,6
S59160	21G1,0	14,9	365	208,8
S59161	25G1,0	17,3	455	247,2
S59162	27G1,0	17,3	470	266,4
S59163	30G1,0	17,8	510	295,2
S59164	34G1,0	19,2	590	333,6
S59165	37G1,0	19,2	610	362,4
S59166	40G1,0	19,9	655	391,2
S59167	42G1,0	21,3	700	410,4
S59168	50G1,0	22,2	805	487,2
S59169	56G1,0	23,2	895	544,8
S59170	61G1,0	23,8	955	592,8
S59171	2x1,5	8,5	102	36,0
S59172	3G1,5	8,9	116	50,4
S59173	3x1,5	8,9	116	50,4
S59174	4G1,5	9,6	140	64,8
S59175	4x1,5	9,6	140	64,8
S59176	5G1,5	10,3	164	79,2
S59177	5x1,5	10,3	164	79,2
S59178	6G1,5	11,2	192	93,6
S59179	6x1,5	11,2	192	93,6
S59180	7G1,5	11,2	205	108,0
S59181	7x1,5	11,2	205	108,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59182	8G1,5	12,2	235	122,4
S59183	10G1,5	14,1	290	151,2
S59184	10x1,5	14,1	290	151,2
S59185	12G1,5	14,1	310	180,0
S59186	12x1,5	14,1	310	180,0
S59187	14G1,5	14,7	350	208,8
S59188	16G1,5	15,5	395	237,6
S59189	18G1,5	16,2	435	266,4
S59190	19G1,5	16,2	445	280,8
S59191	21G1,5	17,6	515	309,6
S59192	25G1,5	19,9	620	367,2
S59193	27G1,5	19,9	640	396,0
S59194	30G1,5	20,6	700	439,2
S59195	34G1,5	22,0	800	496,8
S59196	37G1,5	22,0	830	540,0
S59197	40G1,5	23,2	915	583,2
S59198	42G1,5	24,9	980	612,0
S59199	50G1,5	26,5	1160	727,2
S59200	56G1,5	27,3	1260	813,6
S59201	61G1,5	28,0	1350	885,6
S59202	2x2,5	9,6	130	55,2
S59203	3 G2,5	10,1	154	79,2
S59204	3x2,5	10,1	154	79,2
S59205	4G2,5	10,9	188	103,2
S59206	4x2,5	10,9	188	103,2
S59207	5G2,5	11,8	225	127,2
S59208	5x2,5	11,8	225	127,2
S59209	6G2,5	12,9	270	151,2
S59210	6x2,5	12,9	270	151,2
S59211	7G2,5	12,9	285	175,2
S59212	7x2,5	12,9	285	175,2
S59213	10G2,5	17,0	435	247,2
S59214	12G2,5	17,0	465	295,2
S59215	12x2,5	17,0	465	295,2
S59216	14G2,5	17,8	525	343,2
S59217	16G2,5	18,7	590	391,2
S59218	18G2,5	19,8	670	439,2
S59219	21G2,5	20,7	750	511,2
S59220	25G2,5	23,7	920	607,2
S59221	30G2,5	24,5	1040	727,2
S59222	34G2,5	26,9	1230	823,2
S59223	37G2,5	26,9	1280	895,2
S59224	42G2,5	29,9	1470	1015,2
S59225	50G2,5	31,2	1690	1207,2
S59226	2x4,0	11,1	180	84,0
S59227	3G4,0	11,7	220	122,4
S59228	3x4,0	11,7	220	122,4
S59229	4G4,0	12,7	275	160,8
S59230	5G4,0	13,7	330	199,2
S59231	7G4,0	14,8	415	276,0
S59232	10G4,0	19,9	645	391,2
S59233	12G4,0	19,9	700	468,0

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BiT 500® (St) BLACK

Flexible, screened control cables for outdoor applications, with number coded conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59234	2x2x0,5	9,3	102	24,0
S59235	3x2x0,5	10,2	116	33,6
S59236	4x2x0,5	10,9	134	43,2
S59237	5x2x0,5	11,6	160	52,8
S59238	6x2x0,5	12,0	170	62,4
S59239	7x2x0,5	13,2	194	72,0
S59240	8x2x0,5	13,7	215	81,6
S59241	10x2x0,5	14,6	250	100,8
S59242	12x2x0,5	15,5	285	120,0
S59243	14x2x0,5	16,3	320	139,2
S59244	16x2x0,5	18,0	385	158,4
S59245	18x2x0,5	18,7	415	177,6
S59246	20x2x0,5	19,4	455	196,8
S59247	24x2x0,5	19,9	515	235,2
S59248	2x2x0,75	10,0	120	33,6
S59249	3x2x0,75	11,0	136	48,0
S59250	4x2x0,75	11,7	160	62,4
S59251	5x2x0,75	12,5	196	76,8
S59252	6x2x0,75	12,9	210	91,2
S59253	7x2x0,75	14,3	240	105,6
S59254	8x2x0,75	14,9	265	120,0
S59255	10x2x0,75	15,8	310	148,8
S59256	12x2x0,75	17,4	380	177,6
S59257	14x2x0,75	18,4	425	206,4
S59258	16x2x0,75	19,8	490	235,2
S59259	18x2x0,75	20,5	525	264,0
S59260	20x2x0,75	21,1	570	292,8
S59261	24x2x0,75	21,7	650	350,4
S59262	2x2x1,0	10,5	138	45,6
S59263	3x2x1,0	11,5	156	64,8
S59264	4x2x1,0	12,4	188	84,0
S59265	5x2x1,0	13,2	230	103,2
S59266	6x2x1,0	13,6	245	122,4
S59267	7x2x1,0	15,1	280	141,6

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59268	8x2x1,0	15,7	310	160,8
S59269	10x2x1,0	17,4	390	199,2
S59270	12x2x1,0	18,4	445	237,6
S59271	14x2x1,0	19,7	510	276,0
S59272	16x2x1,0	20,9	580	314,4
S59273	18x2x1,0	21,8	625	352,8
S59274	20x2x1,0	22,8	700	391,2
S59275	24x2x1,0	23,4	800	468,0
S59276	2x2x1,5	11,7	174	64,8
S59277	3x2x1,5	13,0	200	93,6
S59278	4x2x1,5	14,0	245	122,4
S59279	5x2x1,5	15,0	300	151,2
S59280	6x2x1,5	15,5	325	180,0
S59281	7x2x1,5	17,8	395	208,8
S59282	8x2x1,5	18,6	435	237,6
S59283	10x2x1,5	20,0	525	295,2
S59284	12x2x1,5	21,3	605	352,8
S59285	14x2x1,5	22,9	705	410,4
S59286	16x2x1,5	24,4	805	468,0
S59287	18x2x1,5	25,4	870	525,6
S59288	20x2x1,5	26,8	980	583,2
S59289	24x2x1,5	27,5	1130	698,4
S59290	2x2x2,5	13,5	235	103,2
S59291	3x2x2,5	15,0	275	151,2
S59292	4x2x2,5	16,3	335	199,2
S59293	5x2x2,5	18,1	440	247,2
S59294	6x2x2,5	18,7	485	295,2
S59295	7x2x2,5	21,0	565	343,2
S59296	8x2x2,5	21,9	625	391,2
S59297	10x2x2,5	23,9	770	487,2
S59298	12x2x2,5	25,4	890	583,2
S59299	14x2x2,5	27,5	1050	679,2
S59300	16x2x2,5	29,3	1200	775,2

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® 2(St) BLACK

Flexible, paired control cables, individually and collectively screened for outdoor applications, with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, PVC insulation and sheath, for outdoor applications and direct burial, UV resistant, with individually and collectively screened pairs.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U /U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 12 x Ø
Flexible connections: 6 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to PN-EN 60228
Insulation: special PVC
Core identification: black, number coded conductors
Core arrangement: twisted screened pairs
Individual screen: Aluminium backed polyester tape with tinned copper drain wire on each pair
Collective screen: Aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to PN-EN 60332-1, EN 60332-1, EN 50265, IEC 60332-1),UV resistant.
Outer sheath colour: black

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Individual screening of pairs decreases signal interferences from adjacent pairs. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables suitable for outdoor installation. Outer sheath is UV resistant. Designed for direct burial in ground. Insulation materials and conductor construction in BiT 500® 2(St) BLACK cable enable easy and fast connections and ensure their high durability.


internal application


external application


underground installation


industrial application


PN-EN 60332-1


high flexibility

UV resistance

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2900	2x2x0,5	9,3	114	33,6
SB2901	3x2x0,5	10,2	132	48,0
SB2902	4x2x0,5	10,9	158	62,4
SB2903	5x2x0,5	11,6	188	76,8
SB2904	6x2x0,5	12,0	204	91,2
SB2905	7x2x0,5	13,2	235	105,6
SB2906	8x2x0,5	13,7	260	120,0
SB2907	10x2x0,5	14,6	305	148,8
SB2908	12x2x0,5	15,5	350	177,6
SB2909	14x2x0,5	16,3	395	206,4
SB2910	16x2x0,5	18,0	475	235,2
SB2911	18x2x0,5	18,7	515	264,0
SB2912	20x2x0,5	19,4	570	292,8
SB2913	24x2x0,5	19,9	650	350,4
SB2914	2x2x0,75	10,0	132	43,2
SB2915	3x2x0,75	11,0	154	62,4
SB2916	4x2x0,75	11,7	184	81,6
SB2917	5x2x0,75	12,5	226	100,8
SB2918	6x2x0,75	12,9	245	120,0
SB2919	7x2x0,75	14,3	280	139,2
SB2920	8x2x0,75	14,9	310	158,4
SB2921	10x2x0,75	15,8	370	196,8
SB2922	12x2x0,75	17,4	450	235,2
SB2923	14x2x0,75	18,4	510	273,6
SB2924	16x2x0,75	19,8	585	312,0
SB2925	18x2x0,75	20,5	635	350,4

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2926	20x2x0,75	21,1	690	388,8
SB2927	24x2x0,75	21,7	795	465,6
SB2928	2x2x1,0	10,5	154	60,0
SB2929	3x2x1,0	11,5	180	86,4
SB2930	4x2x1,0	12,4	220	112,8
SB2931	5x2x1,0	13,2	270	139,2
SB2932	6x2x1,0	13,6	295	165,6
SB2933	7x2x1,0	15,1	335	192,0
SB2934	8x2x1,0	15,7	375	218,4
SB2935	10x2x1,0	17,4	470	271,2
SB2936	12x2x1,0	18,4	540	324,0
SB2937	14x2x1,0	19,7	625	376,8
SB2938	16x2x1,0	20,9	710	429,6
SB2939	18x2x1,0	21,8	770	482,4
SB2940	20x2x1,0	22,8	860	535,2
SB2941	24x2x1,0	23,4	995	640,8
SB2942	2x2x1,5	11,7	190	79,2
SB2943	3x2x1,5	13,0	226	115,2
SB2944	4x2x1,5	14,0	275	151,2
SB2945	5x2x1,5	15,0	340	187,2
SB2946	6x2x1,5	15,5	375	223,2
SB2947	7x2x1,5	17,8	455	259,2
SB2948	8x2x1,5	18,6	505	295,2
SB2949	10x2x1,5	20,0	610	367,2
SB2950	12x2x1,5	21,3	705	439,2
SB2951	14x2x1,5	22,9	820	511,2

BiT 500® 2(St) BLACK

Flexible, paired control cables, individually and collectively screened for outdoor applications, with number coded conductors, rated 300/500V

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2952	16x2x1,5	24,4	935	583,2
SB2953	18x2x1,5	25,4	1015	655,2
SB2954	20x2x1,5	26,8	1150	727,2
SB2955	24x2x1,5	27,5	1330	871,2
SB2956	2x2x2,5	13,5	255	117,6
SB2957	3x2x2,5	15,0	300	172,8
SB2958	4x2x2,5	16,3	370	228,0
SB2959	5x2x2,5	18,1	485	283,2

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2960	6x2x2,5	18,7	535	338,4
SB2961	7x2x2,5	21,0	625	393,6
SB2962	8x2x2,5	21,9	695	448,8
SB2963	10x2x2,5	23,9	855	559,2
SB2964	12x2x2,5	25,4	995	669,6
SB2965	14x2x2,5	27,5	1170	780,0
SB2966	16x2x2,5	29,3	1340	890,4

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® BLACK OR

Flexible, highly flame retardant, oil resistant control cables for outdoor applications with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, PVC insulation and sheath for outdoor and direct burial applications, highly flame retardant and oil resistant.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Occasional flexing: -15°C * to 70°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

internal application | external application | underground installation

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant.
Outer sheath colour: black

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation) and in places exposed to oil or industrial coolants. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables suitable for outdoor installation - outer sheath is UV resistant. Cables designed also for direct burial in ground. Wide spectrum of resistance to environmental conditions allows to install BiT 500® BLACK OR cables in vast range of industrial applications.

** minimum temperature for occasional flexing with bending radius not smaller than 15xD. Bending test at low temperature (-15°C acc. to EN 60811-1-4).*

industrial application | PN-EN 60332-1 | IEC 60332-3 PN-EN 60332-3 | flame retardant sheath | high flexibility | UV resistant | oil resistant EN 60811-2-1

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2100	2x0,5	6,8	62	14,4
SB2101	3G0,5	7,1	70	19,2
SB2102	3x0,5	7,1	70	19,2
SB2103	4G0,5	7,6	80	24,0
SB2104	4x0,5	7,6	80	24,0
SB2105	5G0,5	8,1	92	28,8
SB2106	5x0,5	8,1	92	28,8
SB2107	6G0,5	8,6	105	33,6
SB2108	7G0,5	8,6	110	38,4
SB2109	7x0,5	8,6	110	38,4
SB2110	8G0,5	9,4	125	43,2
SB2111	8x0,5	9,4	125	43,2
SB2112	10G0,5	10,6	155	52,8
SB2113	12G0,5	10,6	165	62,4
SB2114	12x0,5	10,6	165	62,4
SB2115	14G0,5	11,0	180	72,0
SB2116	16G0,5	11,6	200	81,6
SB2117	18G0,5	12,1	220	91,2
SB2118	19G0,5	12,1	220	96,0
SB2119	21G0,5	12,6	240	105,6
SB2120	25G0,5	14,1	285	124,8
SB2121	27G0,5	14,1	295	134,4
SB2122	30G0,5	14,6	320	148,8
SB2123	34G0,5	15,6	365	168,0
SB2124	37G0,5	15,6	375	182,4

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2125	40G0,5	16,1	400	196,8
SB2126	42G0,5	17,9	455	206,4
SB2127	50G0,5	18,6	515	244,8
SB2128	56G0,5	19,4	570	273,6
SB2129	61G0,5	19,9	605	297,6
SB2130	2x0,75	7,2	70	19,2
SB2131	3G0,75	7,5	82	26,4
SB2132	3x0,75	7,5	82	26,4
SB2133	4G0,75	8,1	94	33,6
SB2134	4x0,75	8,1	94	33,6
SB2135	5G0,75	8,6	110	40,8
SB2136	5x0,75	8,6	110	40,8
SB2137	6G0,75	9,2	126	48,0
SB2138	6x0,75	9,2	126	48,0
SB2139	7G0,75	9,2	132	55,2
SB2140	7x0,75	9,2	132	55,2
SB2141	8G0,75	10,0	152	62,4
SB2142	8x0,75	10,0	152	62,4
SB2143	10G0,75	11,4	188	76,8
SB2144	12G0,75	11,4	200	91,2
SB2145	12x0,75	11,4	200	91,2
SB2146	14G0,75	11,9	225	105,6
SB2147	16G0,75	12,5	250	120,0
SB2148	18G0,75	13,1	275	134,4
SB2149	19G0,75	13,1	280	141,6

BiT 500® BLACK OR

Flexible, highly flame retardant, oil resistant control cables for outdoor applications with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2150	21G0,75	13,7	305	156,0
SB2151	25G0,75	15,3	365	184,8
SB2152	27G0,75	15,3	375	199,2
SB2153	30G0,75	15,8	405	220,8
SB2154	34G0,75	17,6	490	249,6
SB2155	37G0,75	17,6	505	271,2
SB2156	40G0,75	18,2	540	292,8
SB2157	42G0,75	19,7	590	307,2
SB2158	50G0,75	20,5	670	364,8
SB2159	56G0,75	21,1	725	408,0
SB2160	61G0,75	21,7	775	444,0
SB2161	2x1,0	7,5	80	26,4
SB2162	3G1,0	7,9	92	36,0
SB2163	3x1,0	7,9	92	36,0
SB2164	4G1,0	8,4	108	45,6
SB2165	4x1,0	8,4	108	45,6
SB2166	5G1,0	9,0	126	55,2
SB2167	5x1,0	9,0	126	55,2
SB2168	6G1,0	9,6	146	64,8
SB2169	6x1,0	9,6	146	64,8
SB2170	7G1,0	9,6	152	74,4
SB2171	7x1,0	9,6	152	74,4
SB2172	8G1,0	10,5	155	84,0
SB2173	10G1,0	12,1	220	103,2
SB2174	10x1,0	12,1	220	103,2
SB2175	12G1,0	12,1	235	122,4
SB2176	12x1,0	12,1	235	122,4
SB2177	14G1,0	12,6	260	141,6
SB2178	16G1,0	13,2	295	160,8
SB2179	18G1,0	13,8	325	180,0
SB2180	18x1,0	13,8	325	180,0
SB2181	19G1,0	13,8	330	189,6
SB2182	21G1,0	14,5	360	208,8
SB2183	25G1,0	16,3	430	247,2
SB2184	27G1,0	16,3	445	266,4
SB2185	30G1,0	17,4	510	295,2
SB2186	34G1,0	18,6	580	333,6
SB2187	37G1,0	18,6	600	362,4
SB2188	40G1,0	19,5	655	391,2
SB2189	42G1,0	20,9	705	410,4
SB2190	50G1,0	21,8	805	487,2
SB2191	56G1,0	22,8	895	544,8
SB2192	61G1,0	23,4	955	592,8
SB2193	2x1,5	8,3	100	36,0
SB2194	3G1,5	8,7	118	50,4
SB2195	3x1,5	8,7	118	50,4
SB2196	4G1,5	9,4	142	64,8
SB2197	4x1,5	9,4	142	64,8
SB2198	5G1,5	10,1	166	79,2
SB2199	5x1,5	10,1	166	79,2
SB2200	6G1,5	10,8	190	93,6
SB2201	6x1,5	10,8	190	93,6
SB2202	7G1,5	10,8	200	108,0
SB2203	7x1,5	10,8	200	108,0
SB2204	8G1,5	11,8	235	122,4

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2205	10G1,5	13,7	295	151,2
SB2206	10x1,5	13,7	295	151,2
SB2207	12G1,5	13,7	315	180,0
SB2208	12x1,5	13,7	315	180,0
SB2209	14G1,5	14,3	355	208,8
SB2210	16G1,5	15,1	395	237,6
SB2211	18G1,5	15,8	440	266,4
SB2212	19G1,5	15,8	450	280,8
SB2213	21G1,5	17,2	515	309,6
SB2214	25G1,5	19,5	625	367,2
SB2215	27G1,5	19,5	645	396,0
SB2216	30G1,5	20,2	705	439,2
SB2217	34G1,5	21,6	805	496,8
SB2218	37G1,5	21,6	835	540,0
SB2219	40G1,5	22,8	920	583,2
SB2220	42G1,5	24,5	985	612,0
SB2221	50G1,5	26,1	1170	727,2
SB2222	56G1,5	26,9	1270	813,6
SB2223	61G1,5	27,6	1360	885,6
SB2224	2x2,5	9,4	134	55,2
SB2225	3G2,5	9,9	160	79,2
SB2226	3x2,5	9,9	160	79,2
SB2227	4G2,5	10,7	194	103,2
SB2228	4x2,5	10,7	194	103,2
SB2229	5G2,5	11,6	230	127,2
SB2230	5x2,5	11,6	230	127,2
SB2231	6G2,5	12,5	270	151,2
SB2232	6x2,5	12,5	270	151,2
SB2233	7G2,5	12,5	285	175,2
SB2234	7x2,5	12,5	285	175,2
SB2235	10G2,5	16,0	420	247,2
SB2236	12G2,5	16,0	450	295,2
SB2237	12x2,5	16,0	450	295,2
SB2238	14G2,5	17,4	535	343,2
SB2239	16G2,5	18,3	600	391,2
SB2240	18G2,5	19,4	675	439,2
SB2241	21G2,5	20,3	760	511,2
SB2242	25G2,5	23,3	930	607,2
SB2243	30G2,5	24,1	1050	727,2
SB2244	34G2,5	26,5	1240	823,2
SB2245	37G2,5	26,5	1290	895,2
SB2246	42G2,5	29,5	1490	1015,2
SB2247	50G2,5	30,8	1710	1207,2
SB2248	2x4,0	11,1	194	84,0
SB2249	3G4,0	11,7	240	122,4
SB2250	3x4,0	11,7	240	122,4
SB2251	4G4,0	12,8	290	160,8
SB2252	5G4,0	13,9	350	199,2
SB2253	7G4,0	15,0	435	276,0
SB2254	10G4,0	20,3	680	391,2
SB2255	12G4,0	20,3	740	468,0
SB2256	2x6,0	11,7	240	115,2
SB2257	3G6,0	12,4	300	172,8
SB2258	3x6,0	12,4	300	172,8
SB2259	4G6,0	13,6	380	230,4

BiT 500® BLACK OR

Flexible, highly flame retardant, oil resistant control cables for outdoor applications with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2260	5G6,0	14,7	455	288,0
SB2261	7G6,0	15,9	575	403,2
SB2262	2x10	13,9	365	192,0
SB2263	3G10	14,7	460	288,0
SB2264	3x10	14,7	460	288,0
SB2265	4G10	16,9	605	384,0
SB2266	5G10	18,3	730	480,0
SB2267	7G10	20,0	940	672,0
SB2268	2x16	15,7	505	307,2
SB2269	3G16	17,3	675	460,8
SB2270	3x16	17,3	675	460,8
SB2271	4G16	19,3	865	614,4
SB2272	5G16	20,9	1050	768,0
SB2273	2x25	20,1	750	480,0
SB2274	3G25	21,3	1040	720,0
SB2275	3x25	21,3	1040	720,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2276	4G25	24,1	1340	960,0
SB2277	5G25	26,7	1650	1200,0
SB2278	2x35	22,5	980	672,0
SB2279	3G35	23,9	1350	1008,0
SB2280	3x35	23,9	1350	1008,0
SB2281	4G35	27,2	1750	1344,0
SB2282	5G35	29,4	2110	1680,0
SB2283	2x50	27,1	1490	960,0
SB2284	3G50	28,8	1940	1440,0
SB2285	3x50	28,8	1940	1440,0
SB2286	4G50	32,3	2480	1920,0
SB2287	5G50	35,0	3100	2400,0
SB2288	2x70	30,7	2030	1344,0
SB2289	3G70	32,9	2080	2016,0
SB2290	3x70	32,9	2080	2016,0
SB2291	4G70	37,1	3470	2688,0
SB2292	5G70	40,5	4240	3360,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2293	2x2x0,5	8,9	94	24,0
SB2294	3x2x0,5	9,8	106	33,6
SB2295	4x2x0,5	10,5	126	43,2
SB2296	5x2x0,5	11,2	152	52,8
SB2297	6x2x0,5	11,6	160	62,4
SB2298	7x2x0,5	12,8	184	72,0
SB2299	8x2x0,5	13,3	205	81,6
SB2300	10x2x0,5	14,2	240	100,8
SB2301	12x2x0,5	15,1	270	120,0
SB2302	14x2x0,5	15,9	305	139,2
SB2303	16x2x0,5	17,6	375	158,4
SB2304	18x2x0,5	18,3	400	177,6
SB2305	20x2x0,5	18,8	430	196,8
SB2306	24x2x0,5	19,5	500	235,2
SB2307	2x2x0,75	9,6	110	33,6
SB2308	3x2x0,75	10,6	130	48,0
SB2309	4x2x0,75	11,3	155	62,4
SB2310	5x2x0,75	12,1	185	76,8
SB2311	6x2x0,75	12,5	200	91,2
SB2312	7x2x0,75	13,9	230	105,6
SB2313	8x2x0,75	14,5	250	120,0
SB2314	10x2x0,75	15,4	295	148,8
SB2315	12x2x0,75	17,0	365	177,6
SB2316	14x2x0,75	18,0	410	206,4
SB2317	16x2x0,75	19,4	475	235,2
SB2318	18x2x0,75	20,1	515	264,0
SB2319	20x2x0,75	20,7	555	292,8
SB2320	24x2x0,75	21,3	635	350,4
SB2321	2x2x1,0	10,1	128	45,6
SB2322	3x2x1,0	11,1	144	64,8
SB2323	4x2x1,0	12,0	174	84,0
SB2324	5x2x1,0	12,8	215	103,2
SB2325	6x2x1,0	13,2	235	122,4

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2326	7x2x1,0	14,7	270	141,6
SB2327	8x2x1,0	15,3	295	160,8
SB2328	10x2x1,0	16,4	350	199,2
SB2329	12x2x1,0	18,0	430	237,6
SB2330	14x2x1,0	19,3	495	276,0
SB2331	16x2x1,0	20,5	565	314,4
SB2332	18x2x1,0	21,4	610	352,8
SB2333	20x2x1,0	22,0	660	391,2
SB2334	24x2x1,0	23,0	780	468,0
SB2335	2x2x1,5	11,3	162	64,8
SB2336	3x2x1,5	12,6	188	93,6
SB2337	4x2x1,5	13,6	230	122,4
SB2338	5x2x1,5	14,6	285	151,2
SB2339	6x2x1,5	15,1	310	180,0
SB2340	7x2x1,5	17,4	380	208,8
SB2341	8x2x1,5	18,2	420	237,6
SB2342	10x2x1,5	19,6	510	295,2
SB2343	12x2x1,5	20,9	590	352,8
SB2344	14x2x1,5	22,1	670	410,4
SB2345	16x2x1,5	24,0	785	468,0
SB2346	18x2x1,5	25,0	850	525,6
SB2347	20x2x1,5	26,4	965	583,2
SB2348	24x2x1,5	27,1	1110	698,4
SB2349	2x2x2,5	13,1	225	103,2
SB2350	3x2x2,5	14,6	260	151,2
SB2351	4x2x2,5	15,9	325	199,2
SB2352	5x2x2,5	17,7	430	247,2
SB2353	6x2x2,5	18,3	470	295,2
SB2354	7x2x2,5	20,6	550	343,2
SB2355	8x2x2,5	21,5	610	391,2
SB2356	10x2x2,5	23,5	750	487,2
SB2357	12x2x2,5	25,0	875	583,2
SB2358	14x2x2,5	27,1	1030	679,2
SB2359	16x2x2,5	28,9	1180	775,2

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® C BLACK OR

Flexible, highly flame retardant, oil resistant, screened control cables for outdoor applications, with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, PVC insulation and sheath, for outdoor applications and direct burial, UV resistant, highly flame retardant, oil resistant.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid, coverage ≥85%
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant.
Outer sheath colour: black

Application:

Flexible power and control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation) and in places exposed to oil or industrial coolants. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field (screen attenuation ca. 50dB). Cables are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables suitable for outdoor installation - outer sheath is UV resistant. Cables designed also for direct burial in ground. Wide spectrum of resistance to environmental conditions allows to install BiT 500® C BLACK OR cables in vast range of industrial applications.


internal application


external application


underground installation


industrial application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

flame retardant sheath


high flexibility

UV resistant


oil resistant
EN 60811-2-1

EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3650	2x0,5	7,2	72	35
SB3651	3G0,5	7,5	74	42
SB3652	3x0,5	7,5	74	42
SB3653	4G0,5	8,0	90	46
SB3654	4x0,5	8,0	90	46
SB3655	5G0,5	8,5	100	55
SB3656	5x0,5	8,5	100	55
SB3657	6G0,5	9,0	115	63
SB3658	7G0,5	9,0	120	68
SB3659	7x0,5	9,0	120	68
SB3660	8G0,5	9,9	145	81
SB3661	8x0,5	9,9	145	81
SB3662	10G0,5	11,2	176	94
SB3663	12G0,5	11,2	185	108
SB3664	12x0,5	11,2	185	108
SB3665	14G0,5	11,6	205	116
SB3666	16G0,5	12,2	225	128
SB3667	18G0,5	12,7	245	145
SB3668	19G0,5	12,5	250	160
SB3669	21G0,5	13,2	270	180
SB3670	25G0,5	14,7	320	234
SB3671	27G0,5	14,7	330	244

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3672	30G0,5	15,2	355	270
SB3673	34G0,5	16,2	400	301
SB3674	37G0,5	16,2	415	315
SB3675	40G0,5	17,3	465	335
SB3676	42G0,5	18,5	500	359
SB3677	50G0,5	19,2	570	405
SB3678	56G0,5	20,0	615	439
SB3679	6G0,5	20,5	655	471
SB3680	2x0,75	7,6	80	40
SB3681	3G0,75	7,9	90	49
SB3682	3x0,75	7,9	90	49
SB3683	4G0,75	8,5	105	59
SB3684	4x0,75	8,5	105	59
SB3685	5G0,75	9,0	120	70
SB3686	5x0,75	9,0	120	70
SB3687	6G0,75	9,8	146	80
SB3688	6x0,75	9,8	146	80
SB3689	7G0,75	9,8	150	90
SB3690	7x0,75	9,8	150	90
SB3691	8G0,75	10,6	170	110
SB3692	8x0,75	10,6	170	110
SB3693	10G0,75	12,0	215	138

BiT 500® C BLACK OR

Flexible, highly flame retardant, oil resistant, screened control cables for outdoor applications, with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3694	12G0,75	11,8	220	142
SB3695	12x0,75	11,8	220	142
SB3696	14G0,75	12,5	250	179
SB3697	16G0,75	13,1	275	197
SB3698	18G0,75	13,7	305	217
SB3699	19G0,75	13,7	310	224
SB3700	21G0,75	14,3	335	244
SB3701	25G0,75	15,9	400	286
SB3702	27G0,75	15,9	410	300
SB3703	30G0,75	17,0	465	326
SB3704	34G0,75	18,2	530	345
SB3705	37G0,75	18,2	545	360
SB3706	40G0,75	18,8	585	398
SB3707	42G0,75	20,3	635	421
SB3708	50G0,75	21,1	90	470
SB3709	56G0,75	21,7	775	518
SB3710	61G0,75	22,7	850	550
SB3711	2x1,0	7,9	115	50
SB3712	3G1,0	8,3	98	60
SB3713	3x1,0	8,3	98	60
SB3714	4G1,0	8,6	114	70
SB3715	4x1,0	8,6	114	70
SB3716	5G1,0	9,6	150	87
SB3717	5x1,0	9,6	150	87
SB3718	6G1,0	10,2	165	95
SB3719	6x1,0	10,2	165	95
SB3720	7G1,0	10,2	175	110
SB3721	7x1,0	10,2	175	110
SB3722	8G1,0	11,1	200	125
SB3723	10G1,0	12,5	245	150
SB3724	10x1,0	12,5	245	150
SB3725	12G1,0	12,5	260	180
SB3726	12x1,0	12,5	260	180
SB3727	14G1,0	13,2	290	197
SB3728	16G1,0	13,8	320	210
SB3729	18G1,0	14,4	355	250
SB3730	18x1,0	14,4	355	250
SB3731	19G1,0	14,4	360	260
SB3732	21G1,0	15,1	395	297
SB3733	25G1,0	17,5	495	335
SB3734	27G1,0	17,5	505	400
SB3735	30G1,0	18,0	550	440
SB3736	34G1,0	19,4	635	485
SB3737	37G1,0	19,4	655	495
SB3738	40G1,0	20,1	700	510
SB3739	42G1,0	21,5	750	530
SB3740	50G1,0	22,8	875	600
SB3741	56G1,0	23,4	945	661
SB3742	61G1,0	24,0	1010	700
SB3743	2x1,5	8,7	108	62
SB3744	3G1,5	9,1	122	79
SB3745	3x1,5	9,1	122	79
SB3746	4G1,5	10,0	156	96
SB3747	4x1,5	10,0	156	96
SB3748	5G1,5	10,7	184	120
SB3749	5x1,5	10,7	184	120

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3750	6G1,5	11,4	215	130
SB3751	6x1,5	11,4	215	130
SB3752	7G1,5	11,4	225	145
SB3753	7x1,5	11,4	225	145
SB3754	8G1,5	12,2	255	173
SB3755	10G1,5	14,3	320	193
SB3756	10x1,5	14,3	320	193
SB3757	12G1,5	14,3	340	243
SB3758	12x1,5	14,3	340	243
SB3759	14G1,5	14,9	380	276
SB3760	16G1,5	15,7	430	310
SB3761	18G1,5	17,0	495	352
SB3762	19G1,5	17,0	505	367
SB3763	21G1,5	17,8	555	393
SB3764	25G1,5	20,1	665	464
SB3765	27G1,5	20,1	685	493
SB3766	30G1,5	20,8	745	540
SB3767	34G1,5	22,6	875	608
SB3768	37G1,5	22,6	905	651
SB3769	40G1,5	23,4	970	700
SB3770	42G1,5	25,1	1040	740
SB3771	50G1,5	26,7	1230	862
SB3772	56G1,5	27,5	1330	955
SB3773	61G1,5	28,2	1420	1030
SB3774	2x2,5	10,0	146	90
SB3775	3G2,5	10,5	172	117
SB3776	3x2,5	10,5	172	117
SB3777	4G2,5	11,3	210	147
SB3778	4x2,5	11,3	210	147
SB3779	5G2,5	12,2	250	176
SB3780	5x2,5	12,2	250	176
SB3781	6G2,5	13,1	290	206
SB3782	6x2,5	13,1	290	206
SB3783	7G2,5	13,1	310	230
SB3784	7x2,5	13,1	310	230
SB3785	10G2,5	17,2	470	326
SB3786	12G2,5	17,2	500	374
SB3787	12x2,5	17,2	500	374
SB3788	14G2,5	18,0	565	427
SB3789	16G2,5	18,9	635	481
SB3790	18G2,5	20,0	715	536
SB3791	21G2,5	20,9	800	614
SB3792	25G2,5	23,9	975	728
SB3793	30G2,5	24,7	1100	853
SB3794	34G2,5	27,1	1300	960
SB3795	37G2,5	27,1	1340	1032
SB3796	42G2,5	30,3	1570	1216
SB3797	50G2,5	31,6	1800	1418
SB3798	2x4,0	11,5	205	128
SB3799	3G4,0	12,1	235	171
SB3800	3x4,0	12,1	235	171
SB3801	4G4,0	13,1	300	216
SB3802	5G4,0	14,2	360	262
SB3803	7G4,0	15,3	450	346
SB3804	10G4,0	20,5	695	491
SB3805	12G4,0	20,5	755	568

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® C BLACK OR

Flexible, highly flame retardant, oil resistant, screened control cables for outdoor applications, with number coded conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3806	2x2x0,5	9,3	110	52
SB3807	3x2x0,5	10,4	134	70
SB3808	4x2x0,5	11,1	154	91
SB3809	5x2x0,5	11,8	184	105
SB3810	6x2x0,5	12,2	194	122
SB3811	7x2x0,5	13,4	225	139
SB3812	8x2x0,5	13,9	245	151
SB3813	10x2x0,5	14,8	280	171
SB3814	12x2x0,5	15,7	320	198
SB3815	14x2x0,5	17,1	380	208
SB3816	16x2x0,5	18,2	425	241
SB3817	18x2x0,5	18,9	455	279
SB3818	20x2x0,5	19,6	500	300
SB3819	24x2x0,5	20,1	560	325
SB3820	2x2x0,75	10,2	138	58
SB3821	3x2x0,75	11,2	156	85
SB3822	4x2x0,75	11,9	184	110
SB3823	5x2x0,75	12,7	225	128
SB3824	6x2x0,75	13,1	235	148
SB3825	7x2x0,75	14,5	270	168
SB3826	8x2x0,75	15,1	295	182
SB3827	10x2x0,75	16,0	345	220
SB3828	12x2x0,75	17,6	415	260
SB3829	14x2x0,75	18,6	465	290
SB3830	16x2x0,75	20,0	535	319
SB3831	18x2x0,75	20,7	575	345
SB3832	20x2x0,75	21,3	620	368
SB3833	24x2x0,75	21,9	705	404
SB3834	2x2x1,0	10,7	155	82
SB3835	3x2x1,0	11,7	180	105
SB3836	4x2x1,0	12,6	210	130
SB3837	5x2x1,0	13,4	255	160
SB3838	6x2x1,0	13,8	270	185
SB3839	7x2x1,0	15,3	315	220

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3840	8x2x1,0	15,9	345	237
SB3841	10x2x1,0	17,6	425	280
SB3842	12x2x1,0	18,6	485	325
SB3843	14x2x1,0	19,9	555	389
SB3844	16x2x1,0	21,1	625	420
SB3845	18x2x1,0	22,0	675	462
SB3846	20x2x1,0	23,0	760	492
SB3847	24x2x1,0	23,6	855	541
SB3848	2x2x1,5	11,9	194	106
SB3849	3x2x1,5	13,2	220	133
SB3850	4x2x1,5	14,2	270	157
SB3851	5x2x1,5	15,2	335	181
SB3852	6x2x1,5	15,7	355	200
SB3853	7x2x1,5	18,0	435	230
SB3854	8x2x1,5	18,8	480	310
SB3855	10x2x1,5	20,2	570	380
SB3856	12x2x1,5	21,5	655	455
SB3857	14x2x1,5	23,1	760	507
SB3858	16x2x1,5	24,6	860	561
SB3859	18x2x1,5	26,2	970	607
SB3860	20x2x1,5	27,0	1050	700
SB3861	24x2x1,5	27,7	1210	825
SB3862	2x2x2,5	13,7	260	148
SB3863	3x2x2,5	15,2	305	220
SB3864	4x2x2,5	17,1	395	295
SB3865	5x2x2,5	18,3	480	350
SB3866	6x2x2,5	18,9	525	385
SB3867	7x2x2,5	21,2	615	444
SB3868	8x2x2,5	22,1	670	483
SB3869	10x2x2,5	24,1	825	559
SB3870	12x2x2,5	25,6	950	629
SB3871	14x2x2,5	27,7	1110	709
SB3872	16x2x2,5	29,5	1250	787

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® (St) BLACK OR

Flexible, screened control cables, for outdoor applications, highly flame retardant and oil resistant, with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cables with number coded conductors, PVC insulation and sheath, for outdoor applications and direct burial, UV resistant, highly flame retardant, oil resistant

Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 6 x Ø
Flexible connections: 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors
Core arrangement: pairs twisted together or cores twisted together
Screen: Aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C),UV resistant.
Outer sheath colour: black

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Common screen improves protection of transmitted signals against external electromagnetic field. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation) and in places exposed to oil or industrial coolants. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables suitable for outdoor installation. Outer sheath is UV resistant. Designed for direct burial in ground. Wide spectrum of resistance to environmental conditions allows to install BiT 500® (St) BLACK OR cables in vast range of industrial applications.


internal application


external application


underground installation


industrial application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

flame retardant sheath


high flexibility

UV resistant


oil resistant
EN 60811-2-1

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2650	2x0,5	7,0	66	14,4
SB2651	3G0,5	7,3	70	19,2
SB2652	3x0,5	7,3	70	19,2
SB2653	4G0,5	7,8	82	24,0
SB2654	4x0,5	7,8	82	24,0
SB2655	5G0,5	8,3	94	28,8
SB2656	5x0,5	8,3	94	28,8
SB2657	6G0,5	8,8	106	33,6
SB2658	7G0,5	8,8	110	38,4
SB2659	7x0,5	8,8	110	38,4
SB2660	8G0,5	9,7	126	43,2
SB2661	8x0,5	9,7	126	43,2
SB2662	10G0,5	11,0	154	52,8
SB2663	12G0,5	11,0	162	62,4
SB2664	12x0,5	11,0	162	62,4
SB2665	14G0,5	11,4	180	72,0
SB2666	16G0,5	12,0	200	81,6
SB2667	18G0,5	12,5	220	91,2
SB2668	19G0,5	12,5	225	96,0
SB2669	21G0,5	13,0	245	105,6
SB2670	25G0,5	14,5	290	124,8
SB2671	27G0,5	14,5	295	134,4
SB2672	30G0,5	15,0	320	148,8
SB2673	34G0,5	16,0	365	168,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2674	37G0,5	16,0	375	182,4
SB2675	40G0,5	17,1	425	196,8
SB2676	42G0,5	18,3	455	206,4
SB2677	50G0,5	19,2	525	244,8
SB2678	56G0,5	19,8	570	273,6
SB2679	61G0,5	20,3	605	297,6
SB2680	2x0,75	7,4	74	19,2
SB2681	3G0,75	7,7	82	26,4
SB2682	3x0,75	7,7	82	26,4
SB2683	4G0,75	8,3	96	33,6
SB2684	4x0,75	8,3	96	33,6
SB2685	5G0,75	8,8	112	40,8
SB2686	5x0,75	8,8	112	40,8
SB2687	6G0,75	9,4	128	48,0
SB2688	6x0,75	9,4	128	48,0
SB2689	7G0,75	9,4	132	55,2
SB2690	7x0,75	9,4	132	55,2
SB2691	8G0,75	10,4	152	62,4
SB2692	8x0,75	10,4	152	62,4
SB2693	10G0,75	11,8	188	76,8
SB2694	12G0,75	11,8	198	91,2
SB2695	12x0,75	11,8	198	91,2
SB2696	14G0,75	12,3	225	105,6
SB2697	16G0,75	12,9	250	120,0

BiT 500® (St) BLACK OR

Flexible, screened control cables, for outdoor applications, highly flame retardant and oil resistant, with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2698	18G0,75	13,5	275	134,4
SB2699	19G0,75	13,5	280	141,6
SB2700	21G0,75	14,1	305	156,0
SB2701	25G0,75	15,7	365	184,8
SB2702	27G0,75	15,7	375	199,2
SB2703	30G0,75	16,2	405	220,8
SB2704	34G0,75	18,0	490	249,6
SB2705	37G0,75	18,0	505	271,2
SB2706	40G0,75	18,6	540	292,8
SB2707	42G0,75	20,1	590	307,2
SB2708	50G0,75	20,9	670	364,8
SB2709	56G0,75	21,5	725	408,0
SB2710	61G0,75	22,1	775	444,0
SB2711	2x1,0	7,7	84	26,4
SB2712	3G1,0	8,1	94	36,0
SB2713	3x1,0	8,1	94	36,0
SB2714	4G1,0	8,6	110	45,6
SB2715	4x1,0	8,6	110	45,6
SB2716	5G1,0	9,2	128	55,2
SB2717	5 x1,0	9,2	128	55,2
SB2718	6G1,0	9,8	148	64,8
SB2719	6x1,0	9,8	148	64,8
SB2720	7G1,0	9,8	154	74,4
SB2721	7x1,0	9,8	154	74,4
SB2722	8G1,0	10,9	178	84,0
SB2723	10G1,0	12,5	225	103,2
SB2724	10x1,0	12,5	225	103,2
SB2725	12G1,0	12,5	235	122,4
SB2726	12x1,0	12,5	235	122,4
SB2727	14G1,0	13,0	265	141,6
SB2728	16G1,0	13,6	295	160,8
SB2729	18 G1,0	14,2	325	180,0
SB2730	18x1,0	14,2	325	180,0
SB2731	19G1,0	14,2	330	189,6
SB2732	21G1,0	14,9	365	208,8
SB2733	25G1,0	17,3	455	247,2
SB2734	27G1,0	17,3	470	266,4
SB2735	30G1,0	17,8	510	295,2
SB2736	34G1,0	19,2	590	333,6
SB2737	37G1,0	19,2	610	362,4
SB2738	40G1,0	19,9	655	391,2
SB2739	42G1,0	21,3	700	410,4
SB2740	50G1,0	22,2	805	487,2
SB2741	56G1,0	23,2	895	544,8
SB2742	61G1,0	23,8	955	592,8
SB2743	2x1,5	8,5	102	36,0
SB2744	3G1,5	8,9	116	50,4
SB2745	3x1,5	8,9	116	50,4
SB2746	4G1,5	9,6	140	64,8
SB2747	4x1,5	9,6	140	64,8
SB2748	5G1,5	10,3	164	79,2
SB2749	5x1,5	10,3	164	79,2
SB2750	6G1,5	11,2	192	93,6
SB2751	6x1,5	11,2	192	93,6

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2752	7G1,5	11,2	205	108,0
SB2753	7x1,5	11,2	205	108,0
SB2754	8G1,5	12,2	235	122,4
SB2755	10G1,5	14,1	290	151,2
SB2756	10x1,5	14,1	290	151,2
SB2757	12G1,5	14,1	310	180,0
SB2758	12x1,5	14,1	310	180,0
SB2759	14G1,5	14,7	350	208,8
SB2760	16G1,5	15,5	395	237,6
SB2761	18G1,5	16,2	435	266,4
SB2762	19G1,5	16,2	445	280,8
SB2763	21G1,5	17,6	515	309,6
SB2764	25G1,5	19,9	620	367,2
SB2765	27G1,5	19,9	640	396,0
SB2766	30G1,5	20,6	700	439,2
SB2767	34G1,5	22,0	800	496,8
SB2768	37G1,5	22,0	830	540,0
SB2769	40G1,5	23,2	915	583,2
SB2770	42G1,5	24,9	980	612,0
SB2771	50G1,5	26,5	1160	727,2
SB2772	56G1,5	27,3	1260	813,6
SB2773	61G1,5	28,0	1350	885,6
SB2774	2x2,5	9,6	130	55,2
SB2775	3G2,5	10,1	154	79,2
SB2776	3x2,5	10,1	154	79,2
SB2777	4G2,5	10,9	188	103,2
SB2778	4x2,5	10,9	188	103,2
SB2779	5G2,5	11,8	225	127,2
SB2780	5x2,5	11,8	225	127,2
SB2781	6G2,5	12,9	270	151,2
SB2782	6 x2,5	12,9	270	151,2
SB2783	7G2,5	12,9	285	175,2
SB2784	7x2,5	12,9	285	175,2
SB2785	10G2,5	17,0	435	247,2
SB2786	12G2,5	17,0	465	295,2
SB2787	12x2,5	17,0	465	295,2
SB2788	14G2,5	17,8	525	343,2
SB2789	16G2,5	18,7	590	391,2
SB2790	18G2,5	19,8	670	439,2
SB2791	21G2,5	20,7	750	511,2
SB2792	25G2,5	23,7	920	607,2
SB2793	30G2,5	24,5	1040	727,2
SB2794	34G2,5	26,9	1230	823,2
SB2795	37G2,5	26,9	1280	895,2
SB2796	42G2,5	29,9	1470	1015,2
SB2797	50G2,5	31,2	1690	1207,2
SB2798	2x4,0	11,1	180	84,0
SB2799	3G4,0	11,7	220	122,4
SB2800	3x4,0	11,7	220	122,4
SB2801	4G4,0	12,7	275	160,8
SB2802	5G4,0	13,7	330	199,2
SB2803	7G4,0	14,8	415	276,0
SB2804	10G4,0	19,9	645	391,2
SB2805	12G4,0	19,9	700	468,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® (St) BLACK OR

Flexible, screened control cables, for outdoor applications, highly flame retardant and oil resistant, with number coded conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2806	2x2x0,5	9,3	102	24,0
SB2807	3x2x0,5	10,2	116	33,6
SB2808	4x2x0,5	10,9	134	43,2
SB2809	5x2x0,5	11,6	160	52,8
SB2810	6x2x0,5	12,0	170	62,4
SB2811	7x2x0,5	13,2	194	72,0
SB2812	8x2x0,5	13,7	215	81,6
SB2813	10x2x0,5	14,6	250	100,8
SB2814	12x2x0,5	15,5	285	120,0
SB2815	14x2x0,5	16,3	320	139,2
SB2816	16x2x0,5	18,0	385	158,4
SB2817	18x2x0,5	18,7	415	177,6
SB2818	20x2x0,5	19,4	455	196,8
SB2819	24x2x0,5	19,9	515	235,2
SB2820	2x2x0,75	10,0	120	33,6
SB2821	3x2x0,75	11,0	136	48,0
SB2822	4x2x0,75	11,7	160	62,4
SB2823	5x2x0,75	12,5	196	76,8
SB2824	6x2x0,75	12,9	210	91,2
SB2825	7x2x0,75	14,3	240	105,6
SB2826	8x2x0,75	14,9	265	120,0
SB2827	10x2x0,75	15,8	310	148,8
SB2828	12x2x0,75	17,4	380	177,6
SB2829	14x2x0,75	18,4	425	206,4
SB2830	16x2x0,75	19,8	490	235,2
SB2831	18x2x0,75	20,5	525	264,0
SB2832	20x2x0,75	21,1	570	292,8
SB2833	24x2x0,75	21,7	650	350,4
SB2834	2x2x1,0	10,5	138	45,6
SB2835	3x2x1,0	11,5	156	64,8
SB2836	4x2x1,0	12,4	188	84,0
SB2837	5x2x1,0	13,2	230	103,2
SB2838	6x2x1,0	13,6	245	122,4
SB2839	7x2x1,0	15,1	280	141,6

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2840	8x2x1,0	15,7	310	160,8
SB2841	10x2x1,0	17,4	390	199,2
SB2842	12x2x1,0	18,4	445	237,6
SB2843	14x2x1,0	19,7	510	276,0
SB2844	16x2x1,0	20,9	580	314,4
SB2845	18x2x1,0	21,8	625	352,8
SB2846	20x2x1,0	22,8	700	391,2
SB2847	24x2x1,0	23,4	800	468,0
SB2848	2x2x1,5	11,7	174	64,8
SB2849	3x2x1,5	13,0	200	93,6
SB2850	4x2x1,5	14,0	245	122,4
SB2851	5x2x1,5	15,0	300	151,2
SB2852	6x2x1,5	15,5	325	180,0
SB2853	7x2x1,5	17,8	395	208,8
SB2854	8x2x1,5	18,6	435	237,6
SB2855	10x2x1,5	20,0	525	295,2
SB2856	12x2x1,5	21,3	605	352,8
SB2857	14x2x1,5	22,9	705	410,4
SB2858	16x2x1,5	24,4	805	468,0
SB2859	18x2x1,5	25,4	870	525,6
SB2860	20x2x1,5	26,8	980	583,2
SB2861	24x2x1,5	27,5	1130	698,4
SB2862	2x2x2,5	13,5	235	103,2
SB2863	3x2x2,5	15,0	275	151,2
SB2864	4x2x2,5	16,3	335	199,2
SB2865	5x2x2,5	18,1	440	247,2
SB2866	6x2x2,5	18,7	485	295,2
SB2867	7x2x2,5	21,0	565	343,2
SB2868	8x2x2,5	21,9	625	391,2
SB2869	10x2x2,5	23,9	770	487,2
SB2870	12x2x2,5	25,4	890	583,2
SB2871	14x2x2,5	27,5	1050	679,2
SB2872	16x2x2,5	29,3	1200	775,2

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® 2(St) BLACK OR

Flexible, paired control cables, individually and collectively screened for outdoor applications, highly flame retardant and oil resistant, with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, PVC insulation and sheath, for outdoor applications and direct burial, UV resistant, highly flame retardant, oil resistant with individually and collectively screened pairs.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 6 x Ø
Flexible connections: 12 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors
Core arrangement: twisted screened pairs
Individual screen: Aluminium backed polyester tape with tinned copper drain wire on each pair
Collective screen: Aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant.
Outer sheath colour: black

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Individual screening of pairs decreases signal interferences from adjacent pairs. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation) and in places exposed to oil or industrial coolants. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables suitable for outdoor installation. Outer sheath is UV resistant. Designed for direct burial in ground. Wide spectrum of resistance to environmental conditions allows to install BiT 500® 2(St) BLACK OR cables in vast range of industrial applications.


internal application


external application


underground installation


industrial application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

flame retardant sheath


high flexibility


UV resistant


oil resistant
EN 60811-2-1

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3080	2x2x0,5	9,3	114	33,6
SB3081	3x2x0,5	10,2	132	48,0
SB3082	4x2x0,5	10,9	158	62,4
SB3083	5x2x0,5	11,6	188	76,8
SB3084	6x2x0,5	12,0	204	91,2
SB3085	7x2x0,5	13,2	235	105,6
SB3086	8x2x0,5	13,7	260	120,0
SB3087	10x2x0,5	14,6	305	148,8
SB3088	12x2x0,5	15,5	350	177,6
SB3089	14x2x0,5	16,3	395	206,4
SB3090	16x2x0,5	18,0	475	235,2
SB3091	18x2x0,5	18,7	515	264,0
SB3092	20x2x0,5	19,4	570	292,8
SB3093	24x2x0,5	19,9	650	350,4
SB3094	2x2x0,75	10,0	132	43,2
SB3095	3x2x0,75	11,0	154	62,4
SB3096	4x2x0,75	11,7	184	81,6
SB3097	5x2x0,75	12,5	226	100,8
SB3098	6x2x0,75	12,9	245	120,0
SB3099	7x2x0,75	14,3	280	139,2
SB3100	8x2x0,75	14,9	310	158,4
SB3101	10x2x0,75	15,8	370	196,8
SB3102	12x2x0,75	17,4	450	235,2
SB3103	14x2x0,75	18,4	510	273,6

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3104	16x2x0,75	19,8	585	312,0
SB3105	18x2x0,75	20,5	635	350,4
SB3106	20x2x0,75	21,1	690	388,8
SB3107	24x2x0,75	21,7	795	465,6
SB3108	2x2x1,0	10,5	154	60,0
SB3109	3x2x1,0	11,5	180	86,4
SB3110	4x2x1,0	12,4	220	112,8
SB3111	5x2x1,0	13,2	270	139,2
SB3112	6x2x1,0	13,6	295	165,6
SB3113	7x2x1,0	15,1	335	192,0
SB3114	8x2x1,0	15,7	375	218,4
SB3115	10x2x1,0	17,4	470	271,2
SB3116	12x2x1,0	18,4	540	324,0
SB3117	14x2x1,0	19,7	625	376,8
SB3118	16x2x1,0	20,9	710	429,6
SB3119	18x2x1,0	21,8	770	482,4
SB3120	20x2x1,0	22,8	860	535,2
SB3121	24x2x1,0	23,4	995	640,8
SB3122	2x2x1,5	11,7	190	79,2
SB3123	3x2x1,5	13,0	226	115,2
SB3124	4x2x1,5	14,0	275	151,2
SB3125	5x2x1,5	15,0	340	187,2
SB3126	6x2x1,5	15,5	375	223,2
SB3127	7x2x1,5	17,8	455	259,2

BITNER®

BiT 500® 2(St) BLACK OR

Flexible, paired control cables, individually and collectively screened for outdoor applications, highly flame retardant and oil resistant, with number coded conductors, rated 300/500V

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3128	8x2x1,5	18,6	505	295,2
SB3129	10x2x1,5	20,0	610	367,2
SB3130	12x2x1,5	21,3	705	439,2
SB3131	14x2x1,5	22,9	820	511,2
SB3132	16x2x1,5	24,4	935	583,2
SB3133	18x2x1,5	25,4	1015	655,2
SB3134	20x2x1,5	26,8	1150	727,2
SB3135	24x2x1,5	27,5	1330	871,2
SB3136	2x2x2,5	13,5	255	117,6
SB3137	3x2x2,5	15,0	300	172,8

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3138	4x2x2,5	16,3	370	228,0
SB3139	5x2x2,5	18,1	485	283,2
SB3140	6x2x2,5	18,7	535	338,4
SB3141	7x2x2,5	21,0	625	393,6
SB3142	8x2x2,5	21,9	695	448,8
SB3143	10x2x2,5	23,9	855	559,2
SB3144	12x2x2,5	25,4	995	669,6
SB3145	14x2x2,5	27,5	1170	780,0
SB3146	16x2x2,5	29,3	1340	890,4

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® BLACK FR

Flexible, highly flame retardant control cables for outdoor applications with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, PVC insulation and sheath for outdoor and direct burial applications, highly flame retardant
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C),UV resistant.
Outer sheath colour: black

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation). They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables suitable for outdoor installation - outer sheath is UV resistant. Cables designed also for direct burial in ground.Insulation and sheath materials and conductor construction in BiT 500® BLACK FR cable enable easy and fast connections and ensure their high durability.


internal application


external application


underground installation


industrial application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

flame retardant sheath


high flexibility

UV resistant

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1800	2x0,5	6,8	62	14,4
SB1801	3G0,5	7,1	70	19,2
SB1802	3x0,5	7,1	70	19,2
SB1803	4G0,5	7,6	80	24,0
SB1804	4x0,5	7,6	80	24,0
SB1805	5G0,5	8,1	92	28,8
SB1806	5x0,5	8,1	92	28,8
SB1807	6G0,5	8,6	105	33,6
SB1808	7G0,5	8,6	110	38,4
SB1809	7x0,5	8,6	110	38,4
SB1810	8G0,5	9,3	125	43,2
SB1811	8x0,5	9,3	125	43,2
SB1812	10G0,5	10,6	155	52,8
SB1813	12G0,5	10,6	165	62,4
SB1814	12x0,5	10,6	165	62,4
SB1815	14G0,5	11,0	180	72,0
SB1816	16G0,5	11,6	200	81,6
SB1817	18G0,5	12,1	220	91,2
SB1818	19G0,5	12,1	220	96,0
SB1819	21G0,5	12,6	240	105,6
SB1820	25G0,5	14,1	285	124,8
SB1821	27G0,5	14,1	295	134,4
SB1822	30G0,5	14,6	320	148,8
SB1823	34G0,5	15,6	365	168,0
SB1824	37G0,5	15,6	375	182,4

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1825	40G0,5	16,1	400	196,8
SB1826	42G0,5	17,9	455	206,4
SB1827	50G0,5	18,6	515	244,8
SB1828	56G0,5	19,4	570	273,6
SB1829	61G0,5	19,9	605	297,6
SB1830	2x0,75	7,2	70	19,2
SB1831	3G0,75	7,5	82	26,4
SB1832	3x0,75	7,5	82	26,4
SB1833	4G0,75	8,1	94	33,6
SB1834	4x0,75	8,1	94	33,6
SB1835	5G0,75	8,6	110	40,8
SB1836	5x0,75	8,6	110	40,8
SB1837	6G0,75	9,2	126	48,0
SB1838	6x0,75	9,2	126	48,0
SB1839	7G0,75	9,2	132	55,2
SB1840	7x0,75	9,2	132	55,2
SB1841	8G0,75	10,0	152	62,4
SB1842	8x0,75	10,0	152	62,4
SB1843	10G0,75	11,4	188	76,8
SB1844	12G0,75	11,4	200	91,2
SB1845	12x0,75	11,4	200	91,2
SB1846	14G0,75	11,9	225	105,6
SB1847	16G0,75	12,5	250	120,0
SB1848	18G0,75	13,1	275	134,4
SB1849	19G0,75	13,1	280	141,6

BITNER®

BiT 500® BLACK FR

Flexible, highly flame retardant control cables for outdoor applications with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1850	21G0,75	13,7	305	156,0
SB1851	25G0,75	15,3	365	184,8
SB1852	27G0,75	15,3	375	199,2
SB1853	30G0,75	15,8	405	220,8
SB1854	34G0,75	17,6	490	249,6
SB1855	37G0,75	17,6	505	271,2
SB1856	40G0,75	18,2	540	292,8
SB1857	42G0,75	19,7	590	307,2
SB1858	50G0,75	20,5	670	364,8
SB1859	56G0,75	21,1	725	408,0
SB1860	61G0,75	21,7	775	444,0
SB1861	2x1,0	7,5	80	26,4
SB1862	3G1,0	7,9	92	36,0
SB1863	3x1,0	7,9	92	36,0
SB1864	4G1,0	8,4	108	45,6
SB1865	4x1,0	8,4	108	45,6
SB1866	5G1,0	9,0	126	55,2
SB1867	5x1,0	9,0	126	55,2
SB1868	6G1,0	9,6	146	64,8
SB1869	6x1,0	9,6	146	64,8
SB1870	7G1,0	9,6	152	74,4
SB1871	7x1,0	9,6	152	74,4
SB1872	8G1,0	10,5	155	84,0
SB1873	10G1,0	12,1	220	103,2
SB1874	10x1,0	12,1	220	103,2
SB1875	12G1,0	12,1	235	122,4
SB1876	12x1,0	12,1	235	122,4
SB1877	14G1,0	12,6	260	141,6
SB1878	16G1,0	13,2	295	160,8
SB1879	18G1,0	13,8	325	180,0
SB1880	18x1,0	13,8	325	180,0
SB1881	19G1,0	13,8	330	189,6
SB1882	21G1,0	14,5	360	208,8
SB1883	25G1,0	16,3	430	247,2
SB1884	27G1,0	16,3	445	266,4
SB1885	30G1,0	17,4	510	295,2
SB1886	34G1,0	18,6	580	333,6
SB1887	37G1,0	18,6	600	362,4
SB1888	40G1,0	19,5	655	391,2
SB1889	42G1,0	20,9	705	410,4
SB1890	50G1,0	21,8	805	487,2
SB1891	56G1,0	22,8	895	544,8
SB1892	61G1,0	23,4	955	592,8
SB1893	2x1,5	8,3	100	36,0
SB1894	3G1,5	8,7	118	50,4
SB1895	3x1,5	8,7	118	50,4
SB1896	4G1,5	9,4	142	64,8
SB1897	4x1,5	9,4	142	64,8
SB1898	5G1,5	10,1	166	79,2
SB1899	5x1,5	10,1	166	79,2
SB1900	6G1,5	10,8	190	93,6
SB1901	6x1,5	10,8	190	93,6

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1902	7G1,5	10,8	200	108,0
SB1903	7x1,5	10,8	200	108,0
SB1904	8G1,5	11,8	235	122,4
SB1905	10G1,5	13,7	295	151,2
SB1906	10x1,5	13,7	295	151,2
SB1907	12G1,5	13,7	315	180,0
SB1908	12x1,5	13,7	315	180,0
SB1909	14G1,5	14,3	355	208,8
SB1910	16G1,5	15,1	395	237,6
SB1911	18G1,5	15,8	440	266,4
SB1912	19G1,5	15,8	450	280,8
SB1913	21G1,5	17,2	515	309,6
SB1914	25G1,5	19,5	625	367,2
SB1915	27G1,5	19,5	645	396,0
SB1916	30G1,5	20,2	705	439,2
SB1917	34G1,5	21,6	805	496,8
SB1918	37G1,5	21,6	835	540,0
SB1919	40G1,5	22,8	920	583,2
SB1920	42G1,5	24,5	985	612,0
SB1921	50G1,5	26,1	1170	727,2
SB1922	56G1,5	26,9	1270	813,6
SB1923	61G1,5	27,6	1360	885,6
SB1924	2x2,5	9,4	134	55,2
SB1925	3G2,5	9,9	160	79,2
SB1926	3x2,5	9,9	160	79,2
SB1927	4G2,5	10,7	194	103,2
SB1928	4x2,5	10,7	194	103,2
SB1929	5G2,5	11,6	230	127,2
SB1930	5x2,5	11,6	230	127,2
SB1931	6G2,5	12,5	270	151,2
SB1932	6x2,5	12,5	270	151,2
SB1933	7G2,5	12,5	285	175,2
SB1934	7x2,5	12,5	285	175,2
SB1935	10G2,5	16,0	420	247,2
SB1936	12G2,5	16,0	450	295,2
SB1937	12x2,5	16,0	450	295,2
SB1938	14G2,5	17,4	535	343,2
SB1939	16G2,5	18,3	600	391,2
SB1940	18G2,5	19,4	675	439,2
SB1941	21G2,5	20,3	760	511,2
SB1942	25G2,5	23,3	930	607,2
SB1943	30G2,5	24,1	1050	727,2
SB1944	34G2,5	26,5	1240	823,2
SB1945	37G2,5	26,5	1290	895,2
SB1946	42G2,5	29,5	1490	1015,2
SB1947	50G2,5	30,8	1710	1207,2
SB1948	2x4,0	11,1	194	84,0
SB1949	3G4,0	11,7	240	122,4
SB1950	3x4,0	11,7	240	122,4
SB1951	4G4,0	12,8	290	160,8
SB1952	5G4,0	13,9	350	199,2
SB1953	7G4,0	15,0	435	276,0

BiT 500® BLACK FR

Flexible, highly flame retardant control cables for outdoor applications with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1954	10G4,0	20,3	680	391,2
SB1955	12G4,0	20,3	740	468,0
SB1956	2x6,0	11,7	240	115,2
SB1957	3G6,0	12,4	300	172,8
SB1958	3x6,0	12,4	300	172,8
SB1959	4G6,0	13,6	380	230,4
SB1960	5G6,0	14,7	455	288,0
SB1961	7G6,0	15,9	575	403,2
SB1962	2x10	13,9	365	192,0
SB1963	3G10	14,7	460	288,0
SB1964	3x10	14,7	460	288,0
SB1965	4G10	16,9	605	384,0
SB1966	5G10	18,3	730	480,0
SB1967	7G10	20,0	940	672,0
SB1968	2x16	15,7	505	307,2
SB1969	3G16	17,3	675	460,8
SB1970	3x16	17,3	675	460,8
SB1971	4G16	19,3	865	614,4
SB1972	5G16	20,9	1050	768,0
SB1973	2x25	20,1	750	480,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1974	3G25	21,3	1040	720,0
SB1975	3x25	21,3	1040	720,0
SB1976	4G25	24,1	1340	960,0
SB1977	5G25	26,7	1650	1200,0
SB1978	2x35	22,5	980	672,0
SB1979	3G35	23,9	1350	1008,0
SB1980	3x35	23,9	1350	1008,0
SB1981	4G35	27,2	1750	1344,0
SB1982	5G35	29,4	2110	1680,0
SB1983	2x50	27,1	1490	960,0
SB1984	3G50	28,8	1940	1440,0
SB1985	3x50	28,8	1940	1440,0
SB1986	4G50	32,3	2480	1920,0
SB1987	5G50	35,0	3100	2400,0
SB1988	2x70	30,7	2030	1344,0
SB1989	3G70	32,9	2080	2016,0
SB1990	3x70	32,9	2080	2016,0
SB1991	4G70	37,1	3470	2688,0
SB1992	5G70	40,5	4240	3360,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB1993	2x2x0,5	8,9	94	24,0
SB1994	3x2x0,5	9,8	106	33,6
SB1995	4x2x0,5	10,5	126	43,2
SB1996	5x2x0,5	11,2	152	52,8
SB1997	6x2x0,5	11,6	160	62,4
SB1998	7x2x0,5	12,8	184	72,0
SB1999	8x2x0,5	13,3	205	81,6
SB2000	10x2x0,5	14,2	240	100,8
SB2001	12x2x0,5	15,1	270	120,0
SB2002	14x2x0,5	15,9	305	139,2
SB2003	16x2x0,5	17,6	375	158,4
SB2004	18x2x0,5	18,3	400	177,6
SB2005	20x2x0,5	18,8	430	196,8
SB2006	24x2x0,5	19,5	500	235,2
SB2007	2x2x0,75	9,6	110	33,6
SB2008	3x2x0,75	10,6	130	48,0
SB2009	4x2x0,75	11,3	155	62,4
SB2010	5x2x0,75	12,1	185	76,8
SB2011	6x2x0,75	12,5	200	91,2
SB2012	7x2x0,75	13,9	230	105,6
SB2013	8x2x0,75	14,5	250	120,0
SB2014	10x2x0,75	15,4	295	148,8
SB2015	12x2x0,75	17,0	365	177,6
SB2016	14x2x0,75	18,0	410	206,4
SB2017	16x2x0,75	19,4	475	235,2
SB2018	18x2x0,75	20,1	515	264,0
SB2019	20x2x0,75	20,7	555	292,8
SB2020	24x2x0,75	21,3	635	350,4
SB2021	2x2x1,0	10,1	128	45,6
SB2022	3x2x1,0	11,1	144	64,8
SB2023	4x2x1,0	12,0	174	84,0
SB2024	5x2x1,0	12,8	215	103,2
SB2025	6x2x1,0	13,2	235	122,4
SB2026	7x2x1,0	14,7	270	141,6

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2027	8x2x1,0	15,3	295	160,8
SB2028	10x2x1,0	16,4	350	199,2
SB2029	12x2x1,0	18,0	430	237,6
SB2030	14x2x1,0	19,3	495	276,0
SB2031	16x2x1,0	20,5	565	314,4
SB2032	18x2x1,0	21,4	610	352,8
SB2033	20x2x1,0	22,0	660	391,2
SB2034	24x2x1,0	23,0	780	468,0
SB2035	2x2x1,5	11,3	162	64,8
SB2036	3x2x1,5	12,6	188	93,6
SB2037	4x2x1,5	13,6	230	122,4
SB2038	5x2x1,5	14,6	285	151,2
SB2039	6x2x1,5	15,1	310	180,0
SB2040	7x2x1,5	17,4	380	208,8
SB2041	8x2x1,5	18,2	420	237,6
SB2042	10x2x1,5	19,6	510	295,2
SB2043	12x2x1,5	20,9	590	352,8
SB2044	14x2x1,5	22,1	670	410,4
SB2045	16x2x1,5	24,0	785	468,0
SB2046	18x2x1,5	25,0	850	525,6
SB2047	20x2x1,5	26,4	965	583,2
SB2048	24x2x1,5	27,1	1110	698,4
SB2049	2x2x2,5	13,1	225	103,2
SB2050	3x2x2,5	14,6	260	151,2
SB2051	4x2x2,5	15,9	325	199,2
SB2052	5x2x2,5	17,7	430	247,2
SB2053	6x2x2,5	18,3	470	295,2
SB2054	7x2x2,5	20,6	550	343,2
SB2055	8x2x2,5	21,5	610	391,2
SB2056	10x2x2,5	23,5	750	487,2
SB2057	12x2x2,5	25,0	875	583,2
SB2058	14x2x2,5	27,1	1030	679,2
SB2059	16x2x2,5	28,9	1180	775,2

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® C BLACK FR

Flexible, highly flame retardant, screened control cables for outdoor applications, with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, PVC insulation and sheath, for outdoor applications and direct burial, UV resistant, highly flame retardant
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_o/U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø


internal application


external application


underground installation


industrial application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

flame retardant sheath


high flexibility

UV resistant

EMC

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid, coverage ≥ 85%
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant.
Outer sheath colour: black

Application:

Flexible power and control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation). Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field (screen attenuation ca. 50dB). Cables are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables suitable for outdoor installation - outer sheath is UV resistant. Cables designed also for direct burial in ground. Insulation and sheath materials and conductor construction in BIT 500® C BLACK cable enable easy and fast connections and ensure their high durability.
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Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3410	2x0,5	7,2	72	35
SB3411	3G0,5	7,5	75	42
SB3412	3x0,5	7,5	75	42
SB3413	4G0,5	8,0	88	46
SB3414	4x0,5	8,0	88	46
SB3415	5G0,5	8,5	102	55
SB3416	5x0,5	8,5	102	55
SB3417	6G0,5	9,0	115	63
SB3418	7G0,5	9,0	120	68
SB3419	7x0,5	9,0	120	68
SB3420	8G0,5	9,9	145	81
SB3421	8x0,5	9,9	145	81
SB3422	10G0,5	11,2	176	94
SB3423	12G0,5	11,2	184	108
SB3424	12x0,5	11,2	184	108
SB3425	14G0,5	11,6	205	116
SB3426	16G0,5	12,2	225	128
SB3427	18G0,5	12,7	245	145
SB3428	19G0,5	12,5	250	160

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3429	21G0,5	13,2	270	180
SB3430	25G0,5	14,7	320	234
SB3431	27G0,5	14,7	330	244
SB3432	30G0,5	15,2	355	270
SB3433	34G0,5	16,2	400	301
SB3434	37G0,5	16,2	415	315
SB3435	40G0,5	17,3	465	335
SB3436	42G0,5	18,5	500	359
SB3437	50G0,5	19,2	570	405
SB3438	56G0,5	20,0	615	439
SB3439	61G0,5	20,5	655	471
SB3440	2x0,75	7,6	80	40
SB3441	3G0,75	7,9	88	49
SB3442	3x0,75	7,9	88	49
SB3443	4G0,75	8,5	102	59
SB3444	4x0,75	8,5	102	59
SB3445	5G0,75	9,0	120	70
SB3446	5x0,75	9,0	120	70
SB3447	6G0,75	9,8	146	80

BiT 500® C BLACK FR

Flexible, highly flame retardant, screened control cables for outdoor applications, with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3448	6x0,75	9,8	146	80
SB3449	7G0,75	9,8	150	90
SB3450	7x0,75	9,8	150	90
SB3451	8G0,75	10,6	170	110
SB3452	8x0,75	10,6	170	110
SB3453	10G0,75	12,0	215	138
SB3454	12G0,75	11,8	220	142
SB3455	12x0,75	11,8	220	142
SB3456	14G0,75	12,5	250	179
SB3457	16G0,75	13,1	275	197
SB3458	18G0,75	13,7	305	217
SB3459	19G0,75	13,7	310	224
SB3460	21G0,75	14,3	335	244
SB3461	25G0,75	15,9	400	286
SB3462	27G0,75	15,9	410	300
SB3463	30G0,75	17,0	465	326
SB3464	34G0,75	18,2	530	345
SB3465	37G0,75	18,2	545	360
SB3466	40G0,75	18,8	585	398
SB3467	42G0,75	20,3	635	421
SB3468	50G0,75	21,1	720	470
SB3469	56G0,75	21,7	775	518
SB3470	61G0,75	22,7	850	550
SB3471	2x1,0	7,9	88	50
SB3472	3G1,0	8,3	98	60
SB3473	3x1,0	8,3	98	60
SB3474	4G1,0	8,6	114	70
SB3475	4x1,0	8,6	114	70
SB3476	5G1,0	9,6	150	87
SB3477	5x1,0	9,6	150	87
SB3478	6G1,0	10,2	166	95
SB3479	6x1,0	10,2	166	95
SB3480	7G1,0	10,2	172	110
SB3481	7x1,0	10,2	172	110
SB3482	8G1,0	11,1	196	125
SB3483	10G1,0	12,5	245	150
SB3484	10x1,0	12,5	245	150
SB3485	12G1,0	12,5	260	180
SB3486	12x1,0	12,5	260	180
SB3487	14G1,0	13,2	290	197
SB3488	16G1,0	13,8	320	210
SB3489	18G1,0	14,4	355	250
SB3490	18x1,0	14,4	355	250
SB3491	19G1,0	14,4	360	260
SB3492	21G1,0	15,1	395	297
SB3493	25G1,0	17,5	495	335
SB3494	27G1,0	17,5	505	400
SB3495	30G1,0	18,0	550	440
SB3496	34G1,0	19,4	635	485
SB3497	37G1,0	19,4	655	495
SB3498	40G1,0	20,1	700	510
SB3499	42G1,0	21,5	750	530
SB3500	50G1,0	22,8	875	600
SB3501	56G1,0	23,4	945	661
SB3502	61G1,0	24,0	1010	700
SB3503	2x1,5	8,7	108	62
SB3504	3G1,5	9,1	122	79
SB3505	3 x1,5	9,1	122	79
SB3506	4G1,5	10,0	156	96

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3507	4x1,5	10,0	156	96
SB3508	5G1,5	10,7	184	120
SB3509	5x1,5	10,7	184	120
SB3510	6G1,5	11,4	215	130
SB3511	6x1,5	11,4	215	130
SB3512	7G1,5	11,4	225	145
SB3513	7x1,5	11,4	225	145
SB3514	8G1,5	12,2	255	173
SB3515	10G1,5	14,3	320	193
SB3516	10x1,5	14,3	320	193
SB3517	12G1,5	14,3	340	243
SB3518	12x1,5	14,3	340	243
SB3519	14G1,5	14,9	380	276
SB3520	16G1,5	15,7	430	310
SB3521	18G1,5	17,0	495	352
SB3522	19G1,5	17,0	505	367
SB3523	21G1,5	17,8	555	393
SB3524	25G1,5	20,1	665	464
SB3525	27G1,5	20,1	685	493
SB3526	30G1,5	20,8	745	540
SB3527	34G1,5	22,6	875	608
SB3528	37G1,5	22,6	905	651
SB3529	40G1,5	23,4	970	700
SB3530	42G1,5	25,1	1040	740
SB3531	50G1,5	26,7	1230	862
SB3532	56G1,5	27,5	1330	955
SB3533	61G1,5	28,2	1420	1030
SB3534	2x2,5	10,0	146	90
SB3535	3G2,5	10,5	172	117
SB3536	3x2,5	10,5	172	117
SB3537	4G2,5	11,3	210	147
SB3538	4x2,5	11,3	210	147
SB3539	5G2,5	12,2	250	176
SB3540	5x2,5	12,2	250	176
SB3541	6G2,5	13,1	290	206
SB3542	6x2,5	13,1	290	206
SB3543	7G2,5	13,1	310	230
SB3544	7x2,5	13,1	310	230
SB3545	10G2,5	17,2	470	326
SB3546	12G2,5	17,2	500	374
SB3547	12x2,5	17,2	500	374
SB3548	14G2,5	18,0	565	427
SB3549	16G2,5	18,9	635	481
SB3550	18G2,5	20,0	715	536
SB3551	21G2,5	20,9	800	614
SB3552	25G2,5	23,9	975	728
SB3553	30G2,5	24,7	1100	853
SB3554	34G2,5	27,1	1300	960
SB3555	37G2,5	27,1	1340	1032
SB3556	42G2,5	30,3	1570	1216
SB3557	50G2,5	31,6	1800	1418
SB3558	2x4,0	11,5	205	128
SB3559	3G4,0	12,1	235	171
SB3560	3x4,0	12,1	235	171
SB3561	4G4,0	13,1	300	216
SB3562	5G4,0	14,2	360	262
SB3563	7G4,0	15,3	450	346
SB3564	10G4,0	20,5	695	491
SB3565	12G4,0	20,5	755	568

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® C BLACK FR

Flexible, highly flame retardant, screened control cables for outdoor applications, with number coded conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3566	2x2x0,5	9,3	110	52
SB3567	3x2x0,5	10,4	134	70
SB3568	4x2x0,5	11,1	154	91
SB3569	5x2x0,5	11,8	184	105
SB3570	6x2x0,5	12,2	194	122
SB3571	7x2x0,5	13,4	225	139
SB3572	8x2x0,5	13,9	245	151
SB3573	10x2x0,5	14,8	280	171
SB3574	12x2x0,5	15,7	320	198
SB3575	14x2x0,5	17,1	380	208
SB3576	16x2x0,5	18,2	425	241
SB3577	18x2x0,5	18,9	455	279
SB3578	20x2x0,5	19,6	500	300
SB3579	24x2x0,5	20,1	560	325
SB3580	2x2x0,75	10,2	138	58
SB3581	3x2x0,75	11,2	156	85
SB3582	4x2x0,75	11,9	184	110
SB3583	5x2x0,75	12,7	225	128
SB3584	6x2x0,75	13,1	235	148
SB3585	7x2x0,75	14,5	270	168
SB3586	8x2x0,75	15,1	295	182
SB3587	10x2x0,75	16,0	345	220
SB3588	12x2x0,75	17,6	415	260
SB3589	14x2x0,75	18,6	465	290
SB3590	16x2x0,75	20,0	535	319
SB3591	18x2x0,75	20,7	575	345
SB3592	20x2x0,75	21,3	620	368
SB3593	24x2x0,75	21,9	705	404
SB3594	2x2x1,0	10,7	155	82
SB3595	3x2x1,0	11,7	180	105
SB3596	4x2x1,0	12,6	210	130
SB3597	5x2x1,0	13,4	255	160
SB3598	6x2x1,0	13,8	270	185
SB3599	7x2x1,0	15,3	315	220

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3600	8x2x1,0	15,9	345	237
SB3601	10x2x1,0	17,6	425	280
SB3602	12x2x1,0	18,6	485	325
SB3603	14x2x1,0	19,9	555	389
SB3604	16x2x1,0	21,1	625	420
SB3605	18x2x1,0	22,0	675	462
SB3606	20x2x1,0	23,0	760	492
SB3607	24x2x1,0	23,6	855	541
SB3608	2x2x1,5	11,9	194	106
SB3609	3x2x1,5	13,2	220	133
SB3610	4x2x1,5	14,2	270	157
SB3611	5x2x1,5	15,2	335	181
SB3612	6x2x1,5	15,7	355	200
SB3613	7x2x1,5	18,0	435	230
SB3614	8x2x1,5	18,8	480	310
SB3615	10x2x1,5	20,2	570	380
SB3616	12x2x1,5	21,5	655	455
SB3617	14x2x1,5	23,1	760	507
SB3618	16x2x1,5	24,6	860	561
SB3619	18x2x1,5	26,2	970	607
SB3620	20x2x1,5	27,0	1050	700
SB3621	24x2x1,5	27,7	1210	825
SB3622	2x2x2,5	13,7	260	148
SB3623	3x2x2,5	15,2	305	220
SB3624	4x2x2,5	17,1	395	295
SB3625	5x2x2,5	18,3	480	350
SB3626	6x2x2,5	18,9	525	385
SB3627	7x2x2,5	21,2	615	444
SB3628	8x2x2,5	22,1	670	483
SB3629	10x2x2,5	24,1	825	559
SB3630	12x2x2,5	25,6	950	629
SB3631	14x2x2,5	27,7	1110	709
SB3632	16x2x2,5	29,5	1250	787

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Note: On customer's request other cross sections or number of cores can be produced

BiT 500® (St) BLACK FR

Flexible, screened control cables, highly flame retardant, for outdoor applications, with number coded conductors, rated 300/500V

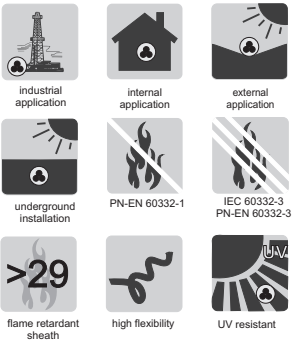
RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, PVC insulation and sheath, for outdoor applications and direct burial, UV resistant, highly flame retardant

Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 6 x Ø
Flexible connections: 10 x Ø



Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors
Core arrangement: pairs twisted together or cores twisted together
Screen: Aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C),UV resistant.
Outer sheath colour: black

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Common screen improves protection of transmitted signals against external electromagnetic field. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation). They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables suitable for outdoor installation. Outer sheath is UV resistant. Designed for direct burial in ground. Insulation materials and conductor construction in BiT 500® (St) BLACK FR cable enable easy and fast connections and ensure their high durability.

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2400	2x0,5	7,0	66	14,4
SB2401	3G0,5	7,3	70	19,2
SB2402	3x0,5	7,3	70	19,2
SB2403	4G0,5	7,8	82	24,0
SB2404	4x0,5	7,8	82	24,0
SB2405	5G0,5	8,3	94	28,8
SB2406	5x0,5	8,3	94	28,8
SB2407	6G0,5	8,8	106	33,6
SB2408	7G0,5	8,8	110	38,4
SB2409	7x0,5	8,8	110	38,4
SB2410	8G0,5	9,7	126	43,2
SB2411	8x0,5	9,7	126	43,2
SB2412	10G0,5	11,0	154	52,8
SB2413	12G0,5	11,0	162	62,4
SB2414	12x0,5	11,0	162	62,4
SB2415	14G0,5	11,4	180	72,0
SB2416	16G0,5	12,0	200	81,6
SB2417	18G0,5	12,5	220	91,2
SB2418	19G0,5	12,5	225	96,0
SB2419	21G0,5	13,0	245	105,6
SB2420	25G0,5	14,5	290	124,8
SB2421	27G0,5	14,5	295	134,4

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2422	30G0,5	15,0	320	148,8
SB2423	34G0,5	16,0	365	168,0
SB2424	37G0,5	16,0	375	182,4
SB2425	40G0,5	17,1	425	196,8
SB2426	42G0,5	18,3	455	206,4
SB2427	50G0,5	19,2	525	244,8
SB2428	56G0,5	19,8	570	273,6
SB2429	61G0,5	20,3	605	297,6
SB2430	2x0,75	7,4	74	19,2
SB2431	3G0,75	7,7	82	26,4
SB2432	3x0,75	7,7	82	26,4
SB2433	4G0,75	8,3	96	33,6
SB2434	4x0,75	8,3	96	33,6
SB2435	5G0,75	8,8	112	40,8
SB2436	5x0,75	8,8	112	40,8
SB2437	6G0,75	9,4	128	48,0
SB2438	6x0,75	9,4	128	48,0
SB2439	7G0,75	9,4	132	55,2
SB2440	7x0,75	9,4	132	55,2
SB2441	8G0,75	10,4	152	62,4
SB2442	8x0,75	10,4	152	62,4
SB2443	10G0,75	11,8	188	76,8

BITNER®

BiT 500® (St) BLACK FR

Flexible, screened control cables, highly flame retardant, for outdoor applications, with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2444	12G0,75	11,8	198	91,2
SB2445	12x0,75	11,8	198	91,2
SB2446	14G0,75	12,3	225	105,6
SB2447	16G0,75	12,9	250	120,0
SB2448	18G0,75	13,5	275	134,4
SB2449	19G0,75	13,5	280	141,6
SB2450	21G0,75	14,1	305	156,0
SB2451	25G0,75	15,7	365	184,8
SB2452	27G0,75	15,7	375	199,2
SB2453	30G0,75	16,2	405	220,8
SB2454	34G0,75	18,0	490	249,6
SB2455	37G0,75	18,0	505	271,2
SB2456	40G0,75	18,6	540	292,8
SB2457	42G0,75	20,1	590	307,2
SB2458	50G0,75	20,9	670	364,8
SB2459	56G0,75	21,5	725	408,0
SB2460	61G0,75	22,1	775	444,0
SB2461	2x1,0	7,7	84	26,4
SB2462	3G1,0	8,1	94	36,0
SB2463	3x1,0	8,1	94	36,0
SB2464	4G1,0	8,6	110	45,6
SB2465	4x1,0	8,6	110	45,6
SB2466	5G1,0	9,2	128	55,2
SB2467	5x1,0	9,2	128	55,2
SB2468	6G1,0	9,8	148	64,8
SB2469	6x1,0	9,8	148	64,8
SB2470	7G1,0	9,8	154	74,4
SB2471	7x1,0	9,8	154	74,4
SB2472	8G1,0	10,9	178	84,0
SB2473	10G1,0	12,5	225	103,2
SB2474	10x1,0	12,5	225	103,2
SB2475	12G1,0	12,5	235	122,4
SB2476	12x1,0	12,5	235	122,4
SB2477	14G1,0	13,0	265	141,6
SB2478	16G1,0	13,6	295	160,8
SB2479	18G1,0	14,2	325	180,0
SB2480	18x1,0	14,2	325	180,0
SB2481	19G1,0	14,2	330	189,6
SB2482	21G1,0	14,9	365	208,8
SB2483	25G1,0	17,3	455	247,2
SB2484	27G1,0	17,3	470	266,4
SB2485	30G1,0	17,8	510	295,2
SB2486	34G1,0	19,2	590	333,6
SB2487	37G1,0	19,2	610	362,4
SB2488	40G1,0	19,9	655	391,2
SB2489	42G1,0	21,3	700	410,4
SB2490	50G1,0	22,2	805	487,2
SB2491	56G1,0	23,2	895	544,8
SB2492	61G1,0	23,8	955	592,8
SB2493	2x1,5	8,5	102	36,0
SB2494	3G1,5	8,9	116	50,4
SB2495	3x1,5	8,9	116	50,4
SB2496	4G1,5	9,6	140	64,8
SB2497	4x1,5	9,6	140	64,8
SB2498	5G1,5	10,3	164	79,2
SB2499	5x1,5	10,3	164	79,2

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2500	6G1,5	11,2	192	93,6
SB2501	6x1,5	11,2	192	93,6
SB2502	7G1,5	11,2	205	108,0
SB2503	7x1,5	11,2	205	108,0
SB2504	8G1,5	12,2	235	122,4
SB2505	10G1,5	14,1	290	151,2
SB2506	10x1,5	14,1	290	151,2
SB2507	12G1,5	14,1	310	180,0
SB2508	12x1,5	14,1	310	180,0
SB2509	14G1,5	14,7	350	208,8
SB2510	16G1,5	15,5	395	237,6
SB2511	18G1,5	16,2	435	266,4
SB2512	19G1,5	16,2	445	280,8
SB2513	21G1,5	17,6	515	309,6
SB2514	25G1,5	19,9	620	367,2
SB2515	27G1,5	19,9	640	396,0
SB2516	30G1,5	20,6	700	439,2
SB2517	34G1,5	22,0	800	496,8
SB2518	37G1,5	22,0	830	540,0
SB2519	40G1,5	23,2	915	583,2
SB2520	42G1,5	24,9	980	612,0
SB2521	50G1,5	26,5	1160	727,2
SB2522	56G1,5	27,3	1260	813,6
SB2523	61G1,5	28,0	1350	885,6
SB2524	2x2,5	9,6	130	55,2
SB2525	3G2,5	10,1	154	79,2
SB2526	3x2,5	10,1	154	79,2
SB2527	4G2,5	10,9	188	103,2
SB2528	4x2,5	10,9	188	103,2
SB2529	5G2,5	11,8	225	127,2
SB2530	5x2,5	11,8	225	127,2
SB2531	6G2,5	12,9	270	151,2
SB2532	6x2,5	12,9	270	151,2
SB2533	7G2,5	12,9	285	175,2
SB2534	7x2,5	12,9	285	175,2
SB2535	10 G2,5	17,0	435	247,2
SB2536	12G2,5	17,0	465	295,2
SB2537	12x2,5	17,0	465	295,2
SB2538	14G2,5	17,8	525	343,2
SB2539	16G2,5	18,7	590	391,2
SB2540	18G2,5	19,8	670	439,2
SB2541	21G2,5	20,7	750	511,2
SB2542	25G2,5	23,7	920	607,2
SB2543	30G2,5	24,5	1040	727,2
SB2544	34G2,5	26,9	1230	823,2
SB2545	37G2,5	26,9	1280	895,2
SB2546	42G2,5	29,9	1470	1015,2
SB2547	50G2,5	31,2	1690	1207,2
SB2548	2x4,0	11,1	180	84,0
SB2549	3G4,0	11,7	220	122,4
SB2550	3x4,0	11,7	220	122,4
SB2551	4G4,0	12,7	275	160,8
SB2552	5G4,0	13,7	330	199,2
SB2553	7G4,0	14,8	415	276,0
SB2554	10G4,0	19,9	645	391,2
SB2555	12G4,0	19,9	700	468,0

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G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® (St) BLACK FR

Flexible, screened control cables, highly flame retardant, for outdoor applications, with number coded conductors, rated 300/500V

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2556	2x2x0,5	9,3	102	24,0
SB2557	3x2x0,5	10,2	116	33,6
SB2558	4x2x0,5	10,9	134	43,2
SB2559	5x2x0,5	11,6	160	52,8
SB2560	6x2x0,5	12,0	170	62,4
SB2561	7x2x0,5	13,2	194	72,0
SB2562	8x2x0,5	13,7	215	81,6
SB2563	10x2x0,5	14,6	250	100,8
SB2564	12x2x0,5	15,5	285	120,0
SB2565	14x2x0,5	16,3	320	139,2
SB2566	16x2x0,5	18,0	385	158,4
SB2567	18x2x0,5	18,7	415	177,6
SB2568	20x2x0,5	19,4	455	196,8
SB2569	24x2x0,5	19,9	515	235,2
SB2570	2x2x0,75	10,0	120	33,6
SB2571	3x2x0,75	11,0	136	48,0
SB2572	4x2x0,75	11,7	160	62,4
SB2573	5x2x0,75	12,5	196	76,8
SB2574	6x2x0,75	12,9	210	91,2
SB2575	7x2x0,75	14,3	240	105,6
SB2576	8x2x0,75	14,9	265	120,0
SB2577	10x2x0,75	15,8	310	148,8
SB2578	12x2x0,75	17,4	380	177,6
SB2579	14x2x0,75	18,4	425	206,4
SB2580	16x2x0,75	19,8	490	235,2
SB2581	18x2x0,75	20,5	525	264,0
SB2582	20x2x0,75	21,1	570	292,8
SB2583	24x2x0,75	21,7	650	350,4
SB2584	2x2x1,0	10,5	138	45,6
SB2585	3x2x1,0	11,5	156	64,8
SB2586	4x2x1,0	12,4	188	84,0
SB2587	5x2x1,0	13,2	230	103,2
SB2588	6x2x1,0	13,6	245	122,4
SB2589	7x2x1,0	15,1	280	141,6

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB2590	8x2x1,0	15,7	310	160,8
SB2591	10x2x1,0	17,4	390	199,2
SB2592	12x2x1,0	18,4	445	237,6
SB2593	14x2x1,0	19,7	510	276,0
SB2594	16x2x1,0	20,9	580	314,4
SB2595	18x2x1,0	21,8	625	352,8
SB2596	20x2x1,0	22,8	700	391,2
SB2597	24x2x1,0	23,4	800	468,0
SB2598	2x2x1,5	11,7	174	64,8
SB2599	3x2x1,5	13,0	200	93,6
SB2600	4x2x1,5	14,0	245	122,4
SB2601	5x2x1,5	15,0	300	151,2
SB2602	6x2x1,5	15,5	325	180,0
SB2603	7x2x1,5	17,8	395	208,8
SB2604	8x2x1,5	18,6	435	237,6
SB2605	10x2x1,5	20,0	525	295,2
SB2606	12x2x1,5	21,3	605	352,8
SB2607	14x2x1,5	22,9	705	410,4
SB2608	16x2x1,5	24,4	805	468,0
SB2609	18x2x1,5	25,4	870	525,6
SB2610	20x2x1,5	26,8	980	583,2
SB2611	24x2x1,5	27,5	1130	698,4
SB2612	2x2x2,5	13,5	235	103,2
SB2613	3x2x2,5	15,0	275	151,2
SB2614	4x2x2,5	16,3	335	199,2
SB2615	5x2x2,5	18,1	440	247,2
SB2616	6x2x2,5	18,7	485	295,2
SB2617	7x2x2,5	21,0	565	343,2
SB2618	8x2x2,5	21,9	625	391,2
SB2619	10x2x2,5	23,9	770	487,2
SB2620	12x2x2,5	25,4	890	583,2
SB2621	14x2x2,5	27,5	1050	679,2
SB2622	16x2x2,5	29,3	1200	775,2

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® 2(St) BLACK FR

Flexible, paired control cables, individually and collectively screened for outdoor applications, highly flame retardant, with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, PVC insulation and sheath, for outdoor applications and direct burial, UV resistant, highly flame retardant, with individually and collectively screened pairs.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 6 x Ø
Flexible connections: 12 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors
Core arrangement: twisted screened pairs
Individual screen: Aluminium backed polyester tape with tinned copper drain wire on each pair
Collective screen: Aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C),UV resistant.
Outer sheath colour: black

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Individual screening of pairs decreases signal interferences from adjacent pairs. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation). They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables suitable for outdoor installation. Outer sheath is UV resistant. Designed for direct burial in ground. Insulation materials and conductor construction in BIT 500® 2(St) BLACK FR cable enable easy and fast connections and ensure their high durability.

internal application | external application | underground installation

industrial application | PN-EN 60332-1 | IEC 60332-3 PN-EN 60332-3 | flame retardant sheath | high flexibility | UV resistant

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3000	2x2x0,5	9,3	114	33,6
SB3001	3x2x0,5	10,2	132	48,0
SB3002	4x2x0,5	10,9	158	62,4
SB3003	5x2x0,5	11,6	188	76,8
SB3004	6x2x0,5	12,0	204	91,2
SB3005	7x2x0,5	13,2	235	105,6
SB3006	8x2x0,5	13,7	260	120,0
SB3007	10x2x0,5	14,6	305	148,8
SB3008	12x2x0,5	15,5	350	177,6
SB3009	14x2x0,5	16,3	395	206,4
SB3010	16x2x0,5	18,0	475	235,2
SB3011	18x2x0,5	18,7	515	264,0
SB3012	20x2x0,5	19,4	570	292,8
SB3013	24x2x0,5	19,9	650	350,4
SB3014	2x2x0,75	10,0	132	43,2
SB3015	3x2x0,75	11,0	154	62,4
SB3016	4x2x0,75	11,7	184	81,6
SB3017	5x2x0,75	12,5	226	100,8
SB3018	6x2x0,75	12,9	245	120,0
SB3019	7x2x0,75	14,3	280	139,2
SB3020	8x2x0,75	14,9	310	158,4
SB3021	10x2x0,75	15,8	370	196,8
SB3022	12x2x0,75	17,4	450	235,2
SB3023	14x2x0,75	18,4	510	273,6
SB3024	16x2x0,75	19,8	585	312,0
SB3025	18x2x0,75	20,5	635	350,4

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3026	20x2x0,75	21,1	690	388,8
SB3027	24x2x0,75	21,7	795	465,6
SB3028	2x2x1,0	10,5	154	60,0
SB3029	3x2x1,0	11,5	180	86,4
SB3030	4x2x1,0	12,4	220	112,8
SB3031	5x2x1,0	13,2	270	139,2
SB3032	6x2x1,0	13,6	295	165,6
SB3033	7x2x1,0	15,1	335	192,0
SB3034	8x2x1,0	15,7	375	218,4
SB3035	10x2x1,0	17,4	470	271,2
SB3036	12x2x1,0	18,4	540	324,0
SB3037	14x2x1,0	19,7	625	376,8
SB3038	16x2x1,0	20,9	710	429,6
SB3039	18x2x1,0	21,8	770	482,4
SB3040	20x2x1,0	22,8	860	535,2
SB3041	24x2x1,0	23,4	995	640,8
SB3042	2x2x1,5	11,7	190	79,2
SB3043	3x2x1,5	13,0	226	115,2
SB3044	4x2x1,5	14,0	275	151,2
SB3045	5x2x1,5	15,0	340	187,2
SB3046	6x2x1,5	15,5	375	223,2
SB3047	7x2x1,5	17,8	455	259,2
SB3048	8x2x1,5	18,6	505	295,2
SB3049	10x2x1,5	20,0	610	367,2
SB3050	12x2x1,5	21,3	705	439,2
SB3051	14x2x1,5	22,9	820	511,2

BiT 500® 2(St) BLACK FR

Flexible, paired control cables, individually and collectively screened for outdoor applications, highly flame retardant, with number coded conductors, rated 300/500V

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3052	16x2x1,5	24,4	935	583,2
SB3053	18x2x1,5	25,4	1015	655,2
SB3054	20x2x1,5	26,8	1150	727,2
SB3055	24x2x1,5	27,5	1330	871,2
SB3056	2x2x2,5	13,5	255	117,6
SB3057	3x2x2,5	15,0	300	172,8
SB3058	4x2x2,5	16,3	370	228,0
SB3059	5x2x2,5	18,1	485	283,2

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3060	6x2x2,5	18,7	535	338,4
SB3061	7x2x2,5	21,0	625	393,6
SB3062	8x2x2,5	21,9	695	448,8
SB3063	10x2x2,5	23,9	855	559,2
SB3064	12x2x2,5	25,4	995	669,6
SB3065	14x2x2,5	27,5	1170	780,0
SB3066	16x2x2,5	29,3	1340	890,4

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® PUR

Flexible, PUR sheathed control cables with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, PVC insulation and PUR sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Occasional flexing: -15°C * to 70°C
Operating voltage: U_0 /U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 7,5 x Ø
Fixed installation: 4 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together
Outer sheath: special PUR compound, oil resistant (EN 60811-2-1), resistant to hydrocarbons, industrial coolants and UV radiation
Outer sheath colour: grey

Application:

Flexible power and control cables with high level of resistance to environmental conditions designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. Cables are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. They can be installed outdoors – UV resistance and increased mechanical protection due to special outer sheath compound.

** minimum temperature for occasional flexing with bending radius not smaller than 15xD. Bending test at low temperature (-15°C acc. to EN 60811-1-4).*


industrial application


internal application


external application


high flexibility

UV resistant


oil resistant
EN 60811-2-1


chemical resistance

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54700	2x0,5	5,0	33,0	9,6
S54701	3G0,5	5,3	39,0	14,4
S54702	3x0,5	5,3	39,0	14,4
S54703	4G0,5	5,7	47,0	19,2
S54704	4x0,5	5,7	47,0	19,2
S54705	5G0,5	6,2	58,0	24,0
S54706	5x0,5	6,2	58,0	24,0
S54707	6G0,5	7,9	91,0	28,8
S54708	7G0,5	7,9	94,0	33,6
S54709	7x0,5	7,9	94,0	33,6
S54710	8G0,5	8,6	109,0	38,4
S54711	10G0,5	10,0	137,0	48,0
S54712	12G0,5	10,3	151,0	57,6
S54713	12x0,5	10,3	151,0	57,6
S54714	14G0,5	10,7	168,0	67,2
S54715	14x0,5	10,7	168,0	67,2
S54716	16G0,5	11,4	191,0	76,8
S54717	18G0,5	12,0	210,0	86,4
S54718	19G0,5	12,0	214,0	91,2
S54720	21G0,5	12,5	234,0	100,8
S54800	25G0,5	13,9	270,0	119,8
S54722	27G0,5	14,2	291,0	129,6
S54723	30G0,5	14,6	315,0	144,0
S54724	37G0,5	16,1	384,0	177,6
S54725	2x0,75	5,4	40,0	14,4
S54726	3G0,75	5,7	49,0	21,6
S54727	3x0,75	5,7	49,0	21,6
S54728	4G0,75	6,2	59,0	28,8
S54729	4x0,75	6,2	59,0	28,8
S54730	5G0,75	7,0	76,0	36,0
S54731	5x0,75	7,0	76,0	36,0
S54732	6G0,75	8,5	112,0	43,2
S54733	7G0,75	8,5	116,0	50,4

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54734	7x0,75	8,5	116,0	50,4
S54735	8G0,75	9,6	141,0	57,6
S54736	10G0,75	10,8	169,0	72,0
S54737	12G0,75	11,3	192,0	86,4
S54738	12x0,75	11,3	192,0	86,4
S54739	14G0,75	11,8	214,0	100,8
S54740	14x0,75	11,8	214,0	100,8
S54741	16G0,75	12,4	239,0	115,2
S54742	18G0,75	13,0	264,0	129,6
S54743	19G0,75	13,0	268,0	136,8
S54745	21G0,75	13,7	299,0	151,2
S54801	25G0,75	15,1	339,0	180,0
S54747	2x1,0	5,7	46,0	19,2
S54748	3G1,0	6,0	57,0	28,8
S54749	3x1,0	6,0	57,0	28,8
S54750	4G1,0	6,8	73,0	38,4
S54751	4x1,0	6,8	73,0	38,4
S54752	5G1,0	7,4	89,0	48,0
S54753	5x1,0	7,4	89,0	48,0
S54754	6G1,0	9,3	139,0	57,6
S54755	7G1,0	9,3	143,0	67,2
S54756	7x1,0	9,3	143,0	67,2
S54757	8G1,0	10,1	165,0	76,8
S54758	10G1,0	11,6	202,0	96,0
S54759	12G1,0	11,9	225,0	115,2
S54760	12x1,0	11,9	225,0	115,2
S54761	14G1,0	12,4	251,0	134,4
S54762	14x1,0	12,4	251,0	134,4
S54763	16G1,0	13,1	282,0	153,6
S54764	18G1,0	13,9	319,0	172,8
S54765	19G1,0	13,9	324,0	182,4
S54767	21G1,0	14,5	354,0	201,6

BiT 500® PUR

Flexible, PUR sheathed control cables with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54802	25G1,0	16,4	415,0	240,0
S54769	2x1,5	6,4	61,0	28,8
S54770	3G1,5	7,0	80,0	43,2
S54771	3x1,5	7,0	80,0	43,2
S54772	4G1,5	7,6	99,0	57,6
S54773	4x1,5	7,6	99,0	57,6
S54774	5G1,5	8,3	121,0	72,0
S54775	5x1,5	8,3	121,0	72,0
S54776	6G1,5	10,4	181,0	86,4
S54777	7G1,5	10,4	189,0	100,8
S54778	7x1,5	10,4	189,0	100,8
S54779	8G1,5	11,5	223,0	115,2
S54780	10G1,5	13,0	268,0	144,0
S54781	12G1,5	13,6	307,0	172,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54782	12x1,5	13,6	307,0	172,8
S54783	2x2,5	7,7	93,0	48,0
S54784	3G2,5	8,2	118,0	72,0
S54785	3x2,5	8,2	118,0	72,0
S54786	4G2,5	9,4	154,0	96,0
S54787	4x2,5	9,4	154,0	96,0
S54788	5G2,5	10,2	189,0	120,0
S54789	5x2,5	10,2	189,0	120,0
S54790	6G2,5	12,2	267,0	144,0
S54791	7G2,5	12,2	281,0	168,0
S54792	7x2,5	12,2	281,0	168,0
S54793	8G2,5	13,6	331,0	192,0
S54794	10G2,5	15,4	399,0	24,0
S54795	12G2,5	16,3	464,0	24,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® CPUR

Flexible, screened, PUR sheathed control cables with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, PVC insulation and PUR sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 12 x Ø
Fixed installation: 6 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together
Inner sheath: special PVC
Screen: tinned copper wire braid, coverage ≥ 85%
Outer sheath: special PUR compound, oil resistant (EN 60811-2-1), resistant to hydrocarbons, industrial coolants and UV radiation
Outer sheath colour: grey

Application:

Flexible power and control cables with high level of resistance to environmental conditions designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field especially in industrial environment. Reciprocal connection of screen to earth ensures full electromagnetic compatibility (EMC). Cables are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. They can be installed outdoors – UV resistance and increased mechanical protection due to special outer sheath compound.


internal application


external application


industrial application


high flexibility

EMC


UV resistant


oil resistant EN 60811-2-1


chemical resistance

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54850	2x0,5	7,1	78,0	36,1
S54851	3G0,5	7,4	86,0	42,0
S54852	4G0,5	7,8	97,0	49,0
S54853	5G0,5	8,3	111,0	57,3
S54854	6G0,5	9,3	132,0	65,9
S54855	7G0,5	9,3	136,0	71,7
S54856	8G0,5	10,0	154,0	80,7
S54857	10G0,5	11,0	180,0	96,6
S54858	12G0,5	11,5	200,0	109,4
S54859	14G0,5	11,9	218,0	122,7
S54860	16G0,5	12,4	241,0	137,5
S54861	18G0,5	13,0	262,0	151,3
S54862	19G0,5	13,0	265,0	157,0
S54864	21G0,5	13,7	293,0	171,0
S54920	25G0,5	14,9	330,0	198,1
S54866	27G0,5	15,2	352,0	212,3
S54867	30G0,5	16,0	391,0	231,8
S54868	37G0,5	17,1	453,0	277,5
S54869	2x0,75	7,5	88,0	41,6
S54870	3G0,75	7,8	98,0	51,3
S54871	4G0,75	8,3	113,0	62,3
S54872	5G0,75	9,3	138,0	73,6
S54873	6G0,75	9,9	157,0	84,9

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54874	7G0,75	9,9	161,0	93,3
S54875	8G0,75	10,6	183,0	106,2
S54876	10G0,75	12,0	220,0	127,0
S54877	12G0,75	12,3	241,0	146,5
S54878	14G0,75	12,8	264,0	164,8
S54879	16G0,75	13,6	298,0	184,7
S54880	18G0,75	14,2	326,0	204,1
S54881	19G0,75	14,2	330,0	212,5
S54883	21G0,75	14,7	358,0	231,7
S54921	25G0,75	16,5	417,0	286,0
S54885	2x1,0	7,8	97,0	48,2
S54886	3G1,0	8,1	111,0	61,8
S54887	4G1,0	9,1	135,0	74,9
S54888	5G1,0	9,7	156,0	88,9
S54889	6G1,0	10,3	178,0	102,9
S54890	7G1,0	10,3	183,0	114,0
S54891	8G1,0	11,3	212,0	128,6
S54892	10G1,0	12,6	252,0	157,1
S54893	12G1,0	12,9	276,0	180,8
S54894	14G1,0	13,6	310,0	205,5
S54895	16G1,0	14,3	344,0	231,0
S54896	18G1,0	14,9	379,0	256,0
S54897	19G1,0	14,9	383,0	267,1

BiT 500® CPUR

Flexible, screened, PUR sheathed control cables with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54899	21G1,0	15,9	430,0	292,5
S54922	25G1,0	17,4	485,0	335,0
S54901	2x1,5	8,5	119,0	61,6
S54902	3G1,5	9,3	144,0	79,6
S54903	4G1,5	9,9	168,0	98,5
S54904	5G1,5	10,6	197,0	119,1
S54905	6G1,5	11,6	230,0	137,3
S54906	7G1,5	11,6	238,0	153,4
S54907	8G1,5	12,5	273,0	174,1
S54908	10G1,5	14,2	330,0	213,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S54909	12G1,5	14,6	365,0	247,3
S54910	2x2,5	10,0	167,0	89,9
S54911	3G2,5	10,5	196,0	121,4
S54912	4G2,5	11,5	234,0	150,8
S54913	5G2,5	12,3	276,0	183,3
S54914	6G2,5	13,2	320,0	214,3
S54915	7G2,5	13,2	333,0	241,9
S54916	8G2,5	14,6	389,0	275,3
S54917	10G2,5	16,8	479,0	338,8
S54918	12G2,5	17,3	534,0	396,3

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® H

Flexible, halogen-free control cables with number coded conductors, rated 300/500V

BITNER BiT 500®H 300/500V CE

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, halogen-free insulation and sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 5 x Ø
Flexible connections: 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special halogen-free compound
Core identification: black, number coded conductors
Core arrangement: cores twisted together or pairs twisted together
Outer sheath: special halogen-free compound, self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C)
Outer sheath colour: grey

Application:

Flexible, halogen-free power and control cables designed for operation in control and protective devices as well as in control circuits. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation). They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables are halogen-free, low smoke and significantly limit flame propagation.


internal application


industrial application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

halogen-free

flame retardant sheath


high flexibility


low smoke emission

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H50001	2x0,5	5,0	35,7	9,6
H50002	3G0,5	5,3	42,5	14,4
H50003	3x0,5	5,3	42,5	14,4
H50004	4G0,5	5,7	50,8	19,2
H50005	4x0,5	5,7	50,8	19,2
H50006	5G0,5	6,2	61,4	24,0
H50007	5x0,5	6,2	61,4	24,0
H50008	6G0,5	7,0	74,5	28,8
H50009	7G0,5	7,0	78,3	33,6
H50010	7x0,5	7,0	78,3	33,6
H50011	8G0,5	7,7	90,9	38,4
H50012	8x0,5	7,7	90,9	38,4
H50013	10G0,5	9,1	117,5	48,0
H50014	12G0,5	9,4	131,5	57,6
H50015	12x0,5	9,4	131,5	57,6
H50016	14G0,5	9,8	147,0	67,2
H50017	16G0,5	10,3	165,4	76,8
H50018	18G0,5	10,9	182,8	86,4
H50019	19G0,5	10,9	186,6	91,2
H50021	21G0,5	11,6	210,6	100,8
H50102	25G0,5	12,8	238,7	124,8
H50023	27G0,5	13,1	259,6	129,6
H50024	30G0,5	13,7	288,9	144,0
H50025	37G0,5	14,8	342,9	177,6
H50026	2x0,75	5,4	43,5	14,4

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H50027	3G0,75	5,7	52,5	21,6
H50028	3x0,75	5,7	52,5	21,6
H50029	4G0,75	6,2	63,4	28,8
H50030	4x0,75	6,2	63,4	28,8
H50031	5G0,75	7,0	80,7	36,0
H50032	5x0,75	7,0	80,7	36,0
H50033	6G0,75	7,6	94,6	43,2
H50034	6x0,75	7,6	94,6	43,2
H50035	7G0,75	7,6	98,5	50,4
H50036	7x0,75	7,6	98,5	50,4
H50037	8G0,75	8,3	114,2	57,6
H50038	8x0,75	8,3	114,2	57,6
H50039	10G0,75	9,9	147,2	72,0
H50040	12G0,75	10,2	165,8	86,4
H50041	12x0,75	10,2	165,8	86,4
H50042	14G0,75	10,7	186,2	100,8
H50043	16G0,75	11,5	216,1	115,2
H50044	18G0,75	12,1	239,9	129,6
H50045	19G0,75	12,1	243,9	136,8
H50047	21G0,75	12,6	267,9	151,2
H50103	25G0,75	14,2	311,2	184,8
H50049	2x1,0	5,7	50,4	19,2
H50050	3G1,0	6,0	61,5	28,8
H50051	3x1,0	6,0	61,5	28,8
H50052	4G1,0	6,8	77,9	38,4

BiT 500® H

Flexible, halogen-free control cables with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H50053	4x1,0	6,8	77,9	38,4
H50054	5G1,0	7,4	94,7	48,0
H50055	5x1,0	7,4	94,7	48,0
H50056	6G1,0	8,0	112,5	57,6
H50057	6x1,0	8,0	112,5	57,6
H50058	7G1,0	8,0	117,2	67,2
H50059	7x1,0	8,0	117,2	67,2
H50060	8G1,0	9,2	144,7	76,8
H50061	10G1,0	10,5	174,3	96,0
H50062	10x1,0	10,5	174,3	96,0
H50063	12G1,0	10,8	197,3	115,2
H50064	12x1,0	10,8	197,3	115,2
H50065	14G1,0	11,5	227,8	134,4
H50066	16G1,0	12,2	257,3	153,6
H50067	18G1,0	12,8	287,4	172,8
H50068	18x1,0	12,8	287,4	172,8
H50069	19G1,0	12,8	292,1	182,4
H50072	21G1,0	13,6	327,8	201,6
H50104	25G1,0	15,1	372,4	247,2
H50074	2x1,5	6,4	66,5	28,8
H50075	3G1,5	7,0	85,6	43,2
H50076	3x1,5	7,0	85,6	43,2
H50077	4G1,5	7,6	104,5	57,6

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H50078	4x1,5	7,6	104,5	57,6
H50079	5G1,5	8,3	127,8	72,0
H50080	5x1,5	8,3	127,8	72,0
H50081	6G1,5	9,5	160,6	86,4
H50082	7G1,5	9,5	168,5	100,8
H50083	7x1,5	9,5	168,5	100,8
H50084	8G1,5	10,4	195,8	115,2
H50085	10G1,5	12,1	242,1	144,0
H50086	12G1,5	12,5	275,0	172,8
H50087	12x1,5	12,5	275,0	172,8
H50088	2x2,5	7,7	100,4	48,0
H50089	3G2,5	8,2	125,4	72,0
H50090	3x2,5	8,2	125,4	72,0
H50091	4G2,5	9,4	163,3	96,0
H50092	4x2,5	9,4	163,3	96,0
H50093	5G2,5	10,2	198,8	120,0
H50094	5x2,5	10,2	198,8	120,0
H50095	6G2,5	11,3	242,8	144,0
H50096	7G2,5	11,3	256,2	168,0
H50097	7x2,5	11,3	256,2	168,0
H50098	8G2,5	12,5	298,0	192,0
H50099	10G2,5	14,5	367,6	240,0
H50100	12G2,5	15,0	419,7	288,0
H50101	12x2,5	15,0	419,7	288,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® CH

Flexible, screened, halogen-free control cables with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, halogen-free insulation and sheath, screened
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 5 x Ø
Flexible connections: 10 x Ø

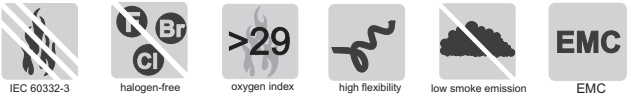
Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special halogen-free compound
Core identification: black, number coded conductors
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid, coverage ≥ 85%
Outer sheath: special halogen-free compound, self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C)
Outer sheath colour: grey

Application:

Flexible, halogen-free power and control cables designed for operation in control and protective devices as well as in control circuits. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation). They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field (screen attenuation ca. 50dB). Cables are halogen-free, low smoke and significantly limit flame propagation.

internal application | industrial application | PN-EN 60332-1



IEC 60332-3 PN-EN 60332-3 | halogen-free | oxygen index | high flexibility | low smoke emission | EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5500	2x0,5	5,4	44	35
SB5501	3G0,5	5,7	48	42
SB5502	3x0,5	5,7	48	42
SB5503	4G0,5	6,2	58	46
SB5504	4x0,5	6,2	58	46
SB5505	5G0,5	6,9	72	55
SB5506	5x0,5	6,9	72	55
SB5507	6G0,5	7,4	84	63
SB5508	7G0,5	7,4	88	68
SB5509	7x0,5	7,4	88	68
SB5510	8G0,5	8,3	110	81
SB5511	8x0,5	8,3	110	81
SB5512	10G0,5	10,0	145	94
SB5513	12G0,5	10,0	155	108
SB5514	12x0,5	10,0	155	108
SB5515	14G0,5	10,4	170	116
SB5516	16G0,5	11,0	190	128
SB5517	18G0,5	11,7	220	145
SB5518	19G0,5	11,8	220	160
SB5519	21G0,5	12,2	240	180
SB5520	25G0,5	13,9	295	234
SB5521	27G0,5	13,9	300	244
SB5522	30G0,5	14,4	325	270
SB5523	34G0,5	15,4	370	301
SB5524	37G0,5	15,4	385	315

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5525	40G0,5	16,3	425	335
SB5526	42G0,5	17,5	455	359
SB5527	50G0,5	18,2	525	405
SB5528	56G0,5	19,0	570	439
SB5529	61G0,5	19,5	610	471
SB5530	2x0,75	5,8	52	40
SB5531	3G0,75	6,1	58	49
SB5532	3x0,75	6,1	58	49
SB5533	4G0,75	6,9	74	59
SB5534	4x0,75	6,9	74	59
SB5535	5G0,75	7,4	88	70
SB5536	5x0,75	7,4	88	70
SB5537	6G0,75	8,2	112	80
SB5538	6x0,75	8,2	112	80
SB5539	7G0,75	8,2	118	90
SB5540	7x0,75	8,2	118	90
SB5541	8G0,75	9,4	142	110
SB5542	8x0,75	9,4	142	110
SB5543	10G0,75	10,8	180	138
SB5544	12G0,75	10,6	190	142
SB5545	12x0,75	10,6	190	142
SB5546	14G0,75	11,5	220	179
SB5547	16G0,75	12,1	245	197
SB5548	18G0,75	12,7	275	217
SB5549	19G0,75	12,7	280	224

BiT 500® CH

Flexible, screened, halogen-free control cables with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5550	21G0,75	13,3	305	244
SB5551	25G0,75	15,1	370	286
SB5552	27G0,75	15,1	380	300
SB5553	30G0,75	16,0	425	326
SB5554	34G0,75	17,2	490	345
SB5555	37G0,75	17,2	505	360
SB5556	40G0,75	17,8	540	398
SB5557	42G0,75	19,3	590	421
SB5558	50G0,75	20,1	670	470
SB5559	56G0,75	20,7	725	518
SB5560	61G0,75	21,5	790	550
SB5561	2x1,0	6,1	57	50
SB5562	3G1,0	6,5	69	60
SB5563	3x1,0	6,5	69	60
SB5564	4G1,0	7,0	84	70
SB5565	4x1,0	7,0	84	70
SB5566	5G1,0	8,0	111	87
SB5567	5x1,0	8,0	111	87
SB5568	6G1,0	8,6	129	95
SB5569	6x1,0	8,6	129	95
SB5570	7G1,0	8,6	138	110
SB5571	7x1,0	8,6	138	110
SB5572	8G1,0	9,9	165	125
SB5573	10G1,0	11,5	215	150
SB5574	10x1,0	11,5	215	150
SB5575	12G1,0	11,5	230	180
SB5576	12x1,0	11,5	230	180
SB5577	14G1,0	12,2	260	197
SB5578	16G1,0	12,8	290	210
SB5579	18G1,0	13,6	330	250
SB5580	18x1,0	13,6	330	250
SB5581	19G1,0	13,6	335	260
SB5582	21G1,0	14,3	365	297
SB5583	25G1,0	16,5	455	335
SB5584	27G1,0	16,5	465	400
SB5585	30G1,0	17,0	505	440
SB5586	34G1,0	18,4	590	485
SB5587	37G1,0	18,4	610	495
SB5588	40G1,0	19,1	655	510
SB5589	42G1,0	20,5	700	530
SB5590	50G1,0	21,6	815	600
SB5591	56G1,0	22,2	885	661
SB5592	61G1,0	22,8	950	700
SB5593	2x1,5	7,1	88	62
SB5594	3G1,5	7,5	99	79
SB5595	3x1,5	7,5	99	79
SB5596	4G1,5	8,4	122	96
SB5597	4x1,5	8,4	122	96
SB5598	5G1,5	9,5	156	120
SB5599	5x1,5	9,5	156	120
SB5600	6G1,5	10,2	182	130
SB5601	6x1,5	10,2	182	130
SB5602	7G1,5	10,2	192	145

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5603	7x1,5	10,2	192	145
SB5604	8G1,5	11,0	220	173
SB5605	10G1,5	13,3	290	193
SB5606	10x1,5	13,3	290	193
SB5607	12G1,5	13,3	310	243
SB5608	12x1,5	13,3	310	243
SB5609	14G1,5	14,1	355	276
SB5610	16G1,5	14,9	410	310
SB5611	18G1,5	16,0	455	352
SB5612	19G1,5	16,0	465	367
SB5613	21G1,5	16,8	515	393
SB5614	25G1,5	19,1	620	464
SB5615	27G1,5	19,1	640	493
SB5616	30G1,5	19,8	700	540
SB5617	34G1,5	21,4	810	608
SB5618	37G1,5	21,4	840	651
SB5619	40G1,5	22,2	910	700
SB5620	42G1,5	23,9	970	740
SB5621	50G1,5	25,3	1140	862
SB5622	56G1,5	26,1	1240	955
SB5623	61G1,5	26,8	1330	1030
SB5624	2x2,5	8,4	112	90
SB5625	3G2,5	9,3	144	117
SB5626	3x2,5	9,3	144	117
SB5627	4G2,5	10,1	180	147
SB5628	4x2,5	10,1	180	147
SB5629	5G2,5	11,0	216	176
SB5630	5x2,5	11,0	216	176
SB5631	6G2,5	12,1	265	206
SB5632	6x2,5	12,1	265	206
SB5633	7G2,5	12,1	280	230
SB5634	7x2,5	12,1	280	230
SB5635	10G2,5	16,2	430	326
SB5636	12G2,5	16,2	465	374
SB5637	12x2,5	16,2	465	374
SB5638	14G2,5	17,0	525	427
SB5639	16G2,5	17,9	590	481
SB5640	18G2,5	19,0	665	536
SB5641	21G2,5	19,9	750	614
SB5642	25G2,5	22,7	910	728
SB5643	30G2,5	23,5	1030	853
SB5644	34G2,5	25,7	1210	960
SB5645	37G2,5	25,7	1260	1032
SB5646	42G2,5	28,9	1470	1216
SB5647	50G2,5	30,2	1700	1418
SB5648	2x4,0	10,3	170	128
SB5649	3G4,0	10,9	200	171
SB5650	3x4,0	10,9	200	171
SB5651	4G4,0	12,1	270	216
SB5652	5G4,0	13,2	325	262
SB5653	7G4,0	14,5	425	346
SB5654	10G4,0	19,5	645	491
SB5655	12G4,0	19,5	705	568

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® HCH

Flexible, screened, halogen-free control cables with number coded conductors, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, halogen-free insulation and sheath, screened
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 5 x Ø
Flexible connections: 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special halogen-free compound
Core identification: black, number coded conductors
Core arrangement: cores twisted together or pairs twisted together
Inner sheath: special halogen-free compound
Screen: tinned copper wire braid, coverage ≥85%
Outer sheath: special halogen-free compound, self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C)
Outer sheath colour: grey

Application:

Flexible, halogen-free power and control cables designed for operation in control and protective devices as well as in control circuits. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation). They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field especially in industrial environment. Reciprocal connection of screen to earth ensures full electromagnetic compatibility (EMC). Cables are halogen-free, low smoke and significantly limit flame propagation.

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5700	2x0,5	7,1	79,6	37,0
SB5701	3G0,5	7,4	87,2	43,0
SB5702	4G0,5	7,8	98,4	49,0
SB5703	5G0,5	8,3	112,7	58,0
SB5704	6G0,5	9,3	134,7	66,0
SB5705	7G0,5	9,3	138,5	72,0
SB5706	8G0,5	10,0	156,8	81,0
SB5707	10G0,5	11,0	183,3	97,0
SB5708	12G0,5	11,5	203,9	110,0
SB5709	14G0,5	11,9	222,4	123,0
SB5710	16G0,5	12,4	245,2	138,0
SB5711	18G0,5	13,0	266,4	152,0
SB5712	19G0,5	13,0	270,2	158,0
SB5713	20G0,5	13,7	289,5	166,0
SB5714	21G0,5	13,7	298,5	172,0
SB5715	24G0,5	14,9	336,2	194,0
SB5716	27G0,5	15,2	358,7	213,0
SB5717	30G0,5	16,0	398,7	232,0
SB5718	37G0,5	17,1	461,1	278,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5719	2x0,75	7,5	89,5	42,0
SB5720	3G0,75	7,8	100,2	52,0
SB5721	4G0,75	8,3	115,1	63,0
SB5722	5G0,75	9,3	141,4	74,0
SB5723	6G0,75	9,9	159,9	85,0
SB5724	7G0,75	9,9	163,9	94,0
SB5725	8G0,75	10,6	186,6	107,0
SB5726	10G0,75	12,0	224,2	128,0
SB5727	12G0,75	12,3	245,5	147,0
SB5728	14G0,75	12,8	268,8	165,0
SB5729	16G0,75	13,6	303,7	185,0
SB5730	18G0,75	14,2	331,7	205,0
SB5731	19G0,75	14,2	335,7	213,0
SB5732	20G0,75	14,7	352,1	224,0
SB5733	21G0,75	14,7	363,6	232,0
SB5734	24G0,75	16,5	425,4	264,0
SB5735	2x1,0	7,8	98,8	49,0
SB5736	3G1,0	8,1	112,6	62,0
SB5737	4G1,0	9,1	137,4	75,0

BiT 500® HCH

Flexible, screened, halogen-free control cables with number coded conductors, rated 300/500V

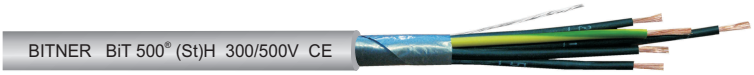
Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5738	5G1,0	9,7	158,8	89,0
SB5739	6G1,0	10,3	181,5	103,0
SB5740	7G1,0	10,3	186,2	115,0
SB5741	8G1,0	11,3	216,4	129,0
SB5742	10G1,0	12,6	256,4	158,0
SB5743	12G1,0	12,9	281,3	181,0
SB5744	14G1,0	13,6	316,0	206,0
SB5745	16G1,0	14,3	350,3	231,0
SB5746	18G1,0	14,9	384,9	256,0
SB5747	19G1,0	14,9	389,6	268,0
SB5748	20G1,0	15,9	423,1	282,0
SB5749	21G1,0	15,9	437,4	293,0
SB5750	24G1,0	17,4	494,1	333,0
SB5751	2x1,5	8,5	121,2	62,0
SB5752	3G1,5	9,3	147,3	80,0
SB5753	4G1,5	9,9	171,1	99,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB5754	5G1,5	10,6	200,8	120,0
SB5755	6G1,5	11,6	234,6	138,0
SB5756	7G1,5	11,6	242,5	154,0
SB5757	8G1,5	12,5	277,4	175,0
SB5758	10G1,5	14,2	335,9	214,0
SB5759	12G1,5	14,6	371,3	248,0
SB5760	2x2,5	10,0	169,8	90,0
SB5761	3G2,5	10,5	199,0	122,0
SB5762	4G2,5	11,5	237,9	151,0
SB5763	5G2,5	12,3	280,2	184,0
SB5764	6G2,5	13,2	324,9	215,0
SB5765	7G2,5	13,2	338,3	242,0
SB5766	8G2,5	14,6	395,3	276,0
SB5767	10G2,5	16,8	487,3	339,0
SB5768	12G2,5	17,3	542,3	397,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® (St)H

Flexible, halogen-free, screened control cables with number coded conductors, rated 300/500V



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, halogen-free insulation and sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 5 x Ø
Flexible connections: 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special halogen-free compound
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Screen: aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special halogen-free compound, self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C)
Outer sheath colour: grey

Application:

Flexible, halogen-free power and control cables designed for operation in control and protective devices as well as in control circuits. Common screen improves protection of transmitted signals against external electromagnetic field. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation). They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Insulation materials and conductor construction in BiT 500® (St)H cable enable easy and fast connections and ensure their high durability. Cables are halogen-free, low smoke and significantly limit flame propagation


internal application


industrial application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

halogen-free

flame retardant sheath


flame retardant sheath


low smoke emission

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4250	2x0,5	5,2	40	14,4
SB4251	3G0,5	5,5	44	19,2
SB4252	3x0,5	5,5	44	19,2
SB4253	4G0,5	6,0	52	24,0
SB4254	4x0,5	6,0	52	24,0
SB4255	5G0,5	6,5	64	28,8
SB4256	5x0,5	6,5	64	28,8
SB4257	6G0,5	7,2	76	33,6
SB4258	7G0,5	7,2	80	38,4
SB4259	7x0,5	7,2	80	38,4
SB4260	8G0,5	8,1	94	43,2
SB4261	8x0,5	8,1	94	43,2
SB4262	10G0,5	9,8	126	52,8
SB4263	12G0,5	9,8	134	62,4
SB4264	12x0,5	9,8	134	62,4
SB4265	14G0,5	10,2	150	72,0
SB4266	16G0,5	10,8	168	81,6
SB4267	18G0,5	11,5	192	91,2
SB4268	19G0,5	11,5	196	96,0
SB4269	21G0,5	12,0	215	105,6
SB4270	25G0,5	13,7	260	124,8
SB4271	27G0,5	13,7	270	134,4
SB4272	30G0,5	14,2	295	148,8
SB4273	34G0,5	15,2	335	168,0
SB4274	37G0,5	15,2	345	182,4
SB4275	40G0,5	16,1	390	196,8
SB4276	42G0,5	17,3	415	206,4
SB4277	50G0,5	18,2	485	244,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4278	56G0,5	18,8	525	273,6
SB4279	61G0,5	19,3	560	297,6
SB4280	2x0,75	5,6	48	19,2
SB4281	3G0,75	5,9	54	26,4
SB4282	3x0,75	5,9	54	26,4
SB4283	4G0,75	6,5	66	33,6
SB4284	4x0,75	6,5	66	33,6
SB4285	5G0,75	7,2	81	40,8
SB4286	5x0,75	7,2	81	40,8
SB4287	6G0,75	7,8	96	48,0
SB4288	6x0,75	7,8	96	48,0
SB4289	7G0,75	7,8	102	55,2
SB4290	7x0,75	7,8	102	55,2
SB4291	8G0,75	9,2	126	62,4
SB4292	8x0,75	9,2	126	62,4
SB4293	10G0,75	10,6	159	76,8
SB4294	12G0,75	10,6	168	91,2
SB4295	12x0,75	10,6	168	91,2
SB4296	14G0,75	11,3	195	105,6
SB4297	16G0,75	11,9	220	120,0
SB4298	18G0,75	12,5	245	134,4
SB4299	19G0,75	12,5	250	141,6
SB4300	21G0,75	13,1	275	156,0
SB4301	25G0,75	14,9	335	184,8
SB4302	27G0,75	14,9	345	199,2
SB4303	30G0,75	15,4	375	220,8
SB4304	34G0,75	17,0	450	249,6
SB4305	37G0,75	17,0	465	271,2

BiT 500® (St)H

Flexible, halogen-free, screened control cables with number coded conductors, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4306	40G0,75	17,6	500	292,8
SB4307	42G0,75	19,1	540	307,2
SB4308	50G0,75	19,9	620	364,8
SB4309	56G0,75	20,5	675	408,0
SB4310	61G0,75	21,1	725	444,0
SB4311	2x1,0	5,9	54	26,4
SB4312	3G1,0	6,3	64	36,0
SB4313	3x1,0	6,3	64	36,0
SB4314	4G1,0	7,0	80	45,6
SB4315	4x1,0	7,0	80	45,6
SB4316	5G1,0	7,6	98	55,2
SB4317	5x1,0	7,6	98	55,2
SB4318	6G1,0	8,2	114	64,8
SB4319	6x1,0	8,2	114	64,8
SB4320	7G1,0	8,2	120	74,4
SB4321	7x1,0	8,2	120	74,4
SB4322	8G1,0	9,7	148	84,0
SB4323	10G1,0	11,5	194	103,2
SB4324	10x1,0	11,5	194	103,2
SB4325	12G1,0	11,5	210	122,4
SB4326	12x1,0	11,5	210	122,4
SB4327	14G1,0	12,0	235	141,6
SB4328	16G1,0	12,6	265	160,8
SB4329	18G1,0	13,2	295	180,0
SB4330	18x1,0	13,2	295	180,0
SB4331	19G1,0	13,2	300	189,6
SB4332	21G1,0	14,1	335	208,8
SB4333	25G1,0	16,3	415	247,2
SB4334	27G1,0	16,3	430	266,4
SB4335	30G1,0	16,8	470	295,2
SB4336	34G1,0	18,2	550	333,6
SB4337	37G1,0	18,2	565	362,4
SB4338	40G1,0	18,9	610	391,2
SB4339	42G1,0	20,3	650	410,4
SB4340	50G1,0	21,2	750	487,2
SB4341	56G1,0	22,0	830	544,8
SB4342	61G1,0	22,6	890	592,8
SB4343	2x1,5	6,9	74	36,0
SB4344	3G1,5	7,3	86	50,4
SB4345	3x1,5	7,3	86	50,4
SB4346	4G1,5	8,0	108	64,8
SB4347	4x1,5	8,0	108	64,8
SB4348	5G1,5	9,1	138	79,2
SB4349	5x1,5	9,1	138	79,2
SB4350	6G1,5	9,8	162	93,6
SB4351	6x1,5	9,8	162	93,6
SB4352	7G1,5	9,8	172	108,0
SB4353	7x1,5	9,8	172	108,0
SB4354	8G1,5	11,0	200	122,4
SB4355	10G1,5	13,1	260	151,2

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4356	10x1,5	13,1	260	151,2
SB4357	12G1,5	13,1	280	180,0
SB4358	12x1,5	13,1	280	180,0
SB4359	14G1,5	13,9	325	208,8
SB4360	16G1,5	14,7	365	237,6
SB4361	18G1,5	15,4	410	266,4
SB4362	19G1,5	15,4	420	280,8
SB4363	21G1,5	16,6	475	309,6
SB4364	25G1,5	18,9	575	367,2
SB4365	27G1,5	18,9	595	396,0
SB4366	30G1,5	19,6	650	439,2
SB4367	34G1,5	21,0	750	496,8
SB4368	37G1,5	21,0	780	540,0
SB4369	40G1,5	22,0	850	583,2
SB4370	42G1,5	23,7	910	612,0
SB4371	50G1,5	25,1	1080	727,2
SB4372	56G1,5	25,9	1180	813,6
SB4373	61G1,5	26,6	1260	885,6
SB4374	2x2,5	8,0	96	55,2
SB4375	3G2,5	8,5	118	79,2
SB4376	3x2,5	8,5	118	79,2
SB4377	4G2,5	9,7	160	103,2
SB4378	4x2,5	9,7	160	103,2
SB4379	5G2,5	10,6	192	127,2
SB4380	5x2,5	10,6	192	127,2
SB4381	6G2,5	11,9	240	151,2
SB4382	6x2,5	11,9	240	151,2
SB4383	7G2,5	11,9	255	175,2
SB4384	7x2,5	11,9	255	175,2
SB4385	10G2,5	16,0	395	247,2
SB4386	12G2,5	16,0	430	295,2
SB4387	12x2,5	16,0	430	295,2
SB4388	14G2,5	16,8	485	343,2
SB4389	16G2,5	17,7	550	391,2
SB4390	18G2,5	18,8	625	439,2
SB4391	21G2,5	19,7	705	511,2
SB4392	25G2,5	22,5	855	607,2
SB4393	30G2,5	23,3	970	727,2
SB4394	34G2,5	25,5	1150	823,2
SB4395	37G2,5	25,5	1190	895,2
SB4396	42G2,5	28,5	1370	1015,2
SB4397	50G2,5	29,8	1590	1207,2
SB4398	2x4,0	9,9	150	84,0
SB4399	3G4,0	10,5	190	122,4
SB4400	3x4,0	10,5	190	122,4
SB4401	4G4,0	11,7	240	160,8
SB4402	5G4,0	12,7	300	199,2
SB4403	7G4,0	14,0	390	276,0
SB4404	10G4,0	18,9	600	391,2
SB4405	12G4,0	18,9	660	468,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® (St)H

Flexible, halogen-free, screened control cables with number coded conductors, rated 300/500V

paired cables

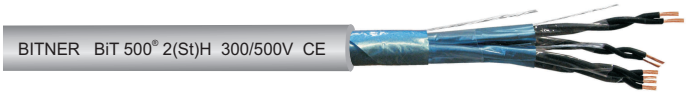
Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4406	2x2x0,5	7,7	70	24,0
SB4407	3x2x0,5	8,6	80	33,6
SB4408	4x2x0,5	9,7	106	43,2
SB4409	5x2x0,5	10,4	130	52,8
SB4410	6x2x0,5	10,8	138	62,4
SB4411	7x2x0,5	12,2	166	72,0
SB4412	8x2x0,5	12,7	182	81,6
SB4413	10x2x0,5	13,8	220	100,8
SB4414	12x2x0,5	14,7	255	120,0
SB4415	14x2x0,5	15,5	290	139,2
SB4416	16x2x0,5	17,0	345	158,4
SB4417	18x2x0,5	17,7	370	177,6
SB4418	20x2x0,5	18,4	410	196,8
SB4419	24x2x0,5	18,9	470	235,2
SB4420	2x2x0,75	8,4	86	33,6
SB4421	3x2x0,75	9,8	106	48,0
SB4422	4x2x0,75	10,5	130	62,4
SB4423	5x2x0,75	11,5	168	76,8
SB4424	6x2x0,75	11,9	180	91,2
SB4425	7x2x0,75	13,3	205	105,6
SB4426	8x2x0,75	14,1	235	120,0
SB4427	10x2x0,75	15,0	280	148,8
SB4428	12x2x0,75	16,4	340	177,6
SB4429	14x2x0,75	17,4	380	206,4
SB4430	16x2x0,75	18,8	445	235,2
SB4431	18x2x0,75	19,5	480	264,0
SB4432	20x2x0,75	20,1	520	292,8
SB4433	24x2x0,75	20,7	600	350,4
SB4434	2x2x1,0	9,3	110	45,6
SB4435	3x2x1,0	10,3	126	64,8
SB4436	4x2x1,0	11,2	154	84,0
SB4437	5x2x1,0	12,2	196	103,2
SB4438	6x2x1,0	12,6	214	122,4

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4439	7x2x1,0	14,3	255	141,6
SB4440	8x2x1,0	14,9	280	160,8
SB4441	10x2x1,0	16,4	350	199,2
SB4442	12x2x1,0	17,4	405	237,6
SB4443	14x2x1,0	18,7	465	276,0
SB4444	16x2x1,0	19,9	530	314,4
SB4445	18x2x1,0	20,8	575	352,8
SB4446	20x2x1,0	21,6	635	391,2
SB4447	24x2x1,0	22,2	735	468,0
SB4448	2x2x1,5	10,5	142	64,8
SB4449	3x2x1,5	12,0	172	93,6
SB4450	4x2x1,5	13,0	210	122,4
SB4451	5x2x1,5	14,2	270	151,2
SB4452	6x2x1,5	14,7	295	180,0
SB4453	7x2x1,5	16,8	355	208,8
SB4454	8x2x1,5	17,6	395	237,6
SB4455	10x2x1,5	19,0	480	295,2
SB4456	12x2x1,5	20,3	555	352,8
SB4457	14x2x1,5	21,7	645	410,4
SB4458	16x2x1,5	23,2	735	468,0
SB4459	18x2x1,5	24,2	800	525,6
SB4460	20x2x1,5	25,4	895	583,2
SB4461	24x2x1,5	26,1	1035	698,4
SB4462	2x2x2,5	12,5	205	103,2
SB4463	3x2x2,5	14,2	245	151,2
SB4464	4x2x2,5	15,5	305	199,2
SB4465	5x2x2,5	17,1	400	247,2
SB4466	6x2x2,5	17,7	440	295,2
SB4467	7x2x2,5	20,0	515	343,2
SB4468	8x2x2,5	20,9	575	391,2
SB4469	10x2x2,5	22,7	705	487,2
SB4470	12x2x2,5	24,2	820	583,2
SB4471	14x2x2,5	26,1	960	679,2
SB4472	16x2x2,5	27,9	1100	775,2

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 500® 2(St)H

Flexible, halogen-free, paired control cables, individually and collectively screened, with number coded conductors, rated 300/500V



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, halogen-free insulation and sheath and individually and collectively screened pairs.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 5 x Ø
Flexible connections: 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special halogen-free compound
Core identification: black, number coded conductors
Core arrangement: twisted screened pairs
Individual screen: Aluminium backed polyester tape with tinned copper drain wire on each pair
Collective screen: Aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special halogen-free compound, self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C)
Outer sheath colour: grey

Application:

Flexible, halogen-free control cables designed for operation in control and protective devices as well as in control circuits. Double screening improves protection of transmitted signals against external electromagnetic field. Individual screening of pairs decreases signal interferences from adjacent pairs. Desgined especially for installation in industrial areas with increased fire safety requirements (limited flame propagation). They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Insulation materials and conductor construction in BiT 500® 2(St)H cable enable easy and fast connections and ensure their high durability. Cables are halogen-free, low smoke and limit significantly flame propagation.


internal application


industrial application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

halogen-free

flame retardant sheath


high flexibility


low smoke emission

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4480	2x2x0,5	7,7	82	33,6
SB4481	3x2x0,5	8,6	96	48,0
SB4482	4x2x0,5	9,7	128	62,4
SB4483	5x2x0,5	10,4	158	76,8
SB4484	6x2x0,5	10,8	172	91,2
SB4485	7x2x0,5	12,2	205	105,6
SB4486	8x2x0,5	12,7	230	120,0
SB4487	10x2x0,5	13,8	280	148,8
SB4488	12x2x0,5	14,7	325	177,6
SB4489	14x2x0,5	15,5	365	206,4
SB4490	16x2x0,5	17,0	435	235,2
SB4491	18x2x0,5	17,7	470	264,0
SB4492	20x2x0,5	18,4	525	292,8
SB4493	24x2x0,5	18,9	605	350,4
SB4494	2x2x0,75	8,4	98	43,2
SB4495	3x2x0,75	9,8	124	62,4
SB4496	4x2x0,75	10,5	154	81,6
SB4497	5x2x0,75	11,5	196	100,8
SB4498	6x2x0,75	11,9	215	120,0
SB4499	7x2x0,75	13,3	250	139,2
SB4500	8x2x0,75	14,1	285	158,4
SB4501	10x2x0,75	15,0	340	196,8
SB4502	12x2x0,75	16,4	410	235,2
SB4503	14x2x0,75	17,4	465	273,6
SB4504	16x2x0,75	18,8	540	312,0
SB4505	18x2x0,75	19,5	590	350,4
SB4506	20x2x0,75	20,1	640	388,8
SB4507	24x2x0,75	20,7	745	465,6

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4508	2x2x1,0	9,3	126	60,0
SB4509	3x2x1,0	10,3	150	86,4
SB4510	4x2x1,0	11,2	186	112,8
SB4511	5x2x1,0	12,2	240	139,2
SB4512	6x2x1,0	12,6	265	165,6
SB4513	7x2x1,0	14,3	310	192,0
SB4514	8x2x1,0	14,9	345	218,4
SB4515	10x2x1,0	16,4	430	271,2
SB4516	12x2x1,0	17,4	500	324,0
SB4517	14x2x1,0	18,7	580	376,8
SB4518	16x2x1,0	19,9	660	429,6
SB4519	18x2x1,0	20,8	720	482,4
SB4520	20x2x1,0	21,6	800	535,2
SB4521	24x2x1,0	22,2	930	640,8
SB4522	2x2x1,5	10,5	158	79,2
SB4523	3x2x1,5	12,0	196	115,2
SB4524	4x2x1,5	13,0	245	151,2
SB4525	5x2x1,5	14,2	310	187,2
SB4526	6x2x1,5	14,7	345	223,2
SB4527	7x2x1,5	16,8	415	259,2
SB4528	8x2x1,5	17,6	460	295,2
SB4529	10x2x1,5	19,0	560	367,2
SB4530	12x2x1,5	20,3	655	439,2
SB4531	14x2x1,5	21,7	760	511,2
SB4532	16x2x1,5	23,2	870	583,2
SB4533	18x2x1,5	24,2	945	655,2
SB4534	20x2x1,5	25,4	1060	727,2
SB4535	24x2x1,5	26,1	1240	871,2

BITNER®

BiT 500® 2(St)H

Flexible, halogen-free, paired control cables, individually and collectively screened, with number coded conductors, rated 300/500V

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4536	2x2x2,5	12,5	220	117,6
SB4537	3x2x2,5	14,2	275	172,8
SB4538	4x2x2,5	15,5	340	228,0
SB4539	5x2x2,5	17,1	445	283,2
SB4540	6x2x2,5	17,7	490	338,4

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4541	7x2x2,5	20,0	580	393,6
SB4542	8x2x2,5	20,9	645	448,8
SB4543	10x2x2,5	22,7	790	559,2
SB4544	12x2x2,5	24,2	925	669,6
SB4545	14x2x2,5	26,1	1090	780,0
SB4546	16x2x2,5	27,9	1240	890,4

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

CHAPTER I.3

Control cables 450/750V

BiT 750® Flexible control and power supply cables with number coloured, rated 450/750V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control and power supply cable with coloured conductors, PVC insulation and sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=450/750V
Test voltage (50Hz): 4000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: coloured conductors up to 5 cores as per HD 308 S2, from 6 cores up acc. to the table (technical parameters)
Core arrangement: cores twisted together
Inner sheath: special PVC
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1).
Outer sheath colour: grey

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. For use indoors. For outdoor and direct burial installation BIT 750® cable is recommended. High flexibility of BiT 750® cable enables easy and fast connections and ensures their high durability.


internal application


industrial application


PN-EN60332-1


high flexibility

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S61658	1x1,5	4,6	34	14
S61576	2x1,5	7,9	92	28
S61577	3x1,5	8,3	110	43
S61578	3G1,5	8,3	110	43
S61579	4x1,5	9,5	142	57
S61580	4G1,5	9,5	142	57
S61581	5x1,5	10,3	171	72
S61582	5G1,5	10,3	171	72
S61583	6x1,5	11,2	201	86
S61584	6G1,5	11,2	201	86
S61585	7x1,5	11,2	210	100
S61586	7G1,5	11,2	210	100
S61587	10x1,5	14,5	330	144
S61588	10G1,5	14,5	330	144
S61589	12x1,5	14,9	349	172
S61590	12G1,5	14,9	349	172
S61591	14G1,5	15,7	392	201
S61592	16G1,5	16,5	442	230
S61593	18G1,5	17,4	492	259
S61594	24x1,5	20,4	701	345
S61595	24G1,5	20,7	647	345
S61596	30G1,5	21,9	768	432
S61597	37G1,5	24,0	941	532
S61598	48G1,5	27,3	1189	691
S61599	61G1,5	30,2	1491	878
S61668	1x2,5	5,2	46	24
S61600	2x2,5	9,0	125	48
S61601	3G2,5	9,9	162	72

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S61602	3x2,5	9,9	162	72
S61603	4G2,5	10,8	196	96
S61604	4x2,5	10,8	196	96
S61605	5G2,5	11,8	237	120
S61606	5x2,5	11,8	237	120
S61607	6G2,5	13,3	292	144
S61608	7G2,5	13,3	308	168
S61610	10G2,5	16,7	461	240
S61660	12G2,5	17,2	492	288
S61661	14G2,5	18,1	555	336
S61611	16G2,5	19,5	646	384
S61612	18G2,5	20,6	720	432
S61662	24G2,5	24,4	944	576
S61663	30G2,5	25,8	1126	720
S61664	37G2,5	27,9	1349	888
S61665	48G2,5	32,2	1744	1152
S61616	61G2,5	35,6	2186	1464
S61659	1x4	6,1	69	38
S61617	2x4	12,2	244	76
S63200	3x4	13,2	301	115
S61618	3G4	13,2	301	115
S61619	4G4	14,4	363	153
S61620	5G4	15,4	424	192
S61621	7G4	16,6	519	268
S61666	10G4	21,0	741	384
S61670	1x6	6,6	88	57
S63201	3x6	14,3	374	172
S61623	3G6	14,3	374	172

BiT 750® Flexible control and power supply cables with number coloured, rated 450/750V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S61624	4G6	15,6	456	230
S61625	5G6	16,8	537	288
S61626	7G6	18,1	664	403
S61673	10G6	23,0	949	576
S61674	1x10	7,7	134	96
S63202	3x10	17,0	571	288
S61627	3G10	17,0	571	288
S61628	4G10	18,7	703	384
S61629	5G10	20,5	854	480
S61630	7G10	22,2	1063	672
S61678	1x16	8,6	190	153
S63203	3x16	19,4	799	460
S61631	3G16	19,4	799	460
S61632	4G16	21,3	992	614
S61633	5G16	23,0	1181	768
S61634	7G16	25,3	1521	1075
S61682	1x25	11,0	321	240
S63204	3x25	24,5	1309	720
S61635	3G25	24,5	1309	720
S61636	4G25	27,0	1633	960
S61637	5G25	29,6	1979	1200
S61684	1x35	12,0	395	336
S63205	3x35	26,6	1593	1008
S61638	3G35	26,6	1593	1008
S61639	4G35	29,9	2023	1344

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S61640	5G35	32,3	2420	1680
S61685	1x50	14,4	560	480
S63206	3x50	31,3	2212	1440
S61641	3G50	31,3	2212	1440
S61642	4G50	35,2	2810	1920
S61643	5G50	38,1	3371	2400
S61687	1x70	16,2	771	672
S63207	3x70	36,0	3061	2016
S61644	3G70	36,0	3061	2016
S61645	4G70	40,0	3856	2688
S61646	5G70	43,7	4681	3360
S61689	1x95	18,3	1001	912
S63208	3x95	40,5	3940	2736
S61647	3G95	40,5	3940	2736
S61648	4G95	45,5	5023	3648
S61649	5G95	49,4	6052	4560
S61690	1x120	19,9	1245	1152
S63209	3x120	43,4	4774	3456
S61650	3G120	43,4	4774	3456
S61651	4G120	48,3	6054	4608
S61694	1x150	22,6	1531	1440
S61652	4G150	55,9	7629	5760
S61653	4G185	62,7	9600	7104
S61654	4G240	68,4	11609	7104

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 750®CY

Flexible, screened, control and power supply cables with coloured conductors, rated 450/750V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened, control and power supply cable with coloured conductors, PVC insulation and sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=450/750V
Test voltage (50Hz): 4000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: coloured conductors up to 5 cores as per HD 308 S2, from 6 cores up acc. to the table (technical parameters)
Core arrangement: cores twisted together
Inner sheath: special PVC
Screen: tinned copper wire braid with coverage ≥85%
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1).
Outer sheath colour: grey

Application:

Flexible control cables designed for operation in control and protective devices as well as in control circuits. Also for power supply to low power portable and mobile devices. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field especially in industrial environment. Reciprocal connection of screen to earth ensures full electromagnetic compatibility (EMC). They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. For use indoors. For outdoor and direct burial installation BIT 750®CY cable is recommended. High flexibility of BIT 750®CY cable enables easy and fast connections and ensures their high durability


internal application


industrial application


PN-EN60332-1


high flexibility

EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S62700	2x1,5	10,5	180	65
S62701	3G1,5	10,9	204	84
S62702	4G1,5	11,7	240	105
S62703	5G1,5	12,9	288	135
S62704	6G1,5	13,8	329	148
S62705	7G1,5	13,8	337	163
S62706	10G1,5	16,8	474	225
S62707	12G1,5	17,2	520	260
S62708	14G1,5	17,9	572	282
S62709	16G1,5	18,8	634	315
S62710	18G1,5	20,1	718	344
S62711	2x2,5	11,6	232	106
S62712	3G2,5	12,1	265	142
S62713	4G2,5	13,4	321	163
S62714	5G2,5	14,4	372	216
S62715	6G2,5	15,4	432	241
S62716	7G2,5	15,4	450	275
S62717	10G2,5	19,4	651	348
S62718	12G2,5	19,9	721	420
S62719	14G2,5	20,8	800	485
S62720	16G2,5	21,8	892	535
S62721	18G2,5	22,8	983	572
S62722	2x4	13,2	336	121
S62723	3G4	13,8	390	168
S62724	4G4	15,0	465	227
S62725	5G4	16,0	536	280
S62726	6G4	17,4	653	295
S62727	7G4	17,4	683	341
S62728	10G4	21,8	955	532
S62729	2x6	14,2	408	170

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S62730	3G6	14,9	480	232
S62731	4G6	16,2	581	303
S62732	5G6	17,6	712	428
S62733	6G6	19,3	840	447
S62734	7G6	19,3	886	494
S62735	10G6	24,2	1244	696
S62736	2x10	17,0	623	262
S62737	3G10	17,8	738	358
S62738	4G10	19,9	916	530
S62739	5G10	21,3	1073	593
S62740	6G10	23,0	1240	675
S62741	7G10	23,0	1317	797
S62742	10G10	29,4	1882	1084
S62743	2x16	18,8	810	384
S62744	3G16	20,2	1007	641
S62745	4G16	22,1	1236	780
S62746	5G16	24,2	1482	925
S62747	6G16	26,1	1728	1033
S62748	7G16	26,1	1851	1285
S62749	10G16	33,0	2615	1778
S62750	2x25	24,0	1254	581
S62751	3G25	25,3	1529	871
S62752	4G25	27,8	1882	1130
S62753	5G25	30,4	2260	1380
S62754	2G35	26,0	1555	793
S62755	3G35	27,4	1924	1195
S62756	4G35	30,7	2420	1606
S62757	5G35	33,1	2878	1990
S62758	2x50	30,4	2123	1180
S62759	3G50	32,1	2642	1731

BITNER®

BiT 750®CY

Flexible, screened, control and power supply cables with coloured conductors, rated 450/750V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S62760	4G50	36,2	3406	2318
S62761	5G50	39,1	4056	2812
S62762	2x70	35,0	2881	1615
S62763	3G70	37,0	3600	2410
S62764	4G70	41,0	4496	3160
S62765	5G70	44,7	5417	3885
S62766	2x95	39,2	3699	2120
S62767	3G95	41,9	4704	2986

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S62768	4G95	46,5	5898	3984
S62769	3G120	44,4	5595	3778
S62770	4G120	49,3	7056	5080
S62771	3G150	51,1	7081	4680
S62772	4G150	56,9	8922	7265
S62773	4G185	63,7	10946	7535
S62774	4G240	69,4	13478	9682

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 750®H

Flexible, halogen-free control cables
with coloured conductors, rated 450/750V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with coloured conductors, halogen-free insulation and sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=450/750 V
Test voltage (50Hz): 4000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 5 x Ø
Flexible connections: 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special halogen-free compound
Core identification: coloured conductors up to 5 cores as per HD 308 S2, from 6 cores up acc. to the table (technical parameters)
Core arrangement: cores twisted together or pairs twisted together
Inner sheath: special halogen-free compound
Outer sheath: special halogen-free compound, self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C)
Outer sheath colour: grey

Application:

Flexible, halogen-free power and control cables designed for operation in control and protective devices as well as in control circuits. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation). Also for power supply to low power portable and mobile devices. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables are halogen-free, low smoke and significantly limit flame propagation.


internal application


industrial application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

halogen-free

flame retardant sheath


high flexibility


low smoke emission

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H70001	1x1,5	4,6	34	14,4
H70002	2x1,5	7,9	92	28,8
H70003	3x1,5	8,3	110	43,2
H70004	3G1,5	8,3	110	43,2
H70005	4x1,5	9,5	142	57,6
H70006	4G1,5	9,5	142	57,6
H70007	5x1,5	10,3	171	72,0
H70008	5G1,5	10,3	171	72,0
H70009	6x1,5	11,2	201	86,4
H70010	6G1,5	11,2	201	86,4
H70011	7x1,5	11,2	210	100,8
H70012	7G1,5	11,2	210	100,8
H70013	10x1,5	14,5	330	144,0
H70014	10G1,5	14,5	330	144,0
H70015	12x1,5	14,9	349	172,8
H70016	12G1,5	14,9	349	172,8
H70017	14G1,5	15,7	392	201,6
H70018	16G1,5	16,5	442	230,4
H70019	18G1,5	17,4	492	259,2
H70020	24x1,5	20,4	701	345,6
H70021	24G1,5	20,7	647	345,6
H70022	30G1,5	21,9	768	432,0
H70023	37G1,5	24,0	941	532,8
H70024	48G1,5	27,3	1189	691,2
H70025	61G1,5	30,2	1491	878,4
H70026	1x2,5	5,2	46	24,0
H70027	2x2,5	9,0	125	48,0
H70028	3G2,5	9,9	162	72,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H70029	3x2,5	9,9	162	72,0
H70030	4G2,5	10,8	196	96,0
H70031	4x2,5	10,8	196	96,0
H70032	5G2,5	11,8	237	120,0
H70033	5x2,5	11,8	237	120,0
H70034	6G2,5	13,3	292	144,0
H70035	7G2,5	13,3	308	168,0
H70036	10G2,5	16,7	461	240,0
H70037	12G2,5	17,2	492	288,0
H70038	14G2,5	18,1	555	336,0
H70039	16G2,5	19,5	646	384,0
H70040	18G2,5	20,6	720	432,0
H70041	24G2,5	24,4	944	576,0
H70042	30G2,5	25,8	1126	720,0
H70043	37G2,5	27,9	1349	888,0
H70044	48G2,5	32,2	1744	1152,0
H70045	61G2,5	35,6	2186	1464,0
H70046	1x4	6,1	69	38,4
H70047	2x4	12,2	244	76,8
H70048	3x4	13,2	301	115,2
H70049	3G4	13,2	301	115,2
H70050	4G4	14,4	363	153,6
H70051	5G4	15,4	424	192,0
H70052	7G4	16,6	519	268,8
H70053	10G4	21,0	741	384,0
H70054	1x6	6,6	88	57,6
H70055	3x6	14,3	374	172,8
H70056	3G6	14,3	374	172,8

BiT 750®H

Flexible, halogen-free control cables with coloured conductors, rated 450/750V

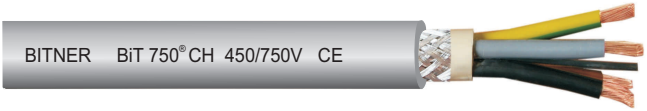
Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H70057	4G6	15,6	456	230,4
H70058	5G6	16,8	537	288,0
H70059	7G6	18,1	664	403,2
H70060	10G6	23,0	949	576,0
H70061	1x10	7,7	134	96,0
H70062	3x10	17,0	571	288,0
H70063	3G10	17,0	571	288,0
H70064	4G10	18,7	703	384,0
H70065	5G10	20,5	854	480,0
H70066	7G10	22,2	1063	672,0
H70067	1x16	8,6	190	153,6
H70068	3x16	19,4	799	460,8
H70069	3G16	19,4	799	460,8
H70070	4G16	21,3	992	614,4
H70071	5G16	23,0	1181	768,0
H70072	7G16	25,3	1521	1075,2
H70073	1x25	11,0	321	240,0
H70074	3x25	24,5	1309	720,0
H70075	3G25	24,5	1309	720,0
H70076	4G25	27,0	1633	960,0
H70077	5G25	29,6	1979	1200,0
H70078	1x35	12,0	395	336,0
H70079	3x35	26,6	1593	1008,0
H70080	3G35	26,6	1593	1008,0
H70081	4G35	29,9	2023	1344,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H70082	5G35	32,3	2420	1680,0
H70083	1x50	14,4	560	480,0
H70084	3x50	31,3	2212	1440,0
H70085	3G50	31,3	2212	1440,0
H70086	4G50	35,2	2810	1920,0
H70087	5G50	38,1	3371	2400,0
H70088	1x70	16,2	771	672,0
H70089	3x70	36,0	3061	2016,0
H70090	3G70	36,0	3061	2016,0
H70091	4G70	40,0	3856	2688,0
H70092	5G70	43,7	4681	3360,0
H70093	1x95	18,3	1001	912,0
H70094	3x95	40,5	3940	2736,0
H70095	3G95	40,5	3940	2736,0
H70096	4G95	45,5	5023	3648,0
H70097	5G95	49,4	6052	4560,0
H70098	1x120	19,9	1245	1152,0
H70099	3x120	43,4	4774	3456,0
H70100	3G120	43,4	4774	3456,0
H70101	4G120	48,3	6054	4608,0
H70102	1x150	22,6	1531	1440,0
H70103	4G150	55,9	7629	5760,0
H70104	4G185	62,7	9600	7104,0
H70105	4G240	68,4	11609	7104,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 750®CH

Flexible, screened, halogen-free control and power supply cables with coloured conductors, rated 450/750V



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened, control and power cable with coloured conductors, halogen-free insulation and sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=450/750 V
Test voltage (50Hz): 4000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 5 x Ø
Flexible connections: 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special halogen-free compound
Core identification: coloured conductors up to 5 cores as per HD 308 S2, from 6 cores up acc. to the table (technical parameters)
Core arrangement: cores twisted together
Inner sheath: special halogen-free compound
Screen: tinned copper wire braid with coverage ≥85%
Outer sheath: special halogen-free compound, self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C)
Outer sheath colour: grey

Application:

Flexible, halogen-free power and control cables designed for operation in control and protective devices as well as in control circuits. Designed especially for installation in industrial areas with increased fire safety requirements (limited flame propagation). Also for power supply to low power portable and mobile devices. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field especially in industrial environment. Reciprocal connection of screen to earth ensures full electromagnetic compatibility (EMC).They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables are halogen-free, low smoke and significantly limit flame propagation.


internal application


industrial application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

halogen-free

oxygen index


high flexibility


low smoke emission

EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H70150	2x1,5	10,5	180	65
H70151	3G1,5	10,9	204	84
H70152	4G1,5	11,7	240	105
H70153	5G1,5	12,9	288	135
H70154	6G1,5	13,8	329	148
H70155	7G1,5	13,8	337	163
H70156	10G1,5	16,8	474	225
H70157	12G1,5	17,2	520	260
H70158	14G1,5	17,9	572	282
H70159	16G1,5	18,8	634	315
H70160	18G1,5	20,1	718	344
H70161	2x2,5	11,6	232	106
H70162	3G2,5	12,1	265	142
H70163	4G2,5	13,4	321	163
H70164	5G2,5	14,4	372	216
H70165	6G2,5	15,4	432	241
H70166	7G2,5	15,4	450	275
H70167	10G2,5	19,4	651	348
H70168	12G2,5	19,9	721	420
H70169	14G2,5	20,8	800	485
H70170	16G2,5	21,8	892	535
H70171	18G2,5	22,8	983	572
H70172	2x4	13,2	336	121
H70173	3G4	13,8	390	168
H70174	4G4	15,0	465	227
H70175	5G4	16,0	536	280
H70176	6G4	17,4	653	295
H70177	7G4	17,4	683	341
H70178	10G4	21,8	955	532
H70179	2x6	14,2	408	170

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H70180	3G6	14,9	480	232
H70181	4G6	16,2	581	303
H70182	5G6	17,6	712	428
H70183	6G6	19,3	840	447
H70184	7G6	19,3	886	494
H70185	10G6	24,2	1244	696
H70186	2x10	17,0	623	262
H70187	3G10	17,8	738	358
H70188	4G10	19,9	916	530
H70189	5G10	21,3	1073	593
H70190	6G10	23,0	1240	675
H70191	7G10	23,0	1317	797
H70192	10G10	29,4	1882	1084
H70193	2x16	18,8	810	384
H70194	3G16	20,2	1007	641
H70195	4G16	22,1	1236	780
H70196	5G16	24,2	1482	925
H70197	6G16	26,1	1728	1033
H70198	7G16	26,1	1851	1285
H70199	10G16	33,0	2615	1778
H70200	2x25	24,0	1254	581
H70201	3G25	25,3	1529	871
H70202	4G25	27,8	1882	1130
H70203	5G25	30,4	2260	1380
H70204	2G35	26,0	1555	793
H70205	3G35	27,4	1924	1195
H70206	4G35	30,7	2420	1606
H70207	5G35	33,1	2878	1990
H70208	2x50	30,4	2123	1180
H70209	3G50	32,1	2642	1731

BITNER®

BiT 750®CH

Flexible, screened, halogen-free control and power supply cables with coloured conductors, rated 450/750V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H70210	4G50	36,2	3406	2318
H70211	5G50	39,1	4056	2812
H70212	2x70	35,0	2881	1615
H70213	3G70	37,0	3600	2410
H70214	4G70	41,0	4496	3160
H70215	5G70	44,7	5417	3885
H70216	2x95	39,2	3699	2120
H70217	3G95	41,9	4704	2986

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H70218	4G95	46,5	5898	3984
H70219	3G120	44,4	5595	3778
H70220	4G120	49,3	7056	5080
H70221	3G150	51,1	7081	4680
H70222	4G150	56,9	8922	7265
H70223	4G185	63,7	10946	7535
H70224	4G240	69,4	13478	9682

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

H07BQ-F

Flexible cables with improved mechanical and chemical resistance, rated 450/750V

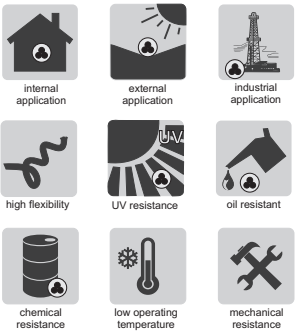
RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible cable for nominal voltage of 450/750 V, with insulation made of EPR heat-resistant rubber, with polyurethane sheath

Operating temperature:
Fixed installation: -50°C to 90°C
Flexible connections: -40°C to 80°C
Operating voltage: U_0/U=450/750V
Test voltage (50Hz): 4000V
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø



Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: EPR rubber compound
Core identification: as per HD 308 S2
1-core : black
2-cores: blue, brown,
3-cores: green-yellow, blue, brown,
4-cores: green-yellow, brown, black, grey
5-cores: green-yellow, blue, brown, black, grey
For 6-cores and more – black numbered conductors and green/yellow in outer layer
Core arrangement: cores twisted together
Inner sheath: special rubber compound possible for cables with cross sections 6mm2 and higher or multi-core cables from 7 cores up
Outer sheath: special PUR compound, oil resistant (EN 60811-2-1), resistant to hydrocarbons, industrial coolants and UV radiation.
Outer sheath colour: orange

Application:

Compounds used for insulation and sheath ensure that these cables have special application properties: higher operating temperatures, greater mechanical resistance, abrasion resistance and resistance to grease, oils, sewage and oxygen. For these reasons cables are suitable for supplying electricity to mobile/portable receivers (e.g. agricultural, building and industrial machinery) working in particularly adverse environmental conditions (exposure to abrasion, bending, dragging, variable temperatures) both inside and outside of buildings.

as per standard PN-HD 22.10:

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
IP0400	2x1,5	8,6	89	29
IP0401	2x2,5	10,2	134	48
IP0402	2x4	11,9	227	76
IP0406	3G1,5	9,1	112	43
IP0407	3G2,5	10,9	163	72
IP0408	3G4	12,5	270	115
IP0409	3G6	14,3	360	173
IP0410	3G10	19,6	607	288
IP0411	3G16	22,3	824	461
IP0413	4G1,5	10,4	141	58
IP0414	4G2,5	12,1	206	96
IP0415	4G4	13,9	307	154
IP0416	4G6	15,7	476	230
IP0417	4G10	21,8	738	384
IP0418	4G16	24,3	1022	614
IP0420	5G1,5	11,3	175	72
IP0421	5G2,5	13,3	258	120
IP0422	5G4	15,4	408	192
IP0423	5G6	17,5	588	288
IP0424	5G10	24,1	896	480
IP0425	5G16	26,9	1258	768

outside the scope of the standard:

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
IP0432	1G1,5	5,4	39	14,5
IP0433	1G2,5	6,2	53	24
IP0426	7G1,5	13,3	279	101
IP0427	7G2,5	15,9	415	168
IP0428	10G1,5	15,8	373	144
IP0429	10G2,5	19,3	588	240
IP0430	12G1,5	16,8	430	173
IP0431	12G2,5	19,6	630	289
IP0434	18G1,5	19,5	633	259
IP0435	18G2,5	24,4	946	432
IP0436	24G1,5	24,2	844	345
IP0437	24G2,5	18,5	1253	576

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

H07RN-F

Flexible power and control cables with rubber insulation and sheath, rated 450/750V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible cables rated 450/750 V, with insulation made of EPR rubber, sheath made of oil resistant, flame retardant chloroprene rubber,
Operating temperature:
Flexible connections: -40°C to 60°C
Installation temperature: -25°C to 50°C
Max short circuit conductor temperature: 200°C
Operating voltage: U_0/U=450/750 V
Test voltage: 4000 V
Min. bending radius: 6 x Ø

Construction:

Conductors: multi-stranded bare copper conductors, class 5 as per EN 60228
Insulation: EPR rubber, type EI4
Core identification:
1 - non-standardised,
2 - blue, brown,
3 - brown, black, grey
4 - blue, brown, black, grey
5 - blue, brown, black, grey, black,
3 - with green-yellow earthing core:
green-yellow, blue, brown,
4 - with green-yellow earthing core:
green-yellow, brown, black, grey
5 - with green-yellow earthing core:
green-yellow, blue, brown, black, grey.
Above 5 conductors: green-yellow and black, numbered conductors
Sheath: EM2 type chloroprene rubber, oil resistant and flame retardant
Sheath colour: black.


internal application


external application


industrial application

Application:

Cables designed for supplying power to mobile and portable receivers used also as power and control cable in industry, agriculture, strip mines, in power engineering monitoring, protection and control devices.


PN-EN60332-1


high flexibility


oil resistant


low operating temperature


mechanical resistance

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
IP0200	1x1,5	7,1	51	14,4
IP0201	1x2,5	7,9	68	24,0
IP0202	1x4	9,0	96	38,4
IP0203	1x6	9,8	123	57,6
IP0204	1x10	11,9	186	96,0
IP0205	1x16	13,4	255	154,0
IP0206	1x25	15,8	395	240,0
IP0207	1x35	17,9	490	336,0
IP0208	1x50	20,6	674	480,0
IP0209	1x70	23,3	920	672,0
IP0210	1x95	26,0	1198	912,0
IP0211	1x120	28,5	1463	1152,0
IP0212	1x150	31,4	1814	1440,0
IP0213	1x185	34,4	2226	1776,0
IP0214	1x240	38,3	2760	2304,0
IP0218	2x1	10,0	93	19,2
IP0219	2x1,5	11,0	123	28,8
IP0220	2x2,5	13,1	182	48,0
IP0221	2x4	15,1	254	76,8
IP0222	2x6	16,8	330	115,2
IP0223	2x10	22,6	574	192,0
IP0224	2x16	25,7	767	307,2
IP0225	2x25	30,7	1187	480,0
IP0226	3x1	10,7	114	28,8

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
IP0227	3x1,5	11,9	150	43,2
IP0228	3x2,5	14,0	220	72,0
IP0229	3x4	16,2	313	115,2
IP0230	3x6	18,0	410	172,8
IP0231	3x10	24,2	715	288,0
IP0232	3x16	27,6	968	460,8
IP0233	3x25	33,0	1506	720,0
IP0234	3x35	37,1	1855	1008,0
IP0235	3x50	42,9	2553	1440,0
IP0236	3x70	48,3	3445	2016,0
IP0237	3x95	54,0	4485	2736,0
IP0238	3x120	60,0	5416	3456,0
IP0239	3x150	66,0	6320	4320,0
IP0240	3x185	72,0	8120	5328,0
IP0295	3x240	82,0	10371	6912,0
IP0241	4x1	11,9	140	38,4
IP0242	4x1,5	13,1	183	57,6
IP0243	4x2,5	15,5	270	96,0
IP0244	4x4	17,9	386	153,6
IP0245	4x6	20,0	515	230,4
IP0246	4x10	26,5	882	384,0
IP0247	4x16	30,1	1204	614,4
IP0248	4x25	36,6	1913	960,0
IP0249	4x35	41,1	2355	1344,0

H07RN-F

Flexible power and control cables with rubber insulation and sheath, rated 450/750V

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
IP0250	4x50	47,5	3240	1920,0
IP0251	4x70	54,0	4404	2688,0
IP0252	4x95	61,0	5832	3658,0
IP0253	4x120	66,0	6917	4608,0
IP0254	4x150	74,0	8632	5760,0
IP0288	4x185	80,0	10670	7104,0
IP0255	5x1	13,1	172	48,0
IP0256	5x1,5	14,4	225	72,0
IP0257	5x2,5	17,0	332	120,0
IP0258	5x4	19,9	483	192,0
IP0259	5x6	22,2	641	288,0
IP0260	5x10	29,1	1076	480,0
IP0261	5x16	33,3	1484	768,0
IP0262	5x25	40,4	2355	1200,0

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
IP0263	6x1,5	17,2	285	86,4
IP0271	12x1,5	22,4	544	172,8
IP0276	18x1,5	26,3	767	259,2
IP0281	24x1,5	30,7	890	345,6
IP0289	36x1,5	35,2	1200	518,4
IP0290	6x2,5	20,0	466	144,0
IP0272	12x2,5	26,2	680	288,0
IP0277	18x2,5	30,8	1120	432,0
IP0282	24x2,5	36,4	1459	576,0
IP0291	36x2,5	41,8	1800	864,0
IP0292	6x4	23,2	580	230,4
IP0293	12x4	30,9	990	460,8
IP0294	18x4	36,4	1420	691,2

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

CHAPTER I.4

Power control cables 0,6/1kV

BiT 1000® Flexible, control and power supply cables, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened, control and power supply cable with PVC insulation and sheath, UV resistant.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 80°C
Occasional flexing: -15°C* to 80°C
Operating voltage: U_o/U=600/1000V
Test voltage (50Hz): 4000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 6 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, numbered conductors, G – green/yellow earthing conductor
Core arrangement: cores twisted together
Inner sheath: special PVC for sections over 2,5mm2 (single core or paired cables without inner sheath)
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1), UV resistant
Outer sheath colour: black

Application:

BiT 1000® cables are designed for connections in control and signalling circuits, as power supply cables for mobile and portable devices in places exposed to vibrations. Insulation materials and construction of BIT 1000® cable enable easy and fast connections and ensure their high durability. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables suitable for outdoor installation - outer sheath is UV resistant. Cables designed also for direct burial in ground.

* minimum temperature for occasional flexing with bending radius not smaller than 15xD.
Bending test at low temperature -15°C acc. to EN 60811-1-4.


internal application


external application


underground installation


industrial application


PN-EN60332-1


high flexibility

UV resistance

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S63100	2x0,5	8,0	82	9,6
S63101	3G0,5	8,4	92	14,4
S63055	3x0,5	8,4	92	14,4
S63102	4G0,5	9,0	108	19,2
S63056	4x0,5	9,0	108	19,2
S63103	5G0,5	9,7	124	24,0
S63057	5x0,5	9,7	124	24,0
S63104	6G0,5	10,4	144	28,8
S63105	7G0,5	10,4	146	33,6
S63058	7x0,5	10,4	146	33,6
S63106	8G0,5	11,3	170	38,4
S63059	8x0,5	11,3	170	38,4
S63107	10G0,5	13,1	220	48,0
S63108	12G0,5	13,1	225	57,6
S53060	12x0,5	13,1	225	57,6
S63109	14G0,5	13,7	250	67,2
S63110	16G0,5	14,4	275	76,8
S63111	18G0,5	15,1	305	86,4
S63113	21G0,5	15,8	335	100,8
S63114	25G0,5	17,8	405	120,0
S63115	30G0,5	18,4	445	144,0
S63116	32G0,5	19,1	480	153,6
S63117	34G0,5	19,8	515	163,2
S63061	37G0,5	19,8	525	177,6
S63062	42G0,5	22,1	610	201,6
S63063	52G0,5	23,3	710	249,6
S63064	61G0,5	24,7	810	292,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S63118	2x0,75	8,4	92	14,4
S63119	3G0,75	8,8	106	21,6
S63065	3x0,75	8,8	106	21,6
S63120	4G0,75	9,5	126	28,8
S63066	4x0,75	9,5	126	28,8
S63121	5G0,75	10,2	146	36,0
S63067	5x0,75	10,2	146	36,0
S63122	6G0,75	11,0	166	43,2
S63068	6x0,75	11,0	166	43,2
S63123	7G0,75	11,0	172	50,4
S63069	7x0,75	11,0	172	50,4
S63124	8G0,75	12,0	200	57,6
S63070	8x0,75	12,0	200	57,6
S63125	10G0,75	13,9	255	72,0
S63126	12G0,75	13,9	265	72,0
S63071	12x0,75	13,9	265	86,4
S63127	14G0,75	14,6	295	100,8
S63128	16G0,75	15,3	330	115,2
S63129	18G0,75	16,1	365	129,6
S63131	21G0,75	16,9	405	151,2
S63132	25G0,75	19,0	485	180,0
S63133	30G0,75	19,7	540	216,0
S63134	32G0,75	20,4	585	230,4
S63135	34G0,75	21,2	625	244,8
S63072	37G0,75	21,2	640	266,4
S63073	42G0,75	23,9	755	302,4
S63074	52G0,75	25,0	875	374,4
S63075	61G0,75	26,7	1010	439,2

BiT 1000® Flexible, control and power supply cables, rated 0,6/1kV

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S63136	2x1,0	8,7	102	19,2
S63137	3G1,0	9,2	118	28,8
S63076	3x1,0	9,2	118	28,8
S63138	4G1,0	9,9	140	38,4
S63077	4x1,0	9,9	140	38,4
S63139	5G1,0	10,6	164	48,0
S63078	5x1,0	10,6	164	48,0
S63140	6G1,0	11,4	188	57,6
S63141	7G1,0	11,4	196	67,2
S63079	7x1,0	11,4	196	67,2
S63142	8G1,0	12,5	180	76,8
S63143	10G1,0	14,6	290	96,0
S63080	10x1,0	14,6	290	96,0
S63144	12G1,0	14,6	305	115,2
S63081	12x1,0	14,6	305	115,2
S63145	14G1,0	15,2	340	134,4
S63146	16G1,0	16,0	380	153,6
S63147	18G1,0	16,8	420	172,8
S63149	21G1,0	17,7	470	201,6
S63150	25G1,0	20,0	565	240,0
S63151	30G1,0	20,7	625	288,0
S63152	32G1,0	21,4	675	307,2
S63153	34G1,0	22,4	735	326,4
S63082	37G1,0	22,4	755	355,2
S63083	42G1,0	25,1	880	403,2
S63084	52G1,0	26,4	1030	499,2
S63085	61G1,0	28,0	1180	585,6
S63154	2x1,5	9,5	124	28,8
S63155	3G1,5	10,0	146	43,2
S63086	3x1,5	10,0	146	43,2
S63156	4G1,5	10,9	174	57,6
S63087	4x1,5	10,9	174	57,6
S63157	5G1,5	11,7	205	72,0
S63088	5x1,5	11,7	205	72,0
S63158	6G1,5	12,6	240	86,4
S63159	7G1,5	12,6	250	100,8
S63089	7x1,5	12,6	250	100,8
S63160	8G1,5	13,9	290	115,2
S63161	10G1,5	16,2	370	144,0
S63162	12G1,5	16,2	390	172,8
S63090	12x1,5	16,2	390	172,8
S63163	14G1,5	17,0	440	201,6
S63164	16G1,5	17,9	495	230,4
S63165	18G1,5	18,8	545	259,2
S63167	21G1,5	19,8	615	302,4
S63168	25G1,5	22,6	750	360,0
S63169	30G1,5	23,4	840	432,0
S63170	32G1,5	24,3	905	460,8
S63171	34G1,5	25,2	970	489,6
S63091	37G1,5	25,2	1000	532,8
S63092	42G1,5	28,7	1190	604,8
S63093	52G1,5	30,0	1390	748,8
S63094	61G1,5	32,0	1610	878,4
S62514	2x2,5	10,6	162	48,0
S62515	3G2,5	11,2	192	72,0
S62516	3x2,5	11,2	192	72,0
S62517	4G2,5	12,2	235	96,0
S62518	4x2,5	12,2	235	96,0
S62519	5G2,5	13,2	280	120,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S62520	5x2,5	13,2	280	120,0
S62521	7G2,5	14,3	340	168,0
S63095	7x2,5	14,3	340	168,0
S63096	8G2,5	15,8	400	192,0
S63097	10G2,5	18,5	510	240,0
S63098	12G2,5	18,5	540	288,0
S63099	14G2,5	19,4	610	336,0
S62523	16G2,5	20,5	685	384,0
S62524	18G2,5	21,6	765	432,0
S63173	21G2,5	22,9	870	504,0
S62525	25G2,5	26,2	1070	600,0
S63174	30G2,5	27,1	1200	720,0
S63175	32G2,5	28,2	1290	768,0
S63176	34G2,5	29,5	1400	816,0
S63177	37G2,5	29,5	1450	888,0
S63178	42G2,5	33,3	1700	1008,0
S63179	52G2,5	35,0	2000	1248,0
S63180	61G2,5	37,2	2300	1464,0
S62526	2x4	12,8	265	76,8
S62527	3G4	13,5	310	115,2
S63181	3x4	13,5	310	115,2
S62528	4G4	14,7	375	153,6
S62529	5G4	15,9	445	192,0
S62530	7G4	17,1	545	268,8
S63182	10G4	22,3	820	384,0
S63183	14G4	23,7	1010	537,6
S63184	2x6	14,0	330	115,2
S62532	3G6	14,8	395	172,8
S62533	4G6	16,4	490	230,4
S62534	5G6	17,5	580	288,0
S62535	7G6	18,9	715	403,2
S63185	10G6	25,2	1110	576,0
S62536	3G10	18,1	630	288,0
S62537	4G10	20,2	785	384,0
S62538	5G10	21,6	925	480,0
S62539	7G10	23,6	1160	672,0
S62540	3G16	20,7	860	460,8
S62541	4G16	23,0	1080	614,4
S62542	5G16	24,8	1280	768,0
S62543	7G16	27,1	1630	1075,2
S62544	3G25	25,2	1310	720,0
S62545	4G25	27,8	1620	960,0
S62546	5G25	30,2	1950	1200,0
S62547	3G35	27,5	1660	1008,0
S62548	4G35	30,7	2090	1344,0
S62549	5G35	33,4	2520	1680,0
S62550	3G50	32,2	2290	1440,0
S62551	4G50	36,0	2890	1920,0
S62552	5G50	39,2	3480	2400,0
S62553	3G70	36,7	3120	2016,0
S62554	4G70	41,2	3960	2688,0
S62555	5G70	44,8	4790	3360,0
S62556	3G95	41,6	4070	2736,0
S62557	4G95	46,6	5150	3648,0
S62558	5G95	50,1	6100	4560,0
S62559	3G120	44,2	4930	3456,0
S62560	4G120	49,5	6260	4608,0
S62561	4G150	56,6	7770	5760,0
S62562	4G185	61,7	9400	7104,0
S62563	4G240	71,7	12340	9216,0

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G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 1000® Flexible, control and power supply cables, rated 0,6/1kV

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS0001	2x2x0,5	10,9	130	19,2
BS0002	3x2x0,5	12,0	142	28,8
BS0003	4x2x0,5	13,0	168	38,4
BS0004	5x2x0,5	13,9	210	48,0
BS0005	6x2x0,5	14,4	220	57,6
BS0006	7x2x0,5	16,0	255	67,2
BS0007	8x2x0,5	16,7	280	76,8
BS0008	10x2x0,5	17,9	325	96,0
BS0009	12x2x0,5	19,1	375	115,2
BS0010	14x2x0,5	20,3	425	134,4
BS0011	16x2x0,5	21,7	490	153,6
BS0012	18x2x0,5	22,8	530	172,8
BS0013	20x2x0,5	23,5	580	192,0
BS0014	24x2x0,5	24,2	660	230,4
BS0015	2x2x0,75	11,5	146	28,8
BS0016	3x2x0,75	12,8	164	43,2
BS0017	4x2x0,75	13,8	198	57,6
BS0018	5x2x0,75	14,8	245	72,0
BS0019	6x2x0,75	15,3	260	86,4
BS0020	7x2x0,75	17,1	300	100,8
BS0021	8x2x0,75	17,9	330	115,2
BS0022	10x2x0,75	19,2	390	144,0
BS0023	12x2x0,75	20,4	455	172,8
BS0024	14x2x0,75	21,7	515	201,6
BS0025	16x2x0,75	23,4	600	230,4
BS0026	18x2x0,75	24,5	645	259,2
BS0027	20x2x0,75	25,4	715	288,0
BS0028	24x2x0,75	26,2	820	345,6
BS0029	2x2x1,0	12,0	164	38,4
BS0030	3x2x1,0	13,3	184	57,6
BS0031	4x2x1,0	14,4	225	76,8
BS0032	5x2x1,0	15,5	280	96,0
BS0033	6x2x1,0	16,0	300	115,2

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS0034	7x2x1,0	17,9	345	134,4
BS0035	8x2x1,0	18,7	380	153,6
BS0036	10x2x1,0	20,1	450	192,0
BS0037	12x2x1,0	21,4	520	230,4
BS0038	14x2x1,0	23,0	605	268,8
BS0039	16x2x1,0	24,6	695	307,2
BS0040	18x2x1,0	25,9	760	345,6
BS0041	20x2x1,0	26,7	830	384,0
BS0042	24x2x1,0	27,5	955	460,8
BS0043	2x2x1,5	13,3	205	57,6
BS0044	3x2x1,5	14,8	230	86,4
BS0045	4x2x1,5	16,1	285	115,2
BS0046	5x2x1,5	17,3	360	144,0
BS0047	6x2x1,5	17,9	380	172,8
BS0048	7x2x1,5	20,1	440	201,6
BS0049	8x2x1,5	21,0	490	230,4
BS0050	10x2x1,5	22,8	595	288,0
BS0051	12x2x1,5	24,3	695	345,6
BS0052	14x2x1,5	26,1	805	403,2
BS0053	16x2x1,5	27,9	925	460,8
BS0054	18x2x1,5	29,4	1010	518,4
BS0055	20x2x1,5	30,3	1110	576,0
BS0056	24x2x1,5	31,4	1300	691,2
BS0057	2x2x2,5	15,0	270	96,0
BS0058	3x2x2,5	16,9	310	144,0
BS0059	4x2x2,5	18,3	385	192,0
BS0060	5x2x2,5	19,8	490	240,0
BS0061	6x2x2,5	20,5	525	288,0
BS0062	7x2x2,5	23,3	620	336,0
BS0063	8x2x2,5	24,4	690	384,0
BS0064	10x2x2,5	26,4	840	480,0
BS0065	12x2x2,5	28,4	995	576,0
BS0066	14x2x2,5	30,2	1135	672,0
BS0067	16x2x2,5	32,6	1330	768,0

single core cables

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S62500	1x1,5	5,8	49	14,4
S62501	1x2,5	6,2	63	24,0
S62502	1x4	6,7	82	38,0
S62503	1x6	7,2	105	58,0
S62504	1x10	8,5	160	96,0
S62505	1x16	9,4	226	154,0
S62506	1x25	11,4	340	240,0
S62507	1x35	12,6	450	336,0
S62508	1x50	14,6	625	480,0
S62509	1x70	16,6	840	672,0
S62510	1x95	18,8	1125	912,0
S62511	1x120	20,1	1380	1152,0
S62512	1x150	23,0	1730	1440,0
S62513	1x185	25,8	2130	1776,0
S62579	1x240	28,3	2460	2304
S62582	1x300	31,6	3148	2880
S62586	1x400	35,5	4290	3840
S62588	1x500	40,6	5200	4800

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S62564	1G1,5	5,8	49	14,4
S62565	1G2,5	6,2	63	24,0
S62566	1G4	6,7	82	38,0
S62567	1G6	7,2	105	58,0
S62568	1G10	8,5	160	96,0
S62569	1G16	9,4	226	154,0
S62570	1G25	11,4	340	240,0
S62571	1G35	12,6	450	336,0
S62572	1G50	14,6	625	480,0
S62573	1G70	16,6	840	672,0
S62574	1G95	18,8	1125	912,0
S62575	1G120	20,1	1380	1152,0
S62576	1G150	23,0	1730	1440,0
S62577	1G185	25,8	2130	1776,0
S62581	1G240	28,3	2460	2304
S62583	1G300	31,6	3148	2880
S62587	1G400	35,5	4290	3840
S62589	1G500	40,6	5200	4800

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BiT 1000®C Flexible, screened, control and power supply cables, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, PVC insulation and sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 80°C
Operating voltage: U_0/U=600/1000V
Test voltage (50Hz): 4000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 6 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid, coverage ≥85%
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1), UV resistant
Outer sheath colour: black

Application:

BiT 1000®C cables are designed for connections in control and signalling circuits, as power supply cables for mobile and portable devices in places exposed to vibrations. Insulation materials and construction of BiT 1000®C cable enable easy and fast connections and ensure their high durability. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables suitable for outdoor installation - outer sheath is UV resistant. Cables designed also for direct burial in ground. Properly connected screen ensures full electromagnetic compatibility (EMC).


industrial application


internal application


external application


underground installation


PN-EN60332-1


high flexibility

UV resistance

EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS0100	2x0,5	8,6	99	35
BS0101	3G0,5	9,0	108	42
BS0102	3x0,5	9,0	108	42
BS0103	4G0,5	9,6	126	46
BS0104	4x0,5	9,6	126	46
BS0105	5G0,5	10,3	144	55
BS0106	5x0,5	10,3	144	55
BS0107	6G0,5	11,0	165	63
BS0108	7G0,5	11,0	168	68
BS0109	7x0,5	11,0	168	68
BS0110	8G0,5	11,9	192	81
BS0111	8x0,5	11,9	192	81
BS0112	10G0,5	13,7	245	94
BS0113	12G0,5	13,7	250	108
BS0114	12x0,5	13,7	250	108
BS0115	14G0,5	14,3	275	116
BS0116	16G0,5	15,0	305	128
BS0117	18G0,5	15,7	335	145
BS0118	19G0,5	15,7	340	160
BS0119	21G0,5	16,4	370	180
BS0120	25G0,5	18,4	445	234
BS0121	30G0,5	19,0	485	270
BS0122	34G0,5	20,4	560	301
BS0123	37G0,5	20,4	570	315
BS0124	42G0,5	22,9	670	359
BS0125	52G0,5	23,9	765	425
BS0126	61G0,5	25,5	880	471

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS0127	2x0,75	9,0	110	40
BS0128	3G0,75	9,4	125	49
BS0129	3x0,75	9,4	122	49
BS0130	4G0,75	10,1	142	59
BS0131	4x0,75	10,1	142	59
BS0132	5G0,75	10,8	164	70
BS0133	5x0,75	10,8	164	70
BS0134	6G0,75	11,6	188	80
BS0135	6x0,75	11,6	188	80
BS0136	7G0,75	11,6	194	90
BS0137	7x0,75	11,6	194	90
BS0138	8G0,75	12,6	225	110
BS0139	8x0,75	12,6	225	110
BS0140	10G0,75	14,5	280	138
BS0141	12G0,75	14,5	290	142
BS0142	12x0,75	14,5	290	142
BS0143	14G0,75	15,2	325	179
BS0144	16G0,75	15,9	360	197
BS0145	18G0,75	16,7	400	217
BS0146	19G0,75	16,7	405	224
BS0147	21G0,75	17,5	440	244
BS0148	25G0,75	19,6	525	286
BS0149	30G0,75	20,3	585	326
BS0150	34G0,75	21,8	670	345
BS0151	37G0,75	21,8	690	360
BS0152	42G0,75	24,5	805	421
BS0153	52G0,75	25,8	940	490
BS0154	61G0,75	27,3	1075	550

BiT 1000®C Flexible, screened, control and power supply cables, rated 0,6/1kV

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS0155	2x1,0	9,3	120	50
BS0156	3G1,0	9,8	132	60
BS0157	3x1,0	9,8	132	60
BS0158	4G1,0	10,5	156	70
BS0159	4x1,0	10,5	156	70
BS0160	5G1,0	11,2	182	87
BS0161	5x1,0	11,2	182	87
BS0162	6G1,0	12,0	210	95
BS0163	6x1,0	12,0	210	95
BS0164	7G1,0	12,0	220	110
BS0165	7x1,0	12,0	220	110
BS0166	8G1,0	13,1	250	125
BS0167	10G1,0	15,2	315	150
BS0168	10x1,0	15,2	315	150
BS0169	12G1,0	15,2	330	180
BS0170	12x1,0	15,2	330	180
BS0171	14G1,0	15,8	365	197
BS0172	16G1,0	16,6	410	210
BS0173	18G1,0	17,4	455	250
BS0174	18G1,0	17,4	455	250
BS0175	19G1,0	17,4	460	260
BS0176	21G1,0	18,3	505	297
BS0177	25G1,0	20,6	605	335
BS0178	30G1,0	21,3	670	440
BS0179	34G1,0	23,0	785	485
BS0180	37G1,0	23,0	805	495
BS0181	42G1,0	25,9	940	530
BS0182	52G1,0	27,0	1090	620
BS0183	61G1,0	28,8	1255	700
BS0184	2x1,5	10,1	140	62
BS0185	3G1,5	10,6	158	79
BS0186	3x1,5	10,6	158	79
BS0187	4G1,5	11,5	190	96
BS0188	4x1,5	11,5	190	96
BS0189	5G1,5	12,3	230	120
BS0190	5x1,5	12,3	230	120
BS0191	6G1,5	13,2	265	130
BS0192	6x1,5	13,2	265	130
BS0193	7G1,5	13,2	275	145
BS0194	7x1,5	13,2	275	145

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS0195	8G1,5	14,5	315	173
BS0196	10G1,5	16,8	395	193
BS0197	10x1,5	16,8	395	193
BS0198	12G1,5	16,8	415	243
BS0199	12x1,5	16,8	415	243
BS0200	14G1,5	17,6	470	276
BS0201	16G1,5	18,5	525	310
BS0202	18G1,5	19,4	580	352
BS0203	19G1,5	19,4	595	367
BS0204	21G1,5	20,4	650	393
BS0205	25G1,5	23,2	790	464
BS0206	30G1,5	24,0	885	540
BS0207	34G1,5	26,0	1035	608
BS0208	37G1,5	26,0	1065	651
BS0209	42G1,5	29,3	1240	740
BS0210	52G1,5	30,8	1470	882
BS0211	61G1,5	32,8	1695	1030
BS0212	2x2,5	11,2	174	90
BS0213	3G2,5	11,8	200	117
BS0214	3x2,5	11,8	200	117
BS0215	4G2,5	12,8	250	147
BS0216	4x2,5	12,8	250	147
BS0217	5G2,5	13,8	295	176
BS0218	5x2,5	13,8	295	176
BS0219	6G2,5	14,9	345	206
BS0220	6x2,5	14,9	345	206
BS0221	7G2,5	14,9	360	230
BS0222	7x2,5	14,9	360	230
BS0223	10G2,5	19,1	535	326
BS0224	12G2,5	19,1	565	374
BS0225	12x2,5	19,1	565	374
BS0226	14G2,5	20,0	635	427
BS0227	16G2,5	21,1	720	481
BS0228	18G2,5	22,4	810	536
BS0229	21G2,5	23,5	910	614
BS0230	25G2,5	26,8	1105	728
BS0231	30G2,5	27,7	1240	853
BS0232	34G2,5	30,3	1480	960
BS0233	37G2,5	30,3	1525	1032
BS0234	42G2,5	33,9	1775	1216
BS0235	52G2,5	35,8	2090	1438

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BiT 1000®C Flexible, screened, control and power supply cables, rated 0,6/1kV

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS0245	2x2x0,5	11,5	165	52
BS0246	3x2x0,5	12,6	180	70
BS0247	4x2x0,5	13,6	210	91
BS0248	5x2x0,5	14,5	250	105
BS0249	6x2x0,5	15,0	265	122
BS0250	7x2x0,5	16,6	305	139
BS0251	8x2x0,5	17,3	330	151
BS0252	10x2x0,5	18,5	385	171
BS0253	12x2x0,5	19,7	435	198
BS0254	14x2x0,5	20,9	490	208
BS0255	16x2x0,5	22,5	565	241
BS0256	18x2x0,5	23,4	605	279
BS0257	20x2x0,5	24,1	650	300
BS0258	24x2x0,5	24,8	740	325
BS0259	2x2x0,75	12,1	180	58
BS0260	3x2x0,75	13,4	205	85
BS0261	4x2x0,75	14,4	240	110
BS0262	5x2x0,75	15,4	290	128
BS0263	6x2x0,75	15,9	310	148
BS0264	7x2x0,75	17,7	355	168
BS0265	8x2x0,75	18,5	390	182
BS0266	10x2x0,75	19,8	450	220
BS0267	12x2x0,75	21,0	515	260
BS0268	14x2x0,75	22,5	595	290
BS0269	16x2x0,75	24,0	675	319
BS0270	18x2x0,75	25,3	735	345
BS0271	20x2x0,75	26,0	795	368
BS0272	24x2x0,75	26,8	905	404
BS0273	2x2x1,0	12,6	200	82
BS0274	3x2x1,0	13,9	225	105
BS0275	4x2x1,0	15,0	270	130
BS0276	5x2x1,0	16,1	330	160
BS0277	6x2x1,0	16,6	345	185

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS0278	7x2x1,0	18,5	400	220
BS0279	8x2x1,0	19,3	440	237
BS0280	10x2x1,0	20,7	515	280
BS0281	12x2x1,0	22,0	590	325
BS0282	14x2x1,0	23,6	675	389
BS0283	16x2x1,0	25,4	785	420
BS0284	18x2x1,0	26,5	840	462
BS0285	20x2x1,0	27,3	915	492
BS0286	24x2x1,0	28,3	1060	541
BS0287	2x2x1,5	13,9	245	106
BS0288	3x2x1,5	15,4	275	133
BS0289	4x2x1,5	16,7	335	157
BS0290	5x2x1,5	17,9	410	181
BS0291	6x2x1,5	18,5	440	200
BS0292	7x2x1,5	20,7	505	230
BS0293	8x2x1,5	21,6	555	310
BS0294	10x2x1,5	23,4	670	380
BS0295	12x2x1,5	24,9	770	455
BS0296	14x2x1,5	26,7	885	507
BS0297	16x2x1,5	28,7	1030	561
BS0298	18x2x1,5	30,2	1130	607
BS0299	20x2x1,5	31,3	1240	700
BS0300	24x2x1,5	32,2	1420	825
BS0301	2x2x2,5	15,6	315	148
BS0302	3x2x2,5	17,5	360	220
BS0303	4x2x2,5	18,9	440	295
BS0304	5x2x2,5	20,4	550	350
BS0305	6x2x2,5	21,1	590	385
BS0306	7x2x2,5	23,9	690	444
BS0307	8x2x2,5	25,0	765	483
BS0308	10x2x2,5	27,0	925	559
BS0309	12x2x2,5	29,0	1085	629
BS0310	14x2x2,5	31,0	1260	709
BS0311	16x2x2,5	33,4	1460	787

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 1000® CY Flexible, screened, control and power supply cables, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened, control and power supply cable with PVC insulation and sheath, UV resistant.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 80°C
Operating voltage: U_0/U=600/1000V
Test voltage (50Hz): 4000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 6 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, numbered conductors, G – green/yellow earthing conductor
Core arrangement: cores twisted together
Inner sheath: special PVC (single core cables without inner sheath)
Screen: tinned copper wire braid with coverage ≥85%
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1), UV resistant
Outer sheath colour: black

Application:

BiT 1000®CY cables are designed for connections in control and signalling circuits, as power supply cables for mobile and portable devices in places exposed to vibrations. Insulation materials and construction of BIT 1000® CY cable enable easy and fast connections and ensure their high durability. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Cables suitable for outdoor installation - outer sheath is UV resistant. Cables designed also for direct burial in ground. Properly connected screen ensures full electromagnetic compatibility (EMC).


industrial application


internal application


external application


underground installation


PN-EN60332-1


high flexibility

EMC

UV resistance

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S65900	2x0,5	9,6	136	37
S65901	3G0,5	10,0	148	43
S65902	4G0,5	10,6	168	49
S65903	5G0,5	11,3	190	58
S65904	6G0,5	12,0	216	66
S65905	7G0,5	12,0	220	72
S65906	8G0,5	13,1	255	81
S65907	10G0,5	14,9	315	97
S65908	12G0,5	14,9	320	110
S65909	14G0,5	15,5	345	123
S65910	16G0,5	16,4	390	138
S65911	18G0,5	17,1	425	152
S65961	19G0,5	17,1	425	158
S65962	20G0,5	17,8	460	166
S65912	21G0,5	17,8	460	172
S62591	25G0,5	20,0	555	205
S65913	30G0,5	20,6	600	232
S65963	37G0,5	22,2	700	278
S62647	2x0,75	10,0	150	42
S62648	3G0,75	10,4	166	52
S62649	4G0,75	11,1	190	63
S62642	5G0,75	11,8	220	74
S65927	6G0,75	12,6	245	85
S62643	7G0,75	12,6	250	94
S65928	8G0,75	13,8	290	107
S62634	10G0,75	15,7	355	128
S62644	12G0,75	15,7	370	147
S65929	14G0,75	16,6	410	165
S65930	16G0,75	17,3	450	185

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S62598	18G0,75	18,1	490	205
S65964	19G0,75	18,1	495	213
S65965	20G0,75	19,1	545	224
S65920	21G0,75	19,1	550	232
S62599	25G0,75	21,2	645	275
S62647	2x1,0	10,3	162	49
S62648	3G1,0	10,8	182	62
S62649	4G1,0	11,5	210	75
S62642	5G1,0	12,2	240	89
S65927	6G1,0	13,2	275	103
S62643	7G1,0	13,2	280	115
S65928	8G1,0	14,3	320	129
S62634	10G1,0	16,6	405	158
S62644	12G1,0	16,6	420	181
S65929	14G1,0	17,2	460	206
S65930	16G1,0	18,0	505	231
S62645	18G1,0	18,8	555	256
S65966	19G1,0	18,8	560	268
S65967	20G1,0	19,9	610	282
S65931	21G1,0	19,9	615	293
S62646	25G1,0	22,4	750	345
S62635	2x1,5	11,1	192	62
S62636	3G1,5	11,6	215	80
S62637	4G1,5	12,7	260	99
S62638	5G1,5	13,5	295	120
S65941	6G1,5	14,4	335	138
S62639	7G1,5	14,4	345	154
S65942	8G1,5	15,7	395	175
S65943	10G1,5	18,2	500	214
S62640	12G1,5	18,2	520	248

BiT 1000® CY Flexible, screened, control and power supply cables, rated 0.6/1kV

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S62650	2x2,5	12,1	234	108
S62651	3G2,5	12,6	270	145
S62652	4G2,5	13,6	317	166
S62653	5G2,5	14,8	375	221
S62654	7G2,5	15,9	454	280
S62655	10G2,5	19,8	622	354
S62656	14G2,5	21,6	813	492
S62657	16G2,5	22,9	914	542
S62658	18G2,5	23,8	1008	582
S62659	25G2,5	28,3	1267	738
S62660	2x4	13,1	289	125
S62661	3G4	13,8	342	172
S62662	4G4	14,9	408	230
S62663	5G4	16,2	488	285
S62664	7G4	17,7	618	315
S62665	10G4	22,1	865	538
S62666	3G6	14,9	431	238
S62667	4G6	16,4	541	308
S62668	5G6	17,9	644	432
S62669	7G6	19,3	798	525
S62670	3G10	18,6	687	362
S62671	4G10	20,2	832	535
S62672	5G10	22,0	1004	596
S62673	7G10	23,9	1256	810

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S62674	3G16	20,6	933	645
S62675	4G16	22,5	1142	792
S62676	5G16	24,6	1389	928
S62677	7G16	27,0	1790	1315
S62678	3G25	25,7	1423	905
S62679	4G25	28,3	1790	1152
S62680	5G25	31,1	2159	1408
S62681	3G35	28,4	1855	1230
S62682	4G35	31,2	2316	1640
S62683	5G35	34,2	2795	2005
S62684	3G50	32,8	2532	1847
S62685	4G50	36,1	3164	2345
S62686	5G50	39,7	3861	2842
S62687	3G70	37,4	3393	2493
S62688	4G70	41,1	4245	3208
S62689	5G70	45,4	5164	4012
S62690	3G95	42,2	4439	3058
S62691	4G95	46,6	5578	4042
S62692	5G95	51,4	6807	5195
S62693	3G120	44,9	5330	4057
S62694	4G120	49,6	6730	5162
S62695	4G150	57,0	8509	7370
S62696	4G185	63,7	10495	7720
S62697	4G240	69,4	13153	9896

single core cables

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S62600	1x1,5	6,4	66	27
S62601	1x2,5	6,8	83	40
S62602	1x4	7,3	102	54
S62603	1x6	8,4	131	74
S62604	1x10	9,1	187	118
S62605	1x16	10,0	257	178
S62606	1x25	12,1	382	274
S62607	1x35	13,2	494	371
S62608	1x50	15,3	681	521
S62609	1x70	17,4	928	737
S62610	1x95	19,7	1222	985
S62611	1x120	20,9	1490	1231
S62612	1x150	23,8	1857	1531
S62613	1x185	26,8	2304	1905
S62614	1x240	29,2	2615	2400
S62615	1x300	32,7	3310	2980

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S62616	1G1,5	6,4	66	27
S62617	1G2,5	6,8	83	40
S62618	1G4	7,3	102	54
S62619	1G6	8,4	131	74
S62620	1G10	9,1	187	118
S62621	1G16	10,0	257	178
S62622	1G25	12,1	382	274
S62623	1G35	13,2	494	371
S62624	1G50	15,3	681	521
S62625	1G70	17,4	928	737
S62626	1G95	19,7	1222	985
S62627	1G120	20,9	1490	1231
S62628	1G150	23,8	1857	1531
S62629	1G185	26,8	2304	1905
S62630	1G240	29,2	2615	2400
S62631	1G300	32,7	3310	2980

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 1000® FR

Flexible, highly flame retardant control and power supply cables, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, control and power supply cable with PVC insulation and sheath, UV resistant.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 80°C
Occasional flexing: -15°C* to 80°C
Operating voltage: U_0/U=600/1000V
Test voltage (50Hz): 4000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 6 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, numbered conductors, G – green/yellow earthing conductor
Core arrangement: cores twisted together
Inner sheath: special PVC for sections over 2,5mm^2 (single core or paired cables without inner sheath)
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant, LOI>29
Outer sheath colour: black

Application:

BiT 1000® FR cables are designed for connections in control and signalling circuits, as power supply cables for mobile and portable devices in places exposed to vibrations. Insulation materials and construction of BiT 1000® FR cable enable easy and fast connections and ensure their high durability. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms, especially in applications in places with increased fire safety requirements (limited flame propagation). Cables suitable for outdoor installation - outer sheath is UV resistant. Cables designed also for direct burial in ground.


industrial application


internal application


external application

* minimum temperature for occasional flexing with bending radius not smaller than 15xD.
Bending test at low temperature -15°C acc. to EN 60811-1-4.


układanie w ziemi


EN 60332-1


IEC 60332-3
PN-EN 60332-3

oxygen index


high flexibility

UV resistance

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66150	2x0,5	8,0	85	9,6
S66151	3G0,5	8,4	95	14,4
S66152	3x0,5	8,4	95	14,4
S66153	4G0,5	9,0	110	19,2
S66154	4x0,5	9,0	110	19,2
S66155	5G0,5	9,7	125	24,0
S66156	5x0,5	9,7	125	24,0
S66157	6G0,5	10,4	145	28,8
S66158	7G0,5	10,4	146	33,6
S66159	7x0,5	10,4	146	33,6
S66160	8G0,5	11,3	170	38,4
S66161	8x0,5	11,3	170	38,4
S66162	10G0,5	13,1	220	48,0
S66163	12G0,5	13,1	225	57,6
S66164	12x0,5	13,1	225	57,6
S66165	14G0,5	13,7	250	67,2
S66166	16G0,5	14,4	275	76,8
S66167	18G0,5	15,1	305	86,4
S66168	21G0,5	15,8	335	100,8
S66169	25G0,5	17,8	405	120,0
S66170	30G0,5	18,4	445	144,0
S66171	32G0,5	19,1	480	153,6
S66172	34G0,5	19,8	515	163,2
S66173	37G0,5	19,8	525	177,6
S66174	42G0,5	22,1	610	201,6

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66175	52G0,5	23,3	710	249,6
S66176	61G0,5	24,7	810	292,8
S66177	2x0,75	8,4	95	14,4
S66178	3G0,75	8,8	110	21,6
S66179	3x0,75	8,8	110	21,6
S66180	4G0,75	9,5	126	28,8
S66181	4x0,75	9,5	126	28,8
S66182	5G0,75	10,2	146	36,0
S66183	5x0,75	10,2	146	36,0
S66184	6G0,75	11,0	166	43,2
S66185	6x0,75	11,0	166	43,2
S66186	7G0,75	11,0	172	50,4
S66187	7x0,75	11,0	172	50,4
S66188	8G0,75	12,0	200	57,6
S66189	8x0,75	12,0	200	57,6
S66190	10G0,75	13,9	255	72,0
S66191	12G0,75	13,9	265	72,0
S66192	12x0,75	13,9	265	86,4
S66193	14G0,75	14,6	295	100,8
S66194	16G0,75	15,3	330	115,2
S66195	18G0,75	16,1	365	129,6
S66196	21G0,75	16,9	405	151,2
S66197	25G0,75	19,0	485	180,0
S66198	30G0,75	19,7	540	216,0
S66199	32G0,75	20,4	585	230,4

BiT 1000® FR

Flexible, highly flame retardant control and power supply cables, rated 0,6/1kV

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66200	34G0,75	21,2	625	244,8
S66201	3G0,75	21,2	640	266,4
S66202	42G0,75	23,9	755	302,4
S66203	52G0,75	25,0	875	374,4
S66204	61G0,75	26,7	1010	439,2
S66205	2x1,0	8,7	105	19,2
S66206	3G1,0	9,2	120	28,8
S66207	3x1,0	9,2	120	28,8
S66208	4G1,0	9,9	140	38,4
S66209	4x1,0	9,9	140	38,4
S66210	5G1,0	10,6	165	48,0
S66211	5x1,0	10,6	165	48,0
S66212	6G1,0	11,4	188	57,6
S66213	7G1,0	11,4	196	67,2
S66214	7x1,0	11,4	196	67,2
S66215	8G1,0	12,5	180	76,8
S66216	10G1,0	14,6	290	96,0
S66217	10x1,0	14,6	290	96,0
S66218	12G1,0	14,6	305	115,2
S66219	12x1,0	14,6	305	115,2
S66220	14G1,0	15,2	340	134,4
S66221	16G1,0	16,0	380	153,6
S66222	18G1,0	16,8	420	172,8
S66223	21G1,0	17,7	470	201,6
S66224	25G1,0	20,0	565	240,0
S66225	30G1,0	20,7	625	288,0
S66226	32G1,0	21,4	675	307,2
S66227	34G1,0	22,4	735	326,4
S66228	37G1,0	22,4	755	355,2
S66229	42G1,0	25,1	880	403,2
S66230	52G1,0	26,4	1030	499,2
S66231	61G1,0	28,0	1180	585,6
S66232	2x1,5	9,5	124	28,8
S66233	3G1,5	10,0	146	43,2
S66234	3x1,5	10,0	146	43,2
S66235	4G1,5	10,9	174	57,6
S66236	4x1,5	10,9	174	57,6
S66237	5G1,5	11,7	205	72,0
S66238	5x1,5	11,7	205	72,0
S66239	6G1,5	12,6	240	86,4
S66240	7G1,5	12,6	250	100,8
S66241	7x1,5	12,6	250	100,8
S66242	8G1,5	13,9	290	115,2
S66243	10G1,5	16,2	370	144,0
S66244	12G1,5	16,2	390	172,8
S66245	12x1,5	16,2	390	172,8
S66246	14G1,5	17,0	440	201,6
S66247	16G1,5	17,9	495	230,4
S66248	18G1,5	18,8	545	259,2
S66249	21G1,5	19,8	615	302,4
S66250	25G1,5	22,6	750	360,0
S66251	30G1,5	23,4	840	432,0
S66252	32G1,5	24,3	905	460,8
S66253	34G1,5	25,2	970	489,6
S66254	37G1,5	25,2	1000	532,8
S66255	42G1,5	28,7	1190	604,8
S66256	52G1,5	30,0	1390	748,8
S66257	61G1,5	32,0	1610	878,4
S66258	2x2,5	10,6	162	48,0
S66259	3G2,5	11,2	192	72,0
S66260	3x2,5	11,2	192	72,0
S66261	4G2,5	12,2	235	96,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66262	4x2,5	12,2	235	96,0
S66263	5G2,5	13,2	280	120,0
S66264	5x2,5	13,2	280	120,0
S66265	7G2,5	14,3	340	168,0
S66266	7x2,5	14,3	340	168,0
S66267	8G2,5	15,8	400	192,0
S66268	10G2,5	18,5	510	240,0
S66269	12G2,5	18,5	540	288,0
S66270	14G2,5	19,4	610	336,0
S66271	16G2,5	20,5	685	384,0
S66272	18G2,5	21,6	765	432,0
S66273	21G2,5	22,9	870	504,0
S66274	25G2,5	26,2	1070	600,0
S66275	30G2,5	27,1	1200	720,0
S66276	32G2,5	28,2	1290	768,0
S66277	34G2,5	29,5	1400	816,0
S66278	37G2,5	29,5	1450	888,0
S66279	42G2,5	33,3	1700	1008,0
S66280	52G2,5	35,0	2000	1248,0
S66281	61G2,5	37,2	2300	1464,0
S66282	2x4	12,8	265	76,8
S66283	3G4	13,5	310	115,2
S66284	3x4	13,5	310	115,2
S66285	4G4	14,7	375	153,6
S66286	5G4	15,9	445	192,0
S66287	7G4	17,1	545	268,8
S66288	10G4	22,3	820	384,0
S66289	14G4	23,7	1010	537,6
S66290	2x6	14,0	330	115,2
S66291	3G6	14,8	395	172,8
S66292	4G6	16,4	490	230,4
S66293	5G6	17,5	580	288,0
S66294	7G6	18,9	715	403,2
S66295	10G6	25,2	1110	576,0
S66296	3G10	18,1	630	288,0
S66297	4G10	20,2	785	384,0
S66298	5G10	21,6	925	480,0
S66299	7G10	23,6	1160	672,0
S66300	3G16	20,7	860	460,8
S66301	4G16	23,0	1080	614,4
S66302	5G16	24,8	1280	768,0
S66303	7G16	27,1	1630	1075,2
S66304	3G25	25,2	1310	720,0
S66305	4G25	27,8	1620	960,0
S66306	5G25	30,2	1950	1200,0
S66307	3G35	27,5	1660	1008,0
S66308	4G35	30,7	2090	1344,0
S66309	5G35	33,4	2520	1680,0
S66310	3G50	32,2	2290	1440,0
S66311	4G50	36,0	2890	1920,0
S66312	5G50	39,2	3480	2400,0
S66313	3G70	36,7	3120	2016,0
S66314	4G70	41,2	3960	2688,0
S66315	5G70	44,8	4790	3360,0
S66316	3G95	41,6	4070	2736,0
S66317	4G95	46,6	5150	3648,0
S66318	5G95	50,6	6200	4560,0
S66319	3G120	44,2	4930	3456,0
S66320	4G120	49,5	6260	4608,0
S66321	4G150	56,6	7770	5760,0
S66322	4G185	61,7	9400	7104,0
S66323	4G240	71,7	12340	9216,0

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G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 1000® FR

Flexible, highly flame retardant control and power supply cables, rated 0,6/1kV

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66325	2x2x0,5	10,9	130	19,2
S66326	3x2x0,5	12,0	142	28,8
S66327	4x2x0,5	13,0	168	38,4
S66328	5x2x0,5	13,9	210	48,0
S66329	6x2x0,5	14,4	220	57,6
S66330	7x2x0,5	16,0	255	67,2
S66331	8x2x0,5	16,7	280	76,8
S66332	10x2x0,5	17,9	325	96,0
S66333	12x2x0,5	19,1	375	115,2
S66334	14x2x0,5	20,3	425	134,4
S66335	16x2x0,5	21,7	490	153,6
S66336	18x2x0,5	22,8	530	172,8
S66337	20x2x0,5	23,5	580	192,0
S66338	24x2x0,5	24,2	660	230,4
S66339	2x2x0,75	11,5	146	28,8
S66340	3x2x0,75	12,8	164	43,2
S66341	4x2x0,75	13,8	198	57,6
S66342	5x2x0,75	14,8	245	72,0
S66343	6x2x0,75	15,3	260	86,4
S66344	7x2x0,75	17,1	300	100,8
S66345	8x2x0,75	17,9	330	115,2
S66346	10x2x0,75	19,2	390	144,0
S66347	12x2x0,75	20,4	455	172,8
S66348	14x2x0,75	21,7	515	201,6
S66349	16x2x0,75	23,4	600	230,4
S66350	18x2x0,75	24,5	645	259,2
S66351	20x2x0,75	25,4	715	288,0
S66352	24x2x0,75	26,2	820	345,6
S66353	2x2x1,0	12,0	164	38,4
S66354	3x2x1,0	13,3	184	57,6
S66355	4x2x1,0	14,4	225	76,8
S66356	5x2x1,0	15,5	280	96,0
S66357	6x2x1,0	16,0	300	115,2
S66358	7x2x1,0	17,9	345	134,4

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66359	8x2x1,0	18,7	380	153,6
S66360	10x2x1,0	20,1	450	192,0
S66361	12x2x1,0	21,4	520	230,4
S66362	14x2x1,0	23,0	605	268,8
S66363	16x2x1,0	24,6	695	307,2
S66364	18x2x1,0	25,9	760	345,6
S66365	20x2x1,0	26,7	830	384,0
S66366	24x2x1,0	27,5	955	460,8
S66367	2x2x1,5	13,3	205	57,6
S66368	3x2x1,5	14,8	230	86,4
S66369	4x2x1,5	16,1	285	115,2
S66370	5x2x1,5	17,3	360	144,0
S66371	6x2x1,5	17,9	380	172,8
S66372	7x2x1,5	20,1	440	201,6
S66373	8x2x1,5	21,0	490	230,4
S66374	10x2x1,5	22,8	595	288,0
S66375	12x2x1,5	24,3	695	345,6
S66376	14x2x1,5	26,1	805	403,2
S66377	16x2x1,5	27,9	925	460,8
S66378	18x2x1,5	29,4	1010	518,4
S66379	20x2x1,5	30,3	1110	576,0
S66380	24x2x1,5	31,4	1300	691,2
S66381	2x2x2,5	15,0	270	96,0
S66382	3x2x2,5	16,9	310	144,0
S66383	4x2x2,5	18,3	385	192,0
S66384	5x2x2,5	19,8	490	240,0
S66385	6x2x2,5	20,5	525	288,0
S66386	7x2x2,5	23,3	620	336,0
S66387	8x2x2,5	24,4	690	384,0
S66388	10x2x2,5	26,4	840	480,0
S66389	12x2x2,5	28,4	995	576,0
S66390	14x2x2,5	30,2	1135	672,0
S66391	16x2x2,5	32,6	1330	768,0

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Note: On customer's request other cross sections or number of cores can be produced

single core cables

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66500	1x1,5	5,8	49	14,4
S66501	1x2,5	6,2	63	24,0
S66502	1x4	6,7	82	38,0
S66503	1x6	7,2	105	58,0
S66504	1x10	8,5	160	96,0
S66505	1x16	9,4	226	154,0
S66506	1x25	11,4	340	240,0
S66507	1x35	12,6	450	336,0
S66508	1x50	14,6	625	480,0
S66509	1x70	16,6	840	672,0
S66510	1x95	18,8	1125	912,0
S66511	1x120	20,1	1380	1152,0
S66512	1x150	23,0	1730	1440,0
S66513	1x185	25,8	2130	1776,0
S66514	1x240	28,3	2460	2304,0
S66515	1x300	31,6	3148	2880,0
S66516	1x400	35,5	4290	3840,0
S66517	1x500	40,6	5200	4800,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66518	1G1,5	5,8	49	14,4
S66519	1G2,5	6,2	63	24,0
S66520	1G4	6,7	82	38,0
S66521	1G6	7,2	105	58,0
S66522	1G10	8,5	160	96,0
S66523	1G16	9,4	226	154,0
S66524	1G25	11,4	340	240,0
S66525	1G35	12,6	450	336,0
S66526	1G50	14,6	625	480,0
S66527	1G70	16,6	840	672,0
S66528	1G95	18,8	1125	912,0
S66529	1G120	20,1	1380	1152,0
S66530	1G150	23,0	1730	1440,0
S66531	1G185	25,8	2130	1776,0
S66532	1G240	28,3	2460	2304,0
S66533	1G300	31,6	3148	2880,0
S66534	1G400	35,5	4290	3840,0
S66535	1G500	40,6	5200	4800,0

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G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
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BiT 1000®C FR

Flexible, screened, highly flame retardant control and power supply cables, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened, control and power supply cable with PVC insulation and sheath, UV resistant.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 80°C
Operating voltage: U_0 /U=600/1000V
Test voltage (50Hz): 4000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 6 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid, coverage ≥85%
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant, LOI>29
Outer sheath colour: black

Application:

BiT 1000®C FR cables are designed for connections in control and signalling circuits, as power supply cables for mobile and portable devices in places exposed to vibrations. Insulation materials and construction of BiT 1000®C FR cable enable easy and fast connections and ensure their high durability. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms, especially in applications in places with increased fire safety requirements (limited flame propagation). Cables suitable for outdoor installation - outer sheath is UV resistant. Cables designed also for direct burial in ground. Properly connected screen ensures full electromagnetic compatibility (EMC).


industrial application


internal application


external application


układanie w ziemi


EN 60332-1


IEC 60332-3
PN-EN 60332-3

oxygen index


high flexibility

UV resistance

EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS0710	2x0,5	8,6	99	35
BS0711	3G0,5	9,0	108	42
BS0712	3x0,5	9,0	108	42
BS0713	4G0,5	9,6	126	46
BS0714	4x0,5	9,6	126	46
BS0715	5G0,5	10,3	144	55
BS0716	5x0,5	10,3	144	55
BS0717	6G0,5	11,0	165	63
BS0718	7G0,5	11,0	168	68
BS0719	7x0,5	11,0	168	68
BS0720	8G0,5	11,9	192	81
BS0721	8x0,5	11,9	192	81
BS0722	10G0,5	13,7	245	94
BS0723	12G0,5	13,7	250	108
BS0724	12x0,5	13,7	250	108
BS0725	14G0,5	14,3	275	116
BS0726	16G0,5	15,0	305	128
BS0727	18G0,5	15,7	335	145
BS0728	19G0,5	15,7	340	160
BS0729	21G0,5	16,4	370	180
BS0730	25G0,5	18,4	445	234
BS0731	30G0,5	19,0	485	270
BS0732	34G0,5	20,4	560	301
BS0733	37G0,5	20,4	570	315
BS0734	42G0,5	22,9	670	359
BS0735	52G0,5	23,9	765	425
BS0736	61G0,5	25,5	880	471

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS0737	2x0,75	9,0	110	40
BS0738	3G0,75	9,4	125	49
BS0739	3x0,75	9,4	122	49
BS0740	4G0,75	10,1	142	59
BS0741	4x0,75	10,1	142	59
BS0742	5G0,75	10,8	164	70
BS0743	5x0,75	10,8	164	70
BS0744	6G0,75	11,6	188	80
BS0745	6x0,75	11,6	188	80
BS0746	7G0,75	11,6	194	90
BS0747	7x0,75	11,6	194	90
BS0748	8G0,75	12,6	225	110
BS0749	8x0,75	12,6	225	110
BS0750	10G0,75	14,5	280	138
BS0751	12G0,75	14,5	290	142
BS0752	12x0,75	14,5	290	142
BS0753	14G0,75	15,2	325	179
BS0754	16G0,75	15,9	360	197
BS0755	18G0,75	16,7	400	217
BS0756	19G0,75	16,7	405	224
BS0757	21G0,75	17,5	440	244
BS0758	25G0,75	19,6	525	286
BS0759	30G0,75	20,3	585	326
BS0760	34G0,75	21,8	670	345
BS0761	37G0,75	21,8	690	360
BS0762	42G0,75	24,5	805	421
BS0763	52G0,75	25,8	940	490
BS0764	61G0,75	27,3	1075	550

BiT 1000® C FR

Flexible, screened, highly flame retardant control and power supply cables, rated 0,6/1kV

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS0765	2x1,0	9,3	120	50
BS0766	3G1,0	9,8	132	60
BS0767	3x1,0	9,8	132	60
BS0768	4G1,0	10,5	156	70
BS0769	4x1,0	10,5	156	70
BS0770	5G1,0	11,2	182	87
BS0771	5x1,0	11,2	182	87
BS0772	6G1,0	12,0	210	95
BS0773	6x1,0	12,0	210	95
BS0774	7G1,0	12,0	220	110
BS0775	7x1,0	12,0	220	110
BS0776	8G1,0	13,1	250	125
BS0777	10G1,0	15,2	315	150
BS0778	10x1,0	15,2	315	150
BS0779	12G1,0	15,2	330	180
BS0780	12x1,0	15,2	330	180
BS0781	14G1,0	15,8	365	197
BS0782	16G1,0	16,6	410	210
BS0783	18G1,0	17,4	455	250
BS0784	18G1,0	17,4	455	250
BS0785	19G1,0	17,4	460	260
BS0786	21G1,0	18,3	505	297
BS0787	25G1,0	20,6	605	335
BS0788	30G1,0	21,3	670	440
BS0789	34G1,0	23,0	785	485
BS0790	37G1,0	23,0	805	495
BS0791	42G1,0	25,9	940	530
BS0792	52G1,0	27,0	1090	620
BS0793	61G1,0	28,8	1255	700
BS0794	2x1,5	10,1	140	62
BS0795	3G1,5	10,6	158	79
BS0796	3x1,5	10,6	158	79
BS0797	4G1,5	11,5	190	96
BS0798	4x1,5	11,5	190	96
BS0799	5G1,5	12,3	230	120
BS0800	5x1,5	12,3	230	120
BS0801	6G1,5	13,2	265	130
BS0802	6x1,5	13,2	265	130
BS0803	7G1,5	13,2	275	145
BS0804	7x1,5	13,2	275	145

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS0805	8G1,5	14,5	315	173
BS0806	10G1,5	16,8	395	193
BS0807	10x1,5	16,8	395	193
BS0808	12G1,5	16,8	415	243
BS0809	12x1,5	16,8	415	243
BS0810	14G1,5	17,6	470	276
BS0811	16G1,5	18,5	525	310
BS0812	18G1,5	19,4	580	352
BS0813	19G1,5	19,4	595	367
BS0814	21G1,5	20,4	650	393
BS0815	25G1,5	23,2	790	464
BS0816	30G1,5	24,0	885	540
BS0817	34G1,5	26,0	1035	608
BS0818	37G1,5	26,0	1065	651
BS0819	42G1,5	29,3	1240	740
BS0820	52G1,5	30,8	1470	882
BS0821	61G1,5	32,8	1695	1030
BS0822	2x2,5	11,2	174	90
BS0823	3G2,5	11,8	200	117
BS0824	3x2,5	11,8	200	117
BS0825	4G2,5	12,8	250	147
BS0826	4x2,5	12,8	250	147
BS0827	5G2,5	13,8	295	176
BS0828	5x2,5	13,8	295	176
BS0829	6G2,5	14,9	345	206
BS0830	6x2,5	14,9	345	206
BS0831	7G2,5	14,9	360	230
BS0832	7x2,5	14,9	360	230
BS0833	10G2,5	19,1	535	326
BS0834	12G2,5	19,1	565	374
BS0835	12x2,5	19,1	565	374
BS0836	14G2,5	20,0	635	427
BS0837	16G2,5	21,1	720	481
BS0838	18G2,5	22,4	810	536
BS0839	21G2,5	23,5	910	614
BS0840	25G2,5	26,8	1105	728
BS0841	30G2,5	27,7	1240	853
BS0842	34G2,5	30,3	1480	960
BS0843	37G2,5	30,3	1525	1032
BS0844	42G2,5	33,9	1775	1216
BS0845	52G2,5	35,8	2090	1438

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BiT 1000® C FR

Flexible, screened, highly flame retardant control and power supply cables, rated 0,6/1kV

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS0850	2x2x0,5	11,5	165	52
BS0851	3x2x0,5	12,6	180	70
BS0852	4x2x0,5	13,6	210	91
BS0853	5x2x0,5	14,5	250	105
BS0854	6x2x0,5	15,0	265	122
BS0855	7x2x0,5	16,6	305	139
BS0856	8x2x0,5	17,3	330	151
BS0857	10x2x0,5	18,5	385	171
BS0858	12x2x0,5	19,7	435	198
BS0859	14x2x0,5	20,9	490	208
BS0860	16x2x0,5	22,5	565	241
BS0861	18x2x0,5	23,4	605	279
BS0862	20x2x0,5	24,1	650	300
BS0863	24x2x0,5	24,8	740	325
BS0864	2x2x0,75	12,1	180	58
BS0865	3x2x0,75	13,4	205	85
BS0866	4x2x0,75	14,4	240	110
BS0867	5x2x0,75	15,4	290	128
BS0868	6x2x0,75	15,9	310	148
BS0869	7x2x0,75	17,7	355	168
BS0870	8x2x0,75	18,5	390	182
BS0871	10x2x0,75	19,8	450	220
BS0872	12x2x0,75	21,0	515	260
BS0873	14x2x0,75	22,5	595	290
BS0874	16x2x0,75	24,0	675	319
BS0875	18x2x0,75	25,3	735	345
BS0876	20x2x0,75	26,0	795	368
BS0877	24x2x0,75	26,8	905	404
BS0878	2x2x1,0	12,6	200	82
BS0879	3x2x1,0	13,9	225	105
BS0880	4x2x1,0	15,0	270	130
BS0881	5x2x1,0	16,1	330	160
BS0882	6x2x1,0	16,6	345	185

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS0883	7x2x1,0	18,5	400	220
BS0884	8x2x1,0	19,3	440	237
BS0885	10x2x1,0	20,7	515	280
BS0886	12x2x1,0	22,0	590	325
BS0887	14x2x1,0	23,6	675	389
BS0888	16x2x1,0	25,4	785	420
BS0889	18x2x1,0	26,5	840	462
BS0890	20x2x1,0	27,3	915	492
BS0891	24x2x1,0	28,3	1060	541
BS0892	2x2x1,5	13,9	245	106
BS0893	3x2x1,5	15,4	275	133
BS0894	4x2x1,5	16,7	335	157
BS0895	5x2x1,5	17,9	410	181
BS0896	6x2x1,5	18,5	440	200
BS0897	7x2x1,5	20,7	505	230
BS0898	8x2x1,5	21,6	555	310
BS0899	10x2x1,5	23,4	670	380
BS0900	12x2x1,5	24,9	770	455
BS0901	14x2x1,5	26,7	885	507
BS0902	16x2x1,5	28,7	1030	561
BS0903	18x2x1,5	30,2	1130	607
BS0904	20x2x1,5	31,3	1240	700
BS0905	24x2x1,5	32,2	1420	825
BS0906	2x2x2,5	15,6	315	148
BS0907	3x2x2,5	17,5	360	220
BS0908	4x2x2,5	18,9	440	295
BS0909	5x2x2,5	20,4	550	350
BS0910	6x2x2,5	21,1	590	385
BS0911	7x2x2,5	23,9	690	444
BS0912	8x2x2,5	25,0	765	483
BS0913	10x2x2,5	27,0	925	559
BS0914	12x2x2,5	29,0	1085	629
BS0915	14x2x2,5	31,0	1260	709
BS0916	16x2x2,5	33,4	1460	787

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Note: On customer's request other cross sections or number of cores can be produced

BiT 1000® CY FR

Flexible, screened, highly flame retardant control and power supply cables, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened, control and power supply cable with PVC insulation and sheath, UV resistant.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 80°C
Operating voltage: U_0/U=600/1000V
Test voltage (50Hz): 4000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 6 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, numbered conductors, G – green/yellow earthing conductor
Core arrangement: cores twisted together
Inner sheath: special PVC (single core cables without inner sheath)
Screen: tinned copper wire braid with coverage ≥85%
Outer sheath: special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant, LOI>29
Outer sheath colour: black

Application:

BiT 1000®CY FR cables are designed for connections in control and signalling circuits, as power supply cables for mobile and portable devices in places exposed to vibrations. Insulation materials and construction of BIT 1000® CY FR cable enable easy and fast connections and ensure their high durability. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms, especially in applications in places with increased fire safety requirements (limited flame propagation). Cables suitable for outdoor installation - outer sheath is UV resistant. Cables designed also for direct burial in ground. Properly connected screen ensures full electromagnetic compatibility (EMC).


industrial application


internal application


external application


underground installation


PN-EN60332-1


high flexibility

oxygen index

EMC

UV resistance

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66560	2x0,5	9,6	136	37
S66561	3G0,5	10,0	148	43
S66562	4G0,5	10,6	168	49
S66563	5G0,5	11,3	190	58
S66564	6G0,5	12,0	216	66
S66565	7G0,5	12,0	220	72
S66566	8G0,5	13,1	255	81
S66567	10G0,5	14,9	315	97
S66568	12G0,5	14,9	320	110
S66569	14G0,5	15,5	345	123
S66570	16G0,5	16,4	390	138
S66571	18G0,5	17,1	425	152
S66572	19G0,5	17,1	425	158
S66573	20G0,5	17,8	460	166
S66574	21G0,5	17,8	460	172
S66575	25G0,5	20,0	555	205
S66576	30G0,5	20,6	600	232
S66577	37G0,5	22,2	700	278
S66578	2x0,75	10,0	150	42
S66579	3G0,75	10,4	166	52
S66580	4G0,75	11,1	190	63
S66581	5G0,75	11,8	220	74
S66582	6G0,75	12,6	245	85
S66583	7G0,75	12,6	250	94
S66584	8G0,75	13,8	290	107

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66585	10G0,75	15,7	355	128
S66586	12G0,75	15,7	370	147
S66587	14G0,75	16,6	410	165
S66588	16G0,75	17,3	450	185
S66589	18G0,75	18,1	490	205
S66590	19G0,75	18,1	495	213
S66591	20G0,75	19,1	545	224
S66592	21G0,75	19,1	550	232
S66593	25G0,75	21,2	645	275
S66594	2x1,0	10,3	162	49
S66595	3G1,0	10,8	182	62
S66596	4G1,0	11,5	210	75
S66597	5G1,0	12,2	240	89
S66598	6G1,0	13,2	275	103
S66599	7G1,0	13,2	280	115
S66600	8G1,0	14,3	320	129
S66601	10G1,0	16,6	405	158
S66602	12G1,0	16,6	420	181
S66603	14G1,0	17,2	460	206
S66604	16G1,0	18,0	505	231
S66605	18G1,0	18,8	555	256
S66606	19G1,0	18,8	560	268
S66607	20G1,0	19,9	610	282
S66608	21G1,0	19,9	615	293
S66609	25G1,0	22,4	750	345

BiT 1000® CY FR

Flexible, screened, highly flame retardant control and power supply cables, rated 0,6/1kV

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66610	2x1,5	11,1	192	62
S66611	3G1,5	11,6	215	80
S66612	4G1,5	12,7	260	99
S66613	5G1,5	13,5	295	120
S66614	6G1,5	14,4	335	138
S66615	7G1,5	14,4	345	154
S66616	8G1,5	15,7	395	175
S66617	10G1,5	18,2	500	214
S66618	12G1,5	18,2	520	248
S66400	2x2,5	12,1	234	108
S66401	3G2,5	12,6	270	145
S66402	4G2,5	13,6	317	166
S66403	5G2,5	14,8	375	221
S66404	7G2,5	15,9	454	280
S66405	10G2,5	19,8	622	354
S66406	14G2,5	21,6	813	492
S66407	16G2,5	22,9	914	542
S66408	18G2,5	23,8	1008	582
S66409	25G2,5	28,3	1267	738
S66410	2x4	13,1	289	125
S66411	3G4	13,8	342	172
S66412	4G4	14,9	408	230
S66413	5G4	16,2	488	285
S66414	7G4	17,7	618	315
S66415	10G4	22,1	865	538
S66416	3G6	14,9	431	238
S66417	4G6	16,4	541	308
S66418	5G6	17,9	644	432

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66419	7G6	19,3	798	525
S66420	3G10	18,6	687	362
S66421	4G10	20,2	832	535
S66422	5G10	22,0	1004	596
S66423	7G10	23,9	1256	810
S66424	3G16	20,6	933	645
S66425	4G16	22,5	1142	792
S66426	5G16	24,6	1389	928
S66427	7G16	27,0	1790	1315
S66428	3G25	25,7	1423	905
S66429	4G25	28,3	1790	1152
S66430	5G25	31,1	2159	1408
S66431	3G35	28,4	1855	1230
S66432	4G35	31,2	2316	1640
S66433	5G35	34,2	2795	2005
S66434	3G50	32,8	2532	1847
S66435	4G50	36,1	3164	2345
S66436	5G50	39,7	3861	2842
S66437	3G70	37,4	3393	2493
S66438	4G70	41,1	4245	3208
S66439	5G70	45,4	5164	4012
S66440	3G95	42,2	4439	3058
S66441	4G95	46,6	5578	4042
S66442	5G95	51,4	6807	5195
S66443	3G120	44,9	5330	4057
S66444	4G120	49,6	6730	5162
S66445	4G150	57,0	8509	7370
S66446	4G185	63,7	10495	7720
S66447	4G240	69,4	13153	9896

single core cables

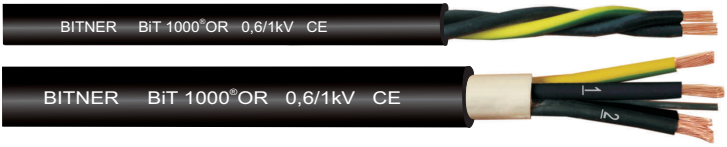
Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66630	1x1,5	6,4	66	27
S66631	1x2,5	6,8	83	40
S66632	1x4	7,3	102	54
S66633	1x6	8,4	131	74
S66634	1x10	9,1	187	118
S66635	1x16	10,0	257	178
S66636	1x25	12,1	382	274
S66637	1x35	13,2	494	371
S66638	1x50	15,3	681	521
S66639	1x70	17,4	928	737
S66640	1x95	19,7	1222	985
S66641	1x120	20,9	1490	1231
S66642	1x150	23,8	1857	1531
S66643	1x185	26,8	2304	1905
S66644	1x240	29,2	2615	2400
S66645	1x300	32,7	3310	2980

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66646	1G1,5	6,4	66	27
S66647	1G2,5	6,8	83	40
S66648	1G4	7,3	102	54
S66649	1G6	8,4	131	74
S66650	1G10	9,1	187	118
S66651	1G16	10,0	257	178
S66652	1G25	12,1	382	274
S66653	1G35	13,2	494	371
S66654	1G50	15,3	681	521
S66655	1G70	17,4	928	737
S66656	1G95	19,7	1222	985
S66657	1G120	20,9	1490	1231
S66658	1G150	23,8	1857	1531
S66659	1G185	26,8	2304	1905
S66660	1G240	29,2	2615	2400
S66661	1G300	32,7	3310	2980

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 1000® OR

Flexible, highly flame retardant, oil resistant control and power supply cables, rated 0,6/1kV



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, control and power supply cable with PVC insulation and sheath, UV resistant, oil resistant
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 80°C
Occasional flexing: -15°C* to 80°C
Operating voltage: U_0/U=600/1000V
Test voltage (50Hz): 4000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 6 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, numbered conductors, G – green/yellow earthing conductor
Core arrangement: cores twisted together
Inner sheath: special PVC for sections over 2,5mm2 (single core or paired cables without inner sheath)
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant, LOI>29
Outer sheath colour: black

Application:

BiT 1000® OR cables are designed for connections in control and signalling circuits, as power supply cables for mobile and portable devices in places exposed to vibrations. Insulation materials and construction of BIT 1000® OR cable enable easy and fast connections and ensure their high durability. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms, especially in applications in places with increased fire safety requirements (limited flame propagation) and in places exposed to oil or industrial coolants. Cables suitable for outdoor installation - outer sheath is UV resistant. Cables designed also for direct burial in ground

* minimum temperature for occasional flexing with bending radius not smaller than 15xD.
Bending test at low temperature -15°C acc. to EN 60811-1-4.


industrial application


internal application


external application


underground installation


EN 60332-1


IEC 60332-3
PN-EN 60332-3

oxygen index


high flexibility


oil resistance
EN 60811-2-1

UV resistance

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S65975	2x0,5	8,0	85	9,6
S65976	3G0,5	8,4	95	14,4
S66700	3x0,5	8,4	95	14,4
S65977	4G0,5	9,0	110	19,2
S66701	4x0,5	9,0	110	19,2
S65978	5G0,5	9,7	125	24,0
S66702	5x0,5	9,7	125	24,0
S65979	6G0,5	10,4	145	28,8
S65980	7G0,5	10,4	146	33,6
S66703	7x0,5	10,4	146	33,6
S65981	8G0,5	11,3	170	38,4
S66704	8x0,5	11,3	170	38,4
S65982	10G0,5	13,1	220	48,0
S65983	12G0,5	13,1	225	57,6
S66705	12x0,5	13,1	225	57,6
S65984	14G0,5	13,7	250	67,2
S65985	16G0,5	14,4	275	76,8
S65986	18G0,5	15,1	305	86,4
S65988	21G0,5	15,8	335	100,8
S65989	25G0,5	17,8	405	120,0
S65990	30G0,5	18,4	445	144,0
S65991	32G0,5	19,1	480	153,6
S65992	34G0,5	19,8	515	163,2
S66706	37G0,5	19,8	525	177,6
S66707	42G0,5	22,1	610	201,6

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66708	52G0,5	23,3	710	249,6
S66709	61G0,5	24,7	810	292,8
S65993	2x0,75	8,4	95	14,4
S65994	3G0,75	8,8	110	21,6
S66710	3x0,75	8,8	110	21,6
S65995	4G0,75	9,5	126	28,8
S66711	4x0,75	9,5	126	28,8
S65996	5G0,75	10,2	146	36,0
S66712	5x0,75	10,2	146	36,0
S65997	6G0,75	11,0	166	43,2
S66713	6x0,75	11,0	166	43,2
S65998	7G0,75	11,0	172	50,4
S66714	7x0,75	11,0	172	50,4
S65999	8G0,75	12,0	200	57,6
S66715	8x0,75	12,0	200	57,6
S66000	10G0,75	13,9	255	72,0
S66001	12G0,75	13,9	265	72,0
S66716	12x0,75	13,9	265	86,4
S66002	14G0,75	14,6	295	100,8
S66003	16G0,75	15,3	330	115,2
S66004	18G0,75	16,1	365	129,6
S66006	21G0,75	16,9	405	151,2
S66007	25G0,75	19,0	485	180,0
S66008	30G0,75	19,7	540	216,0
S66009	32G0,75	20,4	585	230,4

BiT 1000® OR

Flexible, highly flame retardant, oil resistant control and power supply cables, rated 0,6/1kV

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66010	34G0,75	21,2	625	244,8
S66717	37G0,75	21,2	640	266,4
S66718	42G0,75	23,9	755	302,4
S66719	52G0,75	25,0	875	374,4
S66720	61G0,75	26,7	1010	439,2
S66011	2x1,0	8,7	105	19,2
S66012	3G1,0	9,2	120	28,8
S66721	3x1,0	9,2	120	28,8
S66013	4G1,0	9,9	140	38,4
S66722	4x1,0	9,9	140	38,4
S66014	5G1,0	10,6	165	48,0
S66723	5x1,0	10,6	165	48,0
S66015	6G1,0	11,4	188	57,6
S66016	7G1,0	11,4	196	67,2
S66724	7x1,0	11,4	196	67,2
S66017	8G1,0	12,5	180	76,8
S66018	10G1,0	14,6	290	96,0
S66725	10x1,0	14,6	290	96,0
S66019	12G1,0	14,6	305	115,2
S66726	12x1,0	14,6	305	115,2
S66020	14G1,0	15,2	340	134,4
S66021	16G1,0	16,0	380	153,6
S66022	18G1,0	16,8	420	172,8
S66024	21G1,0	17,7	470	201,6
S66025	25G1,0	20,0	565	240,0
S66026	30G1,0	20,7	625	288,0
S66027	32G1,0	21,4	675	307,2
S66028	34G1,0	22,4	735	326,4
S66727	37G1,0	22,4	755	355,2
S66728	42G1,0	25,1	880	403,2
S66729	52G1,0	26,4	1030	499,2
S66730	61G1,0	28,0	1180	585,6
S66731	2x1,5	9,5	124	28,8
S66732	3G1,5	10,0	146	43,2
S66733	3x1,5	10,0	146	43,2
S66734	4G1,5	10,9	174	57,6
S66735	4x1,5	10,9	174	57,6
S66736	5G1,5	11,7	205	72,0
S66737	5x1,5	11,7	205	72,0
S66738	6G1,5	12,6	240	86,4
S66739	7G1,5	12,6	250	100,8
S66740	7x1,5	12,6	250	100,8
S66741	8G1,5	13,9	290	115,2
S66742	10G1,5	16,2	370	144,0
S66743	12G1,5	16,2	390	172,8
S66744	12x1,5	16,2	390	172,8
S66745	14G1,5	17,0	440	201,6
S66746	16G1,5	17,9	495	230,4
S66747	18G1,5	18,8	545	259,2
S66748	21G1,5	19,8	615	302,4
S66749	25G1,5	22,6	750	360,0
S66750	30G1,5	23,4	840	432,0
S66751	32G1,5	24,3	905	460,8
S66752	34G1,5	25,2	970	489,6
S66753	37G1,5	25,2	1000	532,8
S66754	42G1,5	28,7	1190	604,8
S66755	52G1,5	30,0	1390	748,8
S66756	61G1,5	32,0	1610	878,4
S66029	2x2,5	10,6	162	48,0
S66030	3G2,5	11,2	192	72,0
S66031	3x2,5	11,2	192	72,0
S66032	4G2,5	12,2	235	96,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66033	4x2,5	12,2	235	96,0
S66034	5G2,5	13,2	280	120,0
S66035	5x2,5	13,2	280	120,0
S66036	7G2,5	14,3	340	168,0
S66757	7x2,5	14,3	340	168,0
S66758	8G2,5	15,8	400	192,0
S66759	10G2,5	18,5	510	240,0
S66760	12G2,5	18,5	540	288,0
S66761	14G2,5	19,4	610	336,0
S66038	16G2,5	20,5	685	384,0
S66039	18G2,5	21,6	765	432,0
S66762	21G2,5	22,9	870	504,0
S66040	25G2,5	26,2	1070	600,0
S66763	30G2,5	27,1	1200	720,0
S66764	32G2,5	28,2	1290	768,0
S66765	34G2,5	29,5	1400	816,0
S66766	37G2,5	29,5	1450	888,0
S66767	42G2,5	33,3	1700	1008,0
S66768	52G2,5	35,0	2000	1248,0
S66769	61G2,5	37,2	2300	1464,0
S66041	2x4	12,8	265	76,8
S66042	3G4	13,5	310	115,2
S66770	3x4	13,5	310	115,2
S66043	4G4	14,7	375	153,6
S66044	5G4	15,9	445	192,0
S66045	7G4	17,1	545	268,8
S66771	10G4	22,3	820	384,0
S66772	14G4	23,7	1010	537,6
S66773	2x6	14,0	330	115,2
S66047	3G6	14,8	395	172,8
S66048	4G6	16,4	490	230,4
S66049	5G6	17,5	580	288,0
S66050	7G6	18,9	715	403,2
S66774	10G6	25,2	1110	576,0
S66051	3G10	18,1	630	288,0
S66052	4G10	20,2	785	384,0
S66053	5G10	21,6	925	480,0
S66054	7G10	23,6	1160	672,0
S66055	3G16	20,7	860	460,8
S66056	4G16	23,0	1080	614,4
S66057	5G16	24,8	1280	768,0
S66058	7G16	27,1	1630	1075,2
S66059	3G25	25,2	1310	720,0
S66060	4G25	27,8	1620	960,0
S66061	5G25	30,2	1950	1200,0
S66062	3G35	27,5	1660	1008,0
S66063	4G35	30,7	2090	1344,0
S66064	5G35	33,4	2520	1680,0
S66065	3G50	32,2	2290	1440,0
S66066	4G50	36,0	2890	1920,0
S66067	5G50	39,2	3480	2400,0
S66068	3G70	36,7	3120	2016,0
S66069	4G70	41,2	3960	2688,0
S66070	5G70	44,8	4790	3360,0
S66071	3G95	41,6	4070	2736,0
S66072	4G95	46,6	5150	3648,0
S66073	5G95	50,6	6200	4560,0
S66074	3G120	44,2	4930	3456,0
S66075	4G120	49,5	6260	4608,0
S66076	4G150	56,6	7770	5760,0
S66077	4G185	61,7	9400	7104,0
S66078	4G240	71,7	12340	9216,0

BiT 1000® OR

Flexible, highly flame retardant, oil resistant control and power supply cables, rated 0,6/1kV

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66830	2x2x0,5	10,9	130	19,2
S66831	3x2x0,5	12,0	142	28,8
S66832	4x2x0,5	13,0	168	38,4
S66833	5x2x0,5	13,9	210	48,0
S66834	6x2x0,5	14,4	220	57,6
S66835	7x2x0,5	16,0	255	67,2
S66836	8x2x0,5	16,7	280	76,8
S66837	10x2x0,5	17,9	325	96,0
S66838	12x2x0,5	19,1	375	115,2
S66839	14x2x0,5	20,3	425	134,4
S66840	16x2x0,5	21,7	490	153,6
S66841	18x2x0,5	22,8	530	172,8
S66842	20x2x0,5	23,5	580	192,0
S66843	24x2x0,5	24,2	660	230,4
S66844	2x2x0,75	11,5	146	28,8
S66845	3x2x0,75	12,8	164	43,2
S66846	4x2x0,75	13,8	198	57,6
S66847	5x2x0,75	14,8	245	72,0
S66848	6x2x0,75	15,3	260	86,4
S66849	7x2x0,75	17,1	300	100,8
S66850	8x2x0,75	17,9	330	115,2
S66851	10x2x0,75	19,2	390	144,0
S66852	12x2x0,75	20,4	455	172,8
S66853	14x2x0,75	21,7	515	201,6
S66854	16x2x0,75	23,4	600	230,4
S66855	18x2x0,75	24,5	645	259,2
S66856	20x2x0,75	25,4	715	288,0
S66857	24x2x0,75	26,2	820	345,6
S66858	2x2x1,0	12,0	164	38,4
S66859	3x2x1,0	13,3	184	57,6
S66860	4x2x1,0	14,4	225	76,8
S66861	5x2x1,0	15,5	280	96,0
S66862	6x2x1,0	16,0	300	115,2
S66863	7x2x1,0	17,9	345	134,4

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66864	8x2x1,0	18,7	380	153,6
S66865	10x2x1,0	20,1	450	192,0
S66866	12x2x1,0	21,4	520	230,4
S66867	14x2x1,0	23,0	605	268,8
S66868	16x2x1,0	24,6	695	307,2
S66869	18x2x1,0	25,9	760	345,6
S66870	20x2x1,0	26,7	830	384,0
S66871	24x2x1,0	27,5	955	460,8
S66872	2x2x1,5	13,3	205	57,6
S66873	3x2x1,5	14,8	230	86,4
S66874	4x2x1,5	16,1	285	115,2
S66875	5x2x1,5	17,3	360	144,0
S66876	6x2x1,5	17,9	380	172,8
S66877	7x2x1,5	20,1	440	201,6
S66878	8x2x1,5	21,0	490	230,4
S66879	10x2x1,5	22,8	595	288,0
S66880	12x2x1,5	24,3	695	345,6
S66881	14x2x1,5	26,1	805	403,2
S66882	16x2x1,5	27,9	925	460,8
S66883	18x2x1,5	29,4	1010	518,4
S66884	20x2x1,5	30,3	1110	576,0
S66885	24x2x1,5	31,4	1300	691,2
S66886	2x2x2,5	15,0	270	96,0
S66887	3x2x2,5	16,9	310	144,0
S66888	4x2x2,5	18,3	385	192,0
S66889	5x2x2,5	19,8	490	240,0
S66890	6x2x2,5	20,5	525	288,0
S66891	7x2x2,5	23,3	620	336,0
S66892	8x2x2,5	24,4	690	384,0
S66893	10x2x2,5	26,4	840	480,0
S66894	12x2x2,5	28,4	995	576,0
S66895	14x2x2,5	30,2	1135	672,0
S66896	16x2x2,5	32,6	1330	768,0

single core cables

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66780	1x1,5	5,8	49	14,4
S66781	1x2,5	6,2	63	24,0
S66782	1x4	6,7	82	38,0
S66783	1x6	7,2	105	58,0
S66784	1x10	8,5	160	96,0
S66785	1x16	9,4	226	154,0
S66786	1x25	11,4	340	240,0
S66787	1x35	12,6	450	336,0
S66788	1x50	14,6	625	480,0
S66789	1x70	16,6	840	672,0
S66790	1x95	18,8	1125	912,0
S66791	1x120	20,1	1380	1152,0
S66792	1x150	23,0	1730	1440,0
S66793	1x185	25,8	2130	1776,0
S66794	1x240	28,3	2460	2304,0
S66795	1x300	31,6	3148	2880,0
S66796	1x400	35,5	4290	3840,0
S66797	1x500	40,6	5200	4800,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66798	1G1,5	5,8	49	14,4
S66799	1G2,5	6,2	63	24,0
S66800	1G4	6,7	82	38,0
S66801	1G6	7,2	105	58,0
S66802	1G10	8,5	160	96,0
S66803	1G16	9,4	226	154,0
S66804	1G25	11,4	340	240,0
S66805	1G35	12,6	450	336,0
S66806	1G50	14,6	625	480,0
S66807	1G70	16,6	840	672,0
S66808	1G95	18,8	1125	912,0
S66809	1G120	20,1	1380	1152,0
S66810	1G150	23,0	1730	1440,0
S66811	1G185	25,8	2130	1776,0
S66812	1G240	28,3	2460	2304,0
S66813	1G300	31,6	3148	2880,0
S66814	1G400	35,5	4290	3840,0
S66815	1G500	40,6	5200	4800,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 1000® C OR

Flexible, screened, highly flame retardant, oil resistant control and power supply cables, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened, control and power supply cable with PVC insulation and sheath, UV resistant.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 80°C
Operating voltage: U /U=600/1000V
Test voltage (50Hz): 4000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 6 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid, coverage ≥85%
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant, LOI>29
Outer sheath colour: black

Application:

BiT 1000®C OR cables are designed for connections in control and signalling circuits, as power supply cables for mobile and portable devices in places exposed to vibrations. Insulation materials and construction of BIT 1000®C OR cable enable easy and fast connections and ensure their high durability. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms, especially in applications in places with increased fire safety requirements (limited flame propagation) and in places exposed to oil or industrial coolants. Cables suitable for outdoor installation - outer sheath is UV resistant. Cables designed also for direct burial in ground. Properly connected screen ensures full electromagnetic compatibility (EMC).

* minimum temperature for occasional flexing with bending radius not smaller than 15xD.
Bending test at low temperature -15°C acc. to EN 60811-1-4.


industrial application


internal application


external application


underground installation


EN 60332-1


IEC 60332-3
PN-EN 60332-3

oxygen index


high flexibility


oil resistance
EN 60811-2-1

UV resistance

EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS1300	2x0,5	8,6	99	35
BS1301	3G0,5	9,0	108	42
BS1302	3x0,5	9,0	108	42
BS1303	4G0,5	9,6	126	46
BS1304	4x0,5	9,6	126	46
BS1305	5G0,5	10,3	144	55
BS1306	5x0,5	10,3	144	55
BS1307	6G0,5	11,0	165	63
BS1308	7G0,5	11,0	168	68
BS1309	7x0,5	11,0	168	68
BS1310	8G0,5	11,9	192	81
BS1311	8x0,5	11,9	192	81
BS1312	10G0,5	13,7	245	94
BS1313	12G0,5	13,7	250	108
BS1314	12x0,5	13,7	250	108
BS1315	14G0,5	14,3	275	116
BS1316	16G0,5	15,0	305	128
BS1317	18G0,5	15,7	335	145
BS1318	19G0,5	15,7	340	160
BS1319	21G0,5	16,4	370	180
BS1320	25G0,5	18,4	445	234
BS1321	30G0,5	19,0	485	270
BS1322	34G0,5	20,4	560	301
BS1323	37G0,5	20,4	570	315
BS1324	42G0,5	22,9	670	359
BS1325	52G0,5	23,9	765	425
BS1326	61G0,5	25,5	880	471

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS1327	2x0,75	9,0	110	40
BS1328	3G0,75	9,4	125	49
BS1329	3x0,75	9,4	122	49
BS1330	4G0,75	10,1	142	59
BS1331	4x0,75	10,1	142	59
BS1332	5G0,75	10,8	164	70
BS1333	5x0,75	10,8	164	70
BS1334	6G0,75	11,6	188	80
BS1335	6x0,75	11,6	188	80
BS1336	7G0,75	11,6	194	90
BS1337	7x0,75	11,6	194	90
BS1338	8G0,75	12,6	225	110
BS1339	8x0,75	12,6	225	110
BS1340	10G0,75	14,5	280	138
BS1341	12G0,75	14,5	290	142
BS1342	12x0,75	14,5	290	142
BS1343	14G0,75	15,2	325	179
BS1344	16G0,75	15,9	360	197
BS1345	18G0,75	16,7	400	217
BS1346	19G0,75	16,7	405	224
BS1347	21G0,75	17,5	440	244
BS1348	25G0,75	19,6	525	286
BS1349	30G0,75	20,3	585	326
BS1350	34G0,75	21,8	670	345
BS1351	37G0,75	21,8	690	360
BS1352	42G0,75	24,5	805	421
BS1353	52G0,75	25,8	940	490
BS1354	61G0,75	27,3	1075	550

BiT 1000® C OR

Flexible, screened, highly flame retardant, oil resistant control and power supply cables, rated 0,6/1kV

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS1355	2x1,0	9,3	120	50
BS1356	3G1,0	9,8	132	60
BS1357	3x1,0	9,8	132	60
BS1358	4G1,0	10,5	156	70
BS1359	4x1,0	10,5	156	70
BS1360	5G1,0	11,2	182	87
BS1361	5x1,0	11,2	182	87
BS1362	6G1,0	12,0	210	95
BS1363	6x1,0	12,0	210	95
BS1364	7G1,0	12,0	220	110
BS1365	7x1,0	12,0	220	110
BS1366	8G1,0	13,1	250	125
BS1367	10G1,0	15,2	315	150
BS1368	10x1,0	15,2	315	150
BS1369	12G1,0	15,2	330	180
BS1370	12x1,0	15,2	330	180
BS1371	14G1,0	15,8	365	197
BS1372	16G1,0	16,6	410	210
BS1373	18G1,0	17,4	455	250
BS1374	18G1,0	17,4	455	250
BS1375	19G1,0	17,4	460	260
BS1376	21G1,0	18,3	505	297
BS1377	25G1,0	20,6	605	335
BS1378	30G1,0	21,3	670	440
BS1379	34G1,0	23,0	785	485
BS1380	37G1,0	23,0	805	495
BS1381	42G1,0	25,9	940	530
BS1382	52G1,0	27,0	1090	620
BS1383	61G1,0	28,8	1255	700
BS1384	2x1,5	10,1	140	62
BS1385	3G1,5	10,6	158	79
BS1386	3x1,5	10,6	158	79
BS1387	4G1,5	11,5	190	96
BS1388	4x1,5	11,5	190	96
BS1389	5G1,5	12,3	230	120
BS1390	5x1,5	12,3	230	120
BS1391	6G1,5	13,2	265	130
BS1392	6x1,5	13,2	265	130
BS1393	7G1,5	13,2	275	145
BS1394	7x1,5	13,2	275	145

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS1395	8G1,5	14,5	315	173
BS1396	10G1,5	16,8	395	193
BS1397	10x1,5	16,8	395	193
BS1398	12G1,5	16,8	415	243
BS1399	12x1,5	16,8	415	243
BS1400	14G1,5	17,6	470	276
BS1401	16G1,5	18,5	525	310
BS1402	18G1,5	19,4	580	352
BS1403	19G1,5	19,4	595	367
BS1404	21G1,5	20,4	650	393
BS1405	25G1,5	23,2	790	464
BS1406	30G1,5	24,0	885	540
BS1407	34G1,5	26,0	1035	608
BS1408	37G1,5	26,0	1065	651
BS1409	42G1,5	29,3	1240	740
BS1410	52G1,5	30,8	1470	882
BS1411	61G1,5	32,8	1695	1030
BS1412	2x2,5	11,2	174	90
BS1413	3G2,5	11,8	200	117
BS1414	3x2,5	11,8	200	117
BS1415	4G2,5	12,8	250	147
BS1416	4x2,5	12,8	250	147
BS1417	5G2,5	13,8	295	176
BS1418	5x2,5	13,8	295	176
BS1419	6G2,5	14,9	345	206
BS1420	6x2,5	14,9	345	206
BS1421	7G2,5	14,9	360	230
BS1422	7x2,5	14,9	360	230
BS1423	10G2,5	19,1	535	326
BS1424	12G2,5	19,1	565	374
BS1425	12x2,5	19,1	565	374
BS1426	14G2,5	20,0	635	427
BS1427	16G2,5	21,1	720	481
BS1428	18G2,5	22,4	810	536
BS1429	21G2,5	23,5	910	614
BS1430	25G2,5	26,8	1105	728
BS1431	30G2,5	27,7	1240	853
BS1432	34G2,5	30,3	1480	960
BS1433	37G2,5	30,3	1525	1032
BS1434	42G2,5	33,9	1775	1216
BS1435	52G2,5	35,8	2090	1438

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 1000® C OR

Flexible, screened, highly flame retardant, oil resistant control and power supply cables, rated 0,6/1kV

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS1445	2x2x0,5	11,5	165	52
BS1446	3x2x0,5	12,6	180	70
BS1447	4x2x0,5	13,6	210	91
BS1448	5x2x0,5	14,5	250	105
BS1449	6x2x0,5	15,0	265	122
BS1450	7x2x0,5	16,6	305	139
BS1451	8x2x0,5	17,3	330	151
BS1452	10x2x0,5	18,5	385	171
BS1453	12x2x0,5	19,7	435	198
BS1454	14x2x0,5	20,9	490	208
BS1455	16x2x0,5	22,5	565	241
BS1456	18x2x0,5	23,4	605	279
BS1457	20x2x0,5	24,1	650	300
BS1458	24x2x0,5	24,8	740	325
BS1459	2x2x0,75	12,1	180	58
BS1460	3x2x0,75	13,4	205	85
BS1461	4x2x0,75	14,4	240	110
BS1462	5x2x0,75	15,4	290	128
BS1463	6x2x0,75	15,9	310	148
BS1464	7x2x0,75	17,7	355	168
BS1465	8x2x0,75	18,5	390	182
BS1466	10x2x0,75	19,8	450	220
BS1467	12x2x0,75	21,0	515	260
BS1468	14x2x0,75	22,5	595	290
BS1469	16x2x0,75	24,0	675	319
BS1470	18x2x0,75	25,3	735	345
BS1471	20x2x0,75	26,0	795	368
BS1472	24x2x0,75	26,8	905	404
BS1473	2x2x1,0	12,6	200	82
BS1474	3x2x1,0	13,9	225	105
BS1475	4x2x1,0	15,0	270	130
BS1476	5x2x1,0	16,1	330	160
BS1477	6x2x1,0	16,6	345	185

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BS1478	7x2x1,0	18,5	400	220
BS1479	8x2x1,0	19,3	440	237
BS1480	10x2x1,0	20,7	515	280
BS1481	12x2x1,0	22,0	590	325
BS1482	14x2x1,0	23,6	675	389
BS1483	16x2x1,0	25,4	785	420
BS1484	18x2x1,0	26,5	840	462
BS1485	20x2x1,0	27,3	915	492
BS1486	24x2x1,0	28,3	1060	541
BS1487	2x2x1,5	13,9	245	106
BS1488	3x2x1,5	15,4	275	133
BS1489	4x2x1,5	16,7	335	157
BS1490	5x2x1,5	17,9	410	181
BS1491	6x2x1,5	18,5	440	200
BS1492	7x2x1,5	20,7	505	230
BS1493	8x2x1,5	21,6	555	310
BS1494	10x2x1,5	23,4	670	380
BS1495	12x2x1,5	24,9	770	455
BS1496	14x2x1,5	26,7	885	507
BS1497	16x2x1,5	28,7	1030	561
BS1498	18x2x1,5	30,2	1130	607
BS1499	20x2x1,5	31,3	1240	700
BS1500	24x2x1,5	32,2	1420	825
BS1501	2x2x2,5	15,6	315	148
BS1502	3x2x2,5	17,5	360	220
BS1503	4x2x2,5	18,9	440	295
BS1504	5x2x2,5	20,4	550	350
BS1505	6x2x2,5	21,1	590	385
BS1506	7x2x2,5	23,9	690	444
BS1507	8x2x2,5	25,0	765	483
BS1508	10x2x2,5	27,0	925	559
BS1509	12x2x2,5	29,0	1085	629
BS1510	14x2x2,5	31,0	1260	709
BS1511	16x2x2,5	33,4	1460	787

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT 1000® CY OR

Flexible, screened, highly flame retardant, oil resistant control and power supply cables, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened, control and power supply cable with PVC insulation and sheath, UV resistant, oil resistant
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 80°C
Operating voltage: U_0/U=600/1000V
Test voltage (50Hz): 4000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 6 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, numbered conductors, G – green/yellow earthing conductor
Core arrangement: cores twisted together
Inner sheath: special PVC (single core cables without inner sheath)
Screen: tinned copper wire braid with coverage ≥85%
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant, LOI>29
Outer sheath colour: black

Application:

BiT 1000®CY OR cables are designed for connections in control and signalling circuits, as power supply cables for mobile and portable devices in places exposed to vibrations. Insulation materials and construction of BIT 1000® CY OR cable enable easy and fast connections and ensure their high durability. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms, especially in applications in places with increased fire safety requirements (limited flame propagation) and in places exposed to oil or industrial coolants. Cables suitable for outdoor installation - outer sheath is UV resistant. Cables designed also for direct burial in ground. Properly connected screen ensures full electromagnetic compatibility (EMC).


industrial application


internal application


external application


underground installation


PN-EN60332-1


IEC 60332-3
PN-EN 60332-3

oxygen index


high flexibility

EMC

UV resistance


oil resistance
EN 60811-2-1

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66900	2x0,5	9,6	136	37
S66901	3G0,5	10,0	148	43
S66902	4G0,5	10,6	168	49
S66903	5G0,5	11,3	190	58
S66904	6G0,5	12,0	216	66
S66905	7G0,5	12,0	220	72
S66906	8G0,5	13,1	255	81
S66907	10G0,5	14,9	315	97
S66908	12G0,5	14,9	320	110
S66909	14G0,5	15,5	345	123
S66910	16G0,5	16,4	390	138
S66911	18G0,5	17,1	425	152
S66912	19G0,5	17,1	425	158
S66913	20G0,5	17,8	460	166
S66914	21G0,5	17,8	460	172
S66915	25G0,5	20,0	555	205
S66916	30G0,5	20,6	600	232
S66917	37G0,5	22,2	700	278
S66918	2x0,75	10,0	150	42
S66919	3G0,75	10,4	166	52
S66920	4G0,75	11,1	190	63
S66921	5G0,75	11,8	220	74
S66922	6G0,75	12,6	245	85
S66923	7G0,75	12,6	250	94
S66924	8G0,75	13,8	290	107
S66925	10G0,75	15,7	355	128
S66926	12G0,75	15,7	370	147
S66927	14G0,75	16,6	410	165
S66928	16G0,75	17,3	450	185

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66929	18G0,75	18,1	490	205
S66930	19G0,75	18,1	495	213
S66931	20G0,75	19,1	545	224
S66932	21G0,75	19,1	550	232
S66933	25G0,75	21,2	645	275
S66934	2x1,0	10,3	162	49
S66935	3G1,0	10,8	182	62
S66936	4G1,0	11,5	210	75
S66937	5G1,0	12,2	240	89
S66938	6G1,0	13,2	275	103
S66939	7G1,0	13,2	280	115
S66940	8G1,0	14,3	320	129
S66941	10G1,0	16,6	405	158
S66942	12G1,0	16,6	420	181
S66943	14G1,0	17,2	460	206
S66944	16G1,0	18,0	505	231
S66945	18G1,0	18,8	555	256
S66946	19G1,0	18,8	560	268
S66947	20G1,0	19,9	610	282
S66948	21G1,0	19,9	615	293
S66949	25G1,0	22,4	750	345
S66081	2x1,5	11,1	192	62
S66082	3G1,5	11,6	215	80
S66083	4G1,5	12,7	260	99
S66084	5G1,5	13,5	295	120
S66085	6G1,5	14,4	335	138
S66086	7G1,5	14,4	345	154
S66087	8G1,5	15,7	395	175
S66088	10G1,5	18,2	500	214
S66089	12G1,5	18,2	520	248

BiT 1000® CY OR

Flexible, screened, highly flame retardant, oil resistant control and power supply cables, rated 0,6/1kV

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66090	2x2,5	12,1	234	108
S66091	3G2,5	12,6	270	145
S66092	4G2,5	13,6	317	166
S66093	5G2,5	14,8	375	221
S66094	7G2,5	15,9	454	280
S66095	10G2,5	19,8	622	354
S66096	14G2,5	21,6	813	492
S66097	16G2,5	22,9	914	542
S66098	18G2,5	23,8	1008	582
S66099	25G2,5	28,3	1267	738
S66100	2x4	13,1	289	125
S66101	3G4	13,8	342	172
S66102	4G4	14,9	408	230
S66103	5G4	16,2	488	285
S66104	7G4	17,7	618	315
S66105	10G4	22,1	865	538
S66106	3G6	14,9	431	238
S66107	4G6	16,4	541	308
S66108	5G6	17,9	644	432
S66109	7G6	19,3	798	525
S66110	3G10	18,6	687	362
S66111	4G10	20,2	832	535
S66112	5G10	22,0	1004	596
S66113	7G10	23,9	1256	810

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66114	3G16	20,6	933	645
S66115	4G16	22,5	1 142	792
S66116	5G16	24,6	1 389	928
S66117	7G16	27,0	1 790	1 315
S66118	3G25	25,7	1 423	905
S66119	4G25	28,3	1 790	1 152
S66120	5G25	31,1	2 159	1 408
S66121	3G35	28,4	1 855	1 230
S66122	4G35	31,2	2 316	1 640
S66123	5G35	34,2	2 795	2 005
S66124	3G50	32,8	2 532	1 847
S66125	4G50	36,1	3 164	2 345
S66126	5G50	39,7	3 861	2 842
S66127	3G70	37,4	3 393	2 493
S66128	4G70	41,1	4 245	3 208
S66129	5G70	45,4	5 164	4 012
S66130	3G95	42,2	4 439	3 058
S66131	4G95	46,6	5 578	4 042
S66132	5G95	51,4	6 807	5 195
S66133	3G120	44,9	5 330	4 057
S66134	4G120	49,6	6 730	5 162
S66135	4G150	57,0	8 509	7 370
S66136	4G185	63,7	10 495	7 720
S66137	4G240	69,4	13 153	9 896

single core cables

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66950	1x1,5	6,4	66	27
S66951	1x2,5	6,8	83	40
S66952	1x4	7,3	102	54
S66953	1x6	8,4	131	74
S66954	1x10	9,1	187	118
S66955	1x16	10,0	257	178
S66956	1x25	12,1	382	274
S66957	1x35	13,2	494	371
S66958	1x50	15,3	681	521
S66959	1x70	17,4	928	737
S66960	1x95	19,7	1222	985
S66961	1x120	20,9	1490	1231
S66962	1x150	23,8	1857	1531
S66963	1x185	26,8	2304	1905
S66964	1x240	29,2	2615	2400
S66965	1x300	32,7	3310	2980

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S66966	1G1,5	6,4	66	27
S66967	1G2,5	6,8	83	40
S66968	1G4	7,3	102	54
S66969	1G6	8,4	131	74
S66970	1G10	9,1	187	118
S66971	1G16	10,0	257	178
S66972	1G25	12,1	382	274
S66973	1G35	13,2	494	371
S66974	1G50	15,3	681	521
S66975	1G70	17,4	928	737
S66976	1G95	19,7	1222	985
S66977	1G120	20,9	1490	1231
S66978	1G150	23,8	1857	1531
S66979	1G185	26,8	2304	1905
S66980	1G240	29,2	2615	2400
S66981	1G300	32,7	3310	2980

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 1000®H Halogen free control and power cable, 0,6/1 kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible cable, halogen free insulated and sheathed, with multi-stranded flexible copper conductors, voltage 0,6/1kV
Operating temperature:
Fixed systems: -40°C do 80°C
Mobile systems: -5°C do 70°C
Operating voltage: U_0/U=0,6/1 kV
Test voltage 50Hz: 4000V
Insulation resistance: 20 MΩ x km
Min. bendig radius:
Flexible connections: 12 x Ø
Fixe installations: 8 x Ø

Construction:

Conductors: flexible copper conductor class 5 acc. to PN-EN 60228
Insulation: special halogen free compound
Insulation colours: black numbered conductors, G-yellow-green protective condutor
Stranding element: parallel twisted cores
Inner Sheath: special halogen-free compound (cables up to 2.5 mm^2 cross-section is performed without inner sheath
Sheath: special halogen-free polymer, self-extinguishing and flame retardant (as per PN-EN 60332-1 test performed on a single cable, and PN-EN 60332-3-24, IEC 60332-3, test on the cable bundle, category C)
Sheath colour: black

Application:

The cable is intended for connections in device control circuits, automatic control engineering systems and power supply applications. It is recommended for usage under conditions of small mechanical stresses, for permanent installation, and for mobile and portable receivers operating in industrial environment. The cable is made fully from halogen free compounds


industrial application


internal application


external application


underground installation


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

oxygen index

halogen-free


low smoke emission


high flexibility

UV resistance

cables without inner sheath

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H60750	2x0,5	7,8	85	9,6
H60751	3G0,5	8,2	95	14,4
H60752	4G0,5	8,9	111	19,2
H60753	5G0,5	9,5	128	24,0
H60754	6G0,5	10,2	147	28,8
H60755	7G0,5	10,2	152	33,6
H60756	8G0,5	10,8	174	38,4
H60757	10G0,5	12,5	220	48,0
H60758	12G0,5	12,8	228	57,6
H60759	14G0,5	13,4	250	67,2
H60760	16G0,5	14,2	278	76,8
H60761	18G0,5	14,8	308	86,4
H60762	19G0,5	14,8	312	91,2
H60763	2x0,75	8,3	95	14,4
H60764	3G0,75	8,7	110	21,6
H60765	4G0,75	9,5	129	28,8
H60766	5G0,75	10,1	148	36,0
H60767	6G0,75	10,9	170	43,2
H60768	7G0,75	10,9	176	50,4
H60769	8G0,75	11,7	206	57,6
H60770	10G0,75	13,5	257	72,0
H60771	12G0,75	13,9	269	86,4
H60772	14G0,75	14,5	298	100,8
H60773	16G0,75	15,4	333	115,2
H60774	18G0,75	16,0	367	129,6
H60775	19G0,75	16,0	374	136,8
H60776	2x1,0	8,6	104	19,2
H60777	3G1,0	9,1	122	28,8
H60778	4G1,0	9,9	143	38,4
H60779	5G1,0	10,5	166	48,0
H60780	6G1,0	10,9	191	57,6

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H60781	7G1,0	11,4	198	67,2
H60782	8G1,0	12,2	231	76,8
H60783	10G1,0	14,1	292	96,0
H60784	12G1,0	14,5	305	115,2
H60785	14G1,0	15,2	340	134,4
H60786	16G1,0	16,1	381	153,6
H60787	18G1,0	16,8	422	172,8
H60788	19G1,0	16,8	429	182,4
H60789	2x1,5	9,4	129	28,8
H60790	3G1,5	9,9	150	43,2
H60791	4G1,5	10,8	178	57,6
H60792	5G1,5	11,6	209	72,0
H60793	6G1,5	12,6	243	86,4
H60794	7G1,5	12,6	252	100,8
H60795	8G1,5	13,5	294	115,2
H60796	10G1,5	15,7	373	144,0
H60797	12G1,5	16,1	393	172,8
H60798	14G1,5	17,0	440	201,6
H60799	16G1,5	18,0	495	230,4
H60800	18G1,5	18,8	550	259,2
H60801	19G1,5	18,8	561	273,6
H60802	2x2,5	10,6	164	48,0
H60803	3G2,5	11,1	195	72,0
H60804	4G2,5	12,2	237	96,0
H60805	5G2,5	13,1	281	120,0
H60806	7G2,5	14,2	343	168,0
H60807	12G2,5	18,4	542	288,0
H60808	16G2,5	20,6	690	384,0
H60809	18G2,5	21,6	767	432,0
H60810	19G2,5	21,6	783	456,0

BiT 1000®H Halogen free control and power cable, 0,6/1 kV

cables with inner sheath

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H60811	2x4	12,5	253	76,8
H60812	3G4	13,2	300	115,2
H60813	4G4	14,5	364	153,6
H60814	5G4	15,6	432	192,0
H60815	7G4	17,0	533	268,8
H60816	11G4	22,0	851	422,4
H60817	3G6	14,6	389	172,8
H60818	4G6	16,1	475	230,4
H60819	5G6	17,5	574	288,0
H60820	7G6	18,9	709	403,2
H60821	3G10	17,8	604	288,0
H60822	4G10	19,7	749	384,0
H60823	5G10	21,3	892	480,0
H60824	7G10	23,2	1120	672,0
H60825	3G16	19,9	826	460,8
H60826	4G16	22,1	1024	614,4
H60827	5G16	23,9	1238	768,0
H60828	7G16	26,1	1576	1075,2
H60829	3G25	24,9	1340	720,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H60830	4G25	27,8	1683	960,0
H60831	5G25	30,1	2022	1200,0
H60832	3G35	27,5	1650	1008,0
H60833	4G35	30,7	2087	1344,0
H60834	5G35	33,3	2502	1680,0
H60835	3G50	31,9	2260	1440,0
H60836	4G50	35,7	2855	1920,0
H60837	5G50	38,9	3447	2400,0
H60838	3G70	36,5	3113	2016,0
H60839	4G70	40,9	3946	2688,0
H60840	5G70	44,5	4774	3360,0
H60841	3G95	41,3	4033	2736,0
H60842	4G95	46,4	5122	3648,0
H60843	5G95	50,6	6206	4560,0
H60844	3G120	44,1	4865	3456,0
H60845	4G120	49,5	6200	4608,0
H60846	4G150	57,1	7808	5760,0
H60847	4G185	63,9	9655	7104,0
H60848	4G240	69,7	12108	9216,0

Single core cables

Cables with black insulation

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H60850	1x1,5	5,8	49	14,4
H60851	1x2,5	6,2	63	24,0
H60852	1x4	6,7	82	38,0
H60853	1x6	7,2	105	58,0
H60854	1x10	8,5	160	96,0
H60855	1x16	9,4	226	154,0
H60856	1x25	11,4	340	240,0
H60857	1x35	12,6	450	336,0
H60858	1x50	14,6	625	480,0
H60859	1x70	16,6	840	672,0
H60860	1x95	18,8	1120	912,0
H60861	1x120	20,1	1380	1152,0
H60862	1x150	23,0	1730	1440,0
H60863	1x185	25,8	2130	1776,0
H60864	1x240	28,3	2460	2304
H60865	1x300	31,6	3148	2880
H60882	1x400	35,5	4290	3840
H60884	1x500	40,6	5200	4800

Cables with green-yellow insulation

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H60866	1G1,5	5,8	49	14,4
H60867	1G2,5	6,2	63	24,0
H60868	1G4	6,7	82	38,0
H60869	1G6	7,2	105	58,0
H60870	1G10	8,5	160	96,0
H60871	1G16	9,4	226	154,0
H60872	1G25	11,4	340	240,0
H60873	1G35	12,6	450	336,0
H60874	1G50	14,6	625	480,0
H60875	1G70	16,6	840	672,0
H60876	1G95	18,8	1120	912,0
H60877	1G120	20,1	1380	1152,0
H60878	1G150	23,0	1730	1440,0
H60879	1G185	25,8	2130	1776,0
H60880	1G240	28,3	2460	2304
H60881	1G300	31,6	3148	2880
H60883	1G400	35,5	4290	3840
H60885	1G500	40,6	5200	4800

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiT 1000® HCH

Flexible, screened, halogen-free control and power supply cables, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened, control and power supply cable with halogen-free insulation and sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 80°C
Operating voltage: U_0/U=600/1000V
Test voltage (50Hz): 4000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 6 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special halogen-free compound
Core identification: black, numbered conductors, G – green/yellow earthing conductor
Core arrangement: cores twisted together
Inner sheath: special halogen-free compound (single core cables without inner sheath)
Screen: tinned copper wire braid with coverage ≥85%
Outer sheath: special halogen-free, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C)
Outer sheath colour: black

Application:

BiT 1000® HCH cables are designed for connections in control and signalling circuits, as power supply cables for mobile and portable devices in places exposed to vibrations. Insulation materials and construction of BIT 1000® HCH cable enable easy and fast connections and ensure their high durability. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms, especially in applications in places with increased fire safety requirements (limited flame propagation and no emission of corrosive gases under fire conditions). Properly connected screen ensures full electromagnetic compatibility (EMC).

industrial application | internal application | external application

underground installation | PN-EN60332-1 | IEC 60332-3 PN-EN 60332-3 | oxygen index | halogen-free | low smoke emission | high flexibility | UV resistance | EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H61050	2x0,5	9,6	136	37
H61051	3G0,5	10,0	148	43
H61052	4G0,5	10,6	168	49
H61053	5G0,5	11,3	190	58
H61054	6G0,5	12,0	216	66
H61055	7G0,5	12,0	220	72
H61056	8G0,5	13,1	255	81
H61057	10G0,5	14,9	315	97
H61058	12G0,5	14,9	320	110
H61059	14G0,5	15,5	345	123
H61060	16G0,5	16,4	390	138
H61061	18G0,5	17,1	425	152
H61062	19G0,5	17,1	425	158
H61063	20G0,5	17,8	460	166
H61064	21G0,5	17,8	460	172
H61065	25G0,5	20,0	555	205
H61066	30G0,5	20,6	600	232
H61067	37G0,5	22,2	700	278
H61068	2x0,75	10,0	150	42
H61069	3G0,75	10,4	166	52
H61070	4G0,75	11,1	190	63
H61071	5G0,75	11,8	220	74
H61072	6G0,75	12,6	245	85
H61073	7G0,75	12,6	250	94
H61074	8G0,75	13,8	290	107

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H61075	10G0,75	15,7	355	128
H61076	12G0,75	15,7	370	147
H61077	14G0,75	16,6	410	165
H61078	16G0,75	17,3	450	185
H61079	18G0,75	18,1	490	205
H61080	19G0,75	18,1	495	213
H61081	20G0,75	19,1	545	224
H61082	21G0,75	19,1	550	232
H61083	25G0,75	21,2	645	275
H61084	2x1,0	10,3	162	49
H61085	3G1,0	10,8	182	62
H61086	4G1,0	11,5	210	75
H61087	5G1,0	12,2	240	89
H61088	6G1,0	13,2	275	103
H61089	7G1,0	13,2	280	115
H61090	8G1,0	14,3	320	129
H61091	10G1,0	16,6	405	158
H61092	12G1,0	16,6	420	181
H61093	14G1,0	17,2	460	206
H61094	16G1,0	18,0	505	231
H61095	18G1,0	18,8	555	256
H61096	19G1,0	18,8	560	268
H61097	20G1,0	19,9	610	282
H61098	21G1,0	19,9	615	293
H61099	25G1,0	22,4	750	345

BITNER®

BiT 1000® HCH

Flexible, screened, halogen-free control and power supply cables, rated 0,6/1kV

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H61100	2x1,5	11,1	192	62
H61101	3G1,5	11,6	215	80
H61102	4G1,5	12,7	260	99
H61103	5G1,5	13,5	295	120
H61104	6G1,5	14,4	335	138
H61105	7G1,5	14,4	345	154
H61106	8G1,5	15,7	395	175
H61107	10G1,5	18,2	500	214
H61108	12G1,5	18,2	520	248
H60900	2x2,5	12,1	234	108
H60901	3G2,5	12,6	270	145
H60902	4G2,5	13,6	317	166
H60903	5G2,5	14,8	375	221
H60904	7G2,5	15,9	454	280
H60905	10G2,5	19,8	622	354
H60906	14G2,5	21,6	813	492
H60907	16G2,5	22,9	914	542
H60908	18G2,5	23,8	1008	582
H60909	25G2,5	28,3	1267	738
H60910	2x4	13,1	289	125
H60911	3G4	13,8	342	172
H60912	4G4	14,9	408	230
H60913	5G4	16,2	488	285
H60914	7G4	17,7	618	315
H60915	10G4	22,1	865	538
H60916	3G6	14,9	431	238
H60917	4G6	16,4	541	308
H60918	5G6	17,9	644	432

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H60919	7G6	19,3	798	525
H60920	3G10	18,6	687	362
H60921	4G10	20,2	832	535
H60922	5G10	22,0	1004	596
H60923	7G10	23,9	1256	810
H60924	3G16	20,6	933	645
H60925	4G16	22,5	1142	792
H60926	5G16	24,6	1389	928
H60927	7G16	27,0	1790	1315
H60928	3G25	25,7	1423	905
H60929	4G25	28,3	1790	1152
H60930	5G25	31,1	2159	1408
H60931	3G35	28,4	1855	1230
H60932	4G35	31,2	2316	1640
H60933	5G35	34,2	2795	2005
H60934	3G50	32,8	2532	1847
H60935	4G50	36,1	3164	2345
H60936	5G50	39,7	3861	2842
H60937	3G70	37,4	3393	2493
H60938	4G70	41,1	4245	3208
H60939	5G70	45,4	5164	4012
H60940	3G95	42,2	4439	3058
H60941	4G95	46,6	5578	4042
H60942	5G95	51,4	6807	5195
H60943	3G120	44,9	5330	4057
H60944	4G120	49,6	6730	5162
H60945	4G150	57,0	8509	7370
H60946	4G185	63,7	10495	7720
H60947	4G240	69,4	13153	9896

single core cables

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H61150	1x1,5	6,4	66	27
H61151	1x2,5	6,8	83	40
H61152	1x4	7,3	102	54
H61153	1x6	8,4	131	74
H61154	1x10	9,1	187	118
H61155	1x16	10,0	257	178
H61156	1x25	12,1	382	274
H61157	1x35	13,2	494	371
H61158	1x50	15,3	681	521
H61159	1x70	17,4	928	737
H61160	1x95	19,7	1222	985
H61161	1x120	20,9	1490	1231
H61162	1x150	23,8	1857	1531
H61163	1x185	26,8	2304	1905
H61164	1x240	29,2	2615	2400
H61165	1x300	32,7	3310	2980

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
H61166	1G1,5	6,4	66	27
H61167	1G2,5	6,8	83	40
H61168	1G4	7,3	102	54
H61169	1G6	8,4	131	74
H61170	1G10	9,1	187	118
H61171	1G16	10,0	257	178
H61172	1G25	12,1	382	274
H61173	1G35	13,2	494	371
H61174	1G50	15,3	681	521
H61175	1G70	17,4	928	737
H61176	1G95	19,7	1222	985
H61177	1G120	20,9	1490	1231
H61178	1G150	23,8	1857	1531
H61179	1G185	26,8	2304	1905
H61180	1G240	29,2	2615	2400
H61181	1G300	32,7	3310	2980

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

CHAPTER I.5

Intrinsically safe control cables

IB-BiT 500® Flexible control cables with number coded conductors for intrinsically safe circuits, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with number coded conductors, PVC insulation and sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 7,5 x Ø
Fixed installation: 4 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant.
Outer sheath colour: blue

Application:

Flexible power/control cables designed for operation in intrinsically safe circuits. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. High flexibility of IB-BIT 500® cable enables easy and fast connections and ensures their high durability.

industrial application | internal application | external application | high flexibility | PN-EN 60332-1 | IEC 60332-3 PN-EN 60332-3 | oxygen index | UV resistance | oil resistant EN 60811-2-1

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S55100	2x0,5	5,0	36	9,6
S55101	3x0,5	5,3	44	14,4
S55102	4x0,5	5,8	52	19,2
S55103	5x0,5	6,3	62	24,0
S55104	7x0,5	7,0	78	33,6
S55105	8x0,5	7,7	92	38,4
S55140	10x0,5	9,4	126	48,0
S55106	12x0,5	9,4	135	57,6
S55141	14x0,5	9,8	150	67,2
S55142	16x0,5	10,4	170	76,8
S55107	18x0,5	10,9	185	86,4
S55143	19x0,5	10,9	190	91,2
S55144	21x0,5	11,6	215	100,8
S55145	25x0,5	13,1	255	120,0
S55146	27x0,5	13,1	265	129,6
S55109	30x0,5	13,8	290	144,0
S55147	34x0,5	14,8	335	163,2
S55110	37x0,5	14,8	345	177,6
S55148	40x0,5	15,3	370	192,0
S55149	50x0,5	17,6	475	240,0
S55150	61x0,5	18,9	560	292,8
S55111	2x0,75	5,4	45	14,4
S55112	3x0,75	5,7	54	21,6
S55113	4x0,75	6,3	64	28,8
S55114	5x0,75	7,0	80	36,0
S55151	6x0,75	7,6	94	43,2
S55115	7x0,75	7,6	100	50,4
S55116	8x0,75	8,4	116	57,6

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S55152	10x0,75	10,2	158	72,0
S55117	12x0,75	10,2	168	86,4
S55153	14x0,75	10,7	190	100,8
S55154	16x0,75	11,5	220	115,2
S55118	18x0,75	12,1	245	129,6
S55155	19x0,75	12,1	250	136,8
S55156	21x0,75	12,7	275	151,2
S55157	25x0,75	14,5	335	180,0
S55158	27x0,75	14,5	345	194,4
S55159	30x0,75	15,0	375	216,0
S55160	34x0,75	16,6	450	244,8
S55161	37x0,75	16,6	465	266,4
S55162	40x0,75	17,2	500	288,0
S55163	50x0,75	19,5	625	360,0
S55120	2x1,0	5,7	52	19,2
S55121	3x1,0	6,1	64	28,8
S55122	4x1,0	6,8	80	38,4
S55123	5x1,0	7,4	96	48,0
S55164	6x1,0	8,0	112	57,6
S55124	7x1,0	8,0	118	67,2
S55125	8x1,0	9,3	148	76,8
S55165	10x1,0	10,9	188	96,0
S55126	12x1,0	10,9	204	115,2
S55166	14x1,0	11,6	235	134,4
S55167	16x1,0	12,2	264	153,6
S55127	18x1,0	12,8	294	172,8
S55168	19x1,0	12,8	300	182,4
S55169	21x1,0	13,7	336	201,6

IB-BiT 500® Flexible control cables with number coded conductors for intrinsically safe circuits, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S55170	25x1,0	15,5	405	240,0
S55171	30x1,0	16,4	470	288,0
S55129	2x1,5	6,7	71	28,8
S55130	3x1,5	7,1	87	43,2
S55131	4x1,5	7,8	110	57,6
S55132	5x1,5	8,5	130	72,0
S55172	6x1,5	9,6	162	86,4
S55133	7x1,5	9,6	172	100,8
S55173	8x1,5	10,6	202	115,2
S55174	10x1,5	12,7	265	144,0
S55134	12x1,5	12,7	285	172,8
S55175	14x1,5	13,5	325	201,6
S55176	16x1,5	14,3	370	230,4

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S55177	19x1,5	15,0	420	273,6
S55178	21x1,5	16,2	475	302,4
S55179	25x1,5	18,5	580	360,0
S55180	2x2,5	7,8	102	48,0
S55135	3x2,5	8,3	126	72,0
S55136	4x2,5	9,5	166	96,0
S55137	5x2,5	10,4	200	120,0
S55138	6x2,5	11,5	240	144,0
S55139	7x2,5	11,5	260	168,0
S55181	10x2,5	15,2	390	240,0
S55182	12x2,5	15,2	425	288,0
S55183	14x2,5	16,4	495	336,0
S55184	16x2,5	17,3	560	384,0

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59520	2x2x0,5	7,3	63	19,2
S59521	3x2x0,5	8,2	72	28,8
S59522	4x2x0,5	9,3	97	38,4
S59523	5x2x0,5	10,0	122	48,0
S59524	6x2x0,5	10,4	130	57,6
S59525	7x2x0,5	11,8	156	67,2
S59526	8x2x0,5	12,3	172	76,8
S59527	10x2x0,5	13,2	205	96,0
S59528	12x2x0,5	14,3	245	115,2
S59529	14x2x0,5	15,1	275	134,4
S59530	16x2x0,5	16,6	335	153,6
S59531	18x2x0,5	17,3	360	172,8
S59532	20x2x0,5	17,8	390	192,0
S59533	24x2x0,5	18,5	455	230,4
S59534	2x2x0,75	8,0	80	28,8
S59535	3x2x0,75	9,4	98	43,2
S59536	4x2x0,75	10,1	122	57,6
S59537	5x2x0,75	10,9	152	72,0
S59538	6x2x0,75	11,5	170	86,4
S59539	7x2x0,75	12,9	196	100,8
S59540	8x2x0,75	13,7	225	115,2
S59541	10x2x0,75	14,6	270	144,0
S59542	12x2x0,75	16,0	325	172,8
S59543	14x2x0,75	17,0	370	201,6
S59544	16x2x0,75	18,4	435	230,4
S59545	18x2x0,75	19,1	470	259,2
S59546	20x2x0,75	19,7	510	288,0
S59547	24x2x0,75	20,3	590	345,6
S59548	2x2x1,0	8,5	92	38,4

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59549	3x2x1,0	9,9	116	57,6
S59550	4x2x1,0	10,8	142	76,8
S59551	5x2x1,0	11,8	184	96,0
S59552	6x2x1,0	12,2	202	115,2
S59553	7x2x1,0	13,9	240	134,4
S59554	8x2x1,0	14,5	270	153,6
S59555	10x2x1,0	15,6	320	192,0
S59556	12x2x1,0	17,0	390	230,4
S59557	14x2x1,0	18,3	450	268,8
S59558	16x2x1,0	19,5	515	307,2
S59559	2x2x1,5	10,1	132	57,6
S59560	3x2x1,5	11,6	160	86,4
S59561	4x2x1,5	12,6	198	115,2
S59562	5x2x1,5	13,8	258	144,0
S59563	6x2x1,5	14,3	280	172,8
S59564	7x2x1,5	16,4	340	201,6
S59565	8x2x1,5	17,2	380	230,4
S59566	10x2x1,5	18,6	465	288,0
S59567	12x2x1,5	19,9	540	345,6
S59568	14x2x1,5	21,1	620	403,2
S59569	2x2x2,5	12,1	192	96,0
S59570	3x2x2,5	13,8	235	144,0
S59571	4x2x2,5	15,1	295	192,0
S59572	5x2x2,5	16,7	385	240,0
S59573	6x2x2,5	17,3	425	288,0
S59574	7x2x2,5	19,6	500	336,0
S59575	8x2x2,5	20,5	560	384,0
S59576	10x2x2,5	22,3	690	480,0
S59577	12x2x2,5	23,8	805	576,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

IB-BiT 500® C

Flexible, screened control cables with number coded conductors for intrinsically safe circuits, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, PVC insulation and sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid, coverage ≥85%
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant.
Outer sheath colour: blue

Application:

Flexible power/control cables designed for operation in intrinsically safe circuits. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field (screen attenuation ca. 50dB). Cables are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. High flexibility of IB-BIT 500® C cable simplifies installation and compounds used enable easy and fast connections and ensure their high durability.


industrial application


internal application


external application


high flexibility


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

oxygen index

UV resistance


oil resistant
EN 60811-2-1

EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59660	2x0,5	5,4	44	35
S59661	3x0,5	5,7	48	42
S59662	4x0,5	6,2	58	46
S59663	5x0,5	6,9	72	55
S59664	6x0,5	7,4	84	63
S59665	7x0,5	7,4	88	68
S59666	8x0,5	8,3	110	81
S59667	10x0,5	10,0	145	94
S59668	12x0,5	10,0	155	108
S59669	14x0,5	10,4	170	116
S59670	16x0,5	11,0	190	128
S59671	18x0,5	11,7	220	145
S59672	21x0,5	12,2	240	180
S59673	25x0,5	13,9	295	234
S59674	27x0,5	13,9	300	244
S59675	30x0,5	14,4	325	270
S59676	34x0,5	15,4	370	301
S59677	40x0,5	16,3	425	335
S59678	50x0,5	18,2	525	405
S59679	61x0,5	19,5	610	471
S59680	2x0,75	5,8	52	40
S59681	3x0,75	6,1	58	49
S59682	4x0,75	6,9	74	59
S59683	5x0,75	7,4	88	70
S59684	6x0,75	8,2	112	80
S59685	7x0,75	8,2	118	90

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59686	8x0,75	9,4	142	110
S59687	10x0,75	10,8	180	138
S59688	12x0,75	10,6	190	142
S59689	14x0,75	11,5	220	179
S59690	16x0,75	12,1	245	197
S59691	18x0,75	12,7	275	217
S59692	21x0,75	13,3	305	244
S59693	25x0,75	15,1	370	286
S59694	30x0,75	16,0	425	326
S59695	34x0,75	17,2	490	345
S59696	37x0,75	17,2	505	360
S59697	40x0,75	17,8	540	398
S59698	50x0,75	20,1	670	470
S59699	2x1,0	6,1	57	50
S59700	3x1,0	6,5	69	60
S59701	4x1,0	7,0	84	70
S59702	5x1,0	8,0	111	87
S59703	6x1,0	8,6	129	95
S59704	7x1,0	8,6	138	110
S59705	8x1,0	9,9	165	125
S59706	10x1,0	11,5	215	150
S59707	12x1,0	11,5	230	180
S59708	14x1,0	12,2	260	197
S59709	16x1,0	12,8	290	210
S59710	18x1,0	13,6	330	250
S59711	21x1,0	14,3	365	297

BITNER®

IB-BiT 500® C

Flexible, screened control cables with number coded conductors for intrinsically safe circuits, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59712	25x1,0	16,5	455	335
S59713	30x1,0	17,0	505	440
S59714	2x1,5	7,1	88	62
S59715	3x1,5	7,5	99	79
S59716	4x1,5	8,4	122	96
S59717	5x1,5	9,5	156	120
S59718	6x1,5	10,2	182	130
S59719	7x1,5	10,2	192	145
S59720	8x1,5	11,0	220	173
S59721	10x1,5	13,3	290	193
S59722	12x1,5	13,3	310	243
S59723	14x1,5	14,1	355	276
S59724	16x1,5	14,9	410	310

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59725	18x1,5	16,0	455	352
S59726	25x1,5	19,1	620	464
S59727	2x2,5	8,4	112	90
S59728	3x2,5	9,3	144	117
S59729	4x2,5	10,1	180	147
S59730	5x2,5	11,0	216	176
S59731	6x2,5	12,1	265	206
S59732	7x2,5	12,1	280	230
S59733	10x2,5	16,2	430	326
S59734	12x2,5	16,2	465	374
S59735	14x2,5	17,0	525	427
S59736	16x2,5	17,9	590	481

paired cables

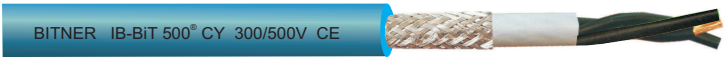
Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59600	2x2x0,5	7,7	80	52
S59601	3x2x0,5	9,2	105	70
S59602	4x2x0,5	9,9	125	91
S59603	5x2x0,5	10,6	155	105
S59604	6x2x0,5	11,0	165	122
S59605	7x2x0,5	12,4	195	139
S59606	8x2x0,5	12,9	210	151
S59607	10x2x0,5	14,0	255	171
S59608	12x2x0,5	14,9	290	198
S59609	14x2x0,5	16,1	340	208
S59610	16x2x0,5	17,2	385	241
S59611	18x2x0,5	17,9	415	279
S59612	20x2x0,5	18,6	455	300
S59613	24x2x0,5	19,1	515	325
S59614	2x2x0,75	8,6	102	58
S59615	3x2x0,75	10,0	126	85
S59616	4x2x0,75	10,7	152	110
S59617	5x2x0,75	11,7	192	128
S59618	6x2x0,75	12,1	205	148
S59619	7x2x0,75	13,7	245	168
S59620	8x2x0,75	14,3	270	182
S59621	10x2x0,75	15,2	315	220
S59622	12x2x0,75	16,6	375	260
S59623	14x2x0,75	17,6	425	290
S59624	16x2x0,75	19,0	490	319
S59625	18x2x0,75	19,7	530	345
S59626	20x2x0,75	20,3	570	368
S59627	24x2x0,75	20,9	655	404
S59628	2x2x1,0	9,5	126	82

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S59629	3x2x1,0	10,5	146	105
S59630	4x2x1,0	11,6	182	130
S59631	5x2x1,0	12,4	225	160
S59632	6x2x1,0	12,8	240	185
S59633	7x2x1,0	14,5	285	220
S59634	8x2x1,0	15,1	315	237
S59635	10x2x1,0	16,6	385	280
S59636	12x2x1,0	17,6	445	325
S59637	14x2x1,0	18,9	510	389
S59638	16x2x1,0	20,1	580	420
S59639	2x2x1,5	10,7	162	106
S59640	3x2x1,5	12,2	196	133
S59641	4x2x1,5	13,2	240	157
S59642	5x2x1,5	14,4	300	181
S59643	6x2x1,5	14,9	325	200
S59644	7x2x1,5	17,0	395	230
S59645	8x2x1,5	17,8	435	310
S59646	10x2x1,5	19,2	525	380
S59647	12x2x1,5	20,5	605	455
S59648	14x2x1,5	21,9	695	507
S59649	2x2x2,5	12,7	230	148
S59650	3x2x2,5	14,4	280	220
S59651	4x2x2,5	16,1	355	295
S59652	5x2x2,5	17,3	440	350
S59653	6x2x2,5	17,9	480	385
S59654	7x2x2,5	20,2	565	444
S59655	8x2x2,5	21,1	625	483
S59656	10x2x2,5	22,9	760	559
S59657	12x2x2,5	24,4	880	629

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

IB-BiT 500® CY

Flexible, screened control cables with number coded conductors for intrinsically safe circuits, rated 300/500V



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, PVC insulation, PVC inner sheath and transparent outer sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors, cables with protective earth conductor marked G (e.g. 7G1,5)
Core arrangement: cores twisted together or pairs twisted together
Inner sheath: special PVC
Screen: tinned copper wire braid, coverage ≥85%
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant.
Outer sheath colour: blue

Application:

Flexible power/control cables designed for operation in intrinsically safe circuits. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field especially in industrial environment. Reciprocal connection of screen to earth ensures full electromagnetic compatibility (EMC). Cables are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. High flexibility of IB-BIT 500® CY cable simplifies installation and compounds used enable easy and fast connections and ensure their high durability.

industrial application | internal application | external application

high flexibility | PN-EN 60332-1 | IEC 60332-3 PN-EN 60332-3 | oxygen index | UV resistance | oil resistant EN 60811-2-1 | EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SI0150	2x0,5	7,1	79,6	37,0
SI0151	3x0,5	7,4	87,2	43,0
SI0152	4x0,5	7,8	98,4	49,0
SI0153	5x0,5	8,3	112,7	58,0
SI0154	6x0,5	9,3	134,7	66,0
SI0155	7x0,5	9,3	138,5	72,0
SI0156	8x0,5	10,0	156,8	81,0
SI0157	10x0,5	11,0	183,3	97,0
SI0158	12x0,5	11,5	203,9	110,0
SI0159	14x0,5	11,9	222,4	123,0
SI0160	16x0,5	12,4	245,2	138,0
SI0161	18x0,5	13,0	266,4	152,0
SI0162	19x0,5	13,0	270,2	158,0
SI0163	20x0,5	13,7	289,5	166,0
SI0164	21x0,5	13,7	298,5	172,0
SI0165	24x0,5	14,9	336,2	194,0
SI0166	27x0,5	15,2	358,7	213,0
SI0167	30x0,5	16,0	398,7	232,0
SI0168	37x0,5	17,1	461,1	278,0
SI0169	2x0,75	7,5	89,5	42,0
SI0170	3x0,75	7,8	100,2	52,0
SI0171	4x0,75	8,3	115,1	63,0
SI0172	5x0,75	9,3	141,4	74,0
SI0173	6x0,75	9,9	159,9	85,0
SI0174	7x0,75	9,9	163,9	94,0
SI0175	8x0,75	10,6	186,6	107,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SI0176	10x0,75	12,0	224,2	128,0
SI0177	12x0,75	12,3	245,5	147,0
SI0178	14x0,75	12,8	268,8	165,0
SI0179	16x0,75	13,6	303,7	185,0
SI0180	18x0,75	14,2	331,7	205,0
SI0181	19x0,75	14,2	335,7	213,0
SI0182	20x0,75	14,7	352,1	224,0
SI0183	21x0,75	14,7	363,6	232,0
SI0184	24x0,75	16,5	425,4	264,0
SI0185	2x1,0	7,8	98,8	49,0
SI0186	3x1,0	8,1	112,6	62,0
SI0187	4x1,0	9,1	137,4	75,0
SI0188	5x1,0	9,7	158,8	89,0
SI0189	6x1,0	10,3	181,5	103,0
SI0190	7x1,0	10,3	186,2	115,0
SI0191	8x1,0	11,3	216,4	129,0
SI0192	10x1,0	12,6	256,4	158,0
SI0193	12x1,0	12,9	281,3	181,0
SI0194	14x1,0	13,6	316,0	206,0
SI0195	16x1,0	14,3	350,3	231,0
SI0196	18x1,0	14,9	384,9	256,0
SI0197	19x1,0	14,9	389,6	268,0
SI0198	20x1,0	15,9	423,1	282,0
SI0199	21x1,0	15,9	437,4	293,0
SI0200	24x1,0	17,4	494,1	333,0
SI0201	2x1,5	8,5	121,2	62,0

IB-BiT 500® CY

Flexible, screened control cables with number coded conductors for intrinsically safe circuits, rated 300/500V

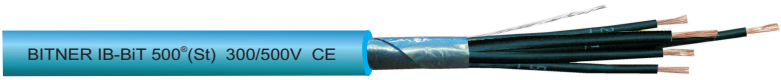
Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SI0202	3x1,5	9,3	147,3	80,0
SI0203	4x1,5	9,9	171,1	99,0
SI0204	5x1,5	10,6	200,8	120,0
SI0205	6x1,5	11,6	234,6	138,0
SI0206	7x1,5	11,6	242,5	154,0
SI0207	8x1,5	12,5	277,4	175,0
SI0208	10x1,5	14,2	335,9	214,0
SI0209	12x1,5	14,6	371,3	248,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SI0210	2x2,5	10,0	169,8	90,0
SI0211	3x2,5	10,5	199,0	122,0
SI0212	4x2,5	11,5	237,9	151,0
SI0213	5x2,5	12,3	280,2	184,0
SI0214	6x2,5	13,2	324,9	215,0
SI0215	7x2,5	13,2	338,3	242,0
SI0216	8x2,5	14,6	395,3	276,0
SI0217	10x2,5	16,8	487,3	339,0
SI0218	12x2,5	17,3	542,3	397,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

IB-BiT 500® (St)

Flexible, screened control cables, with number coded conductors for intrinsically safe circuits, rated 300/500V



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with number coded conductors, PVC insulation and sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 5 x Ø
Flexible connections: 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors
Core arrangement: cores twisted together or pairs twisted together
Screen: Aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant.
Outer sheath colour: blue

Application:

Flexible power/control cables designed for operation in intrinsically safe circuits. Common screen improves protection of transmitted signals against external electromagnetic field. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Insulation materials and conductor construction in IB-BIT 500® (St) cable enable easy and fast connections and ensure their high durability.


industrial application


internal application


external application


high flexibility


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

oxygen index

UV resistance


oil resistant
EN 60811-2-1

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SI0000	2x0,5	5,2	40	14,4
SI0001	3x0,5	5,5	44	19,2
SI0002	4x0,5	6,0	52	24,0
SI0003	5x0,5	6,5	64	28,8
SI0004	6x0,5	7,2	76	33,6
SI0005	7x0,5	7,2	80	38,4
SI0006	8x0,5	8,1	94	43,2
SI0007	10x0,5	9,8	126	52,8
SI0008	12x0,5	9,8	134	62,4
SI0009	14x0,5	10,2	150	72,0
SI0010	16x0,5	10,8	168	81,6
SI0011	18x0,5	11,5	192	91,2
SI0012	21x0,5	12,0	215	105,6
SI0013	25x0,5	13,7	260	124,8
SI0014	30x0,5	14,2	295	148,8
SI0015	34x0,5	15,2	335	168,0
SI0016	40x0,5	16,1	390	196,8
SI0017	50x0,5	18,2	485	244,8
SI0018	61x0,5	19,3	560	297,6
SI0019	2x0,75	5,6	48	19,2
SI0020	4x1,0	7,0	80	45,6
SI0021	5x1,0	7,6	98	55,2
SI0022	6x1,0	8,2	114	64,8
SI0023	7x1,0	8,2	120	74,4
SI0024	8x1,0	9,7	148	84,0
SI0025	10x1,0	11,5	194	103,2
SI0026	12x1,0	11,5	210	122,4
SI0027	14x1,0	12,0	235	141,6

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SI0028	16x1,0	12,6	265	160,8
SI0029	18x1,0	13,2	295	180,0
SI0030	21x1,0	14,1	335	208,8
SI0031	25x1,0	16,3	415	247,2
SI0032	30x1,0	16,8	470	295,2
SI0033	2x1,5	6,9	74	36,0
SI0034	3x1,5	7,3	86	50,4
SI0035	4x1,5	8,0	108	64,8
SI0036	5x1,5	9,1	138	79,2
SI0037	6x1,5	9,8	162	93,6
SI0038	7x1,5	9,8	172	108,0
SI0039	8x1,5	11,0	200	122,4
SI0040	10x1,5	13,1	260	151,2
SI0041	12x1,5	13,1	280	180,0
SI0042	14x1,5	13,9	325	208,8
SI0043	3x0,75	5,9	54	26,4
SI0044	4x0,75	6,5	66	33,6
SI0045	5x0,75	7,2	81	40,8
SI0046	6x0,75	7,8	96	48,0
SI0047	7x0,75	7,8	102	55,2
SI0048	8x0,75	9,2	126	62,4
SI0049	10x0,75	10,6	159	76,8
SI0050	12x0,75	10,6	168	91,2
SI0051	14x0,75	11,3	195	105,6
SI0052	16x0,75	11,9	220	120,0
SI0053	18x0,75	12,5	245	134,4
SI0054	21x0,75	13,1	275	156,0
SI0055	25x0,75	14,9	335	184,8

BITNER®

IB-BiT 500® (St)

Flexible, screened control cables, with number coded conductors for intrinsically safe circuits, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SI0056	30x0,75	15,4	375	220,8
SI0057	34x0,75	17,0	450	249,6
SI0058	40G0,75	17,6	500	292,8
SI0059	50G0,75	19,9	620	364,8
SI0060	2x1,0	5,9	54	26,4
SI0061	3x1,0	6,3	64	36,0
SI0062	16x1,5	14,7	365	237,6
SI0063	18x1,5	15,4	410	266,4
SI0064	25x1,5	18,9	575	367,2

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SI0065	2x2,5	8,0	96	55,2
SI0066	3x2,5	8,5	118	79,2
SI0067	4x2,5	9,7	160	103,2
SI0068	5x2,5	10,6	192	127,2
SI0069	6x2,5	11,9	240	151,2
SI0070	7x2,5	11,9	255	175,2
SI0071	10x2,5	16,0	395	247,2
SI0072	12x2,5	16,0	430	295,2
SI0073	14x2,5	16,8	485	343,2
SI0074	16x2,5	17,7	550	391,2

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SI0080	2x2x0,5	7,7	70	24,0
SI0081	3x2x0,5	8,6	80	33,6
SI0082	4x2x0,5	9,7	106	43,2
SI0083	5x2x0,5	10,4	130	52,8
SI0084	6x2x0,5	10,8	138	62,4
SI0085	7x2x0,5	12,2	166	72,0
SI0086	8x2x0,5	12,7	182	81,6
SI0087	10x2x0,5	13,8	220	100,8
SI0088	12x2x0,5	14,7	255	120,0
SI0089	14x2x0,5	15,5	290	139,2
SI0090	16x2x0,5	17,0	345	158,4
SI0091	18x2x0,5	17,7	370	177,6
SI0092	20x2x0,5	18,4	410	196,8
SI0093	24x2x0,5	18,9	470	235,2
SI0094	2x2x0,75	8,4	86	33,6
SI0095	3x2x0,75	9,8	106	48,0
SI0096	4x2x0,75	10,5	130	62,4
SI0097	5x2x0,75	11,5	168	76,8
SI0098	6x2x0,75	11,9	180	91,2
SI0099	7x2x0,75	13,3	205	105,6
SI0100	8x2x0,75	14,1	235	120,0
SI0101	10x2x0,75	15,0	280	148,8
SI0102	12x2x0,75	16,4	340	177,6
SI0103	14x2x0,75	17,4	380	206,4
SI0104	16x2x0,75	18,8	445	235,2
SI0105	18x2x0,75	19,5	480	264,0
SI0106	20x2x0,75	20,1	520	292,8
SI0107	24x2x0,75	20,7	600	350,4
SI0108	2x2x1,0	9,3	110	45,6

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SI0109	3x2x1,0	10,3	126	64,8
SI0110	4x2x1,0	11,2	154	84,0
SI0111	5x2x1,0	12,2	196	103,2
SI0112	6x2x1,0	12,6	214	122,4
SI0113	7x2x1,0	14,3	255	141,6
SI0114	8x2x1,0	14,9	280	160,8
SI0115	10x2x1,0	16,4	350	199,2
SI0116	12x2x1,0	17,4	405	237,6
SI0117	14x2x1,0	18,7	465	276,0
SI0118	16x2x1,0	19,9	530	314,4
SI0119	2x2x1,5	10,5	142	64,8
SI0120	3x2x1,5	12,0	172	93,6
SI0121	4x2x1,5	13,0	210	122,4
SI0122	5x2x1,5	14,2	270	151,2
SI0123	6x2x1,5	14,7	295	180,0
SI0124	7x2x1,5	16,8	355	208,8
SI0125	8x2x1,5	17,6	395	237,6
SI0126	10x2x1,5	19,0	480	295,2
SI0127	12x2x1,5	20,3	555	352,8
SI0128	14x2x1,5	21,7	645	410,4
SI0129	2x2x2,5	12,5	205	103,2
SI0130	3x2x2,5	14,2	245	151,2
SI0131	4x2x2,5	15,5	305	199,2
SI0132	5x2x2,5	17,1	400	247,2
SI0133	6x2x2,5	17,7	440	295,2
SI0134	7x2x2,5	20,0	515	343,2
SI0135	8x2x2,5	20,9	575	391,2
SI0136	10x2x2,5	22,7	705	487,2
SI0137	12x2x2,5	24,2	820	583,2

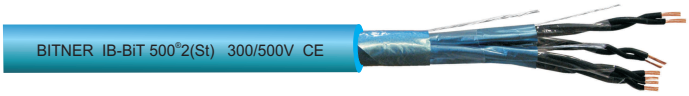
Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

IB-BiT 500® 2(St)

Flexible, paired control cables, individually and collectively screened
with number coded conductors, for intrinsically safe circuits, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE



Technical data:

Flexible control cable with number coded conductors, PVC insulation and sheath, with individually and collectively screened pairs.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500 V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius:
Fixed installation: 5 x Ø
Flexible connections: 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors
Core arrangement: twisted screened pairs
Individual screen: Aluminium backed polyester tape with tinned copper drain wire on each pair
Collective screen: Aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant
(acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant.
Outer sheath colour: blue

Application:

Flexible power/control cables designed for operation intrinsically safe circuits. Double screening improves protection of transmitted signals against external electromagnetic field. Individual screening of pairs decreases signal interferences from adjacent pairs. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Insulation materials and conductor construction in IB-BIT 500® 2(St) cable enable easy and fast connections and ensure their high durability.


industrial application


internal application


external application


high flexibility


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3

oxygen index

UV resistance


oil resistant
EN 60811-2-1

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SI0250	2x2x0,5	7,7	82	33,6
SI0251	3x2x0,5	8,6	96	48,0
SI0252	4x2x0,5	9,7	128	62,4
SI0253	5x2x0,5	10,4	158	76,8
SI0254	6x2x0,5	10,8	172	91,2
SI0255	7x2x0,5	12,2	205	105,6
SI0256	8x2x0,5	12,7	230	120,0
SI0257	10x2x0,5	13,8	280	148,8
SI0258	12x2x0,5	14,7	325	177,6
SI0259	14x2x0,5	15,5	365	206,4
SI0260	16x2x0,5	17,0	435	235,2
SI0261	18x2x0,5	17,7	470	264,0
SI0262	20x2x0,5	18,4	525	292,8
SI0263	24x2x0,5	18,9	605	350,4
SI0264	2x2x0,75	8,4	98	43,2
SI0265	3x2x0,75	9,8	124	62,4
SI0266	4x2x0,75	10,5	154	81,6
SI0267	5x2x0,75	11,5	196	100,8
SI0268	6x2x0,75	11,9	215	120,0
SI0269	7x2x0,75	13,3	250	139,2
SI0270	8x2x0,75	14,1	285	158,4
SI0271	10x2x0,75	15,0	340	196,8
SI0272	12x2x0,75	16,4	410	235,2
SI0273	14x2x0,75	17,4	465	273,6
SI0274	16x2x0,75	18,8	540	312,0
SI0275	18x2x0,75	19,5	590	350,4
SI0276	20x2x0,75	20,1	640	388,8
SI0277	24x2x0,75	20,7	745	465,6

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SI0278	2x2x1,0	9,3	126	60,0
SI0279	3x2x1,0	10,3	150	86,4
SI0280	4x2x1,0	11,2	186	112,8
SI0281	5x2x1,0	12,2	240	139,2
SI0282	6x2x1,0	12,6	265	165,6
SI0283	7x2x1,0	14,3	310	192,0
SI0284	8x2x1,0	14,9	345	218,4
SI0285	10x2x1,0	16,4	430	271,2
SI0286	12x2x1,0	17,4	500	324,0
SI0287	14x2x1,0	18,7	580	376,8
SI0288	16x2x1,0	19,9	660	429,6
SI0289	18x2x1,0	20,8	720	482,4
SI0290	20x2x1,0	21,6	800	535,2
SI0291	24x2x1,0	22,2	930	640,8
SI0292	2x2x1,5	10,5	158	79,2
SI0293	3x2x1,5	12,0	196	115,2
SI0294	4x2x1,5	13,0	245	151,2
SI0295	5x2x1,5	14,2	310	187,2
SI0296	6x2x1,5	14,7	345	223,2
SI0297	7x2x1,5	16,8	415	259,2
SI0298	8x2x1,5	17,6	460	295,2
SI0299	10x2x1,5	19,0	560	367,2
SI0300	12x2x1,5	20,3	655	439,2
SI0301	14x2x1,5	21,7	760	511,2
SI0302	16x2x1,5	23,2	870	583,2
SI0303	18x2x1,5	24,2	945	655,2
SI0304	20x2x1,5	25,4	1060	727,2
SI0305	24x2x1,5	26,1	1240	871,2

BITNER®

IB-BiT 500® 2(St)

Flexible, paired control cables, individually and collectively screened
with number coded conductors, for intrinsically safe circuits, rated 300/500V

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SI0306	2x2x2,5	12,5	220	117,6
SI0307	3x2x2,5	14,2	275	172,8
SI0308	4x2x2,5	15,5	340	228,0
SI0309	5x2x2,5	17,1	445	283,2
SI0310	6x2x2,5	17,7	490	338,4

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SI0311	7x2x2,5	20,0	580	393,6
SI0312	8x2x2,5	20,9	645	448,8
SI0313	10x2x2,5	22,7	790	559,2
SI0314	12x2x2,5	24,2	925	669,6
SI0315	14x2x2,5	26,1	1090	780,0
SI0316	16x2x2,5	27,9	1240	890,4

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

IB-BiT LiYY

Flexible control cables with coloured conductors for intrinsically safe circuits, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible control cable with coloured conductors, PVC insulation and sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Approximate capacitance (at 800Hz): 150 pF/m
Approximate inductance: 0,65 mH/km
Min. bending radius:
Flexible connections: 7,5 x Ø
Fixed installation: 4 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: colours as per DIN 47100
Core arrangement: cores twisted together or pairs twisted together
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant.
Outer sheath colour: blue

Application:

Cables designed for intrinsically safe signalling control circuits, control circuits in industrial applications, in measurement technology, and for analogue and digital signals transmission in electronic industrial and automatic control engineering systems. For fixed installation and mobile/portable devices. Suitable for usage in internal systems, in both dry and damp rooms. Core arrangement ensures asymmetry attenuation of 10 dB. In an environment with considerable electromagnetic interference, we recommend using screened cables type IB-BiT LiYCY


industrial application


internal application


PN-EN60332-1

oxygen index


high flexibility


oil resistant

UV resistance

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S32000	2x0,5	4,7	33,2	9,6
S32001	3x0,5	5,0	39,8	14,4
S32002	4x0,5	5,5	48,0	19,2
S32003	5x0,5	6,0	58,2	24,0
S32004	7x0,5	6,5	71,6	33,6
S32005	8x0,5	7,4	81,5	38,4
S32006	10x0,5	8,4	96,9	48,0
S32007	12x0,5	8,7	111,5	57,6
S32008	14x0,5	9,1	126,8	67,2
S32009	16x0,5	9,6	144,5	76,8
S32010	18x0,5	10,1	161,0	86,4
S32011	21x0,5	10,9	188,0	100,8
S32012	27x0,5	12,7	252,0	129,6
S32013	30x0,5	13,2	267,5	144,0
S32014	37x0,5	14,2	321,0	177,6
S32015	40x0,5	15,3	359,5	192,0
S32016	2x0,75	5,1	41,0	14,4
S32017	3x0,75	5,4	50,0	21,8
S32018	4x0,75	6,0	60,7	28,8
S32019	5x0,75	6,5	73,6	36,0
S32020	7x0,75	7,1	92,1	50,4
S32021	8x0,75	8,0	104,3	57,6
S32022	10x0,75	9,2	124,5	72,0
S32023	12x0,75	9,5	144,5	86,4
S32024	14x0,75	10,0	165,0	100,8
S32025	16x0,75	10,8	192,5	115,2
S32026	18x0,75	11,3	216,0	129,6
S32027	21x0,75	11,9	245,0	151,2
S32028	30x0,75	14,4	348,0	216,0
S32029	40x0,75	17,2	465,5	284,0
S32030	2x1	5,8	53,2	19,2

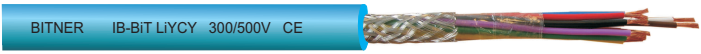
Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S32031	3x1	6,2	65,2	28,8
S32032	4x1	6,8	79,5	38,4
S32033	5x1	7,6	100,7	48,0
S32034	7x1	8,3	125,6	67,2
S32035	8x1	9,2	137,0	76,8
S32036	10x1	10,8	168,7	96,0
S32037	12x1	11,1	195,5	115,2
S32038	14x1	11,7	223,2	134,4
S32039	16x1	12,4	254,5	153,6
S32040	18x1	13,5	299,3	172,8
S32041	20x1	14,1	332,0	192,0
S32042	2x1,5	6,2	64,8	29,0
S32043	3x1,5	6,6	80,7	43,5
S32044	4x1,5	7,5	102,8	58,0
S32045	5x1,5	8,2	125,0	72,5
S32046	7x1,5	8,9	158,4	101,5
S32047	8x1,5	9,9	172,7	116,0
S32048	10x1,5	11,6	213,4	145,0
S32049	12x1,5	12,0	248,5	174,0
S32050	14x1,5	12,6	285,0	203,0
S32051	16x1,5	13,7	338,0	232,0
S32052	18x1,5	14,5	379,0	261,0
S32053	20x1,5	15,4	427,5	290,0
S32054	2x2,5	7,8	104,3	48,0
S32055	3x2,5	8,4	130,2	72,0
S32056	4x2,5	9,3	160,4	96,0
S32057	5x2,5	10,2	196,3	120,0
S32058	7x2,5	11,3	255,5	168,0
S32059	8x2,5	13,0	290,0	192,0
S32060	10x2,5	14,9	348,5	240,0
S32061	12x2,5	15,6	414,0	288,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

IB-BiT LiYCY

Flexible control cables with coloured conductors for intrinsically safe circuits, rated 300/500V



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, screened control cable with coloured conductors, PVC insulation and sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0 /U=300/500V
Test voltage (50Hz): 3000V
Insulation resistance: 20 MΩ x km
Approximate capacitance (at 800Hz):
Core/core: 150 pF/m
Core/screen: 270 pF/m
Approximate inductance: 0,65 mH/km
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installation: 5 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: special PVC
Core identification: colours as per DIN 47100
Core arrangement: cores twisted together or pairs twisted together
Screen: tinned copper wire braid with coverage ≥ 85%
Outer sheath: special PVC, oil resistant (EN 60811-2-1), self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. C), UV resistant.
Outer sheath colour: blue

Application:

The cables are intended for intrinsically safe signalling control circuits, control circuits in industrial applications, in measurement technology, and for analogue and digital signals transmission in electronic industrial and automatic control engineering systems. For fixed installation, and mobile/portable devices. Suitable for use indoors, in both dry and damp rooms. A common screen of tinned copper wire braid ensures very good protection against external electromagnetic fields (approximately 50 dB).


industrial application


internal application


PN-EN60332-1

oxygen index


high flexibility


oil resistant

UV resistance

EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S32200	2x0,5	5,3	42,0	28,0
S32201	3x0,5	5,6	49,5	37,0
S32202	4x0,5	6,2	58,0	43,0
S32203	5x0,5	6,7	73,5	51,0
S32204	7x0,5	7,2	87,5	65,0
S32205	8x0,5	8,0	100,0	68,0
S32206	10x0,5	9,1	119,5	88,0
S32207	12x0,5	9,3	133,5	98,0
S32208	14x0,5	9,8	150,0	120,0
S32209	16x0,5	10,5	175,0	129,0
S32210	18x0,5	11,0	192,5	138,0
S32211	21x0,5	11,7	214,0	158,0
S32212	27x0,5	13,4	271,0	209,0
S32213	30x0,5	13,8	294,0	230,0
S32214	37x0,5	15,1	356,0	290,0
S32215	40x0,5	16,3	389,5	311,0
S32216	44x0,5	17,3	441,5	332,0
S32217	48x0,5	17,5	470,0	353,0
S32218	2x0,75	5,8	49,5	36,0
S32219	3x0,75	6,1	58,5	47,0
S32220	4x0,75	6,7	75,0	56,0
S32221	5x0,75	7,2	88,0	65,0
S32222	7x0,75	7,9	108,5	88,0
S32223	8x0,75	8,7	125,0	102,0
S32224	10x0,75	9,9	147,5	118,0
S32225	12x0,75	10,2	173,0	142,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S32226	14x0,75	10,8	193,0	153,0
S32227	16x0,75	11,5	217,0	167,0
S32228	18x0,75	12,4	250,5	181,0
S32229	21x0,75	13,1	280,0	226,0
S32230	27x0,75	14,8	347,5	280,0
S32231	30x0,75	15,3	382,5	308,0
S32232	40x0,75	19,0	522,0	393,0
S32233	2x1	6,5	57,5	43,0
S32234	3x1	6,9	76,0	56,0
S32235	4x1	7,6	91,5	68,0
S32236	5x1	8,3	110,0	79,0
S32237	7x1	9,0	136,5	111,0
S32238	8x1	9,9	159,0	128,0
S32239	10x1	11,4	193,5	140,0
S32240	12x1	11,7	219,5	164,0
S32241	14x1	12,7	256,0	196,0
S32242	16x1	13,5	290,5	218,0
S32243	18x1	14,3	330,0	252,0
S32244	21x1	15,2	370,0	278,0
S32245	27x1	17,4	478,5	360,0
S32246	30x1	17,9	521,0	392,0
S32247	37x1	19,4	625,0	485,0
S32248	2x1,5	7,1	74,0	58,0
S32249	3x1,5	7,5	93,5	72,0
S32250	4x1,5	8,4	116,0	96,0
S32251	5x1,5	9,1	141,0	116,0

IB-BiT LiYCY

Flexible control cables with coloured conductors for intrinsically safe circuits, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S32252	7x1,5	9,9	177,0	152,0
S32253	8x1,5	11,0	210,0	168,0
S32254	10x1,5	13,0	258,5	188,0
S32255	12x1,5	13,4	295,0	254,0
S32256	14x1,5	14,2	340,0	272,0
S32257	16x1,5	15,1	386,0	285,0
S32258	18x1,5	15,8	430,5	350,0
S32259	21x1,5	17,2	510,0	402,0
S32260	27x1,5	19,3	631,5	502,0
S32261	30x1,5	20,0	690,0	546,0
S32262	2x2,5	8,5	102,5	96,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S32263	3x2,5	9,0	131,0	118,0
S32264	4x2,5	10,0	175,0	147,0
S32265	5x2,5	10,9	210,0	176,0
S32266	7x2,5	11,9	261,5	235,0
S32267	8x2,5	13,6	315,0	262,0
S32268	10x2,5	15,8	382,5	313,0
S32269	12x2,5	16,5	446,5	365,0
S32270	14x2,5	17,5	525,0	428,0
S32271	16x2,5	18,7	603,0	512,0
S32272	18x2,5	19,6	670,0	570,0
S32273	21x2,5	21,1	765,5	632,0

paired cables

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S32300	2x2x0,5	7,7	82	40,9
S32301	3x2x0,5	8,6	92	50,5
S32302	4x2x0,5	9,3	111	69,7
S32303	6x2x0,5	10,3	149	96,3
S32304	8x2x0,5	12,3	191	117,8
S32305	10x2x0,5	13,6	237	143,5
S32306	12x2x0,5	14,4	272	162,4
S32307	14x2x0,5	15,5	314	185,4
S32308	16x2x0,5	16,8	370	225,7
S32309	18x2x0,5	17,5	399	251,9
S32310	20x2x0,5	18,0	431	276,4
S32311	24x2x0,5	18,7	499	321,1
S32312	2x2x0,75	8,3	97	61,4
S32313	3x2x0,75	9,3	112	75,3
S32314	4x2x0,75	10,1	141	93,1
S32315	7x2x0,75	13,2	228	144,0
S32316	10x2x0,75	14,8	297	196,6

Cat. no.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S32317	12x2x0,75	16,0	349	245,4
S32318	14x2x0,75	17,1	410	281,6
S32319	16x2x0,75	18,5	476	314,2
S32320	18x2x0,75	19,3	512	351,3
S32321	2x2x1	9,5	121	69,7
S32322	3x2x1	10,8	150	91,8
S32323	4x2x1	11,7	179	113,0
S32324	10x2x1	17,4	405	273,9
S32325	12x2x1	18,7	476	307,2
S32326	2x2x1,5	10,1	145	91,8
S32327	3x2x1,5	11,6	178	122,7
S32328	4x2x1,5	12,6	218	162,2
S32329	7x2x1,5	16,4	366	267,9
S32330	10x2x1,5	18,8	508	367,7
S32331	12x2x1,5	20,1	588	430,8
S32332	14x2x1,5	21,5	678	494,4
S32333	16x2x1,5	23,0	774	556,4

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

CHAPTER II

Servo motor cables

BiTservo 2YSLCY-J

Flexible motor connection cables for frequency converters, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible cable with multi-stranded conductors, with polyethylene insulation, double screen and PVC outer sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=0,6/1kV
Test voltage: 2500V
Insulation resistance: > 200 MΩxkm
Capacitance:
conductor/conductor =70 to 250 nF/km
conductor/screen = 110 to 410 nF/km
Max. conductor operating temperature: 70°C
Min. bending radius:
Ø<12 mm - 5 x Ø
Ø=12-20 mm - 7,5 x Ø
Ø>20 mm - 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: polyethylene (PE)
Core identification: black, brown, grey, green-yellow
Core arrangement: cores twisted together
Screens: electrostatic screen made of aluminium backed polyester tape and a second screen made of tinned copper wire braid with coverage ≥ 85%
Outer sheath: special PVC, self-extinguishing and flame retardant (as per EN 60332-1)
Outer sheath colour: transparent**
Special properties:
- low capacitance
- fulfilment of electromagnetic compatibility (EMC) requirements*
- self-extinguishing sheath

***Note:** in order to ensure optimal screen earthing and the fulfilment of electromagnetic compatibility (EMC) requirements of the connection, we recommend using metal glands or a different type of circuital earthing system (360°).
**transparent UV version available on request

Application:

Cables with special construction, used to supply power to motors from frequency converters while maintaining full electromagnetic compatibility (EMC). The polyethylene insulation ensures low capacitance in comparison to PVC insulated cables. The cables are suitable for both fixed installation and flexible connections in industrial equipment, process lines, and machines operating in dry and damp rooms.


industrial application


internal application


PN-EN60332-1


high flexibility

EMC

Cat. no.	n x mm²	Outer diameter [mm]	Current-carrying capacity *) [A]	Screen cross section [mm²]	Approximate cable weight [kg/km]	Cu [kg/km]
IP0001	4G1,5	11,3	18	3,2	230	95
IP0002	4G2,5	12,4	26	3,6	300	150
IP0003	4G4	13,6	34	4,0	485	235
IP0004	4G6	14,8	44	4,5	630	320
IP0005	4G10	17,5	61	7,1	860	533
IP0006	4G16	20,2	82	8,5	1290	789
IP0007	4G25	24,8	108	10,8	1860	1236
IP0008	4G35	27,4	135	11,9	2610	1662
IP0009	4G50	32,0	168	17,9	2950	2345
IP0010	4G70	37,1	207	21,0	3950	3196
IP0011	4G95	41,6	250	29,6	5300	4316
IP0012	4G120	45,2	292	29,6	6600	5435
IP0013	4G150	52,0	335	34,7	7040	6394
IP0014	4G185	58,1	385	38,9	8380	7639
IP0015	4G240	66,1	453	45,0	11292	10013

*) - current-carrying capacity of a single cable in air at a temperature of 30°C

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

BiTservo UV 2YSLCYK-J

Flexible motor connection cables for frequency converters, UV resistant, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible cable with multi-stranded conductors, with polyethylene insulation, double screen and UV resistant PVC outer sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=0,6/1kV
Test voltage: 2500V
Insulation resistance: > 200 MΩxkm
Capacitance:
conductor/conductor =70 to 250 nF/km
conductor/screen = 110 to 410 nF/km
Max. conductor operating temperature: 70°C
Min. bending radius:
Ø<12 mm - 5 x Ø
Ø=12-20 mm - 7,5 x Ø
Ø>20 mm - 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: polyethylene (PE)
Core identification: black, brown, grey, green-yellow
Core arrangement: cores twisted together
Screens: electrostatic screen made of aluminium backed polyester tape and a second screen made of tinned copper wire braid with coverage ≥ 85%
Outer sheath: special PVC, self-extinguishing and flame retardant (as per EN 60332-1), UV resistant
Outer sheath colour: black
Special properties:
- low capacitance
- fulfilment of electromagnetic compatibility (EMC) requirements*
- self-extinguishing sheath
- UV resistant sheath

***Note:** in order to ensure optimal screen earthing and the fulfilment of electromagnetic compatibility (EMC) requirements of the connection, we recommend using metal glands or a different type of circuital earthing system (360°).

Application:

Cables with special construction, used to supply power to motors from frequency converters while maintaining full electromagnetic compatibility (EMC). The polyethylene insulation ensures low capacitance in comparison to PVC insulated cables. The cables are suitable for both fixed installation and flexible connections in industrial equipment, process lines, and machines operating in dry and damp rooms. Black UV-resistant sheath enables installation outside of buildings. The cable is also suitable for direct underground installations.

industrial application | internal application | external application

underground installation | PN-EN60332-1 | high flexibility | UV resistance | EMC

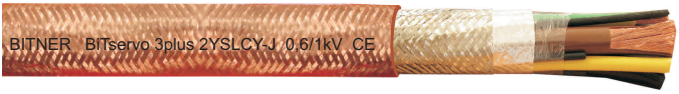
Cat. no.	n x mm^2	Outer diameter [mm]	Current-carrying capacity *) [A]	Screen cross section [mm^2]	Approximate cable weight [kg/km]	Cu [kg/km]
IP1650	4G1,5	12,3	18	3,2	230	95
IP1651	4G2,5	13,3	26	3,6	300	150
IP1652	4G 4	14,7	34	4,0	485	235
IP1653	4G 6	16,0	44	4,5	630	320
IP1654	4G10	18,8	61	7,1	860	533
IP1655	4G16	21,5	82	8,5	1290	789
IP1656	4G25	26,0	108	10,8	1860	1236
IP1657	4G35	28,9	135	11,9	2610	1662
IP1658	4G50	33,2	168	17,9	2950	2345
IP1659	4G70	38,4	207	21,0	3950	3196
IP1660	4G95	43,0	250	29,6	5300	4316
IP1661	4G120	46,7	292	29,6	6600	5435
IP1662	4G150	53,7	335	34,7	7040	6394
IP1663	4G185	60,0	385	38,9	8380	7639
IP1664	4G240	66,5	453	45,0	11292	10013

*) - current-carrying capacity of a single cable in air at a temperature of 30°C

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiTservo 3plus 2YSLCY-J

Flexible motor connection cables for frequency converters, symmetric construction, rated 0,6/1kV



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible cable with multi-stranded conductors, with polyethylene insulation, double screen and PVC outer sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=0,6/1kV
Test voltage: 2500V
Insulation resistance: > 200 MΩxkm
Capacitance:
conductor/conductor =70 to 250 nF/km
conductor/screen = 110 to 410 nF/km
Max. conductor operating temperature: 70°C
Min. bending radius:
Ø<12 mm - 5 x Ø
Ø=12-20 mm - 7,5 x Ø
Ø>20 mm - 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: polyethylene (PE)
Core identification: black, brown, grey, 3x green-yellow (3+3PE)
Core arrangement: cores twisted together in symmetric construction, protective earth split into three arranged symetrically every 120°)
Screens: electrostatic screen made of aluminium backed polyester tape and a second screen made of tinned copper wire braid with coverage ≥ 85%
Outer sheath: special PVC, self-extinguishing and flame retardant (as per EN 60332-1)
Outer sheath colour: transparent orange **
Special properties:
- low capacitance
- fulfilment of electromagnetic compatibility (EMC) requirements*
- self-extinguishing sheath

***Note:** in order to ensure optimal screen earthing and the fulfilment of electromagnetic compatibility (EMC) requirements of the connection, we recommend using metal glands or a different type of circuital earthing system (360°).
**transparent orange UV version available on request

Application:

Cables with special construction, used to supply power to motors from frequency converters while maintaining full electromagnetic compatibility (EMC). The polyethylene insulation ensures low capacitance in comparison to PVC insulated cables. The cables are suitable for both fixed installation and flexible connections in industrial equipment, process lines, and machines operating in dry and damp rooms. The symmetric construction of the cable (3+3PE) ensures symmetry of voltages on motor terminals.


industrial application


internal application


PN-EN60332-1


high flexibility

EMC

Cat. no.	n x mm^2	Outer diameter [mm]	Current-carrying capacity *) [A]	Screen cross section [mm^2]	Approximate cable weight [kg/km]	Cu [kg/km]
IP0100	3x1,5+3G0,25	10,5	18	2,9	140	86
IP0101	3x2,5+3G0,5	11,5	26	3,2	219	143
IP0102	3x4+3G0,75	12,7	34	3,6	323	224
IP0103	3x6+3G1	14,1	44	4,0	429	298
IP0104	3x10+3G1,5	16,2	61	6,5	615	491
IP0105	3x16+3G2,5	18,5	82	7,6	819	723
IP0106	3x25+3G4	22,8	108	9,7	1324	1137
IP0107	3x35+3G6	25,2	135	10,8	1718	1535
IP0108	3x50+3G10	29,2	168	12,7	2398	2207
IP0109	3x70+3G10	33,9	207	18,7	3055	2871
IP0110	3x95+3G16	37,8	250	21,1	4161	3953
IP0111	3x120+3G16	41,1	292	26,7	5073	4836
IP0112	3x150+3G25	47,0	355	30,9	6127	5411
IP0113	3x185+3G35	52,6	382	31,2	7189	6968
IP0114	3x240+3G50	58,3	453	37,4	9594	8540

*) - current-carrying capacity of a single cable in air at a temperature of 30°C

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

BiTservo UV 3plus 2YSLCYK-J

Flexible motor connection cables for frequency converters, symmetric construction, UV-resistant, rated 0,6/1 kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible cable with multi-stranded conductors, with polyethylene insulation, double screen and UV-resistant PVC sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=0,6/1kV
Test voltage: 2500V
Insulation resistance: > 200 MΩxkm
Capacitance:
conductor/conductor =70 to 250 nF/km
conductor/screen = 110 to 410 nF/km
Max. conductor operating temperature: 70°C
Min. bending radius:
Ø<12 mm - 5 x Ø
Ø=12-20 mm - 7,5 x Ø
Ø>20 mm - 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: polyethylene (PE)
Core identification: black, brown, grey, 3x green-yellow (3+3PE)
Core arrangement: cores twisted together in symmetric construction, protective earth split into three arranged symetrically every 120°)
Screens: electrostatic screen made of aluminium backed polyester tape and a second screen made of tinned copper wire braid with coverage ≥ 85%
Outer sheath: special PVC, self-extinguishing and flame retardant (as per EN 60332-1),UV resistant
Outer sheath colour: black
Special properties:
- low capacitance
- fulfilment of electromagnetic compatibility (EMC) requirements*
- self-extinguishing sheath
- UV resistant sheath

***Note:** in order to ensure optimal screen earthing and the fulfilment of electromagnetic compatibility (EMC) requirements of the connection, we recommend using metal glands or a different type of circuital earthing system (360°).

Application:

Cables with special construction, used to supply power to motors from frequency converters while maintaining full electromagnetic compatibility (EMC). The polyethylene insulation ensures low capacitance in comparison to PVC insulated cables. The cables are suitable for both fixed installation and flexible connections in industrial equipment, process lines, and machines operating in dry and damp rooms. Black UV-resistant sheath enables installation outside of buildings. The cable is also suitable for direct underground installations. The symmetric construction of the cable (3+3PE) ensures symmetry of voltages on motor terminals.


industrial application
internal application
external application

installation
PN-EN60332-1
high flexibility
UV resistance
EMC

Cat. no.	n x mm^2	Outer diameter [mm]	Current-carrying capacity *) [A]	Screen cross section [mm^2]	Approximate cable weight [kg/km]	Cu [kg/km]
IP1750	3x1,5+3G0,25	11,3	18	2,9	140	86
IP1751	3x2,5+3G0,5	12,2	26	3,2	219	143
IP1752	3x4+3G0,75	13,5	34	3,6	323	224
IP1753	3x6+3G1	14,7	44	4,0	429	298
IP1754	3x10+3G1,5	17,0	61	6,5	615	491
IP1755	3x16+3G2,5	19,7	82	7,6	819	723
IP1756	3x25+3G4	24,0	108	9,7	1324	1137
IP1757	3x35+3G6	26,2	135	10,8	1718	1535
IP1758	3x50+3G10	30,1	168	12,7	2398	2207
IP1759	3x70+3G10	35,2	207	18,7	3055	2871
IP1760	3x95+3G16	39,1	250	21,1	4161	3953
IP1761	3x120+3G16	42,5	292	26,7	5073	4836
IP1762	3x150+3G25	48,6	355	30,9	6127	5411
IP1763	3x185+3G35	54,2	382	31,2	7189	6968
IP1764	3x240+3G50	60,5	453	37,4	9594	8540

*) - current-carrying capacity of a single cable in air at a temperature of 30°C

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiTservo 2YSLCH-J

Flexible, halogen-free motor connection cables for frequency converters, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible cable with multi-stranded conductors, with polyethylene insulation, double screen and outer sheath made of special halogen-free compound
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=0,6/1kV
Test voltage: 2500V
Insulation resistance: > 200 MΩxkm
Capacitance:
conductor/conductor =70 to 250 nF/km
conductor/screen = 110 to 410 nF/km
Max. conductor operating temperature: 70°C
Min. bending radius:
Ø<20 mm – 7,5 x Ø
Ø>20 mm - 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: polyethylene (PE)
Core identification: black, brown, grey, green-yellow
Core arrangement: cores twisted together
Screens: electrostatic screen made of aluminium backed polyester tape and a second screen made of tinned copper wire braid with coverage ≥ 85%
Outer sheath: special halogen-free compound, self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. A).
Outer sheath colour: orange
Special properties:
- halogen-free
- low capacitance
- fulfilment of electromagnetic compatibility (EMC) requirements*
- self-extinguishing sheath

***Note:** in order to ensure optimal screen earthing and the fulfilment of electromagnetic compatibility (EMC) requirements of the connection, we recommend using metal glands or a different type of circuital earthing system (360°).

Application:

Cables with special construction, used to supply power to motors from frequency converters while maintaining full electromagnetic compatibility (EMC). The polyethylene insulation ensures low capacitance in comparison to PVC insulated cables. The cables are suitable for both fixed installation and flexible connections in industrial equipment, process lines, and machines operating in dry and damp rooms, also in public buildings. The entire cable is made of halogen-free materials and does not emit noxious substances under fire conditions.


industrial application


internal application


PN-EN 60332-1


PN-EN 60332-3
IEC 60332-3

halogen-free


high flexibility

EMC

oxygen index


low smoke emission

Cat. no.	n x mm²	Outer diameter [mm]	Current-carrying capacity *) [A]	Screen cross section [mm²]	Approximate cable weight [kg/km]	Cu [kg/km]
IP1800	4G1,5	11,3	18	3,2	230	95
IP1801	4G2,5	12,4	26	3,6	300	150
IP1802	4G4	13,6	34	4,0	485	235
IP1803	4G6	14,8	44	4,5	630	320
IP1804	4G10	17,5	61	7,1	860	533
IP1805	4G16	20,2	82	8,5	1290	789
IP1806	4G25	24,8	108	10,8	1860	1236
IP1807	4G35	27,4	135	11,9	2610	1662
IP1808	4G50	32,0	168	17,9	2950	2345
IP1809	4G70	37,1	207	21,0	3950	3196
IP1810	4G95	41,6	250	29,6	5300	4316
IP1811	4G120	45,2	292	29,6	6600	5435
IP1812	4G150	52,0	335	34,7	7040	6394
IP1813	4G185	58,1	385	38,9	8360	7639
IP1814	4G240	66,1	453	45,0	11290	10013

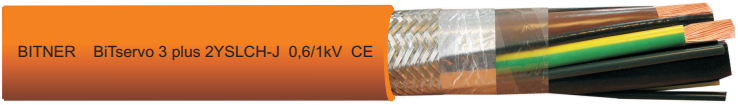
*) current-carrying capacity of a single cable in air at temperature of 30°C

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

BiTservo 3plus 2YSLCH-J

Flexible, halogen-free motor connection cables for frequency converters, symmetric construction, rated 0,6/1 kV



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible cable with multi-stranded conductors, with polyethylene insulation, double screen and halogen-free sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=0,6/1kV
Test voltage: 2500V
Insulation resistance: > 200 MΩxkm
Capacitance:
conductor/conductor =70 to 250 nF/km
conductor/screen = 110 to 410 nF/km
Max. conductor operating temperature: 70°C
Min. bending radius:
Ø<20 mm – 7,5 x Ø
Ø>20 mm - 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: polyethylene (PE)
Core identification: black, brown, grey, 3x green-yellow (3+3PE)
Core arrangement: cores twisted together in symmetric construction, protective earth split into three arranged symetrically every 120°)
Screens: electrostatic screen made of aluminium backed polyester tape and a second screen made of tinned copper wire braid with coverage ≥ 85%
Outer sheath: special halogen-free compound, self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. A)
Outer sheath colour: orange
Special properties:
- halogen-free
- low capacitance
- fulfilment of electromagnetic compatibility (EMC) requirements*
- self-extinguishing sheath

***Note:** in order to ensure optimal screen earthing and the fulfilment of electromagnetic compatibility (EMC) requirements of the connection, we recommend using metal glands or a different type of circuital earthing system (360°).

Application:

Cables with special construction, used to supply power to motors from frequency converters while maintaining full electromagnetic compatibility (EMC). The polyethylene insulation ensures low capacitance in comparison to PVC insulated cables. The cables are suitable for both fixed installation and flexible connections in industrial equipment, process lines, and machines operating in dry and damp rooms, also in public buildings. The entire cable is made of halogen-free materials and does not emit noxious substances under fire conditions. The symmetric construction of the cable (3+3PE) ensures symmetry of voltages on motor terminals.


industrial application


internal application


PN-EN 60332-1


PN-EN 60332-3
IEC 60332-3

halogen-free


high flexibility

EMC

oxygen index


low smoke emission

Cat. no.	n x mm^2	Outer diameter [mm]	Current-carrying capacity *) [A]	Screen cross section [mm^2]	Approximate cable weight [kg/km]	Cu [kg/km]
IP2300	3x1,5+3G0,25	10,5	18	2,9	140	86
IP2301	3x2,5+3G0,5	11,5	26	3,2	219	143
IP2302	3x4+3G0,75	12,7	34	3,6	323	224
IP2303	3x6+3G1	14,1	44	4,0	429	298
IP2304	3x10+3G1,5	16,2	61	6,5	615	491
IP2305	3x16+3G2,5	18,5	82	7,6	819	723
IP2306	3x25+3G4	22,8	108	9,7	1324	1137
IP2307	3x35+3G6	25,2	135	10,8	1718	1535
IP2308	3x50+3G10	29,2	168	12,7	2398	2207
IP2309	3x70+3G10	33,9	207	18,7	3055	2871
IP2310	3x95+3G16	37,8	250	21,1	4161	3953
IP2311	3x120+3G16	41,1	292	26,7	5073	4836
IP2312	3x150+3G25	47,0	355	30,9	6127	5411
IP2313	3x185+3G35	52,6	382	31,2	7189	6968
IP2314	3x240+3G50	58,3	453	37,4	9594	8540

*) current-carrying capacity of a single cable in air at temperature of 30°C

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiTservo 2XSLCY-J

Flexible motor connection cables for frequency converters, with improved current carrying capacity, rated 0,6/1 kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible cable with multi-stranded conductors, with XLPE insulation, double screen and PVC outer sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=0,6/1kV
Test voltage: 2500V
Insulation resistance: > 200 MΩxkm
Capacitance:
conductor/conductor =70 to 250 nF/km
conductor/screen = 110 to 410 nF/km
Max. conductor operating temperature: 90°C
Min. bending radius:
Ø<12 mm - 5 x Ø
Ø=12-20 mm - 7,5 x Ø
Ø>20 mm - 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: cross-linked polyethylene (XLPE)
Core identification: black, brown, grey, green-yellow
Core arrangement: cores twisted together
Screens: electrostatic screen made of aluminium backed polyester tape and a second screen made of tinned copper wire braid with coverage ≥ 85%
Outer sheath: special PVC, self-extinguishing and flame retardant (as per EN 60332-1)
Outer sheath colour: transparent
Special properties:
- low capacitance
- improved current carrying capacity
- fulfilment of electromagnetic compatibility (EMC) requirements*
- self-extinguishing sheath

***Note:** in order to ensure optimal screen earthing and the fulfilment of electromagnetic compatibility (EMC) requirements of the connection, we recommend using metal glands or a different type of circuital earthing system (360°).

Application:

Cables with special construction, used to supply power to motors from frequency converters while maintaining full electromagnetic compatibility (EMC). The XLPE insulation improves current carrying capacity maintaining at the same time low capacitance in comparison to PVC insulated cables. The cables are suitable for both fixed installation and flexible connections in industrial equipment, process lines, and machines operating in dry and damp rooms.


internal application


industrial application


PN-EN60332-1


high flexibility

EMC

Cat. no.	n x mm^2	Outer diameter [mm]	Current-carrying capacity *) [A]	Screen cross section [mm^2]	Approximate cable weight [kg/km]	Cu [kg/km]
IP0050	4G1,5	11,3	23	3,2	230	95
IP0051	4G2,5	12,4	32	3,6	300	150
IP0052	4G4	13,6	42	4,0	485	235
IP0053	4G6	14,8	54	4,5	630	320
IP0054	4G10	17,5	75	7,1	860	533
IP0055	4G16	20,2	100	8,5	1290	789
IP0056	4G25	24,8	127	10,8	1860	1236
IP0057	4G35	27,4	158	11,9	2610	1662
IP0058	4G50	32,0	192	17,9	2950	2345
IP0059	4G70	37,1	246	21,0	3950	3196
IP0060	4G95	41,6	298	29,6	5300	4316
IP0061	4G120	45,2	346	29,6	6600	5435
IP0062	4G150	52,0	399	34,7	7040	6394
IP0063	4G185	58,1	456	38,9	8380	7639
IP0064	4G240	66,1	528	45,0	11290	10013

*) - current-carrying capacity of a single cable in air at a temperature of 30°C
Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

BiTservo UV 2XSLCYK-J

Flexible motor connection cables for frequency converters, with improved current carrying capacity, UV-resistant , rated 0,6/1 kV

BITNER BiTservo UV 2XSLCYK-J 0,6/1kV CE

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible cable with multi-stranded conductors, with XLPE insulation, double screen and outer sheath made of special UV-resistant PVC
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=0,6/1kV
Test voltage: 2500V
Insulation resistance: > 200 MΩxkm
Capacitance:
conductor/conductor =70 to 250 nF/km
conductor/screen = 110 to 410 nF/km
Max. conductor operating temperature: 90°C
Min. bending radius:
Ø<12 mm - 5 x Ø
Ø=12-20 mm - 7,5 x Ø
Ø>20 mm - 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: cross-linked polyethylene (XLPE)
Core identification: black, brown, grey, green-yellow
Core arrangement: cores twisted together
Screens: electrostatic screen made of aluminium backed polyester tape and a second screen made of tinned copper wire braid with coverage ≥ 85%
Outer sheath: special PVC, self-extinguishing and flame retardant (as per EN 60332-1),UV resistant
Outer sheath colour: black
Special properties:
- low capacitance
- improved current carrying capacity
- fulfilment of electromagnetic compatibility (EMC) requirements*
- self-extinguishing sheath
- UV resistant sheath

***Note:** in order to ensure optimal screen earthing and the fulfilment of electromagnetic compatibility (EMC) requirements of the connection, we recommend using metal glands or a different type of circuital earthing system (360°).

Application:

Cables with special construction, used to supply power to motors from frequency converters while maintaining full electromagnetic compatibility (EMC). The XLPE insulation improves current carrying capacity maintaining at the same time low capacitance in comparison to PVC insulated cables. The cables are suitable for both fixed installation and flexible connections in industrial equipment, process lines, and machines operating in dry and damp rooms. Black UV-resistant sheath enables installation outside of buildings. The cable is also suitable for direct underground installations.


industrial application


internal application


external application


underground installation


PN-EN60332-1


high flexibility

EMC

UV resistance

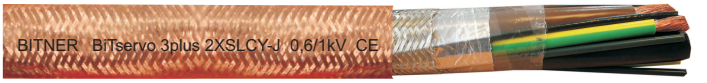
Cat. no.	n x mm^2	Outer diameter [mm]	Current-carrying capacity *) [A]	Screen cross section [mm^2]	Approximate cable weight [kg/km]	Cu [kg/km]
IP1600	4G1,5	12,3	23	3,2	230	95
IP1601	4G2,5	13,3	32	3,6	300	150
IP1602	4G4	14,7	42	4,0	485	235
IP1603	4G6	16,0	54	4,5	630	320
IP1604	4G10	18,8	75	7,1	860	533
IP1605	4G16	21,5	100	8,5	1290	789
IP1606	4G25	26,0	127	10,8	1860	1236
IP1607	4G35	28,9	158	11,9	2610	1662
IP1608	4G50	33,2	192	17,9	2950	2345
IP1609	4G70	38,4	246	21,0	3950	3196
IP1610	4G95	43,0	298	29,6	5300	4316
IP1611	4G120	46,7	346	29,6	6600	5435
IP1612	4G150	53,7	399	34,7	7040	6394
IP1613	4G185	60,0	456	38,9	8380	7639
IP1614	4G240	66,1	528	45,0	11300	10013

*) - current-carrying capacity of a single cable in air at a temperature of 30°C

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiTservo 3plus 2XSLCY-J

Flexible motor connection cables for frequency converters, symmetric construction, rated 0,6/1kV



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible cable with multi-stranded conductors, with XLPE insulation, double screen and PVC outer sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=0,6/1kV
Test voltage: 2500V
Insulation resistance: > 200 MΩxkm
Capacitance:
conductor/conductor =70 to 250 nF/km
conductor/screen = 110 to 410 nF/km
Max. conductor operating temperature: 90°C
Min. bending radius:
Ø<12 mm - 5 x Ø
Ø=12-20 mm - 7,5 x Ø
Ø>20 mm - 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: cross-linked polyethylene (XLPE)
Core identification: black, brown, grey, 3x green-yellow (3+3PE)
Core arrangement: cores twisted together in symmetric construction, protective earth split into three arranged symetrically every 120°)
Screens: electrostatic screen made of aluminium backed polyester tape and a second screen made of tinned copper wire braid with coverage ≥ 85%
Outer sheath: special PVC, self-extinguishing and flame retardant (as per EN 60332-1)
Outer sheath colour: transparent orange**
Special properties:
- low capacitance
- improved current carrying capacity
- fulfilment of electromagnetic compatibility (EMC) requirements*
- self-extinguishing sheath

***Note:** in order to ensure optimal screen earthing and the fulfilment of electromagnetic compatibility (EMC) requirements of the connection, we recommend using metal glands or a different type of circuital earthing system (360°).
** transparent orange UV available on request

Application:

Cables with special construction, used to supply power to motors from frequency converters while maintaining full electromagnetic compatibility (EMC). The XLPE insulation improves current carrying capacity maintaining at the same time low capacitance in comparison to PVC insulated cables. The cables are suitable for both fixed installation and flexible connections in industrial equipment, process lines, and machines operating in dry and damp rooms. The symmetric construction of the cable (3+3PE) ensures symmetry of voltages on motor terminals.


industrial application


internal application


PN-EN60332-1


high flexibility

EMC

Cat. no.	n x mm²	Outer diameter [mm]	Current-carrying capacity *) [A]	Screen cross section [mm²]	Approximate cable weight [kg/km]	Cu [kg/km]
IP0150	3x1,5+3x0,25	10,5	23	2,9	140	86
IP0151	3x2,5+3x0,5	11,5	32	3,2	219	143
IP0152	3x4+3x0,75	12,7	42	3,6	323	224
IP0153	3x6+3x1	14,1	54	4,0	429	298
IP0154	3x10+3x1,5	16,2	75	6,5	615	491
IP0155	3x16+3x2,5	18,5	100	7,6	819	723
IP0156	3x25+3x4	22,8	127	9,7	1324	1137
IP0157	3x35+3x6	25,2	158	10,8	1718	1535
IP0158	3x50+3x10	29,2	192	12,7	2398	2207
IP0159	3x70+3x10	33,9	246	18,7	3055	2871
IP0160	3x95+3x16	37,8	298	21,1	4161	3953
IP0161	3x120+3x16	41,1	346	26,7	5073	4836
IP0162	3x150+3x25	47,0	399	30,9	6127	5411
IP0163	3x185+3x35	52,6	456	31,2	7189	6968
IP0164	3x240+3x50	58,3	528	37,4	9600	8540

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

BiTservo UV 3plus 2XSLCYK-J

Flexible motor connection cables for frequency converters,
symmetric construction, UV-resistant, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible cable with multi-stranded conductors, with XLPE insulation, double screen and UV-resistant PVC sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=0,6/1kV
Test voltage: 2500V
Insulation resistance: > 200 MΩxkm
Capacitance:
conductor/conductor =70 to 250 nF/km
conductor/screen = 110 to 410 nF/km
Max. conductor operating temperature: 90°C
Min. bending radius:
Ø<12 mm - 5 x Ø
Ø=12-20 mm - 7,5 x Ø
Ø>20 mm - 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: cross-linked polyethylene (XLPE)
Core identification: black, brown, grey, 3x green-yellow (3+3PE)
Core arrangement: cores twisted together in symmetric construction, protective earth split into three arranged symetrically every 120°)
Screens: electrostatic screen made of aluminium backed polyester tape and a second screen made of tinned copper wire braid with coverage ≥ 85%
Outer sheath: special PVC, self-extinguishing and flame retardant (as per EN 60332-1),UV resistant
Outer sheath colour: black
Special properties:
- low capacitance
- improved current carrying capacity
- fulfilment of electromagnetic compatibility (EMC) requirements*
- self-extinguishing sheath
- UV resistant sheath

***Note:** in order to ensure optimal screen earthing and the fulfilment of electromagnetic compatibility (EMC) requirements of the connection, we recommend using metal glands or a different type of circuital earthing system (360°).

Application:

Cables with special construction, used to supply power to motors from frequency converters while maintaining full electromagnetic compatibility (EMC). The XLPE insulation improves current carrying capacity maintaining at the same time low capacitance in comparison to PVC insulated cables. The cables are suitable for both fixed installation and flexible connections in industrial equipment, process lines, and machines operating in dry and damp rooms. Black UV-resistant sheath enables installation outside of buildings. The cable is also suitable for direct underground installations. The symmetric construction of the cable (3+3PE) ensures symmetry of voltages on motor terminals.


industrial application


internal application


external application


underground installation


PN-EN60332-1


high flexibility

EMC

UV resistance

Cat. no.	n x mm²	Outer diameter [mm]	Current-carrying capacity *) [A]	Screen cross section [mm²]	Approximate cable weight [kg/km]	Cu [kg/km]
IP1700	3x1,5+3G0,5	11,3	23	2,9	140	86
IP1701	3x2,5+3G0,5	12,2	32	3,2	219	143
IP1702	3x4+3G0,75	13,5	42	3,6	323	224
IP1703	3x6+3G1	14,7	54	4,0	429	298
IP1704	3x10+G1,5	17,0	75	6,5	615	491
IP1705	3x16+3G2,5	19,7	100	7,6	819	723
IP1706	3x25+3G4	24,0	127	9,7	1324	1137
IP1707	3x35+3G6	26,2	158	10,8	1718	1535
IP1708	3x50+3G10	30,1	192	12,7	2398	2207
IP1709	3x70+3G10	35,2	246	18,7	3055	2871
IP1710	3x95+3G16	39,1	298	21,1	4161	3953
IP1711	3x120+3G16	42,5	346	26,7	5073	4836
IP1712	3x150+3G25	48,6	399	30,9	6127	5411
IP1713	3x185+3G35	54,2	456	31,2	7189	6968
IP1714	3x240+3G50	60,5	528	37,4	9594	8540

*) - current-carrying capacity of a single cable in air at a temperature of 30°C

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiTservo 2XSLCH-J

Flexible, halogen-free motor connection cables for frequency converters,with improved current carrying capacity, rated 0,6/1kV

BITNER BiTservo 2XSLCH-J 0,6/1kV CE

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible cable with multi-stranded conductors, with XLPE insulation, double screen and outer sheath made of special halogen-free compound

Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C

Operating voltage: U_0/U=0,6/1kV

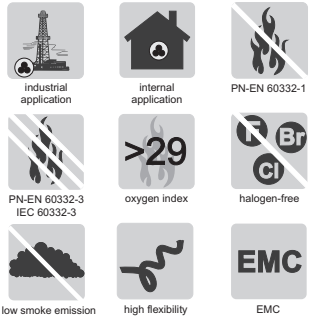
Test voltage: 2500V

Insulation resistance: > 200 MΩxkm

Capacitance:
conductor/conductor =70 to 250 nF/km
conductor/screen = 110 to 410 nF/km

Max. conductor operating temperature: 90°C

Min. bending radius:
Ø<20 mm – 7,5 x Ø
Ø>20 mm - 10 x Ø



Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: cross-linked polyethylene (XLPE)
Core identification: black, brown, grey, green-yellow
Core arrangement: cores twisted together
Screens: electrostatic screen made of aluminium backed polyester tape and a second screen made of tinned copper wire braid with coverage ≥ 85%
Outer sheath: special halogen-free compound, self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. A).
Outer sheath colour: orange
Special properties:
- halogen-free
- low capacitance
- improved current carrying capacity
- fulfilment of electromagnetic compatibility (EMC) requirements*
- self-extinguishing sheath

***Note:** in order to ensure optimal screen earthing and the fulfilment of electromagnetic compatibility (EMC) requirements of the connection, we recommend using metal glands or a different type of circuital earthing system (360°)

Application:

Cables with special construction, used to supply power to motors from frequency converters while maintaining full electromagnetic compatibility (EMC). The XLPE insulation improves current carrying capacity maintaining at the same time low capacitance in comparison to PVC insulated cables. The cables are suitable for both fixed installation and flexible connections in industrial equipment, process lines, and machines operating in dry and damp rooms, also in public buildings. The entire cable is made of halogen-free materials and does not emit noxious substances under fire conditions.

Cat. no.	n x mm²	Outer diameter [mm]	Current-carrying capacity *)[A]	Screen cross section [mm²]	Approximate cable weight [kg/km]	Cu [kg/km]
IP1850	4G1,5	11,3	23	3,2	230	95
IP1851	4G2,5	12,4	32	3,6	300	150
IP1852	4G 4	13,6	42	4,0	485	235
IP1853	4G 6	14,8	54	4,5	630	320
IP1854	4G10	17,5	75	7,1	860	533
IP1855	4G16	20,2	100	8,5	1290	789
IP1856	4G25	24,8	127	10,8	1860	1236
IP1857	4G35	27,4	158	11,9	2610	1662
IP1858	4G50	32,0	192	17,9	2950	2345
IP1859	4G70	37,1	246	21,0	3950	3196
IP1860	4G95	41,6	298	29,6	5300	4316
IP1861	4G120	45,2	346	29,6	6600	5435
IP1862	4G150	52,0	399	34,7	7040	6394
IP1863	4G185	58,1	456	38,9	8380	7639
IP1864	4G240	66,1	528	45,0	1130	10020

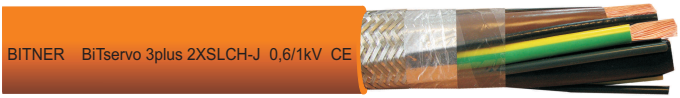
*) current-carrying capacity of a single cable in air at temperature of 30°C

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

BiTservo 3plus 2XSLCH-J

Flexible, halogen-free motor connection cables for frequency converters, symmetric construction,with improved current carrying capacity, rated 0,6/1kV



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible cable with multi-stranded conductors, with XLPE insulation, double screen and halogen-free sheath.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 70°C
Operating voltage: U_0/U=0,6/1kV
Test voltage: 2500V
Insulation resistance: > 200 MΩxkm
Capacitance:
conductor/conductor =70 to 250 nF/km
conductor/screen = 110 to 410 nF/km
Max. conductor operating temperature:
70°C
Min. bending radius:
Ø<20 mm – 7,5 x Ø
Ø>20 mm - 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded class 5 acc. to EN 60228
Insulation: cross-linked polyethylene (XLPE)
Core identification: black, brown, grey, 3x green-yellow (3+3PE)
Core arrangement: cores twisted together in symmetric construction, protective earth split into three arranged symetrically every 120°)
Screens: electrostatic screen made of aluminium backed polyester tape and a second screen made of tinned copper wire braid with coverage ≥ 85%
Outer sheath: special halogen-free compound, self-extinguishing and flame retardant (acc. to EN 60332-1, EN 50265, IEC 60332-1, EN 60332-3-24, IEC 60332-3 cat. A)
Outer sheath colour: orange
Special properties:
- halogen-free
- low capacitance
- improved current carrying capacity
- fulfilment of electromagnetic compatibility (EMC) requirements*
- self-extinguishing sheath
- UV resistant sheath

***Note:** in order to ensure optimal screen earthing and the fulfilment of electromagnetic compatibility (EMC) requirements of the connection, we recommend using metal glands or a different type of circuital earthing system (360°).

Application:

Cables with special construction, used to supply power to motors from frequency converters while maintaining full electromagnetic compatibility (EMC). The XLPE insulation improves current carrying capacity maintaining at the same time low capacitance in comparison to PVC insulated cables. The cables are suitable for both fixed installation and flexible connections in industrial equipment, process lines, and machines operating in dry and damp rooms, also in public buildings. The entire cable is made of halogen-free materials and does not emit noxious substances under fire conditions. The symmetric construction of the cable (3+3PE) ensures symmetry of voltages on motor terminals.


industrial application


internal application


PN-EN 60332-1


PN-EN 60332-3
IEC 60332-3

halogen-free


high flexibility

EMC

oxygen index


low smoke emission

Cat. no.	n x mm²	Outer diameter [mm]	Current-carrying capacity *)[A]	Screen cross section [mm²]	Approximate cable weight [kg/km]	Cu [kg/km]
IP2400	3x1,5+3G0,25	10,5	23	2,9	140	86
IP2401	3x2,5+3G0,5	11,5	32	3,2	219	143
IP2402	3x4+3G0,75	12,7	42	3,6	323	224
IP2403	3x6+3G 1	14,1	54	4,0	429	298
IP2404	3x10+3G1,5	16,2	75	6,5	615	491
IP2405	3x16+3G2,5	18,5	100	7,6	819	723
IP2406	3x25+3G4	22,8	127	9,7	1324	1137
IP2407	3x35+3G6	25,2	158	10,8	1718	1535
IP2408	3x50+3G10	29,2	192	12,7	2398	2207
IP2409	3x70+3G10	33,9	246	18,7	3055	2871
IP2410	3x95+3G16	37,8	298	21,1	4161	3953
IP2411	3x120+3G16	41,1	346	26,7	5073	4836
IP2412	3x150+3G25	47,0	399	30,9	6127	5411
IP2413	3x185+3G35	52,6	456	31,2	7189	6968
IP2414	3x240+3G50	58,3	528	37,4	9594	8540

*) current-carrying capacity of a single cable in air at a temperature of 30°C

Cable Factory BITNER reserve the right to modify the specifications without prior notice
G - cables with green/yellow earthing conductor
x- cables without green/yellow earthing conductor
Note: On customer's request other cross sections or number of cores can be produced

BiTservo EMV

Flexible, rubber insulated and sheathed, screened frequency converter cable, UV resistant, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, rubber insulated and sheathed servo cable with double screen ensuring full electromagnetic compatibility.
Operating temperature:
Fixed installation: -40°C to 90 C
Flexible connections: -30°C to 90°C
Operating voltage: U_0/U=0.6/1kV
Test voltage: 2500V
Max conductor operating temp: 90°C
Min bending radius:
Fixed installation: 6 x Ø
Flexible connections: 10 x Ø

Construction:

Conductors: bare, annealed copper conductors, multi-stranded, highly flexible class 6 acc. to EN 60228
Insulation: EPR rubber, type 3GI3 acc to DIN VDE 0207 p.20
Core identification: white, blue, red, green/yellow
Inner sheath: EPR rubber compund
Screens: aluminium backed polyester tape + tinned copper wire braid, coverage min.80%
Outer sheath: 5GM5 rubber compound acc to DIN VDE 0207 p.21, resistant to ozone, heat, oil, UV radiation. Flame retardant acc to IEC 60332-1.
Outer sheath colour: black

Application:

Cables with special construction used to supply power to motors from frequency converters while maintaining full electromagnetic compatibility (EMC). Cables suitable for fixed and flexible connections in industrial equipment, process lines and machines operating in dry and damp rooms as well as outdoors – UV resistant.


industrial application


internal application


external application

UV resistance

EMC


oil resistant

Cat. no.	n x mm^2	Outer diameter [mm]	Current- carrying capacity [A]	Approx. weight of cable [kg/km]	Cu [kg/km]
IP4070	3x6+3G1,5	20,80	54	652	298
IP4071	3x10+3G1,5	23,50	75	876	498
IP4072	3x16+3G2,5	24,60	100	987	733
IP4073	3x 25+3G4	29,50	127	1434	1140
IP4074	3x35+3G6	31,70	158	1860	1545
IP4075	3x50+3G10	38,00	192	2710	2207
IP4076	3x70+3G10	41,30	246	3448	2870
IP4077	3x95+3G16	48,70	298	4526	3950
IP4078	3x120+3G16	49,30	346	5625	4830
IP4079	3x150+3G25	57,20	399	6846	5410
IP4080	3x185+3G25	63,00	456	8675	6960

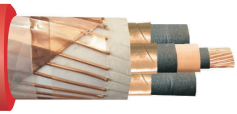
*) current-carrying capacity of a single cable in air at temperature of 30°C

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiTservo 3GSEGCY 3,6/6 kV

Medium voltage cable for connections between motor and frequency converter

BITNER BiTservo 3GSEGCY 3,6/6kV



RoHS 2002/95/WE

Technical data:

Power supply cable for MV motors, screened, with EPR insulation and PVC outer sheath
Operating temperature:
-40°C up to 80°C
Installation temperature:
-5°C up to 70°C
Max conductor operating temperature:
90°C
Max conductor temperature during short circuit (max 5s): 250°C
Operating voltage: U_0/U= 3,6/6kV
AC test voltage: 21kV
Max pulling force during installation [N]:
50*S
S - sum of cross sections of power conductors in mm^2
Min bending radius: 10xØ

Construction:

Conductors: bare, annealed, stranded copper conductors class 2 acc to EN 60228
Semi-conductive layer on conductor: special semi-conductive rubber compound acc to IEC 60502-2
Insulation: EPR rubber acc to IEC 60502-2
Outer semiconductive layer: special semi-conductive rubber compound acc to IEC 60502-2
Screen on insulated conductor: copper tape wrapping on each conductor
Core identification: numbers on outer semiconductive layer
Filler: special polymer compound acc to IEC 60502-2
Concentric conductor: copper wires and helically applied copper tape. Cross section of concentric conductor equals half of the cross section of phase conductor
Outer sheath: special, oil resistant PVC, flame retardant acc to PN-EN 60332-1, LOI>29
Sheath colour: red

Application:

BiTservo 3GSEGCY 3,6/6kV cables are designed for connection between frequency converters and medium voltage motors. They are suitable for installation inside buildings, in dry and moist rooms but also outdoors (resistance to UV and atmospheric conditions) or buried directly in ground.

Cross section of Cu tapes on conductors (sum of cross sections for 3 conductors)

Cross section of phase conductor	Cross section of Cu tapes
35...120 mm^2	16 mm^2
>120 mm^2	25 mm^2


industrial application


internal application


external application


underground installation


PN-EN60332-1

UV resistance


oil resistant

Cat. No	n x mm^2	Diameter over concentric conductor [mm]	Outer diameter [mm]	Current-carrying capacity *) [A]	Capacitance [nF/km]	Approximate cable weight [kg/km]	Cu [kg/km]
IP1100	3x35/18	39,7	46,2	169	280	3400	1330
IP1101	3x50/25	43,2	49,7	203	300	4100	1835
IP1102	3x70/35	47,0	53,5	253	350	5050	2510
IP1103	3x95/50	51,5	58,1	306	390	6250	3350
IP1104	3x120/60	54,6	61,2	352	420	7250	4190
IP1105	3x150/75	59,5	66,1	400	460	8800	5280
IP1106	3x185/95	62,2	68,7	451	500	10200	6460
IP1107	3x240/120	69,1	75,7	523	560	12600	8310

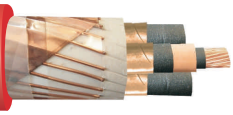
*) current rating for single cable installed in air at 30°C

Constructions with different cross sections or number of cores available on request.
Cable Factory Bitner reserves the right to modify specifications without prior notification

BiTservo 3GSEGCH 3,6/6kV

Medium voltage cable for connections between motor and frequency converter

BITNER BiTservo 3GSEGCH 3,6/6kV



RoHS 2002/95/WE

Technical data:

Power supply cable for MV motors, screened, with EPR insulation and PVC outer sheath
Operating temperature:
-40°C up to 80°C
Installation temperature:
-5°C up to 70°C
Max conductor operating temperature: 90°C
Max conductor temperature during short circuit (max 5s): 250°C
Operating voltage: U_0/U= 3,6/6 kV
AC test voltage: 21kV
Max pulling force during installation [N]: 50*S
S - sum of cross sections of power conductors in mm^2
Min bending radius: 10xØ

Construction:

Conductors: bare, annealed, stranded copper conductors class 2 acc to EN 60228
Semi-conductive layer on conductor: special semi-conductive rubber compound acc to IEC 60502-2
Insulation: EPR rubber acc to IEC 60502-2
Outer semiconductive layer: special semi-conductive rubber compound acc to IEC 60502-2
Screen on insulated conductor: copper tape wrapping on each conductor
Core identification: numbers on outer semiconductive layer
Filler: special polymer compound acc to IEC 60502-2
Concentric conductor: copper wires and helically applied copper tape. Cross section of concentric conductor equals half of the cross section of phase conductor
Outer sheath: special, halogen-free, flame retardant acc to PN-EN 60332-1, LOI>29
Sheath colour: red

Application:

BiTservo 3GSEGCH 3,6/6kV cables are designed for connection between frequency converters and medium voltage motors. They are suitable for installation inside buildings, in dry and moist rooms.

Cross section of Cu tapes on conductors
(sum of cross sections for 3 conductors)

Cross section of phase conductor	Cross section of Cu tapes
35...120 mm^2	16 mm^2
>120 mm^2	25 mm^2


industrial application


internal application


PN-EN60332-1

EMC

halogen-free


low smoke emission

Cat. No	n x mm^2	Diameter over concentric conductor [mm]	Outer diameter [mm]	Current-carrying capacity *) [A]	Capacitance [nF/km]	Approximate cable weight [kg/km]	Cu [kg/km]
IP4150	3x35/18	39,7	46,2	169	280	3400	1330
IP4151	3x50/25	43,2	49,7	203	300	4100	1835
IP4152	3x70/35	47,0	53,5	253	350	5050	2510
IP4153	3x95/50	51,5	58,1	306	390	6250	3350
IP4154	3x120/60	54,6	61,2	352	420	7250	4190
IP4155	3x150/75	59,5	66,1	400	460	8800	5280
IP4156	3x185/95	62,2	68,7	451	500	10200	6460
IP4157	3x240/120	69,1	75,7	523	560	12600	8310

*) current rating for single cable installed in air at 30°C
Constructions with different cross sections or number of cores available on request.
Cable Factory Bitner reserves the right to modify specifications without prior notification

BITNER®

CHAPTER III

Drag chain cables

BiTflex® 500

Highly flexible, PVC sheathed cables for drag chains, rated 300/500V

BITNER BiTflex 500® 300/500V CE

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Highly flexible control cable with number coded conductors, PVC insulation and outer sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 80°C
Installation temperature: -5°C to 50°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Min. bending radius:
Flexible connections: 7,5 x Ø
Fixed installation: 4 x Ø

Construction:

Conductors: highly flexible, bare, annealed copper conductors, multi-stranded class 6 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors with one green/yellow in outer layer
Core arrangement: cores twisted together in layers with short lay length, special wrapping of separating tape between each layer
Outer sheath: special PVC, oil resistant (cf. chemical resistance table), self-extinguishing and flame retardant acc to EN 60332-1
Outer sheath colour: grey

Application:

Highly flexible power/control cables for installations in drag chains suitable for continous movements and multiple bending. Designed and tested to withstand at least 5 million bending cycles in a drag chain.


industrial application


internal application


PN-EN 60332-1


high flexibility


drag chains

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S55000	2x0,5	5,1	37	9,6
S55001	3G0,5	5,4	46	14,4
S55002	4G0,5	5,8	55	19,2
S55003	5G0,5	6,4	63	24,0
S55004	7G0,5	7,4	84	33,6
S55005	7x0,5	7,4	84	33,6
S55006	10G0,5	9,1	125	48,0
S55007	12G0,5	9,4	138	57,6
S55008	14G0,5	9,8	156	67,2
S55009	16G0,5	10,3	172	76,8
S55010	18G0,5	11,1	193	86,4
S55011	20G0,5	11,6	214	96,0
S55012	24G0,5	13,2	251	115,2
S55013	30G0,5	13,7	307	144,0
S55014	37G0,5	15,2	363	177,6
S55015	2x0,75	5,5	46	14,4
S55016	3G0,75	5,8	58	21,6
S55017	4G0,75	6,4	67	28,8
S55018	5G0,75	7,1	89	36,0
S55019	7G0,75	8,2	112	50,4
S55020	7x0,75	8,2	112	50,4
S55021	10G0,75	10,2	163	72,0
S55022	12G0,75	10,4	176	86,4
S55023	14G0,75	10,9	197	100,8
S55024	16G0,75	11,6	226	115,2
S55025	18G0,75	12,3	240	129,6
S55026	20G0,75	12,9	276	144,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S55027	24G0,75	14,8	331	172,8
S55028	2x1,0	5,8	60	19,2
S55029	3G1,0	6,2	69	28,8
S55030	4G1,0	6,9	88	38,4
S55031	5G1,0	7,5	104	48,0
S55032	7G1,0	8,6	129	67,2
S55033	7x1,0	8,6	129	67,2
S55034	10G1,0	10,8	184	96,0
S55035	12G1,0	11,0	208	115,2
S55036	14G1,0	11,7	239	134,4
S55037	16G1,0	12,4	268	153,6
S55038	18G1,0	13,2	301	172,8
S55039	20G1,0	13,8	328	192,0
S55040	24G1,0	15,8	392	230,4
S55041	2x1,5	6,5	78	28,8
S55042	3G1,5	7,1	98	43,2
S55043	4G1,5	7,6	119	57,6
S55044	5G1,5	8,5	146	72,0
S55045	7G1,5	10,1	182	100,8
S55046	10G1,5	12,1	265	144,0
S55047	12G1,5	12,6	312	172,8
S55048	2x2,5	7,8	112	48,0
S55049	3G2,5	8,5	138	72,0
S55050	4G2,5	9,5	178	96,0
S55051	5G2,5	10,4	216	120,0
S55052	7G2,5	12,2	271	168,0
S55053	10G2,5	15,2	392	240,0
S55054	12G2,5	15,4	452	288,0

Cable Factory BITNER reserve the right to modify specifications without prior notification
G - cables with green-yellow conductor
x - cables without green-yellow conductor
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

BiTflex® 500 CY

Highly flexible, screened, PVC sheathed cables for drag chains, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Highly flexible control cable with number coded conductors, PVC insulation and outer sheath, screened.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 80°C
Installation temperature: -5°C to 50°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Min. bending radius:
Flexible connections: 7,5 x Ø
Fixed installation: 4 x Ø

Construction:

Conductors: highly flexible, bare, annealed copper conductors, multi-stranded class 6 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors with one green/yellow in outer layer
Core arrangement: cores twisted together in layers with short lay length, special wrapping of separating tape between each layer
Inner sheath: special PVC
Screen: tinned copper wire braid, coverage ≥85%, special wrapping with separating tape beneath the screen, around the screen special reinforcing fleece tape.
Outer sheath: special PVC, oil resistant (cf. chemical resistance table), self-extinguishing and flame retardant acc to EN 60332-1
Outer sheath colour: grey

Application:

Highly flexible power/control cables for installations in drag chains suitable for continous movements and multiple bending. Designed and tested to withstand at least 5 million bending cycles in a drag chain. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field especially in industrial environment.


industrial application


internal application


PN-EN 60332-1


high flexibility


drag chains

EMC

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S55300	2x0,5	7,4	82,0	37,0
S55301	3G0,5	7,7	87,0	43,0
S55302	4G0,5	8,4	98,0	49,0
S55303	5G0,5	8,8	113,0	58,0
S55304	7G0,5	10,2	145,0	72,0
S55305	12G0,5	12,0	204,0	110,0
S55306	14G0,5	12,8	243,0	125,0
S55307	18G0,5	14,0	287,0	152,0
S55308	24G0,5	17,2	380,0	194,0
S55309	2x0,75	7,7	90,0	42,0
S55310	3G0,75	8,2	109,0	52,0
S55311	4G0,75	8,9	116,0	63,0
S55312	5G0,75	9,7	146,0	78,0
S55313	7G0,75	11,2	175,0	94,0
S55314	12G0,75	12,9	251,0	147,0
S55315	18G0,75	15,5	354,0	205,0
S55316	24G0,75	18,7	485,0	271,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S55317	2x1,0	8,2	101,0	49,0
S55318	3G1,0	8,7	118,0	62,0
S55319	4G1,0	9,5	143,0	75,0
S55320	5G1,0	10,3	159,0	88,0
S55321	7G1,0	11,8	198,0	115,0
S55322	12G1,0	13,8	297,0	182,0
S55323	18G1,0	16,3	421,0	256,0
S55324	24G1,0	19,8	548,0	353,0
S55325	2x1,5	8,9	128,0	62,0
S55326	3G1,5	9,6	156,0	80,0
S55327	4G1,5	10,4	181,0	99,0
S55328	5G1,5	11,3	211,0	120,0
S55329	7G1,5	12,8	261,0	154,0
S55330	12G1,5	15,6	398,0	248,0
S55331	3G2,5	11,2	207,0	122,0
S55332	4G2,5	12,3	248,0	154,0
S55333	5G2,5	13,6	304,0	194,0
S55334	7G2,5	16,4	392,0	254,0

Cable Factory BITNER reserve the right to modify specifications without prior notification
G - cables with green-yellow conductor
x - cables without green-yellow conductor
Note: On customer's request other cross sections or number of cores can be produced

BiTflex® 500 PUR

Highly flexible, PUR sheathed cables for drag chains, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Highly flexible control cable with number coded conductors, PVC insulation and PUR sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 80°C
Installation temperature: -5°C to 50°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Min. bending radius:
Flexible connections: 7,5 x Ø
Fixed installation: 4 x Ø

Construction:

Conductors: highly flexible, bare, annealed copper conductors, multi-stranded class 6 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors with one green/yellow in outer layer
Core arrangement: cores twisted together in layers with short lay length, special wrapping of separating tape between each layer
Outer sheath: special PUR compound, resistant to abrasion, oil, chemicals, industrial coolants UV radiation, halogen-free
Outer sheath colour: grey, mat

Application:

Highly flexible power/control cables for installations in drag chains suitable for continous movements and multiple bending. Designed and tested to withstand at least 5 million bending cycles in a drag chain.


industrial application


internal application


external application


PN-EN 60332-1


high flexibility


drag chains


oil resistant


chemical resistance

UV resistance

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4600	2x0,5	5,0	33,0	9,6
SB4601	3G0,5	5,3	39,0	14,4
SB4602	3x0,5	5,3	39,0	14,4
SB4603	4G0,5	5,7	47,0	19,2
SB4604	4x0,5	5,7	47,0	19,2
SB4605	5G0,5	6,2	58,0	24,0
SB4606	5x0,5	6,2	58,0	24,0
SB4607	6G0,5	7,9	91,0	28,8
SB4608	7G0,5	7,9	94,0	33,6
SB4609	7x0,5	7,9	94,0	33,6
SB4610	8G0,5	8,6	109,0	38,4
SB4611	10G0,5	10,0	137,0	48,0
SB4612	12G0,5	10,3	151,0	57,6
SB4613	12x0,5	10,3	151,0	57,6
SB4614	14G0,5	10,7	168,0	67,2
SB4615	14x0,5	10,7	168,0	67,2
SB4616	16G0,5	11,4	191,0	76,8
SB4617	18G0,5	12,0	210,0	86,4
SB4618	19G0,5	12,0	214,0	91,2
SB4619	21G0,5	12,5	234,0	100,8
SB4620	2x0,75	5,4	40,0	14,4
SB4621	3G0,75	5,7	49,0	21,6
SB4622	3x0,75	5,7	49,0	21,6
SB4623	4G0,75	6,2	59,0	28,8
SB4624	4x0,75	6,2	59,0	28,8
SB4625	5G0,75	7,0	76,0	36,0
SB4626	5x0,75	7,0	76,0	36,0
SB4627	6G0,75	8,5	112,0	43,2
SB4628	7G0,75	8,5	116,0	50,4
SB4629	7x0,75	8,5	116,0	50,4
SB4630	8G0,75	9,6	141,0	57,6
SB4631	10G0,75	10,8	169,0	72,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4632	12G0,75	11,3	192,0	86,4
SB4633	12x0,75	11,3	192,0	86,4
SB4634	14G0,75	11,8	214,0	100,8
SB4635	14x0,75	11,8	214,0	100,8
SB4636	16G0,75	12,4	239,0	115,2
SB4637	18G0,75	13,0	264,0	129,6
SB4638	19G0,75	13,0	268,0	136,8
SB4639	21G0,75	13,7	299,0	151,2
SB4640	2x1,0	5,7	46,0	19,2
SB4641	3G1,0	6,0	57,0	28,8
SB4642	3x1,0	6,0	57,0	28,8
SB4643	4G1,0	6,8	73,0	38,4
SB4644	4x1,0	6,8	73,0	38,4
SB4645	5G1,0	7,4	89,0	48,0
SB4646	5x1,0	7,4	89,0	48,0
SB4647	6G1,0	9,3	139,0	57,6
SB4648	7G1,0	9,3	143,0	67,2
SB4649	7x1,0	9,3	143,0	67,2
SB4650	8G1,0	10,1	165,0	76,8
SB4651	10G1,0	11,6	202,0	96,0
SB4652	12G1,0	11,9	225,0	115,2
SB4653	12x1,0	11,9	225,0	115,2
SB4654	14G1,0	12,4	251,0	134,4
SB4655	14x1,0	12,4	251,0	134,4
SB4656	16G1,0	13,1	282,0	153,6
SB4657	18G1,0	13,9	319,0	172,8
SB4658	19G1,0	13,9	324,0	182,4
SB4659	21G1,0	14,5	354,0	201,6
SB4660	2x1,5	6,4	61,0	28,8
SB4661	3G1,5	7,0	80,0	43,2
SB4662	3x1,5	7,0	80,0	43,2
SB4663	4G1,5	7,6	99,0	57,6

BiTflex® 500 PUR

Highly flexible, PUR sheathed cables for drag chains, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4664	4x1,5	7,6	99,0	57,6
SB4665	5G1,5	8,3	121,0	72,0
SB4666	5x1,5	8,3	121,0	72,0
SB4667	6G1,5	10,4	181,0	86,4
SB4668	7G1,5	10,4	189,0	100,8
SB4669	7x1,5	10,4	189,0	100,8
SB4670	8G1,5	11,5	223,0	115,2
SB4671	10G1,5	13,0	268,0	144,0
SB4672	12G1,5	13,6	307,0	172,8
SB4673	12x1,5	13,6	307,0	172,8
SB4674	2x2,5	7,7	93,0	48,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4675	3G2,5	8,2	118,0	72,0
SB4676	3x2,5	8,2	118,0	72,0
SB4677	4G2,5	9,4	154,0	96,0
SB4678	4x2,5	9,4	154,0	96,0
SB4679	5G2,5	10,2	189,0	120,0
SB4680	5x2,5	10,2	189,0	120,0
SB4681	6G2,5	12,2	267,0	144,0
SB4682	7G2,5	12,2	281,0	168,0
SB4683	7x2,5	12,2	281,0	168,0
SB4684	8G2,5	13,6	331,0	192,0
SB4685	10G2,5	15,4	399,0	24,0
SB4686	12G2,5	16,3	464,0	24,0

Cable Factory BITNER reserve the right to modify specifications without prior notification
G - cables with green-yellow conductor
x - cables without green-yellow conductor
Note: On customer's request other cross sections or number of cores can be produced

BiTflex® 500 CPUR

Highly flexible, screened, PUR sheathed cables for drag chains, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Highly flexible control cable with number coded conductors, PVC insulation and PUR sheath, screened.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -5°C to 80°C
Installation temperature: -5°C to 50°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Min. bending radius:
Flexible connections: 7,5 x Ø
Fixed installation: 4 x Ø

Construction:

Conductors: highly flexible, bare, annealed copper conductors, multi-stranded class 6 acc. to EN 60228
Insulation: special PVC
Core identification: black, number coded conductors with one green/yellow in outer layer
Core arrangement: cores twisted together in layers with short lay length, special wrapping of separating tape between each layer
Inner sheath: special PVC
Screen: tinned copper wire braid, coverage ≥85%, special wrapping with separating tape beneath the screen, around the screen special reinforcing fleece tape.
Outer sheath: special PUR compound, resistant to abrasion, oil, chemicals, industrial coolants UV radiation
Outer sheath colour: grey, mat

Application:

Highly flexible power/control cables for installations in drag chains suitable for continous movements and multiple bending. Designed and tested to withstand at least 5 million bending cycles in a drag chain. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field especially in industrial environment.


industrial application


internal application


external application


PN-EN 60332-1


high flexibility


drag chains

EMC


oil resistant


chemical resistance

UV resistance

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4700	2x0,5	7,1	78,0	36,1
SB4701	3G0,5	7,4	86,0	42,0
SB4702	4G0,5	7,8	97,0	49,0
SB4703	5G0,5	8,3	111,0	57,3
SB4704	6G0,5	9,3	132,0	65,9
SB4705	7G0,5	9,3	136,0	71,7
SB4706	8G0,5	10,0	154,0	80,7
SB4707	10G0,5	11,0	180,0	96,6
SB4708	12G0,5	11,5	200,0	109,4
SB4709	14G0,5	11,9	218,0	122,7
SB4710	16G0,5	12,4	241,0	137,5
SB4711	18G0,5	13,0	262,0	151,3
SB4712	19G0,5	13,0	265,0	157,0
SB4713	21G0,5	13,7	293,0	171,0
SB4714	24G0,5	14,9	330,0	193,8
SB4715	2x0,75	7,5	88,0	41,6
SB4716	3G0,75	7,8	98,0	51,3
SB4717	4G0,75	8,3	113,0	62,3
SB4718	5G0,75	9,3	138,0	73,6
SB4719	6G0,75	9,9	157,0	84,9
SB4720	7G0,75	9,9	161,0	93,3
SB4721	8G0,75	10,6	183,0	106,2
SB4722	10G0,75	12,0	220,0	127,0
SB4723	12G0,75	12,3	241,0	146,5
SB4724	14G0,75	12,8	264,0	164,8
SB4725	16G0,75	13,6	298,0	184,7

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4726	18G0,75	14,2	326,0	204,1
SB4727	19G0,75	14,2	330,0	212,5
SB4728	21G0,75	14,7	358,0	231,7
SB4729	24G0,75	16,5	417,0	263,5
SB4730	2x1,0	7,8	97,0	48,2
SB4731	3G1,0	8,1	111,0	61,8
SB4732	4G1,0	9,1	135,0	74,9
SB4733	5G1,0	9,7	156,0	88,9
SB4734	6G1,0	10,3	178,0	102,9
SB4735	7G1,0	10,3	183,0	114,0
SB4736	8G1,0	11,3	212,0	128,6
SB4737	10G1,0	12,6	252,0	157,1
SB4738	12G1,0	12,9	276,0	180,8
SB4739	14G1,0	13,6	310,0	205,5
SB4740	16G1,0	14,3	344,0	231,0
SB4741	18G1,0	14,9	379,0	256,0
SB4742	19G1,0	14,9	383,0	267,1
SB4743	21G1,0	15,9	430,0	292,5
SB4744	24G1,0	17,4	485,0	332,4
SB4745	2x1,5	8,5	119,0	61,6
SB4746	3G1,5	9,3	144,0	79,6
SB4747	4G1,5	9,9	168,0	98,5
SB4748	5G1,5	10,6	197,0	119,1
SB4749	6G1,5	11,6	230,0	137,3
SB4750	7G1,5	11,6	238,0	153,4
SB4751	8G1,5	12,5	273,0	174,1

BiTflex® 500 CPUR

Highly flexible, screened, PUR sheathed cables for drag chains, rated 300/500V

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4752	10G1,5	14,2	330,0	213,0
SB4753	12G1,5	14,6	365,0	247,3
SB4754	2G2,5	10,0	167,0	89,9
SB4755	3G2,5	10,5	196,0	121,4
SB4756	4G2,5	11,5	234,0	150,8

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB4757	5G2,5	12,3	276,0	183,3
SB4758	6G2,5	13,2	320,0	214,3
SB4759	7G2,5	13,2	333,0	241,9
SB4760	8G2,5	14,6	389,0	275,3
SB4761	10G2,5	16,8	479,0	338,8
SB4762	12G2,5	17,3	534,0	396,3

Cable Factory BITNER reserve the right to modify specifications without prior notification
G - cables with green-yellow conductor
x - cables without green-yellow conductor
Note: On customer's request other cross sections or number of cores can be produced

BiTflex® 530 PUR

Highly flexible, PUR sheathed cables for drag chains, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Highly flexible control cable with number coded conductors, TPE insulation and PUR sheath

Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -30°C to 80°C
Installation temperature: -5°C to 50°C

Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V

Min. bending radius:
Flexible connections: 7,5 x Ø
Fixed installation: 4 x Ø

Construction:

Conductors: highly flexible, bare, annealed copper conductors, multi-stranded class 6 acc. to EN 60228
Insulation: special halogen-free TPE-E or PP
Core identification: black, number coded conductors with one green/yellow in outer layer
Core arrangement: cores twisted together in layers with short lay length, special wrapping of separating tape between each layer
Outer sheath: special PUR compound, resistant to abrasion, oil, chemicals, industrial coolants UV radiation, halogen-free
Outer sheath colour: grey, mat

Application:

Highly flexible power/control cables for installations in drag chains suitable for continous movements and multiple bending. Designed and tested to withstand at least 10 million bending cycles in a drag chain.


industrial application
internal application
external application


PN-EN 60332-1
high flexibility
drag chains
oil resistant
chemical resistance
mechanical resistance
hallogen free EN 50267
low smoke emision EN 61034
UV resistance

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3960	2x0,5	5,0	35	9,6
SB3961	3G0,5	5,3	40	14,2
SB3962	4G0,5	5,7	43	19,0
SB3963	5G0,5	6,3	55	24,0
SB3964	6G0,5	7,1	65	28,0
SB3965	7G0,5	7,3	72	35,0
SB3966	12G0,5	8,7	110	56,0
SB3967	18G0,5	10,4	155	86,0
SB3968	20G0,5	11,5	180	96,0
SB3969	25G0,5	12,7	210	120,0
SB3970	30G0,5	13,6	250	140,0
SB3971	36G0,5	14,2	280	172,0
SB3972	2x0,75	5,5	40	14,0
SB3973	3G0,75	5,7	48	21,8
SB3974	4G0,75	6,4	56	29,0
SB3975	5G0,75	7,0	70	36,0
SB3976	7G0,75	8,3	95	50,0
SB3977	12G0,75	10,0	145	86,0
SB3978	18G0,75	11,9	210	130,0
SB3979	25G0,75	14,7	300	180,0
SB3980	36G0,75	16,2	400	259,0
SB3981	2 x1,0	5,9	48	19,2
SB3982	3G1,0	6,3	58	29,0
SB3983	4G1,0	6,9	70	38,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3984	5G1,0	7,5	85	48,0
SB3985	7G1,0	9,0	120	67,0
SB3986	12G1,0	10,8	180	115,0
SB3987	18G1,0	13,0	260	173,0
SB3988	25G1,0	16,0	360	240,0
SB3989	30G1,0	17,0	450	285,0
SB3990	36G1,0	17,8	510	346,0
SB3991	2x1,5	6,6	60	28,8
SB3992	3G1,5	7,0	78	43,0
SB3993	4G1,5	7,7	100	58,0
SB3994	5G1,5	8,5	120	72,0
SB3995	7G1,5	10,2	170	101,0
SB3996	12G1,5	12,3	250	173,0
SB3997	18G1,5	14,7	400	259,0
SB3998	25G1,5	18,0	540	360,0
SB3999	36G1,5	20,0	730	518,0
SB4000	3G2,5	8,7	120	72,0
SB4001	4G2,5	9,6	150	96,0
SB4002	5G2,5	10,7	190	120,0
SB4003	7G2,5	12,9	250	168,0
SB4004	12G2,5	15,9	450	288,0
SB4005	18G2,5	18,8	660	432,0
SB4006	25G2,5	23,1	890	600,0

Cable Factory BITNER reserve the right to modify specifications without prior notification
G - cables with green-yellow conductor
x - cables without green-yellow conductor
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

BiTflex® 530 CPUR

Highly flexible, screened, PUR sheathed cables for drag chains, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Highly flexible control cable with number coded conductors, TPE insulation and PUR sheath, screened.
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -30°C to 80°C
Installation temperature: -5°C to 50°C
Operating voltage: U_0/U=300/500V
Test voltage (50Hz): 3000V
Min. bending radius:
Flexible connections: 7,5 x Ø
Fixed installation: 4 x Ø

Construction:

Conductors: highly flexible, bare, annealed copper conductors, multi-stranded class 6 acc. to EN 60228
Insulation: special halogen-free TPE-E or PP
Core identification: black, number coded conductors with one green/yellow in outer layer
Core arrangement: cores twisted together in layers with short lay length, special wrapping of separating tape between each layer
Inner sheath: special halogen-free TPE
Screen: tinned copper wire braid, coverage ≥85%, special wrapping with separating tape beneath the screen, around the screen special reinforcing fleece tape.
Outer sheath: special PUR compound, resistant to abrasion, oil, chemicals, industrial coolants UV radiation, halogen-free
Outer sheath colour: grey, mat

industrial application | internal application | external application

PN-EN 60332-1 | high flexibility | drag chains

Application:

Highly flexible power/control cables for installations in drag chains suitable for continous movements and multiple bending. Designed and tested to withstand at least 10 million bending cycles in a drag chain. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field especially in industrial environment.

oil resistant | chemical resistance | mechanical resistance | hallogen free EN 50267 | low smoke emision EN 61034 | EMC | UV resistance

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3900	2x0,5	6,8	67	38
SB3901	3G0,5	7,0	80	43
SB3902	4G0,5	7,4	94	51
SB3903	5G0,5	8,1	107	60
SB3904	6G0,5	8,7	120	64
SB3905	7G0,5	9,3	132	68
SB3906	12G0,5	10,8	175	104
SB3907	18G0,5	12,6	230	143
SB3908	20G0,5	13,5	270	156
SB3909	25G0,5	15,2	310	200
SB3910	30G0,5	15,7	408	225
SB3911	36G0,5	16,7	460	260
SB3912	2x0,75	7,3	80	42
SB3913	3G0,75	7,7	100	48
SB3914	4G0,75	8,2	115	60
SB3915	5G0,75	8,8	130	68
SB3916	7G0,75	10,2	160	89
SB3917	12G0,75	12,0	230	132
SB3918	18G0,75	14,4	330	198
SB3919	25G0,75	17,2	450	269
SB3920	36G0,75	19,1	600	356
SB3921	2 x1,0	7,7	90	45
SB3922	3G1,0	8,1	110	56

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
SB3923	4G1,0	8,7	125	69
SB3924	5G1,0	9,5	150	80
SB3925	7G1,0	11,0	200	110
SB3926	12G1,0	13,0	290	179
SB3927	18G1,0	15,6	420	252
SB3928	25G1,0	19,0	550	337
SB3929	30G1,0	19,6	630	381
SB3930	36G1,0	20,8	760	476
SB3931	2x1,5	8,3	120	59
SB3932	3G1,5	8,9	140	76
SB3933	4G1,5	9,6	160	90
SB3934	5G1,5	10,5	200	114
SB3935	7G1,5	12,2	250	145
SB3936	12G1,5	14,8	420	248
SB3937	18G1,5	17,2	560	356
SB3938	25G1,5	20,9	800	495
SB3939	36G1,5	23,2	1050	672
SB3940	3G2,5	10,7	200	112
SB3941	4G2,5	11,6	235	136
SB3942	5G2,5	12,7	290	184
SB3943	7G2,5	15,3	420	246
SB3944	12G2,5	18,5	630	382
SB3945	18G2,5	21,8	920	575
SB3946	25G2,5	26,3	1260	775

Cable Factory BITNER reserve the right to modify specifications without prior notification
G - cables with green-yellow conductor
x - cables without green-yellow conductor
Note: On customer's request other cross sections or number of cores can be produced

BiTflex® 510 encoder
BiTflex® 510 servo

Connecting cable between servo controller and encoder/resolver for application in drag chains
Connecting cable between servo controller and motor for application in drag chains

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Special cables designed for use in cable chains, TPE insulated and polyurethane sheathed
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -30°C to 80°C
Nominal voltage:
Signal cables: 30V AC/DC
Power cable:
Power cores: 600/1000V
Control cores: 24V AC/DC
Test voltage:
Signal cables: 500V
Power cable: 4000V
Minimum bending radius:
Signal cable:
Fixed: 4x D
Dynamic: 8x D
Power cable:
Fixed: 4x D
Dynamic:up to 16mm²: 7,5x D
from 25mm² up to 50mm²: 10x D

Construction:

Conductors: highly flexible, annealed copper conductors, multi-stranded class 6 acc. to EN 60228
Signal cables: tinned
Power cables: bare
Insulation: special halogen-free TPE-E or PP
Screen: Tinned copper wire braid
Outer sheath: special PUR compound (11Y), resistant to oils and industrial coolants, low adhesive,
Outer sheath colour:
Signal cables: green
Power cables: orange

Application:

Highly flexible servomotor and feedback cables for connections between servo controller and encoder or motor. Intended especially for use in drag chains, Designed and tested to withstand at least 10 million continous bending cycles. Cables are oil-, wear and tear resistant, halogen-free and cold flexible.


industrial application


internal application


PN-EN 60332-1


high flexibility


drag chains


oil resistant


chemical resistance


mechanical resistance

hallogen free EN 50267


low smoke emision EN 61034

EMC

feedback/signal cables

n x mm²	Core marking	Outer diameter [mm]	Approx. cable weight [kg/km]	Cu [kg/km]
(8x2x0,18)	DIN 47100	7,8	90	54
4x2x0,34+4x0,5	orange, red, violet. blue, brown, black, yellow, green, white-red, white-yellow, white-black, white-blue	9,2	125	80
3x(2x0,14)+2x(0,5)	green, yellow, grey, pink, blue, red, white, brown, DiN 47100	9,0	115	72
3x(2x0,14)+4x0,14+2x0,5	green, yellow. black, brown, blue, vlolet yelow, blue, grey, black·white,red, black	9,0	110	75
3x(2x0,14)+4x0,14+2x0,5+4x0,22	green, yellow, black, brown, orange, red, white-yellow, white-black, blue, grey, brown-grey, brown-yellow, green-black, green-red, brown-red, brown-blue	9,7	145	93
4x2x0,18	DIN 47100	6,5	58	38
2x2x0,18	DIN 47100	5,2	38	27
12x0,22	white, brown, green, yellow, grey, blue, red, black, violet, orange, white-black, white-brown	7,2	69	42

BITNER®

BiTflex® 510 encoder
BiTflex® 510 servo

Connecting cable between servo controller and encoder/resolver for application in drag chains
Connecting cable between servo controller and motor for application in drag chains

motor cables

Cat. no.	n x mm²	Core marking	Outer diameter [mm]	Approx. cable weight [kg/km]	Cu [kg/km]
SB5790	4G1,5	U1 V2 W3 green-yellow	9,3	155	92
SB5791	4G2,5		10,9	224	135
SB5792	4G4		12,0	302	208
SB5793	4G6		14,7	455	320
SB5794	4G10		17,8	660	495
SB5795	4G16		21,7	1025	777

servo cables

Cat. no.	n x mm²	Core marking	Outer diameter [mm]	Approx. cable weight [kg/km]	Cu [kg/km]
SB5800	4G1,5+(2x1,5)	Power cores: U1 V2 W3 green-yellow Control cores: BR1 BR2	11,8	235	150
SB5801	4G2,5+(2x1,5)		13,7	310	190
SB5802	4G4+(2x1,5)		14,9	387	265
SB5803	4G6+(2x1,5)		17,0	533	368
SB5804	4G10+(2x1,5)		19,7	769	565
SB5805	4G16+(2x1,5)		23,2	1100	820
SB5806	4G25+(2x1,5)		26,8	1536	1210
SB5807	4G35+(2x1,5)		31,2	2044	1600
SB5808	4G50+(2x1,5)		34,1	2770	2252

Cable Factory BITNER reserve the right to modify specifications without prior notification
Note: On customer's request other cross sections or number of cores can be produced

BiT L2 BUS High Flex

LiO2YS(St)C11Y, Data transmission cables for the Profibus network

RoHS 2002/95/WE

Technical data:

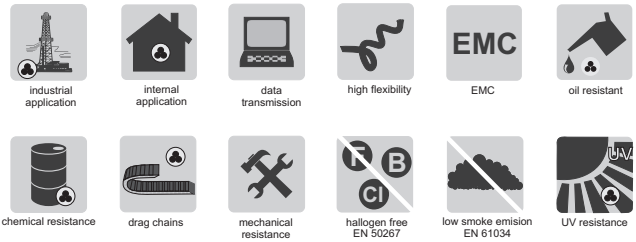
A symmetric cable with multi-stranded copper conductors, with foam polyethylene insulation and a thin external layer of solid polyethylene (O2YS), with common screen of aluminium backed polyester tape (St), and a second screen of tinned copper wire braid (C), polyurethane (11Y) outer sheath.
Wave impedance: 15Ω +/-10%
Conductor loop resistance (max.): 69,1 Ω/km
Insulation resistance (min.): 1GΩxkm
Capacitance: 35nF/km
Test voltage: 1,5 kV
Wave attenuation at a frequency of:
4 MHz = 2,5 dB/100m
16 MHz = 5,2 dB/100m
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -30°C to 80°C
Installation temperature: -5°C to 50°C
Min. bending radius:
Fixed installation: 4xØ
Flexible connections: 7,5xØ

Construction:

Conductors: multi-stranded, bare copper conductors 1x2x0,64mm (AWG24/19)
Insulation: made of foamed polyethylene with a thin external layer of solid polyethylene
Conductor colors: red, green
Core arrangement: cores twisted together with two fillers
Screens: aluminium backed polyester tape and tinned copper wire braid
Sheath: special PUR with increased mechanical and chemical resistance
Sheath colour: purple

Application:

Cables designed for connecting very flexible applications and transmission of analogue and digital signals. Paired construction ensures good symmetry with respect to earth, while double screen protects against interference from external electromagnetic fields, which guarantees very good transmission quality. Cables may be used in dry and damp rooms, and are suitable especially for continous bending in drag chains. Designed and tested to withstand minimum 5 million bending cycles.



Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
EB0018	1x2x0,64	8,1	73	26,3

Cable Factory BITNER reserve the right to modify specifications without prior notification
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

BiT CAN-BUS Drag Chain

Data transmission cables for CAN-BUS network, designed for drag chain operations

RoHS 2002/95/WE

Technical data:

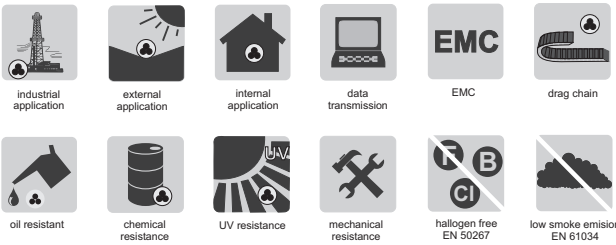
Wave impedance: 120Ω +/-10%
Conductor resistance (max.): 56 Ω/km
Insulation resistance: 5GΩxkm
Capacitance: 40 nF/km
Test voltage: 1,5 kV
Operating temperature: -40°C to 70°C
Installation temperature: -5°C to 50°C
Min. bending radius:
Fixed installation 5xØ
Flexible connection: 10xØ

Construction:

Conductors: very finely stranded bare copper wires (43x0,1mm)
Insulation: made of foamed polyethylene with a thin external layer of solid polyethylene
Conductor colours: white, brown
Core arrangement: cores twisted together
Wrapping: special fleece tape
Screen: tinned copper wire braid
Sheath: special PUR, with enhanced resistance to abrasion, chemicals, resistant to oil, industrial coolants and UV
Sheath colour: purple

Application:

BiT CAN-BUS Drag Chaing Cable for data transmission in CAN (Control Area Network) is designed for continous operation in drag chains withstanding at least 5M bending cycles within a chain. Cable suitable for operation both indoors and outdoors.



Cat. no.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
EB0050	1x2x0,34	7,0	60	30,0

Cable Factory BITNER reserve the right to modify specifications without prior notification
Note: On customer's request other cross sections or number of cores can be produced

CHAPTER IV

Fire resistant cables

NHXH FE180/E90 MICA

Fire resistant, halogen-free power cable

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Fire resistant, halogen-free power and control cable
Temperature range:
Fixed installation: -30°C up to 90°C
During instalation: -5°C up to 50°C
Permissible conductor operating temperature: 90°C
Permissible conductor temperature during short circuit: 250°C
Operating voltage: U_0/U=0,6/1kV
Test voltage: 4kV
Conductor resistance (at 20°C): acc. to PN-EN 60288 cl.1 and 2, IEC 60288 cl. 1 and 2
Minimum bending radius:
single core cables – 15 x Ø
multi core cables – 12 x Ø

Cable construction:

Cores: bare copper conductor, solid (cl.1) or stranded (cl.2) according to PN-EN 60228 and IEC 60228
Insulation: mica tape wrapping and cross-linked polymer HXI1 acc. to DIN VDE 0266
Core colors: acc. to information - chapter - Technical Data
Inner sheath: special halogen-free compound
Outer sheath: halogen-free polymer compound HM4 acc. to DIN VDE 207 p.24
Sheath color: orange

Application:

Fire resistant power and control cables have E90 fire integrity function which means the assurance of power supply or control under fire conditions for 90 minutes. They are intended for use in buildings with increased fire safety requirements due to high concentration of people, material and cultural assets of high value (sky scrapers, hospitals, shopping centres, tunnels, museums, cinemas, theatres). Cables can be used for power supply or control (lighting, lifts, fire-fighting equipment, pumps). They can be used in fixed installations inside buildings. In case of outdoor application cables should be secured against UV radiation and the external factors. Cables with improved fire characteristic E90 must be installed on the supporting systems tested according to DIN 4102-12

Tests:

Flame propagation test for a single insulated cable- PN-EN 60332-1, IEC 60332-1, DIN-VDE 0482-332-1
Flame propagation test for vertically-mounted bunched cables - PN-EN 60332-3-24, IEC 60332-3, DIN -VDE 482-266-2
Test on corrosive gases emitted during burning - PN-EN 50267, IEC 60754 - 2, DIN -VDE 0472-813
Smoke density emission during burning - PN-EN 61034-1(-2),IEC 61034-1(-2), DIN – VDE 0482-1034-2
Insulation resistance to long term fire exposure FE180 - IEC 60331-11, IEC 60331-21, IEC 60331-31, DIN –VDE 0472-814
Fire integrity function of cable support system E90 - DIN - VDE 4102-12

Cable characteristics:

- fire resistant (fire retardant, self extinguishing, flame retardant, without self-ignition properties)
- halogen-free
- flame retardant
- no corrosive gases
- low smoke emission
- increased insulation resistance (FE180)
- fire integrity function (E90)
- low fire load (calorific value)


industrial application


internal application


PN-EN 60332-1


PN-EN 60332-3
IEC 60332-3

halogen-free

insulation resistance to fire 180min

E90 fire integrity function


low smoke emission

BITNER®

NHXH FE180/E90 MICA

Fire resistant, halogen free power cable

Cables without green-yellow core NHXH-O FE180/E90 MICA:

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
B61000	1x1,5 RE	6,7	82	14,4
B61001	1x2,5 RE	7,1	96	24,0
B61002	1x4 RE	7,6	116	38,4
B61003	1x6 RE	8,1	141	57,6
B61004	1x10 RE	8,9	188	96,0
B61005	1x16 RM	10,5	278	153,6
B61006	1x25 RM	12,1	391	240,0
B61007	1x35 RM	13,2	497	336,0
B61008	1x50 RM	15,5	674	480,0
B61009	1x70 RM	16,9	882	672,0
B61010	1x95 RM	19,0	1178	912,0
B61011	1x120 RM	20,7	1410	1152,0
B61012	1x150 RM	23,3	1789	1440,0
B61013	1x185 RM	25,0	2164	1776,0
B61014	1x240 RM	28,4	2739	2304,0
B61085	1x300 RM	30,9	3311	2880,0
B61015	2x1,5 RE	13,0	233	28,8
B61016	2x2,5 RE	13,8	273	48,0
B61017	2x4 RE	14,7	327	76,8
B61018	2x6 RE	15,7	394	115,2
B61019	2x10 RE	17,3	520	192,0
B61020	2x16 RM	20,5	759	307,2
B61021	2x25 RM	23,7	1072	480,0
B61089	2x35 RM	26,1	1356	672,0
B61090	2x50 RM	30,6	1865	960,0
B61091	2x70 RM	33,6	2393	1344,0
B61084	3x1,5 RE	13,6	259	43,2
B61107	3x2,5 RE	14,4	308	72,0
B61108	3x4 RE	15,4	377	115,2
B61109	3x6 RE	16,5	461	172,8
B61110	3x10 RE	18,2	623	288,0
B61111	3x16 RM	21,6	921	460,8
B61112	3x25 RM	25,1	1318	720,0
B61113	3x35 RM	27,7	1693	1008,0
B61114	3x50 RM	32,8	2355	1440,0
B61115	3x70 RM	35,8	3032	2016,0
B61116	3x95 RM	40,2	4054	2736,0
B61117	3x120 RM	44,1	4905	3456,0
B61118	3x150 RM	49,7	6258	4320,0
B61119	3x185 RM	53,9	7565	5328,0
B61087	3x240 RM	61,1	9646	6912,0
B61080	4x1,5 RE	14,6	304	57,6
B61120	4x2,5 RE	15,5	365	96,0
B61121	4x4 RE	16,7	452	153,6
B61122	4x6 RE	17,9	559	230,4
B61083	4x10 RE	19,8	765	384,0
B61088	4x16 RM	23,6	1141	614,4
B61123	4x25 RM	27,6	1651	960,0
B61124	4x35 RM	30,6	2136	1344,0

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
B61082	4x50 RM	36,3	2974	1920,0
B61125	4x70 RM	39,6	3847	2688,0
B61126	4x95 RM	44,8	5192	3648,0
B61127	4x120 RM	49,0	6252	4608,0
B61081	4x150 RM	55,7	8053	5760,0
B61128	4x185 RM	59,8	9666	7104,0
B61129	4x240 RM	67,9	12332	9216,0
B61130	5x1,5 RE	15,8	354	72,0
B61131	5x2,5 RE	16,8	430	120,0
B61132	5x4 RE	18,0	536	192,0
B61133	5x6 RE	19,4	667	288,0
B61134	5x10 RE	21,6	920	480,0
B61135	5x16 RM	25,8	1382	768,0
B61136	5x25 RM	30,4	2023	1200,0
B61137	5x35 RM	34,0	2644	1680,0
B61138	5x50 RM	40,1	3658	2400,0
B61139	5x70 RM	44,2	4769	3360,0
B61140	5x95 RM	49,7	6409	4560,0
B61141	5x120 RM	54,8	7790	5760,0
B61142	5x150 RM	61,8	9951	7200,0
B61143	5x185 RM	66,5	11955	8880,0
B61144	7x1,5 RE	16,9	417	100,8
B61145	7x2,5 RE	18,1	513	168,0
B61146	7x4 RE	19,5	649	268,8
B61147	10x1,5 RE	20,8	557	144,0
B61148	10x2,5 RE	22,3	690	240,0
B61149	10x4 RE	24,2	881	384,0
B61150	12x1,5 RE	21,4	625	172,8
B61151	12x2,5 RE	23,0	781	288,0
B61152	12x4 RE	24,9	1005	460,8
B61153	14x1,5 RE	22,4	701	201,6
B61154	14x2,5 RE	24,1	882	336,0
B61155	14x4 RE	26,1	1140	537,6
B61156	19x1,5 RE	24,7	874	273,6
B61157	19x2,5 RE	26,6	1111	456,0
B61158	19x4 RE	29,1	1461	729,6
B61159	24x1,5 RE	28,7	1079	345,6
B61160	24x2,5 RE	31,4	1405	576,0
B61161	30x1,5 RE	30,4	1283	432,0
B61162	30x2,5 RE	33,2	1679	720,0
B61163	3x25+1x16RM	27,6	1583	873,6
B61164	3x35+1x16RM	30,6	1999	1161,6
B61165	3x50+1x25RM	36,3	2811	1680,0
B61166	3x70+1x35RM	39,6	3613	2352,0
B61167	3x95+1x50RM	44,8	4844	3216,0
B61168	3x120+1x70RM	49,0	5897	4128,0
B61169	3x150+1x70RM	55,7	7461	4992,0
B61170	3x185+1x95RM	59,8	9017	6240,0
B61171	3x240+1x120RM	67,9	11474	8064,0

NHXH FE180/E90 MICA

Fire resistant, halogen-free power cable

Cables with green-yellow core NHXH-J FE180/E90 MICA:

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
B61022	3x1,5 RE	13,6	259	43,2
B61023	3x2,5 RE	14,4	308	72,0
B61024	3x4 RE	15,4	377	115,2
B61025	3x6 RE	16,5	461	172,8
B61026	3x10 RE	18,2	623	288,0
B61027	3x16 RM	21,6	921	460,8
B61028	3x25 RM	25,1	1318	720,0
B61029	3x35 RM	27,7	1693	1008,0
B61030	3x50 RM	32,8	2355	1440,0
B61031	3x70 RM	35,8	3032	2016,0
B61032	3x95 RM	40,2	4054	2736,0
B61033	3x120 RM	44,1	4905	3456,0
B61034	3x150 RM	49,7	6258	4320,0
B61035	3x185 RM	53,9	7565	5328,0
B61036	3x240 RM	61,1	9646	6912,0
B61037	4x1,5 RE	14,6	304	57,6
B61038	4x2,5 RE	15,5	365	96,0
B61039	4x4 RE	16,7	452	153,6
B61040	4x6 RE	17,9	559	230,4
B61041	4x10 RE	19,8	765	384,0
B61042	4x16 RM	23,6	1141	614,4
B61043	4x25 RM	27,6	1651	960,0
B61044	4x35 RM	30,6	2136	1344,0
B61045	4x50 RM	36,3	2974	1920,0
B61046	4x70 RM	39,6	3847	2688,0
B61047	4x95 RM	44,8	5192	3648,0
B61048	4x120 RM	49,0	6252	4608,0
B61049	4x150 RM	55,7	8053	5760,0
B61050	4x185 RM	59,8	9666	7104,0
B61051	4x240 RM	67,9	12332	9216,0
B61052	5x1,5 RE	15,8	354	72,0
B61053	5x2,5 RE	16,8	430	120,0
B61054	5x4 RE	18,0	536	192,0
B61055	5x6 RE	19,4	667	288,0
B61056	5x10 RE	21,6	920	480,0
B61057	5x16 RM	25,8	1382	768,0

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
B61058	5x25 RM	30,4	2023	1200,0
B61059	5x35 RM	34,0	2644	1680,0
B61060	5x50 RM	40,1	3658	2400,0
B61061	5x70 RM	44,2	4769	3360,0
B61062	5x95 RM	49,7	6409	4560,0
B61063	5x120 RM	54,8	7790	5760,0
B61064	5x150 RM	61,8	9951	7200,0
B61065	5x185 RM	66,5	11955	8880,0
B61066	7x1,5 RE	16,9	417	100,8
B61067	7x2,5 RE	18,1	513	168,0
B61092	7x4 RE	19,5	649	268,8
B61068	10x1,5 RE	20,8	557	144,0
B61069	10x2,5 RE	22,3	690	240,0
B61093	10x4 RE	24,2	881	384,0
B61070	12x1,5 RE	21,4	625	172,8
B61071	12x2,5 RE	23,0	781	288,0
B61094	12x4 RE	24,9	1005	460,8
B61072	14x1,5 RE	22,4	701	201,6
B61073	14x2,5 RE	24,1	882	336,0
B61095	14x4 RE	26,1	1140	537,6
B61074	19x1,5 RE	24,7	874	273,6
B61075	19x2,5 RE	26,6	1111	456,0
B61096	19x4 RE	29,1	1461	729,6
B61076	24x1,5 RE	28,7	1079	345,6
B61077	24x2,5 RE	31,4	1405	576,0
B61078	30x1,5 RE	30,4	1283	432,0
B61079	30x2,5 RE	33,2	1679	720,0
B61097	3x25+1x16RM	27,6	1583	873,6
B61098	3x35+1x16RM	30,6	1999	1161,6
B61099	3x50+1x25RM	36,3	2811	1680,0
B61100	3x70+1x35RM	39,6	3613	2352,0
B61101	3x95+1x50RM	44,8	4844	3216,0
B61102	3x120+1x70RM	49,0	5897	4128,0
B61103	3x150+1x70RM	55,7	7461	4992,0
B61104	3x185+1x95RM	59,8	9017	6240,0
B61105	3x240+1x120RM	67,9	11474	8064,0

RE - round conductor, single-wire
RM - round conductor, multi-wire

Cable Factory BITNER reserve the right to modify specifications without prior notification
Note: On customer's request other cross sections or number of cores can be produced

NHXCH FE180/E90 MICA

Fire resistant, halogen-free power cable with concentric conductor

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Fire resistant, halogen-free power cable with concentric conductor
Temperature range:
Fixed installation: -30°C up to 90°C
During instalation: -5°C up to 50°C
Permissible conductor operating temperature: 90°C
Permissible conductor temperature during short circuit: 250°C
Operating voltage: U_0/U=0,6/1kV
Test voltage: 4kV
Conductor resistance (at 20°C): acc. to PN-EN 60288 cl.1 and 2, IEC 60288 cl. 1 and 2
Minimum bending radius: 15 x Ø

Cable construction:

Cores: bare copper conductor, solid (cl.1) or stranded (cl.2) according to PN-EN 60228 and IEC 60228
Insulation: mica tape wrapping and cross linked polymer HXI1 acc. to DIN VDE 0266
Core colors: acc. to information - chapter - Technical Data
Inner sheath: special halogen-free compound
Concentric conductor: copper wires over the inner sheath with helically applied copper tape
Outer sheath: halogen-free polymer compound HM4 acc. to DIN VDE 207 p.24
Sheath color: orange

Application:

Fire resistant power and control cables have E90 fire integrity function which means the assurance of power supply or control under fire conditions for 90 minutes. They are intended for use in buildings with increased fire safety requirements due to high concentration of people, material and cultural assets of high value (sky scrapers, hospitals, shopping centres, tunnels, museums, cinemas, theatres). Cables can be used for power supply or control (lighting, lifts, fire-fighting equipment, pumps). They can be used in fixed installations inside buildings. In case of outdoor application cables should be secured against UV radiation and the external factors. Cables with improved fire characteristic E90 must be installed on the supporting systems tested according to DIN 4102-12

Tests:

Flame propagation test for a single insulated cable - PN-EN 60332-1, IEC 60332-1, DIN-VDE 0482-332-1
Flame propagation test for vertically-mounted bunched cables - PN-EN 60332-3-24, IEC 60332-3, DIN -VDE 482-266-2
Test on corrosive gases emitted during burning - PN-EN 50267, IEC 60754 - 2, DIN -VDE 0472-813
Smoke density emission during burning - PN-EN 61034-1(-2),IEC 61034-1(-2), DIN – VDE 0482-1034-2
Insulation resistance to long term fire exposure FE180 - IEC 60331-11, IEC 60331-21, IEC 60331-31, DIN –VDE 0472-814
Fire integrity function of cable support system E90 - DIN - VDE 4102-12

Cable characteristics:

- fire resistant (fire retardant, self extinguishing, flame retardant, without self-ignition properties)
- halogen-free
- flame retardant
- no corrosive gases
- low smoke emission
- increased insulation resistance (FE180)
- fire integrity function (E90)
- low fire load (calorific value)

NHXCH FE180/E90 MICA

Fire resistant, halogen-free power cable with concentric conductor

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
B61438	2x1,5RE/1,5	14,6	265,0	51,0
B61439	2x2,5RE/2,5	15,6	313,6	82,0
B61440	2x4RE/4	16,7	385,8	120,0
B61441	2x6RE/6	18,1	471,3	181,0
B61442	2x10RE/10	20,1	638,4	309,0
B61443	2x16RM/16	23,3	932,6	492,0
B61444	2x25RM/16	26,5	1250,3	658,0
B61400	3x1,5RE/1,5	15,2	292,3	72,0
B61401	3x2,5RE/2,5	16,2	350,4	108,0
B61402	3x4RE/4	17,4	436,5	163,0
B61403	3x6RE/6	18,9	539,9	245,0
B61404	3x10RE/10	21,0	743,0	406,0
B61405	3x16RM/16	24,4	1097,8	638,0
B61406	3x25RM/16	28,0	1504,9	903,0
B61407	3x35RM/16	30,6	1891,2	1185,0
B61408	3x50RM/25	35,0	2599,1	1718,0
B61425	3x70RM/35	38,6	3382,3	2412,0
B61426	3x95RM/50	43,2	4516,7	3281,0
B61427	3x120RM/70	48,1	5598,1	4242,0
B61428	3x150RM/70	53,7	6960,9	5132,0
B61445	3x185RM/95	57,6	8463,6	6458,0
B61446	3x240RM/120	65,3	10840,0	8465,0
B61409	4x1,5RE/1,5	16,2	338,0	83,4
B61410	4x2,5RE/2,5	17,3	408,7	129,2
B61411	4x4RE/4	18,6	513,0	201,0
B61412	4x6RE/6	20,2	639,1	293,0
B61413	4x10RE/10	22,6	886,8	501,0
B61414	4x16RM16	26,4	1320,7	796,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
B61415	4x25RM/16	30,5	1848,6	1138,0
B61416	4x35RM/16	33,5	2338,9	1530,0
B61417	4x50RM/25	38,4	3216,4	2235,0
B61429	4x70RM/35	42,3	4197,7	3106,0
B61430	4x95RM/50	47,9	5680,8	4195,0
B61431	4x120RM/70	52,8	6949,5	5390,0
B61447	4x150RM/70	59,5	8760,9	6531,0
B61424	4x185RM/95	63,9	10634,1	8310,0
B61448	4x240RM/120	72,0	13533,1	10885,0
B61418	7x1,5RE/2,5	18,7	463,9	132,0
B61419	7x2,5RE/2,5	19,8	561,5	205,0
B61449	7x4RE/4	21,4	714,2	313,0
B61420	10x1,5RE/2,5	22,4	609,3	178,0
B61421	10x2,5RE/4	24,1	757,2	291,0
B61450	10x4RE/6	26,2	967,4	445,0
B61422	12x1,5RE/2,5	22,9	678,3	205,0
B61423	12x2,5RE/4	24,7	851,0	336,0
B61451	12x4RE/6	26,9	1093,2	518,0
B61452	14x1,5RE/2,5	24,0	757,4	235,0
B61453	14x2,5RE/4	25,9	952,9	382,0
B61454	14x4RE/6	28,2	1237,9	608,0
B61432	19x1,5RE/4	26,5	946,1	315,0
B61455	19x2,5RE/6	28,7	1211,5	519,0
B61456	19x4RE/10	31,6	1609,8	840,0
B61435	24x1,5RE/6	30,8	1183,8	408,0
B61436	24x2,5RE/10	34,1	1576,9	700,0
B61457	30x1,5RE/6	32,5	1392,8	494,0
B61458	30x2,5RE/10	36,0	1859,4	831,0

RE round conductor, single-wire
RM round conductor, multi-wire

Cable Factory BITNER reserve the right to modify specifications without prior notification
Note: On customer's request other cross sections or number of cores can be produced

BiTflame AS FE 180/E90, BiTflame AS(St) FE180/E90

Fire resistant, halogen-free telecommunication cable

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Temperature range:
Fixed installation: -40°C up to 80°C
During instalation: -5°C up to 50°C
Operating voltage: 225V
Test voltage:
AC 1500 V
DC 2250 V
Insulation resistance (minimum): 500 MΩ*km
Pair loop resistance at 20°C (maximum):
0,8 mm - 75 Ω/km
1,0 mm - 48 Ω/km
1,4 mm - 26,6 Ω/km
1,8 mm - 14,96 Ω/km
2,3 mm - 9,6 Ω/km
2,8 mm - 6,4 Ω/km
Mutual capacitance of pair at 1kHz (maximum):
Unscreened cable: 120 nF/km
Screened cable: 150 nF/km
Inductance: 0,7 mH/km
Min. bending radius: 10 x Ø

Cable construction:

Cores: solid copper conductor class 1, acc. to PN-EN 60228
Insulation: mica tape wrapping and halogen-free compound
Core colors: acc. to PN -92/T-90321
Wrapping: polyester tape
Screen (St): aluminium backed polyester type with tinned copper drain wire 0,4mm dia
Outer sheath: halogen-free polymer compound
Outer sheath color: red

Application:

Fire resistant, halogen-free telecommunication cables designed for emergency lighting installations, alarm- , signalling-, and teletransmission systems, in sound alarm systems as well as in fire warning systems, fire automation and other safety ensuring installations. Static screen (St) protects the cable against interferences of external magnetic fields. Under fire conditions those cables ensure proper operation of installations for at least 90 minutes (PH90) and durability of conductors insulation for 3h (FE180). During burning cables do not emit corrosive gases or dense smoke. Cables are suitable for fixed installations inside buildings. BiTflame AS(St) FE180/E90 cables have been tested in accordance with the requirements of DIN 4102 p.12 and can be installed in E90 cable support systems as their elements (installation on clamps located every 30cm and 60cm).

Tests:

Flame retardancy test for a single insulated cable: PN-EN 60332-1, IEC 60332-1
Flame retardancy test for vertically-mounted bunched cables: PN-EN 60332-3-24, IEC 60332-3
Emission of corrosive gases during burning: IEC 60754 – 2, PN-EN 50267
Smoke density emission during burning: PN-EN 61034-2, IEC 61034-2
Insulation resistance to long term fire exposure FE180: IEC 60331-11, IEC 60331-21, IEC 60331-23
Fire integrity function of cable installation (PH90): PN –EN 50200
Fire integrity function of cable support system under fire conditions: (E90) DIN 4102 p.12

Cable characteristics:

- fire resistant
- halogen-free
- flame retardant
- no corrosive gases (acidity pH ≥ 4,3; conductivity < 10 µS/mm)
- low smoke emission (light transmittance over 60%)
- increased insulation resistance (FE180)
- fire integrity function (PH90)
- installation on clamps located every 60cm in E90 systems
- low fire load (calorific value)

BITNER®

BiTflame AS FE 180/E90, BiTflame AS(St) FE180/E90

Fire resistant, halogen-free telecommunication cable

BiTflame AS E90:

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0240	1x2x0,8	5,7	37	9,6
BF0241	1x4x0,8	6,5	55	19,3
BF0242	2x2x0,8	7,9	62	19,3
BF0243	3x2x0,8	8,7	81	28,9
BF0244	4x2x0,8	10,0	101	38,6
BF0245	5x2x0,8	10,9	121	48,2
BF0246	7x2x0,8	12,4	167	67,5
BF0247	8x2x0,8	13,0	185	77,1
BF0248	10x2x0,8	14,4	223	96,5
BF0249	20x2x0,8	18,4	408	192,9
BF0250	1x2x1,0	6,3	47	15,1
BF0251	1x4x1,0	7,2	73	30,1
BF0252	2x2x1,0	8,9	81	30,1
BF0253	3x2x1,0	9,7	106	45,2
BF0254	4x2x1,0	11,3	135	60,3
BF0255	5x2x1,0	12,7	174	75,4
BF0256	7x2x1,0	14,0	225	105,5
BF0257	8x2x1,0	14,7	250	120,5
BF0258	10x2x1,0	16,4	303	150,7
BF0259	1x2x1,4	7,4	69	29,5
BF0260	1x4x1,4	8,6	113	59,1
BF0261	2x2x1,4	10,7	123	59,1
BF0262	3x2x1,4	11,7	167	88,6
BF0263	4x2x1,4	14,0	227	118,2
BF0264	5x2x1,4	15,4	274	147,7
BF0265	7x2x1,4	17,0	360	206,8
BF0266	8x2x1,4	18,2	420	236,3
BF0267	10x2x1,4	20,4	512	295,4
BF0268	1x2x1,8	8,4	94	48,8
BF0269	1x4x1,8	9,7	160	97,7
BF0270	2x2x1,8	12,6	183	97,7
BF0271	3x2x1,8	13,9	250	146,5
BF0272	4x2x1,8	16,2	321	195,3
BF0273	5x2x1,8	18,2	407	244,2
BF0274	7x2x1,8	20,1	538	341,8
BF0275	8x2x1,8	21,0	603	390,6
BF0276	10x2x1,8	23,8	750	488,5
BF0277	1x2x2,3	9,6	132	79,7
BF0278	1x4x2,3	11,2	232	159,5
BF0279	2x2x2,3	14,5	259	159,5
BF0280	3x2x2,3	16,1	359	239,2
BF0281	4x2x2,3	19,1	484	318,9
BF0282	5x2x2,3	21,0	588	398,7
BF0283	7x2x2,3	23,5	798	558,1
BF0284	8x2x2,3	24,6	898	637,8
BF0285	10x2x2,3	27,7	1103	797,3
BF0286	1x2x2,8	10,8	179	118,2
BF0287	1x4x2,8	13,0	332	236,3
BF0288	2x2x2,8	16,5	351	236,3
BF0289	3x2x2,8	18,6	511	354,5
BF0290	4x2x2,8	21,7	664	472,6

BiTflame AS(St) E90:

Cat. no.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0300	1x2x0,8	7,0	54	10,9
BF0301	1x4x0,8	7,8	75	20,5
BF0302	2x2x0,8	9,2	85	20,5
BF0303	3x2x0,8	10,0	105	30,1
BF0304	4x2x0,8	11,3	129	39,8
BF0305	5x2x0,8	12,3	151	49,4
BF0306	7x2x0,8	13,4	188	68,7
BF0307	8x2x0,8	13,9	207	78,3
BF0308	10x2x0,8	15,4	247	97,7
BF0309	20x2x0,8	19,3	438	194,1
BF0310	1x2x1,0	7,6	66	16,3
BF0311	1x4x1,0	8,5	94	31,3
BF0312	2x2x1,0	10,2	105	31,3
BF0313	3x2x1,0	11,1	134	46,4
BF0314	4x2x1,0	12,6	166	61,5
BF0315	5x2x1,0	13,7	195	76,6
BF0316	7x2x1,0	15,0	248	106,7
BF0317	8x2x1,0	15,6	274	121,8
BF0318	10x2x1,0	17,4	330	151,9
BF0319	1x2x1,4	8,7	90	30,7
BF0320	1x4x1,4	9,9	137	60,3
BF0321	2x2x1,4	12,0	152	60,3
BF0322	3x2x1,4	13,1	199	89,8
BF0323	4x2x1,4	15,0	251	119,4
BF0324	5x2x1,4	16,4	299	148,9
BF0325	7x2x1,4	18,4	405	208,0
BF0326	8x2x1,4	19,2	450	237,6
BF0327	10x2x1,4	21,4	545	296,6
BF0328	1x2x1,8	9,7	118	50,0
BF0329	1x4x1,8	11,1	186	98,9
BF0330	2x2x1,8	13,6	205	98,9
BF0331	3x2x1,8	14,9	273	147,7
BF0332	4x2x1,8	17,1	348	196,5
BF0333	5x2x1,8	19,1	436	245,4
BF0334	7x2x1,8	21,0	570	343,0
BF0335	8x2x1,8	22,0	637	391,8
BF0336	10x2x1,8	25,0	799	489,5
BF0337	1x2x2,3	11,0	159	80,9
BF0338	1x4x2,3	12,5	262	160,7
BF0339	2x2x2,3	15,5	283	160,7
BF0340	3x2x2,3	17,0	386	240,4
BF0341	4x2x2,3	20,1	515	320,1
BF0342	5x2x2,3	22,0	622	399,9
BF0343	7x2x2,3	24,7	847	559,3
BF0344	8x2x2,3	25,8	949	639,1
BF0345	10x2x2,3	29,2	1187	798,5
BF0346	1x2x2,8	12,2	209	119,4
BF0347	1x4x2,8	14,0	354	237,5
BF0348	2x2x2,8	17,4	378	237,5
BF0349	3x2x2,8	19,6	541	355,7
BF0350	4x2x2,8	22,7	698	473,9

Cable Factory BITNER reserve the right to modify specifications without prior notification
Note: On customer's request other cross sections or number of cores can be produced

BiTflame S FE180/E90, BiTflame S(St) FE180/E90

Fire resistant, halogen-free power cable 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Temperature range:
Fixed installation: -40°C up to 80°C
During installation: -10°C up to 50°C
Operating voltage: 300/500 V
Test voltage:
AC 2000 V
DC 5000V
Insulation resistance (min.): 100 MΩ*km
Min. bending radius: 10 x Ø

Cable characteristics:

- fire resistant
- halogen-free
- flame retardant
- no corrosive gases (acidity pH ≥ 4,3; conductivity < 10 µS/mm)
- low smoke emission (light transmittance over 60%)
- increased insulation resistance (FE180)
- fire integrity function (PH90)
- low fire load (calorific value)

Tests:

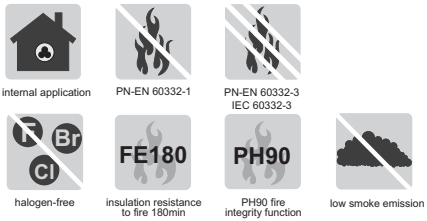
Flame test for a single insulated cable:
PN-EN 60332-1, IEC 60332-1
Flame test for vertically-mounted bunched cables:
PN-EN 60332-3-22, IEC 60332-3 cat.A
Emission of corrosive gases during burning:
IEC 60754 – 2, PN-EN 50267
Smoke density emission during burning :
PN-EN 61034-2, IEC 61034-2
Insulation resistance to long term fire exposure FE180:
IEC 60331-11, IEC 60331-21, IEC 60331-23
Fire integrity function of cable installations (PH90):
PN –EN 50200

Cable construction:

Conductor: bare, solid copper conductor, class 1 acc to PN-EN 60228, IEC 60228
Insulation: special ceramic silicone rubber
Core colors:
without green/yellow earth conductor
2- core – blue, brown
3- core – brown, black, grey
4-core – blue, brown, black, grey
5-core - blue, brown, black, grey, black
Above 5 cores – In each layer:
brown (starting conductor), blue (reference conductor), remaining conductors – any freely selected colours with exception of green, yellow, brown, blue with green/yellow earth conductor
3-core – green/yellow, blue, brown
4-core - green/yellow, brown, black, grey
5-core – green/yellow, blue, brown, black, grey
Above 5 cores – In external layer:
green/yellow (starting conductor), blue (reference conductor) remaining conductors – any freely selected colours with exception of green, yellow, brown, blue
Other layers: brown (starting conductor), blue (reference conductor) remaining conductors – any freely selected colours with exception of green, yellow, brown, blue
Wrapping: polyester tape
Screen (St): aluminium backed polyester tape with tinned copper drain wire
Outer sheath: halogen-free compound
Outer sheath colour: red

Application:

Halogen-free fire resistant cables designed for installations in places where it is necessary to ensure operation of devices under fire conditions. They are recommended for emergency lighting installations, smoke extraction systems, alarm systems, signalling systems, sound warning and control systems, fire alarm signalling and automation and other safety ensuring circuits. Static screen in BiTflame S(St) cables protects them against interferences of external magnetic fields. Under fire conditions those cables ensure correct functioning of installation for at least 90 minutes (PH90) and insulation resistance to fire exposure for 180 minutes (FE180). During burning they do not emit corrosive gases or dense smoke. Cables are suitable for fixed installations inside buildings.



BiTflame S FE180/E90, BiTflame S(St) FE180/E90

Fire resistant, halogen-free power cable 300/500V

Cables without green-yellow core BiTflame S

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0360	2x1,0	6,7	54	19,2
BF0361	2x1,5	7,5	67	28,8
BF0362	2x2,5	9,1	103	48,0
BF0363	2x4,0	10,0	136	76,8
BF0364	3x1,0	7,1	69	28,8
BF0365	3x1,5	7,9	88	43,2
BF0366	3x2,5	9,6	136	72,0
BF0367	3x4,0	10,8	189	115,2
BF0368	4x1,0	8,0	90	38,4
BF0369	4x1,5	9,1	120	57,6
BF0370	4x2,5	10,8	176	96,0
BF0371	4x4,0	11,9	240	153,6
BF0372	5x1,0	8,7	116	48,0
BF0373	5x1,5	9,8	150	72,0
BF0374	5x2,5	11,6	223	120,0
BF0375	5x4,0	12,9	301	192,0
BF0376	7x1,0	9,5	143	67,2
BF0377	7x1,5	10,9	191	100,8
BF0378	7x2,5	12,7	278	168,0
BF0379	10x1,0	12,0	204	96,0
BF0380	10x1,5	13,6	265	144,0
BF0381	10x2,5	16,6	411	240,0
BF0382	12x1,0	12,4	234	115,2

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0383	12x1,5	14,0	306	172,8
BF0384	12x2,5	17,1	475	288,0
BF0385	14x1,0	13,0	265	134,4
BF0386	14x1,5	14,7	348	201,6
BF0387	14x2,5	19,0	541	336,0
BF0388	16x1,0	13,8	302	153,6
BF0389	16x1,5	16,1	427	230,4
BF0390	16x2,5	19,6	655	384,0
BF0391	19x1,0	14,4	344	182,4
BF0392	19x1,5	17,0	477	273,6
BF0393	19x2,5	20,6	735	456,0
BF0394	20x1,0	15,9	384	192,0
BF0395	20x1,5	18,6	546	288,0
BF0396	20x2,5	21,8	801	480,0
BF0397	24x1,0	17,3	452	230,4
BF0398	24x1,5	20,3	622	345,6
BF0399	24x2,5	24,5	949	576,0
BF0400	30x1,0	18,9	569	288,0
BF0401	30x1,5	21,4	747	432,0
BF0402	30x2,5	25,9	1144	720,0
BF0403	37x1,0	20,3	680	355,2
BF0404	37x1,5	23,7	929	532,8
BF0405	37x2,5	27,9	1375	888,0

Cables with green-yellow core BiTflame S

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0408	3x1,0	7,1	69	28,8
BF0409	3x1,5	7,9	88	43,2
BF0410	3x2,5	9,6	136	72,0
BF0411	3x4,0	10,8	189	115,2
BF0412	4x1,0	8,0	90	38,4
BF0413	4x1,5	9,1	120	57,6
BF0414	4x2,5	10,8	176	96,0
BF0415	4x4,0	11,9	240	153,6
BF0416	5x1,0	8,7	116	48,0
BF0417	5x1,5	9,8	150	72,0
BF0418	5x2,5	11,6	223	120,0
BF0419	5x4,0	12,9	301	192,0
BF0420	7x1,0	9,5	143	67,2
BF0421	7x1,5	10,9	191	100,8
BF0422	7x2,5	12,7	278	168,0
BF0423	10x1,0	12,0	204	96,0
BF0424	10x1,5	13,6	265	144,0
BF0425	10x2,5	16,6	411	240,0
BF0426	12x1,0	12,4	234	115,2
BF0427	12x1,5	14,0	306	172,8
BF0428	12x2,5	17,1	475	288,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0429	14x1,0	13,0	265	134,4
BF0430	14x1,5	14,7	348	201,6
BF0431	14x2,5	19,0	541	336,0
BF0432	16x1,0	13,8	302	153,6
BF0433	16x1,5	16,1	427	230,4
BF0434	16x2,5	19,6	655	384,0
BF0435	19x1,0	14,4	344	182,4
BF0436	19x1,5	17,0	477	273,6
BF0437	19x2,5	20,6	735	456,0
BF0438	20x1,0	15,9	384	192,0
BF0439	20x1,5	18,6	546	288,0
BF0440	20x2,5	21,8	801	480,0
BF0441	24x1,0	17,3	452	230,4
BF0442	24x1,5	20,3	622	345,6
BF0443	24x2,5	24,5	949	576,0
BF0444	30x1,0	18,9	569	288,0
BF0445	30x1,5	21,4	747	432,0
BF0446	30x2,5	25,9	1144	720,0
BF0447	37x1,0	20,3	680	355,2
BF0448	37x1,5	23,7	929	532,8
BF0449	37x2,5	27,9	1375	888,0

BiTflame S FE180/E90, BiTflame S(St) FE180/E90

Fire resistant, halogen-free power cable 300/500V

Cables without green-yellow core BiTflame S(St)

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0460	2x1,0	7,1	63	26,4
BF0461	2x1,5	7,9	78	36,0
BF0462	2x2,5	9,5	115	55,2
BF0463	2x4,0	10,4	150	84,0
BF0464	3x1,0	7,5	79	36,0
BF0465	3x1,5	8,3	99	50,4
BF0466	3x2,5	10,0	148	79,2
BF0467	3x4,0	11,2	203	122,4
BF0468	4x1,0	8,4	100	45,6
BF0469	4x1,5	9,5	132	64,8
BF0470	4x2,5	11,2	190	103,2
BF0471	4x4,0	12,3	256	160,8
BF0472	5x1,0	9,1	125	55,2
BF0473	5x1,5	10,2	161	79,2
BF0474	5x2,5	12,0	235	127,2
BF0475	5x4,0	13,3	318	199,2
BF0476	7x1,0	9,9	154	74,4
BF0477	7x1,5	11,3	203	108,0
BF0478	7x2,5	13,1	293	175,2
BF0479	10x1,0	12,4	214	103,2
BF0480	10x1,5	14,0	279	151,2
BF0481	10x2,5	17,0	430	247,2
BF0482	12x1,0	12,8	244	122,4

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0483	12x1,5	14,4	320	180,0
BF0484	12x2,5	17,5	494	295,2
BF0485	14x1,0	13,4	276	141,6
BF0486	14x1,5	15,1	371	208,8
BF0487	14x2,5	18,4	589	343,2
BF0488	16x1,0	14,2	313	160,8
BF0489	16x1,5	16,5	438	237,6
BF0490	16x2,5	20,0	668	391,2
BF0491	19x1,0	14,8	375	189,6
BF0492	19x1,5	17,4	520	280,8
BF0493	19x2,5	21,0	758	463,2
BF0494	20x1,0	16,2	408	199,2
BF0495	20x1,5	18,9	565	295,2
BF0496	20x2,5	22,1	825	487,2
BF0497	24x1,0	17,7	462	237,6
BF0498	24x1,5	20,7	642	352,8
BF0499	24x2,5	24,9	976	583,2
BF0500	30x1,0	19,3	580	295,2
BF0501	30x1,5	21,8	768	439,2
BF0502	30x2,5	26,3	1173	727,2
BF0503	37x1,0	20,7	689	362,4
BF0504	37x1,5	24,1	918	540,0
BF0505	37x2,5	28,3	1406	895,2

Cables with green-yellow core BiTflame S(St)

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0508	3x1,0	7,5	79	36,0
BF0509	3x1,5	8,3	99	50,4
BF0510	3x2,5	10,0	148	79,2
BF0511	3x4,0	11,2	203	122,4
BF0512	4x1,0	8,4	100	45,6
BF0513	4x1,5	9,5	132	64,8
BF0514	4x2,5	11,2	190	103,2
BF0515	4x4,0	12,3	256	160,8
BF0516	5x1,0	9,1	125	55,2
BF0517	5x1,5	10,2	161	79,2
BF0518	5x2,5	12,0	235	127,2
BF0519	5x4,0	13,3	318	199,2
BF0520	7x1,0	9,9	154	74,4
BF0521	7x1,5	11,3	203	108,0
BF0522	7x2,5	13,1	293	175,2
BF0523	10x1,0	12,4	214	103,2
BF0524	10x1,5	14,0	279	151,2
BF0525	10x2,5	17,0	430	247,2
BF0526	12x1,0	12,8	244	122,4
BF0527	12x1,5	14,4	320	180,0
BF0528	12x2,5	17,5	494	295,2

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0529	14x1,0	13,4	276	141,6
BF0530	14x1,5	15,1	371	208,8
BF0531	14x2,5	18,4	589	343,2
BF0532	16x1,0	14,2	313	160,8
BF0533	16x1,5	16,5	438	237,6
BF0534	16x2,5	20,0	668	391,2
BF0535	19x1,0	14,8	375	189,6
BF0536	19x1,5	17,4	520	280,8
BF0537	19x2,5	21,0	758	463,2
BF0538	20x1,0	16,2	408	199,2
BF0539	20x1,5	18,9	565	295,2
BF0540	20x2,5	22,1	825	487,2
BF0541	24x1,0	17,7	462	237,6
BF0542	24x1,5	20,7	642	352,8
BF0543	24x2,5	24,9	976	583,2
BF0544	30x1,0	19,3	580	295,2
BF0545	30x1,5	21,8	768	439,2
BF0546	30x2,5	26,3	1173	727,2
BF0547	37x1,0	20,7	689	362,4
BF0548	37x1,5	24,1	918	540,0
BF0549	37x2,5	28,3	1406	895,2

Cable Factory BITNER reserve the right to modify specifications without prior notification
Note: On customer's request other cross sections or number of cores can be produced

BiTflame SL FE180/E90, BiTflame SL(St) FE180/E90

Fire resistant, flexible, halogen-free power cable 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Temperature range:
Fixed installation: -40°C up to 80°C
During installation: -10°C up to 50°C
Operating voltage: 300/500 V
Test voltage:
AC 2000 V
DC 5000V
Insulation resistance (min.): 100 MΩ*km
Min. bending radius: 6 x Ø

Cable characteristics:

- fire resistant
- halogen-free
- flame retardant
- no corrosive gases (acidity pH ≥ 4,3; conductivity < 10 µS/mm)
- low smoke emission (light transmittance over 60%)
- increased insulation resistance (FE180)
- fire integrity function (PH90)
- low fire load (calorific value)

Tests:

Flame test for a single insulated cable:
PN-EN 60332-1, IEC 60332-1
Flame test for vertically-mounted bunched cables:
PN-EN 60332-3-22, IEC 60332-3 cat.A
Emission of corrosive gases during burning: IEC 60754 – 2, PN-EN 50267
Smoke density emission during burning:
PN-EN 61034-2, IEC 61034-2
Insulation resistance to long term fire exposure FE180:
IEC 60331-11, IEC 60331-21, IEC 60331-23
Fire integrity function of cable installations (PH90):
PN –EN 50200

Cable construction:

Conductor: bare, flexible, multi-stranded copper conductor, class 5 acc to PN-EN 60228, IEC 60228
Insulation: special ceramic silicone rubber
Core colors:
without green/yellow earth conductor
2- core – blue, brown
3- core – brown, black, grey
4-core – blue, brown, black, grey
5-core - blue, brown, black, grey, black
Above 5 cores – In each layer:
brown (starting conductor), blue (reference conductor), remaining conductors – any freely selected colours with exception of green, yellow, brown, blue with green/yellow earth conductor
3-core – green/yellow, blue, brown
4-core - green/yellow, brown, black, grey
5-core – green/yellow, blue, brown, black, grey
Above 5 cores – In external layer:
green/yellow (starting conductor), blue (reference conductor) remaining conductors – any freely selected colours with exception of green, yellow, brown, blue
Other layers: brown (starting conductor), blue (reference conductor) remaining conductors – any freely selected colours with exception of green, yellow, brown, blue
Wrapping: polyester tape
Screen (St): aluminium backed polyester tape with tinned copper drain wire
Outer sheath: halogen-free compound
Outer sheath colour: red

Application:

Halogen-free fire resistant cables designed for installations in places where it is necessary to ensure operation of devices under fire conditions. They are recommended for emergency lighting installations, smoke extraction systems, alarm systems, signalling systems, sound warning and control systems, fire alarm signalling and automation and other safety ensuring circuits. Static screen in BiTflame SL(St) cables protects them against interferences of external magnetic fields. Under fire conditions those cables ensure correct functioning of installation for at least 90 minutes (PH90) and insulation resistance to fire exposure for 180 minutes (FE180). During burning they do not emit corrosive gases or dense smoke. Cables are suitable for fixed installations inside buildings.


internal application


PN-EN 60332-1


PN-EN 60332-3
IEC 60332-3

halogen-free

insulation resistance to fire 180min

PH90 fire integrity function


low smoke emission

BiTflame SL FE180/E90, BiTflame SL(St) FE180/E90

Fire resistant, flexible, halogen-free power cable 300/500V

Cables without green-yellow core BiTflame SL FE180/E9:

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0560	2x1,0	7,0	54	19,2
BF0561	2x1,5	7,8	68	28,8
BF0562	2x2,5	9,7	106	48,0
BF0563	2x4,0	10,8	141	76,8
BF0564	3x1,0	7,4	69	28,8
BF0565	3x1,5	8,2	89	43,2
BF0566	3x2,5	10,2	139	72,0
BF0567	3x4,0	11,6	195	115,2
BF0568	4x1,0	8,3	90	38,4
BF0569	4x1,5	9,5	121	57,6
BF0570	4x2,5	11,5	180	96,0
BF0571	4x4,0	12,9	247	153,6
BF0572	5x1,0	9,2	115	48,0
BF0573	5x1,5	10,2	151	72,0
BF0574	5x2,5	12,5	226	120,0
BF0575	5x4,0	13,9	312	192,0
BF0576	7x1,0	9,9	142	67,2
BF0577	7x1,5	11,3	191	100,8
BF0578	7x2,5	13,6	282	144,0
BF0579	10x1,0	12,6	202	96,0
BF0580	10x1,5	14,2	265	144,0
BF0581	10x2,5	17,8	418	240,0
BF0582	12x1,0	13,0	231	115,2

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0583	12x1,5	14,6	305	172,8
BF0584	12x2,5	18,4	482	288,0
BF0585	14x1,0	13,6	261	134,4
BF0586	14x1,5	16,0	370	201,6
BF0587	14x2,5	19,9	577	336,0
BF0588	16x1,0	14,4	298	153,6
BF0589	16x1,5	16,8	422	230,4
BF0590	16x2,5	21,0	658	384,0
BF0591	19x1,0	15,1	337	182,4
BF0592	19x1,5	17,7	477	273,6
BF0593	19x2,5	22,1	746	456,0
BF0594	20x1,0	16,0	371	192,0
BF0595	20x1,5	19,0	523	288,0
BF0596	20x2,5	23,6	818	480,0
BF0597	24x1,0	18,2	445	230,4
BF0598	24x1,5	21,2	622	345,6
BF0599	24x2,5	26,3	964	576,0
BF0600	30x1,0	19,8	561	288,0
BF0601	30x1,5	22,4	746	432,0
BF0602	30x2,5	27,8	1159	720,0
BF0603	37x1,0	21,3	668	355,2
BF0604	37x1,5	24,7	928	532,8
BF0605	37x2,5	30,0	1391	888,0

Cables with green-yellow core BiTflame SL FE180/E9:

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0620	3x1,0	7,4	69	28,8
BF0621	3x1,5	8,2	89	43,2
BF0622	3x2,5	10,2	139	72,0
BF0623	3x4,0	11,6	195	115,2
BF0624	4x1,0	8,3	90	38,4
BF0625	4x1,5	9,5	121	57,6
BF0626	4x2,5	11,5	180	96,0
BF0627	4x4,0	12,9	247	153,6
BF0628	5x1,0	9,2	115	48,0
BF0629	5x1,5	10,2	151	72,0
BF0630	5x2,5	12,5	226	120,0
BF0631	5x4,0	13,9	312	192,0
BF0632	7x1,0	9,9	142	67,2
BF0633	7x1,5	11,3	191	100,8
BF0634	7x2,5	13,6	282	144,0
BF0635	10x1,0	12,6	202	96,0
BF0636	10x1,5	14,2	265	144,0
BF0637	10x2,5	17,8	418	240,0
BF0638	12x1,0	13,0	231	115,2
BF0639	12x1,5	14,6	305	172,8
BF0640	12x2,5	18,4	482	288,0

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0641	14x1,0	13,6	261	134,4
BF0642	14x1,5	16,0	370	201,6
BF0643	14x2,5	19,9	577	336,0
BF0644	16x1,0	14,4	298	153,6
BF0645	16x1,5	16,8	422	230,4
BF0646	16x2,5	21,0	658	384,0
BF0647	19x1,0	15,1	337	182,4
BF0648	19x1,5	17,7	477	273,6
BF0649	19x2,5	22,1	746	456,0
BF0650	20x1,0	16,0	371	192,0
BF0651	20x1,5	19,0	523	288,0
BF0652	20x2,5	23,6	818	480,0
BF0653	24x1,0	18,2	445	230,4
BF0654	24x1,5	21,2	622	345,6
BF0655	24x2,5	26,3	964	576,0
BF0656	30x1,0	19,8	561	288,0
BF0657	30x1,5	22,4	746	432,0
BF0658	30x2,5	27,8	1159	720,0
BF0659	37x1,0	21,3	668	355,2
BF0660	37x1,5	24,7	928	532,8
BF0661	37x2,5	30,0	1391	888,0

BiTflame SL FE180/E90, BiTflame SL(St) FE180/E90

Fire resistant, flexible, halogen-free power cable 300/500V

Cables without green-yellow core BiTflame SL(St) FE180/E90

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0670	2x1,0	7,4	64	26,4
BF0671	2x1,5	8,2	81	36,0
BF0672	2x2,5	10,1	121	55,2
BF0673	2x4,0	11,2	156	84,0
BF0674	3x1,0	7,8	79	36,0
BF0675	3x1,5	8,6	104	50,4
BF0676	3x2,5	10,6	155	79,2
BF0677	3x4,0	12,0	210	122,4
BF0678	4x1,0	8,7	100	45,6
BF0679	4x1,5	9,9	138	64,8
BF0680	4x2,5	11,9	199	103,2
BF0681	4x4,0	13,3	265	160,8
BF0682	5x1,0	9,6	127	55,2
BF0683	5x1,5	10,6	169	79,2
BF0684	5x2,5	12,9	246	127,2
BF0685	5x4,0	14,3	330	199,2
BF0686	7x1,0	10,3	153	74,4
BF0687	7x1,5	11,7	212	108,0
BF0688	7x2,5	14,0	306	175,2
BF0689	10x1,0	13,0	214	103,2
BF0690	10x1,5	14,6	291	151,2
BF0691	10x2,5	18,2	448	247,2
BF0692	12x1,0	13,4	243	122,4

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0693	12x1,5	15,0	334	180,0
BF0694	12x2,5	18,8	515	295,2
BF0695	14x1,0	14,0	273	141,6
BF0696	14x1,5	16,4	386	208,8
BF0697	14x2,5	20,3	585	343,2
BF0698	16x1,0	14,8	310	160,8
BF0699	16x1,5	17,2	457	237,6
BF0700	16x2,5	21,4	698	391,2
BF0701	19x1,0	15,5	349	189,6
BF0702	19x1,5	18,1	515	280,8
BF0703	19x2,5	22,5	790	463,2
BF0704	20x1,0	16,4	382	199,2
BF0705	20x1,5	19,7	563	295,2
BF0706	20x2,5	24,0	864	487,2
BF0707	24x1,0	18,6	458	237,6
BF0708	24x1,5	21,6	669	352,8
BF0709	24x2,5	26,7	1018	583,2
BF0710	30x1,0	20,2	574	295,2
BF0711	30x1,5	22,8	800	439,2
BF0712	30x2,5	28,2	1221	727,2
BF0713	37x1,0	21,7	681	362,4
BF0714	37x1,5	25,1	955	540,0
BF0715	37x2,5	30,4	1462	895,2

Cables with green-yellow core BiTflame SL(St) FE180/E90:

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0730	3x1,0	7,8	79	36,0
BF0731	3x1,5	8,6	104	50,4
BF0732	3x2,5	10,6	155	79,2
BF0733	3x4,0	12,0	210	122,4
BF0734	4x1,0	8,7	100	45,6
BF0735	4x1,5	9,9	138	64,8
BF0736	4x2,5	11,9	199	103,2
BF0737	4x4,0	13,3	265	160,8
BF0738	5x1,0	9,6	127	55,2
BF0739	5x1,5	10,6	169	79,2
BF0740	5x2,5	12,9	246	127,2
BF0741	5x4,0	14,3	330	199,2
BF0742	7x1,0	10,3	153	74,4
BF0743	7x1,5	11,7	212	108,0
BF0744	7x2,5	14,0	306	175,2
BF0745	10x1,0	13,0	214	103,2
BF0746	10x1,5	14,6	291	151,2
BF0747	10x2,5	18,2	448	247,2
BF0748	12x1,0	13,4	243	122,4
BF0749	12x1,5	15,0	334	180,0
BF0750	12x2,5	18,8	515	295,2

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
BF0751	14x1,0	14,0	273	141,6
BF0752	14x1,5	16,4	386	208,8
BF0753	14x2,5	20,3	585	343,2
BF0754	16x1,0	14,8	310	160,8
BF0755	16x1,5	17,2	457	237,6
BF0756	16x2,5	21,4	698	391,2
BF0757	19x1,0	15,5	349	189,6
BF0758	19x1,5	18,1	515	280,8
BF0759	19x2,5	22,5	790	463,2
BF0760	20x1,0	16,4	382	199,2
BF0761	20x1,5	19,7	563	295,2
BF0762	20x2,5	24,0	864	487,2
BF0763	24x1,0	18,6	458	237,6
BF0764	24x1,5	21,6	669	352,8
BF0765	24x2,5	26,7	1018	583,2
BF0766	30x1,0	20,2	574	295,2
BF0767	30x1,5	22,8	800	439,2
BF0768	30x2,5	28,2	1221	727,2
BF0769	37x1,0	21,7	681	362,4
BF0770	37x1,5	25,1	955	540,0
BF0771	37x2,5	30,4	1462	895,2

Cable Factory BITNER reserve the right to modify specifications without prior notification
Note: On customer's request other cross sections or number of cores can be produced

CHAPTER V

Data transmission and telecommunication cables

UTP cat. 5e

LAN cable, unscreened

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Operating temperature: -30°C to 80°C
Installation temperature: -10°C to 50°C
Min. bending radius: 4x Ø
Conductor resistance: max 192 Ω/km
Resistance unbalance: ≤2%
Capacitance unbalance to ground at 1kHz: max 1600 pF/km
Insulation resistance: min 500 MΩ/km
Test voltage: 700V AC, 1000V DC
Characteristic impedance: 100± 2Ω

Construction:

Conductors: bare copper conductors, solid class 1
Insulation: PE
Insulation colours:
core “a” – blue, orange, green, brown
core “b” – white with 2 longitudinal stripes of colour “a” core
Core arrangement: a-b coloured 4 twisted pairs
Outer sheath: special PVC, self-extinguishing, flame retardant (acc to EN 60332-1)
Outer sheath colour: grey

Application:

Cables designed for local access networks not exposed to electromagnetic interferences with frequency range up to 125MHz. Suitable for fixed installation in buildings.

internal application

PN-EN 60332-1

Cat. no.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TI0006	4x2x0,5	5,5	33,0	17,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

Max attenuation loss

f	Mhz	1	4	10	16	20	31,25	62,5	100	125
a	dB/100m	2,1	4	6,3	8	9	11,4	16,5	21,3	24,2

Min near-end crosstalk attenuation

f	Mhz	1	4	10	16	20	31,25	62,5	100	125
NEXT	dB/100m	65	56	50	47	46	43	38	35	34
PS NEXT	dB/100m	62	53	47	44	43	40	35	32	31
ACR	dB/100m	62,9	52	43,7	39	37	31,6	21,5	13,7	9,8

Min. far-end crosstalk attenuation:

f	Mhz	1	4	10	16	20	31,25	62,5	100	125
EL FEXT	dB/100m	64	52	44	40	38	34	28	24	22
PS EL FEXT	dB/100m	61	49	41	37	35	31	25	21	19

BITNER®

UTP LSOH cat. 5e

Halogen-free LAN cable, unscreened

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Operating temperature: -30°C to 80°C
Installation temperature: -10°C to 50°C
Min. bending radius: 4x Ø
Conductor resistance: max 192 Ω/km
Resistance unbalance: ≤ 2%
Capacitance unbalance to ground at 1kHz: max 1600 pF/km
Insulation resistance: min 500 MΩ/km
Test voltage: 700V AC, 1000V DC
Characteristic impedance: 100± 2Ω

Construction:

Conductors: bare copper conductors, solid class 1
Insulation: PE
Insulation colours:
core "a" – blue, orange, green, brown
core "b" – white with 2 longitudinal stripes of colour "a" core
Core arrangement: a-b coloured 4 twisted pairs
Outer sheath: special halogen-free compound
Outer sheath colour: orange

Application:

Cables designed for local access networks not exposed to electromagnetic interferences with frequency range up to 125MHz. Suitable for fixed installation in buildings. Cables with LSOH outer sheath are used in places requiring increased fire safety


internal application


PN-EN 60332-1

halogen-free EN 50267


low smoke emission

Cat. no.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TI0008.04	4x2x0,5	5,5	33,0	17,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

Max attenuation loss

f	Mhz	1	4	10	16	20	31,25	62,5	100	125
a	dB/100m	2,1	4	6,3	8	9	11,4	16,5	21,3	24,2

Min near-end crosstalk attenuation

f	Mhz	1	4	10	16	20	31,25	62,5	100	125
NEXT	dB/100m	65	56	50	47	46	43	38	35	34
PS NEXT	dB/100m	62	53	47	44	43	40	35	32	31
ACR	dB/100m	62,9	52	43,7	39	37	31,6	21,5	13,7	9,8

Min. far-end crosstalk attenuation:

f	Mhz	1	4	10	16	20	31,25	62,5	100	125
EL FEXT	dB/100m	64	52	44	40	38	34	28	24	22
PS EL FEXT	dB/100m	61	49	41	37	35	31	25	21	19

FTP cat. 5e

LAN cable, screened

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Operating temperature: -30°C to 80°C
Installation temperature: -10°C to 50°C
Min. bending radius: 4x Ø
Conductor resistance: max 192 Ω/km
Resistance unbalance: ≤ **2%**
Capacitance unbalance to ground at 1kHz: max 1600 pF/km
Insulation resistance: min 500 MΩ/km
Test voltage: 700V AC, 1000V DC
Characteristic impedance: 100± 2Ω

internal application

PN-EN 60332-1

Construction:

Conductors: bare copper conductors, solid class 1
Insulation: special PE
Insulation colours:
core “a” – blue, orange, green, brown
core “b” – white with 2 longitudinal stripes of colour “a” core
Core arrangement: a-b coloured 4 twisted pairs
Screen: aluminium backed polyester tape with tinned copper drain wire Ø 0,4mm
Outer sheath: special PVC, self-extinguishing, flame retardant (acc to EN 60332-1)
Outer sheath colour: grey

Application:

Cables designed for local access networks not exposed to electromagnetic interferences with frequency range up to 125MHz. Common static screen protects against external electromagnetic interferences. Suitable for fixed installation in buildings.

No cat.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TI0007	4x2x0,5	6,2	39,8	18,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

Max attenuation loss

f	Mhz	1	4	10	16	20	31,25	62,5	100	125
a	dB/100m	2,1	4	6,3	8	9	11,4	16,5	21,3	24,2

Min near-end crosstalk attenuation

f	Mhz	1	4	10	16	20	31,25	62,5	100	125
NEXT	dB/100m	65	56	50	47	46	43	38	35	34
PS NEXT	dB/100m	62	53	47	44	43	40	35	32	31
ACR	dB/100m	62,9	52	43,7	39	37	31,6	21,5	13,7	9,8

Min. far-end crosstalk attenuation

f	Mhz	1	4	10	16	20	31,25	62,5	100	125
EL FEXT	dB/100m	64	52	44	40	38	34	28	24	22
PS EL FEXT	dB/100m	61	49	41	37	35	31	25	21	19

BITNER®

FTP LSOH cat. 5e

LAN cable, screened

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Operating temperature: -30°C to 80°C
Installation temperature: -10°C to 50°C
Min. bending radius: 4x Ø
Conductor resistance: max 192 Ω/km
Resistance unbalance: ≤ 2%
Capacitance unbalance to ground at 1kHz: max 1600 pF/km
Insulation resistance: min 500 MΩ/km
Test voltage: 700V AC, 1000V DC
Characteristic impedance: 100± 2Ω

Construction:

Conductors: bare copper conductors, solid class 1
Insulation: special PE
Insulation colours:
core "a" – blue, orange, green, brown
core "b" – white with 2 longitudinal stripes of colour "a" core
Core arrangement: a-b coloured 4 twisted pairs
Screen: aluminium backed polyester tape with tinned copper drain wire Ø 0,4mm
Outer sheath: special halogen-free compound
Outer sheath colour: orange

Application:

Cables designed for local access networks not exposed to electromagnetic interferences with frequency range up to 125MHz. Common static screen protects against external electromagnetic interferences. Suitable for fixed installation in buildings. Cables with LSOH outer sheath are used in places requiring increased fire safety.


internal application


PN-EN 60332-1

halogen-free EN 50267


low smoke emission

No cat.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TI0009	4x2x0,5	6,2	39,8	18,0

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

Max attenuation loss

f	Mhz	1	4	10	16	20	31,25	62,5	100	125
a	dB/100m	2,1	4	6,3	8	9	11,4	16,5	21,3	24,2

Min near-end crosstalk attenuation

f	Mhz	1	4	10	16	20	31,25	62,5	100	125
NEXT	dB/100m	65	56	50	47	46	43	38	35	34
PS NEXT	dB/100m	62	53	47	44	43	40	35	32	31
ACR	dB/100m	62,9	52	43,7	39	37	31,6	21,5	13,7	9,8

Min. far-end crosstalk attenuation

f	Mhz	1	4	10	16	20	31,25	62,5	100	125
EL FEXT	dB/100m	64	52	44	40	38	34	28	24	22
PS EL FEXT	dB/100m	61	49	41	37	35	31	25	21	19

UTP cat. 6

LAN cable, unscreened

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Operating temperature: -30°C to 80°C
Installation temperature: -10°C to 50°C
Min. bending radius: 4 x Ø
Conductor resistance: max 188 Ω/km
Resistance unbalance: ≤ 2%
Capacitance unbalance to ground at 1kHz: max 1600 pF/km
Insulation resistance: min 500 MΩ/km
Test voltage: 700V AC, 1000V DC
Characteristic impedance:
up to 100MHz: 100 ± 15Ω
from 100-250MHz: 100 ± 18Ω

Construction:

Conductors: bare copper conductors, solid class 1
Insulation: special PE
Insulation colours:
core “a” – blue, orange, green, brown
core “b” – white with 2 longitudinal stripes of colour “a” core
Core arrangement: a-b coloured 4 twisted pairs
Outer sheath: special PVC, self-extinguishing, flame retardant (acc to EN 60332-1)
Outer sheath colour: grey

Application:

Cables designed for local access networks not exposed to electromagnetic interferences with frequency range up to 250MHz. Suitable for fixed installation in buildings.


internal application


PN-EN 60332-1

No cat.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TI0044	4x2x0,54	6,1	41,5	19,8

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

Max attenuation loss

f	Mhz	1	4	10	16	20	31,25	62,5	100	125	200	250
a	dB/100m	2	3,8	6	7,6	8,5	10,8	15,5	19,9	22,5	29,2	33

Min near-end crosstalk attenuation

f	Mhz	1	4	10	16	20	31,25	62,5	100	125	200	250
NEXT	dB/100m	75	66	60	57	56	53	48	45	44	41	39
PS NEXT	dB/100m	72	63	57	54	53	50	45	42	41	38	36
ACR	dB/100m	73,2	62,4	54,3	49,6	47,2	42,1	32,9	25,4	21,4	11,6	6,3

Min. far-end crosstalk attenuation

f	Mhz	1	4	10	16	20	31,25	62,5	100	125	200	250
EL FEXT	dB/100m	68	56	48	44	42	38	32	28	26	22	20
PS EL FEXT	dB/100m	65	53	45	41	39	35	29	25	23	19	17

UTP LSOH cat. 6

Halogen-free LAN cable, unscreened

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Operating temperature: -30°C to 80°C
Installation temperature: -10°C to 50°C
Min. bending radius: 4 x Ø
Conductor resistance: max 188 Ω/km
Resistance unbalance: ≤ 2%
Capacitance unbalance to ground at 1kHz: max 1600 pF/km
Insulation resistance: min 500 MΩ/km
Test voltage: 700V AC, 1000V DC
Characteristic impedance:
up to 100 MHz: 100 ± 15Ω
from 100-250 MHz: 100 ± 18Ω

Construction:

Conductors: bare copper conductors, solid class 1
Insulation: special PE
Insulation colours:
core "a" – blue, orange, green, brown
core "b" – white with 2 longitudinal stripes of colour "a" core
Core arrangement: a-b coloured 4 twisted pairs
Outer sheath: special halogen-free compound
Outer sheath colour: orange

Application:

Cables designed for local access networks not exposed to electromagnetic interferences with frequency range up to 250MHz. Suitable for fixed installation in buildings. Cables with LSOH outer sheath are used in places requiring increased fire safety.


internal application


PN-EN 60332-1

halogen-free EN 50267


low smoke emission

No cat.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TI0049	4x2x0,54	6,1	41,5	19,8

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

Max attenuation loss

f	Mhz	1	4	10	16	20	31,25	62,5	100	125	200	250
a	dB/100m	2	3,8	6	7,6	8,5	10,8	15,5	19,9	22,5	29,2	33

Min near-end crosstalk attenuation

f	Mhz	1	4	10	16	20	31,25	62,5	100	125	200	250
NEXT	dB/100m	75	66	60	57	56	53	48	45	44	41	39
PS NEXT	dB/100m	72	63	57	54	53	50	45	42	41	38	36
ACR	dB/100m	73,2	62,4	54,3	49,6	47,2	42,1	32,9	25,4	21,4	11,6	6,3

Min. far-end crosstalk attenuation

f	Mhz	1	4	10	16	20	31,25	62,5	100	125	200	250
EL FEXT	dB/100m	68	56	48	44	42	38	32	28	26	22	20
PS EL FEXT	dB/100m	65	53	45	41	39	35	29	25	23	19	17

FTP cat. 6

LAN cable, screened

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Operating temperature: -30°C to 80°C
Installation temperature: -10°C to 50°C
Min. bending radius: 4xØ
Conductor resistance: max 188 Ω/km
Resistance unbalance: ≤2%
Capacitance unbalance to ground at 1kHz: max 1600 pF/km
Insulation resistance: min 500 MΩ/km
Test voltage: 700V AC, 1000V DC
Characteristic impedance:
up to 100MHz: 100 ± 15Ω
from 100-250MHz: 100 ± 18Ω

Construction:

Conductors: bare copper conductors, solid class 1
Insulation: special PE
Insulation colours:
core “a” – blue, orange, green, brown
core “b” – white with 2 longitudinal stripes of colour “a” core
Core arrangement: a-b coloured 4 twisted pairs
Screen: aluminium backed polyester tape with tinned copper drain wire Ø 0,4mm
Outer sheath: special PVC, self-extinguishing, flame retardant (acc to EN 60332-1)
Outer sheath colour: grey

Application:

Cables designed for local access networks not exposed to electromagnetic interferences with frequency range up to 250MHz. Common static screen protects against external electromagnetic interferences. Suitable for fixed installation in buildings.

internal application

PN-EN 60332-1

No cat.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TI0048	4x2x0,54	6,6	54	21

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

Max attenuation loss

f	Mhz	1	4	10	16	20	31,25	62,5	100	125	200	250
a	dB/100m	2	3,8	6	7,6	8,5	10,8	15,5	19,9	22,5	29,2	33

Min near-end crosstalk attenuation

f	Mhz	1	4	10	16	20	31,25	62,5	100	125	200	250
NEXT	dB/100m	75	66	60	57	56	53	48	45	44	41	39
PS NEXT	dB/100m	72	63	57	54	53	50	45	42	41	38	36
ACR	dB/100m	73,2	62,4	54,3	49,6	47,2	42,1	32,9	25,4	21,4	11,6	6,3

Min. far-end crosstalk attenuation

f	Mhz	1	4	10	16	20	31,25	62,5	100	125	200	250
EL FEXT	dB/100m	68	56	48	44	42	38	32	28	26	22	20
PS EL FEXT	dB/100m	65	53	45	41	39	35	29	25	23	19	17

BITNER®

FTP LSOH cat. 6

Halogen-free LAN cable, screened

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Operating temperature: -30°C to 80°C
Installation temperature: -10°C to 50°C
Min. bending radius: 4x Ø
Conductor resistance: max 188 Ω/km
Resistance unbalance: ≤ 2%
Capacitance unbalance to ground at 1kHz: max 1600 pF/km
Insulation resistance: min 500 MΩ/km
Test voltage: 700V AC, 1000V DC
Characteristic impedance:
up to 100MHz: 100 ± 15Ω
from 100-250MHz: 100 ± 18Ω

Construction:

Conductors: bare copper conductors, solid class 1
Insulation: special PE
Insulation colours:
core “a” – blue, orange, green, brown
core “b” – white with 2 longitudinal stripes of colour “a” core
Core arrangement: a-b coloured 4 twisted pairs
Screen: aluminium backed polyester tape with tinned copper drain wire Ø 0,4mm
Outer sheath: special halogen-free compound
Outer sheath colour: orange

Application:

Cables designed for local access networks not exposed to electromagnetic interferences with frequency range up to 250MHz. Common static screen protects against external electromagnetic interferences. Suitable for fixed installation in buildings. Cables with LSOH outer sheath are used in places requiring increased fire safety.


internal application


PN-EN 60332-1

halogen-free EN 50267


low smoke emission

No cat.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TI0050	4x2x0,54	6,6	54	21

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

Max attenuation loss

f	Mhz	1	4	10	16	20	31,25	62,5	100	125	200	250
a	dB/100m	2	3,8	6	7,6	8,5	10,8	15,5	19,9	22,5	29,2	33

Min near-end crosstalk attenuation

f	Mhz	1	4	10	16	20	31,25	62,5	100	125	200	250
NEXT	dB/100m	75	66	60	57	56	53	48	45	44	41	39
PS NEXT	dB/100m	72	63	57	54	53	50	45	42	41	38	36
ACR	dB/100m	73,2	62,4	54,3	49,6	47,2	42,1	32,9	25,4	21,4	11,6	6,3

Min. far-end crosstalk attenuation

f	Mhz	1	4	10	16	20	31,25	62,5	100	125	200	250
EL FEXT	dB/100m	68	56	48	44	42	38	32	28	26	22	20
PS EL FEXT	dB/100m	65	53	45	41	39	35	29	25	23	19	17

BiT L2 BUS

O2YS(St)CY, Data transmission cables for Profibus network

RoHS 2002/95/WE

Technical data:

A symmetric cable with solid copper conductors, with a foam polyethylene insulation with a thin external layer of solid polyethylene (02YS), with common screen of aluminium backed polyester tape (St), and a second screen of tinned copper wire braid (C), PVC sheathed (Y).
Wave impedance: 150Ω +/-10%
Conductor loop resistance (max.): 115 Ω/km
Screen resistance (max.): 9,7 Ω/km
Insulation resistance: 1GΩxkm
Capacitance: 30 nF/km
Test voltage: 1,5 kV
Wave attenuation at a frequency of
1MHz = 1,2 dB/100m
4 MHz = 2,2 dB/100m
10 MHZ = 3,2 dB/100m
16 MHz = 4,2 dB/100m
Operating temperature: -30°C to 70°C
Installation temperature: -5°C to 50°C
Min. bending radius: 8xØ

Construction:

Conductors: solid copper conductors 1x2x0,64 mm
Insulation: made of foamed polyethylene with a thin external layer of solid polyethylene
Conductor colours: red, green
Core arrangement: cores twisted together with two fillers
Screens: aluminium backed polyester tape and tinned copper wire braid
Sheath: special PVC, oil resistant (cf. chemical resistance table), self-extinguishing and flame retardant (as per EN 60332-1)
Sheath colour: purple.

Application:

The cables are intended for connecting L2-BUS components (standard 486) and transmission of analogue and digital signals. Paired construction ensures good symmetry with respect to earth, while the double screen protects against interferences from external electromagnetic fields, what guarantees very good transmission quality. Cables may be used in dry and damp rooms, and are suitable for fixed installations. For outdoor installations, we have developed the BiT L2 BUS outdoor 02YS(St)C2Y cable with a polyethylene sheath that is resistant to UV radiation.


industrial applications


internal application


PN-EN 60332-1


data transmission

EMC

No cat.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
EB0001	1x2x0,64	7,6	59	26,3

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT L2 BUS outdoor

O2YS(St)C2Y, Data transmission cables for Profibus network, outdoor application

RoHS 2002/95/WE

Technical data:

A symmetric cable with solid copper conductors, with a foam polyethylene insulation with a thin external layer of solid polyethylene (02YS), with common screen of aluminium backed polyester tape (St), and a second screen of tinned copper wire braid (C), PE sheathed (2Y).
Wave impedance: 150Ω +/-10%
Conductor loop resistance (max.): 115 Ω/km
Screen resistance (max.): 9,7 Ω/km
Insulation resistance: 1GΩxkm
Capacitance: 30 nF/km
Test voltage: 1,5 kV
Wave attenuation at a frequency of
1MHz = 1,2 dB/100m
4 MHz = 2,2 dB/100m
10 MHZ = 3,2 dB/100m
16 MHz = 4,2 dB/100m
Operating temperature: -30°C to 70°C
Installation temperature: -5°C to 50°C
Min. bending radius: 10xØ

Construction:

Conductors: solid copper conductors 1x2x0,64 mm
Insulation: made of foamed polyethylene with a thin external layer of solid polyethylene
Conductor colours: red, green
Core arrangement: cores twisted together with two fillers
Screens: aluminium backed polyester tape and tinned copper wire braid
Sheath: special PE, UV resistant
Sheath colour: black

Application:

The cables are intended for connecting L2-BUS components (standard 486) and transmission of analogue and digital signals. Paired construction ensures good symmetry with respect to earth, while the double screen protects against interferences from external electromagnetic fields, what guarantees very good transmission quality. Cables may be used in dry and damp rooms, outdoor and are suitable for fixed installations. Outer sheath is UV resistant.
.


industrial applications


internal application


external application


PN-EN 60332-1

data transmission EMC UV resistance

No cat.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
EB0003	1x2x0,64	7,6	50	26,3

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT L2 BUS Flex

LiO2YS(St)CY, Data transmission cables for Profibus network

RoHS 2002/95/WE

Technical data:

A symmetric cable with stranded copper conductors, with a foam polyethylene insulation with a thin external layer of solid polyethylene (02YS), with common screen of aluminium backed polyester tape (St), and a second screen of tinned copper wire braid (C), PVC sheathed (Y).
Wave impedance: 150Ω +/-10%
Conductor loop resistance (max.): 172 Ω/km
Screen resistance (max.): 9,7 Ω/km
Insulation resistance: 1GΩxkm
Capacitance: 30 nF/km
Test voltage: 1,5 kV
Wave attenuation at a frequency of
4 MHz = 2,5 dB/100m
16 MHz = 5,2 dB/100m
Operating temperature: -30°C to 70°C
Installation temperature: -5°C to 50°C
Min. bending radius: 8xØ

Construction:

Conductors: stranded, bare copper conductors 1x2x0,64 mm (7x0,21mm)
Insulation: made of foamed polyethylene with a thin external layer of solid polyethylene
Conductor colours: red, green
Core arrangement: cores twisted together with two fillers
Screens: aluminium backed polyester tape and tinned copper wire braid
Sheath: special PVC, oil resistant (cf. chemical resistance table), self-extinguishing and flame retardant (as per EN 60332-1)
Sheath colour: purple.

Application:

The cables are intended for connecting L2-BUS components (standard 486) and Transmission of analogue and digital signals. Paired construction ensures good symmetry with respect to earth, while the double screen protects against interferences from external electromagnetic fields, what guarantees very good transmission quality. Cables may be used in dry and damp rooms, and are suitable for fixed installations and mobile devices.


industrial applications


internal application


PN-EN 60332-1


data transmission


high flexibility

EMC

No cat.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
EB0008	1x2x0,64 (7x0,21)	7,6	57	26,3

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT L2 BUS High Flex

LiO2YS(St)C11Y, Data transmission cables for the Profibus network

RoHS 2002/95/WE

Technical data:

A symmetric cable with multi-stranded copper conductors, with foam polyethylene insulation and a thin external layer of solid polyethylene (O2YS), with common screen of aluminium backed polyester tape (St), and a second screen of tinned copper wire braid (C), polyurethane (11Y) outer sheath.
Wave impedance: 15Ω +/-10%
Conductor loop resistance (max.):
69,1 Ω/km
Insulation resistance (min.): 1G Ωxkm
Capacitance: 35nF/km
Test voltage: 1,5 kV
Wave attenuation at a frequency of:
4 MHz = 2,5 dB/100m
16 MHz = 5,2 dB/100m
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -30°C to 80°C
Installation temperature: -5°C to 50°C
Min. bending radius:
Fixed installation: 4xØ
Flexible connections: 7,5xØ

Construction:

Conductors: multi-stranded, bare copper conductors 1x2x0,64mm (AWG24/19)
Insulation: made of foamed polyethylene with a thin external layer of solid polyethylene
Conductor colors: red, green
Core arrangement: cores twisted together with two fillers
Screens: aluminium backed polyester tape and tinned copper wire braid
Sheath: special PUR with increased mechanical and chemical resistance
Sheath colour: purple

Application:

Cables designed for connecting very flexible applications and transmission of analogue and digital signals. Paired construction ensures good symmetry with respect to earth, while double screen protects against interference from external electromagnetic fields, which guarantees very good transmission quality. Cables may be used in dry and damp rooms, and are suitable especially for continous bending in drag chains. Designed and tested to withstand minimum 3 million bending cycles.

industrial application | internal application | data transmission | high flexibility | EMC | oil resistant | chemical resistance | drag chains

Cat. no.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
EB0018	1x2x0,64	8,1	73	26,3

Cable Factory BITNER reserve the right to modify specifications without prior notification
Note: On customer's request other cross sections or number of cores can be produced

BiT L2 BUS FC

O2YS(St)CY, Data transmission cables for Profibus DP network, FastConnect

RoHS 2002/95/WE

Technical data:

A symmetric cable with solid copper conductors, with a foam polyethylene insulation with a thin external layer of solid polyethylene (02YS), with common screen of aluminium backed polyester tape (St), and a second screen of tinned copper wire braid (C), PVC sheathed (Y) for fast installation (FastConnect)
Wave impedance: 150Ω +/-10%
Conductor loop resistance (max.): 115 Ω/km
Screen resistance (max.): 9,7 Ω/km
Insulation resistance: 1GΩxkm
Capacitance: 30 nF/km
Test voltage: 1,5 kV
Wave attenuation at a frequency of
1MHz = 1,2 dB/100m
4 MHz = 2,2 dB/100m
10 MHZ = 3,2 dB/100m
16 MHz = 4,2 dB/100m
Operating temperature: -40°C to 70°C
Installation temperature: -5°C to 50°C
Min. bending radius: 10xØ

Construction:

Conductors: solid copper conductors 1x2x0,64 mm
Insulation: made of foamed polyethylene with a thin external layer of solid polyethylene
Conductor colours: red, green
Core arrangement: cores twisted together with two fillers
Filling sheath: special polymer
Screens: aluminium backed polyester tape and tinned copper wire braid
Sheath: special PVC, oil resistant (cf. chemical resistance table), self-extinguishing and flame retardant (as per EN 60332-1)
Sheath colour: purple

Application:

The cables are intended for connecting L2-BUS components (standard 486) and transmission of analogue and digital signals. Paired construction ensures good symmetry with respect to earth, while the double screen protects against interferences from external electromagnetic fields, what guarantees very good transmission quality. Cables may be used in dry and damp rooms, and are suitable for fixed installations. Special construction allows to strip the cable with the special striping tool (FastConnect).

industrial application | internal application | PN-EN 60332-1 | data transmission | EMC | FastConnect

Cat. no.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
EB0016	1x2x0,64	8,0	75	27,0

Cable Factory BITNER reserve the right to modify specifications without prior notification
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

BiT CAN-BUS Drag Chain

Data transmission cables for CAN-BUS network, designed for drag chain operations

RoHS 2002/95/WE

Technical data:

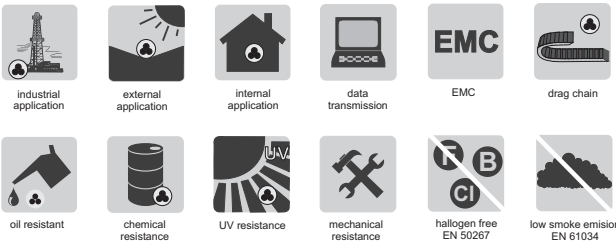
Wave impedance: 120Ω +/-10%
Conductor resistance (max.): 56 Ω/km
Insulation resistance: 5GΩxkm
Capacitance: 40 nF/km
Test voltage: 1,5 kV
Operating temperature: -40°C to 70°C
Installation temperature: -5°C to 50°C
Min. bending radius:
Fixed installation 5xØ
Flexible connection: 10xØ

Construction:

Conductors: very finely stranded bare copper wires (43x0,1mm)
Insulation: made of foamed polyethylene with a thin external layer of solid polyethylene
Conductor colours: white, brown
Core arrangement: cores twisted together
Wrapping: special fleece tape
Screen: tinned copper wire braid
Sheath: special PUR, with enhanced resistance to abrasion, chemicals, resistant to oil, industrial coolants and UV
Sheath colour: purple

Application:

BiT CAN-BUS Drag Chaing Cable for data transmission in CAN (Control Area Network) is designed for continous operation in drag chains withstanding at least 5M bending cycles within a chain. Cable suitable for operation both indoors and outdoors.



Cat. no.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
EB0050	1x2x0,34	7,0	60	30,0

Cable Factory BITNER reserve the right to modify specifications without prior notification
Note: On customer's request other cross sections or number of cores can be produced

BiT E-BUS

EIB, KNX cable

RoHS 2002/95/WE

Technical data:

A symmetric cable, with PVC insulated solid copper conductors and a common electrostatic screen made of aluminium backed polyester tape with drain wire, PVC sheathed
Wave impedance: 75Ω at 1MHz
Conductor loop resistance (max.): 73,2 Ω/km
Insulation resistance: 100 MΩ x km
Capacitance: 100 nF/km
Operating temperature: -30°C to 80°C
Installation temperature: -5°C to 50°C
Min. bending radius: 8 x Ø

Construction:

Conductors: solid copper conductors, as per EN 60228
Insulation: special PVC
Conductor marking:
for a two-pair arrangement: white, yellow, red, black
for a four-pair arrangement: white, yellow, red, green, blue, brown, white, white
Core arrangement: cores twisted in pairs, pairs twisted together
Screen: aluminium backed polyester tape with tinned copper drain wire Ø 0,4mm placed longitudinally under the screen
Sheath: special PVC, oil resistant (cf. chemical resistance table), self-extinguishing and flame retardant (as per EN 60332-1)
Sheath colour: green (two-pair cable) or purple (four-pair cable).

Application:

Cable for transmission of BUS signals in intelligent building management systems based on standards of the European Information Bus EIB. Signals received from system sensors (lighting, temperature, air conditioning, access control and others) are gathered in the EIB bus, and subsequently processed and used to control a device's operation. Cables can be installed in dry and damp rooms, both within and on walls, as well as in pipes, trays and cable ducts. They may also be used for external applications but suitably protected against direct exposure to sunlight.


internal application


PN-EN 60332-1


data transmission

No cat.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]	Sheath colour
EB0005	2x2x0,8	5,3	54	21	green
EB0007	4x2x0,8	7,9	92	41	violet

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

BiT Profibus PA Data transmission cables for the Profibus networks

RoHS 2002/95/WE

Technical data:

A symmetric cable with solid copper conductors, with PE insulation, a common screen of aluminium backed polyester tape around the pair, and second screen of tinned copper wire braid, PVC sheathed.
Wave impedance: 100 Ω +/- 20%
Conductor loop resistance (max.): 44 Ω/km
Insulation resistance: 1 GΩxkm
Capacitance: 55 nF/km
Test voltage: 1,5 kV
Attenuation loss:
at a frequency of 39 kHz = 3 dB/km
Operating temperature: -30°C to 70°C
Installation temperature: -5°C to 50°C
Min. bending radius: 8 x Ø

Construction:

Conductors: solid copper conductors 1 x 2 x 1 mm
Insulation: made of foamed polyethylene with a thin external layer of solid polyethylene
Conductor colours: red, green
Core: arrangement cores twisted together with two fillers
Screens: aluminium backed polyester tape and tinned copper wire braid
Sheath: special PVC, oil resistant (cf.chemical resistance table), self-extinguishing and flame retardant (as per EN 60332-1)
Sheath colour: blue (for explosion hazard zones) or black.

Application:

The cables are intended for connecting PROFIBUS network components and signals transmission acc. to Profibus PA standard (Process Automation). Paired construction ensures good symmetry with respect to earth, while the double screen protects against interferences from external electromagnetic fields, what guarantees very good transmission quality. Cables may be used in dry and damp rooms, and are suitable for fixed installations. Blue sheathed cable is dedicated for explosion hazard zones, black sheathed one is resistant to UV radiation.


industrial applications


internal application


PN-EN 60332-1


data transmission

No cat.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]	Sheath colour
EB0009	1x2x1	7,6±0,2	76,0	44,0	blue
EB0010	1x2x1	7,6±0,2	76,0	44,0	black

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT Device

Data transmission cables for the DeviceNet™ networks,for fixed installations indoors

RoHS 2002/95/WE

Technical data:

Screened cable for data transmission in the DeviceNet™ network, multi-stranded copper conductors. Conductors of the transmission pair with PE insulation, conductors of the power supply pair with PVC insulation. The power supply pair and transmission pair are placed in separate Al/Pet tape screens with drain wire, tinned copper wire braid screen around twisted pairs.
Operating temperature: -40°C to 80°C
Installation temperature: -5°C to 50°C
Test voltage: 2,0 kV
Insulation resistance: for the transmission pair min. 200 MΩxkm
Wave impedance: 120 Ω ±10%
Approximate capacitance: 40 nF/km
Attenuation loss:
normal
125 kHz < 4,2 dB/1km
500 kHz < 8,1 dB/1km
thin
125 kHz < 9,5 dB/1km
500 kHz < 16,4 dB/1km
Min. bending radius: 10 x Ø

Construction:

Conductors: multi-stranded, tinned copper conductors, class 5 as per EN 60228
Insulation: transmission pair conductors - PE , power supply conductors - PVC
Conductor colours: transmission pair: blue-white, power supply pair - red-black.
Core arrangement: screened pairs twisted together with a drain wire
Individual screen: aluminium backed polyester tape
Collective screen: tinned copper wire braid with coverage ≥ 85%
Outer sheath: special PVC, oil resistant (cf. chemical resistance table), self-extinguishing and flame retardant (as per EN 60332-1)
Sheath colour: grey

Application:

The DeviceNet™ communication protocol has been developed by the Allen-Bradley company (currently Rockwell Automation). DeviceNet™ is a dedicated solution for connecting industrial controllers with input/output devices into a network structure. The possibility of supplying power to network devices directly through the communication bus considerably simplifies the creation of a scattered system. As a result, simple devices such as sensors with low power consumption do not require an additional power supply source. Cables are suitable for use in dry and damp rooms, for fixed installations.


industrial applications


internal application


PN-EN 60332-1


data transmission

No cat.	Construction	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
EB0011	Normal (2x1 mm^2) + (2x1,5 mm^2)	15,3	197	92
EB0012	Thin (2x0,25 mm^2) + (2x0,34 mm^2)	8,8	84	43

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT Profinet typ A

Data transmission cables for industrial networks

BITNER BiT Profinet typ A

RoHS 2002/95/WE

Technical data:

Wave impedance: 100Ω +/-10%
Conductor loop resistance (max.): 115 Ω/km
Insulation resistance: 500 MΩxkm
Capacitance: 50 nF/km
Test voltage: 2 kV
Operating temperature: -30°C to 70°C
Installation temperature: -10°C to 50°C
Min. bending radius: 5xØ

Construction:

Conductors: solid copper conductors 2x2x0,64 mm
Insulation: solid PE
Conductor colours: red, white, yellow, blue
Core arrangement: 4 cores twisted together
Screens: aluminium backed polyester tape and tinned copper wire braid with coverage ≥ 90%
Sheath: special PVC, oil resistant (cf. chemical resistance table), self-extinguishing and flame retardant (as per EN 60332-1)
Sheath colour: green

Application:

Cables designed for construction of integrated automation systems operating in industrial Ethernet


industrial applications


internal application


PN-EN 60332-1


data transmission

EMC

FastConnect

No cat.	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]
EB0030	2x2x0,64	6,5	68

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

Attenuation loss

Mhz:	1	4	10	16	20	31	62	100
[dB/100m]	1,6	3,1	5,0	6,8	7,8	10,0	14,4	20,0

InfoBiT 16 PE-(St)PVC

Screened speaker cable

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Speaker cable with one pair of flexible copper conductors, PE insulated PVC sheathed, with Al/Pet screen
Operating temperature: -30°C to 80°C
Installation temperature: -5°C to 50°C
Operating voltage: 300 V
Test voltage: 2500 V
Conductor resistance (at 20°C): 14,76 Ω/km
Conductor capacitance:
Core/core: 75 nF/km
Core/screen: 144nF/km
Inductivity: ca. 0,66mH/km
Minimum bending radius: 35 mm

Construction:

Conductors: tinned, multi-stranded copper conductors (19x0,29mm)
Insulation: special PE
Conductor colours: black, white
Core arrangement: twisted pair
Screen: Aluminium backed polyester tape with multi-stranded tinned copper drain wire AWG18
Outer sheath: special PVC, flame retardant acc. EN 60332-1
Sheath colour: black

Application:

Special cables for speakers or analogue signals' transmission. Screening protects the cable against external electromagnetic field interferences Suitable for indoor and outdoor use, in dry and moist environment, not directly in water. The outer sheath is resistant to UV and weather conditions. Suitable for direct burial.

industrial applications | internal application | underground installation | external application | PN-EN 60332-1 | UV resistance

No cat.	n x AWG	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]
LP0168	1x2x16 AWG	1 x 2 x 1,5	8,2	84

Cross section in mm^2 is an approximate value
Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced.

InfoBiT 16 PVC-PVC

Speaker cable

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Speaker cable with one pair of flexible copper conductors, PVC insulation and outer sheath.
Operating temperature: -30°C to 80°C
Installation temperature: -5°C to 50°C
Operating voltage: 300 V
Test voltage: 2500 V
Conductor resistance (at 20°C): 14,76 Ω/km
Conductor capacitance: 108 nF/km
Inductivity: ca. 0,6mH/km
Minimum bending radius: 35 mm

Construction:

Conductors: tinned, multistranded copper conductors (19x0,29mm)
Insulation: special PVC
Conductor colours: black, white
Core arrangement: twisted pair
Outer sheath: special PVC, flame retardant acc. EN 60332-1
Sheath colour: black

Application:

Special speaker or measuring cable. Suitable for indoor and outdoor use, in dry and moist environment, not directly in water. The outer sheath is resistant to UV and weather conditions. Suitable for direct burial.


industrial applications


internal application


underground installation


external application


PN-EN 60332-1

UV resistance

No cat.	n x AWG	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]
LP0169	1x2x16 AWG	1 x 2 x 1,5	7,2	75

Cross section in mm^2 is an approximate value
Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiTsensor PE-PVC Blue 2x2x22AWG Screened, paired data transmission cable

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Data transmission cable with two pairs of flexible, copper conductors, individually and collectively screened, PE insulated, PVC sheathed
Operating temperature: -20°C to 70°C
Installation temperature: -5°C to 50°C
Operating voltage: 300 V
Test voltage: 2500 V
Min. bending radius: 30 mm

Construction:

Conductors: multi-stranded (7x0,25 mm) tinned copper conductors – 0,34mm2
Insulation: HDPE (high-density polyethylene)
Conductor colours:
1 pair – black, red
2 pair – white, green
Screen: aluminium backed polyester tape with multi-stranded tinned copper drain wire (7x0,2mm) - 0,22mm^2
Core arrangement: screened pairs twisted together
Outer sheath: special moisture resistant, flame retardant PVC, acc. EN 60332-1
Outer sheath colour: navy blue

Application:

Special cable for digital or analogue signal data transmission. Dedicated to RS 485 transmission. Screening protects the transmitted signal from the external electromagnetic interference and ensures proper electrical performance. Cables are suitable for indoor and outdoor use, in dry and moist environment. The outer sheath is resistant to UV and weather conditions. Suitable for direct burial.

industrial applications | internal application | underground installation | external application | PN-EN 60332-1 | UV resistance

No cat.	n x AWG	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]
LP0170	2x2x22 AWG	2x2x0,34	6,5	60

Cross section in mm^2 is an approximate value

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BITsensor PE-PVC Frost 2x2x22AWG

Screened, frost resistant paired data transmission cable

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Data transmission cable with two pairs of flexible, copper conductors, individually and collectively screened, PE insulated, sheathed with frost resistant PVC
Operating temperature: -40°C to 80°C
Installation temperature: -20°C to 50°C
Operating voltage: 300 V
Test voltage: 2500 V
Min. bending radius: 30 mm

Construction:

Conductors: multi-stranded (7x0,25 mm) tinned copper conductors – 0,34mm2
Insulation: HDPE (high-density polyethylene)
Conductor colours:
1 pair – black, red
2 pair – white, green
Screen: aluminium backed polyester tape with multi-stranded tinned copper drain wire (7x0,2mm) - 0,22mm^2
Core arrangement: screened pairs twisted together
Outer sheath: special frost resistant and moisture resistant, flame retardant PVC, acc. EN 60332-1
Outer sheath colour: black

Application:

Special cable for digital or analogue signal data transmission. Dedicated to RS 485 transmission. Screening protects the transmitted signal from the external electromagnetic interference and ensures proper electrical performance. Cables are suitable for indoor and outdoor use, in dry and moist environment. The outer sheath is resistant to UV and weather conditions. Suitable for direct burial.

industrial applications | internal application | underground installation | external application | PN-EN 60332-1 | UV resistance

No cat.	n x AWG	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]
LP0172	2x2x22 AWG	2x2x0,34	6,5	60

Cross section in mm^2 is an approximate value

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BITsensor PE-H LSOH 2x2x22AWG

Halogen-free, screened, paired data transmission cable

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Data transmission cable with two pairs of flexible, copper conductors, twisted in pairs, individually and collectively screened,PE insulated, LSOH sheathed
Operating temperature: -20°C to 70°C
Installation temperature: -5°C to 50°C
Operating voltage: 300 V
Test voltage: 2500 V
Min. bending radius: 30 mm

Construction:

Conductors: multi-stranded (7x0,25 mm) tinned copper conductors
Insulation: HDPE (high-density polyethylene)
Conductor colours:
1 pair – black, red
2 pair – white, green
Screen: aluminium backed polyester tape with multi-stranded tinned copper drain wire (7x0,2mm) - 0,22mm^2
Core arrangement: screened pairs twisted together
Outer sheath: special moisture resistant, halogen-free compound, self-extinguishing and flame retardant acc to EN 60332-1
Outer sheath colour: navy blue

Application:

Special cable for digital or analogue signal data transmission. Dedicated to RS 485 transmission. Screening protects the transmitted signal from the external electromagnetic interference and ensures proper electrical performance. Cables are suitable for indoor and outdoor use, in dry and moist environment. The outer sheath is resistant to UV and weather conditions. Suitable for direct burial. Mainly for application in areas with increased fire safety requirements (limited flame propagation, no halogens).


industrial applications


internal application


external application


PN-EN 60332-1

UV resistance

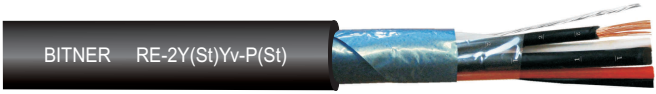
No cat.	n x AWG	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]
LP0171	2x2x22 AWG	2x2x0,34	4,5	60

Cross section in mm^2 is an approximate value

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

RE-2Y(St)Yv-P(St), RE-2Y(St)Yv-P

Data transmission cables with lower capacitance, screened and unscreend pair



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Cable with multi-stranded conductors, polyethylene insulation (2Y), individually and collectively screened (St), with reinforced PVC outer sheath (Yv)
Operating temperature: -40°C to 80°C
Installation temperature: -5°C do 70°C
Operating voltage (peak value): U=500 V
Test voltage:
core/core: 2000V
core/screen: 1000V
Insulation resistance of conductors in pair with respect to the adjacent pair connected with the screen: 5 GΩxkm
Conductor resistance:
0,5mm2 -39,2 Ω/km
1,3mm2-14,2 Ω/km
Capacitance:
0,5mm2 - core/core 75nF/km
1,3mm2 - core/screen 100nF/km
Inductivity: 0,75mH/km
Near-end crosstalk attenuation at 60Hz: 1,02 dB/km
Min. bending radius: 10 x Ø

Construction:

Conductors: stranded copper conductors, class 2 as per EN 60228
Insulation: special polyethylene
Conductor marking: conductor a - black; conductor b - white with a printed number of pair
Core arrangement: cores twisted in pairs, pairs individually screened with aluminium backed polyester tape and tinned copper drain wire. Screened pairs and one communication core (orange) twisted together.
Common screen: aluminium backed polyester tape with solid tinned copper drain wire 0,5mm^2
Sheath: special PVC, self-extinguishing and flame retardant (as per EN 60332-1), UV-resistant
Sheath colour: black

Application:

Cables designed for the transmission of data in numerical control systems and in numerical information transmission systems, ensuring optimal data transmission up to 200 KBit/s. The internal construction - twisted screened pairs - ensures very good cross-talk attenuation coefficient, while the common electrostatic screen protects against external interfering fields. Cables suitable for use inside buildings, in dry and damp rooms and also for underground installations and for external applications (UV-resistant outer sheath).


industrial applications


internal application


underground installation


external application


PN-EN 60332-1


data transmission

UV resistance

RE-2Y(St)Yv-P(St) screened pairs:

No cat.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S10150	2x2x0,5	12,0	128	35
S10151	4x2x0,5	12,7	170	60
S10152	8x2x0,5	14,9	246	121
S10153	10x2x0,5	16,4	261	136
S10154	12x2x0,5	17,6	351	161
S10155	16x2x0,5	19,8	430	212
S10156	24x2x0,5	23,6	605	318
S10157	2x2x1,3	13,5	184	68
S10158	4x2x1,3	15,2	269	124
S10159	8x2x1,3	18,8	442	239
S10160	12x2x1,3	21,4	593	353
S10161	16x2x1,3	24,7	789	468
S10162	24x2x1,3	29,4	1104	697

RE-2Y(St)Yv-P unscreened pairs:

No cat.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S10100	2x2x0,5	10,3	117	30
S10101	4x2x0,5	11,2	140	50
S10102	8x2x0,5	13,9	215	90
S10103	12x2x0,5	15,8	280	130
S10104	16x2x0,5	17,6	352	170
S10105	24x2x0,5	20,3	468	250
S10106	2x2x1,3	11,8	161	62
S10107	4x2x1,3	13,6	230	114
S10108	8x2x1,3	16,9	377	218
S10109	10x2x1,3	18,2	470	269
S10110	12x2x1,3	19,4	515	322
S10111	16x2x1,3	22,1	656	426
S10112	24x2x1,3	26,6	952	684

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

RD-Y(St)Yv Bd

Cables for analogue and digital data transmission

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Data transmission cable with PVC insulation and outer sheath and common electrostatic screen
Operating temperature: -30°C to 80°C
Installation temperature: -5°C to 70°C
Operating voltage (peak value): U=600 V
Test voltage (core /core or core/screen): 2000 V
Insulation resistance: 100 MΩ x km
Conductor loop resistance at 20°C: 73,6 Ω/km
Effective capacitance: <100 nF/km (at number of pairs ≥ 4 this value may be 20% greater)
Capacitance asymmetry: < 200 pF/100m
Impedance:
At 1 kHz 370 Ω
At 10 kHz 130 Ω
Attenuation loss:
At 1 kHz 1,2 dB/km
At 10 kHz 3 dB/km
Near-end crosstalk attenuation at 10 kHz and 500 m ≥ 60 dB
Min bending radius: 7,5xØ

Construction:

Conductors: stranded copper conductors, class 2 as per EN 60228
Insulation: special PVC
Conductor marking: colours (cf. table of conductor colours)
Stranding element: cores twisted in pairs, 4 pairs twisted in bundle, bundles wrapped with identification tape and twisted together
Screen: aluminium backed polyester tape with tinned copper wire 0,5 mm^2
Sheath: special PVC, oil resistant (cf. chemical resistance table), self-extinguishing and flame retardant (as per EN 60332-1)
Sheath colour: grey

Application:

Cables designed for transmission of analogue and digital signals over frequency bands up to 10 kHz. They are suitable for use in internal systems, in both dry and damp rooms. They may be applied in the MAXI-TERMI-POINT technique. The special bundled construction reduces the impact of penetration from adjacent symmetric lines, while the common screen protects against external interferences.

*On customer's request RD-Y(St)Yv Bd cables can be produced with black UV resistant outer sheath for outdoor applications and direct burial .
Standard version RD-Y(St)Yv Bd (grey outer sheath) is suitable for direct burial but not for outdoor applications


industrial applications


internal application


PN-EN 60332-1


data transmission


underground installation

No cat.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S10400	2x2x0,5	9,4	104	24
S10401	4x2x0,5	10,3	148	43
S10402	8x2x0,5	15,0	243	82
S10403	12x2x0,5	16,5	314	120
S10404	16x2x0,5	17,3	378	158
S10405	20x2x0,5	19,1	451	197

No cat.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S10406	24x2x0,5	20,8	524	235
S10407	28x2x0,5	21,4	585	274
S10408	32x2x0,5	23,2	685	312
S10409	40x2x0,5	27,2	842	389
S10410	44x2x0,5	28,1	908	427
S10411	48x2x0,5	28,7	970	466
S10412	48x2x1,0	45,6	1950	926

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

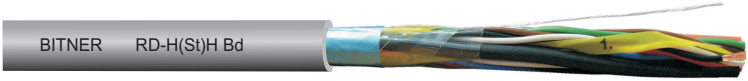
Core identification

pair number	conductor "a"	conductor "b"
1	blue	red
2	grey	yellow
3	green	brown
4	white	black

BITNER®

RD-H(St)H Bd

Halogen-free cables for analogue and digital data transmission



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Data transmission cable with halogen-free insulation and outer sheath and common electrostatic screen
Operating temperature: -30°C to 80°C
Installation temperature: -5°C to 70°C
Operating voltage (peak value):
U=600 V
Test voltage (core /core or core/screen):
2000 V
Insulation resistance: 100 MΩ x km
Conductor loop resistance at 20°C:
73,6 Ω/km
Effective capacitance: <100 nF/km
(at number of pairs ≥ 4 this value may be 20% greater)
Capacitance asymmetry: < 200 pF/100m
Impedance:
At 1 kHz 370 Ω
At 10 kHz 130 Ω
Attenuation loss:
At 1 kHz 1,2 dB/km
At 10 kHz 3 dB/km
Near-end crosstalk attenuation at 10 kHz and 500 m ≥ 60 dB
Min bending radius: 10xØ

Construction:

Conductors: stranded copper conductors, class 2 as per EN 60228
Insulation: special halogen-free compound
Conductor marking: colours (cf. table of conductor colours)
Stranding element: cores twisted in pairs, 4 pairs twisted in bundle, bundles wrapped with identification tape and twisted together
Screen: aluminium backed polyester tape with tinned copper wire 0,5 mm^2
Sheath: special halogen-free compound, self-extinguishing and flame retardant (as per EN 60332-3-24, IEC 60332-3 cat. C)
Sheath colour: grey

Application:

Cables designed for transmission of analogue and digital signals over frequency bands up to 10 kHz. They are suitable for use in internal systems, in both dry and damp rooms. They may be applied in the MAXI-TERMI-POINT technique. The special bundled construction reduces the impact of penetration from adjacent symmetric lines, while the common screen protects against external interferences.

industrial applications | internal application | PN-EN 60332-1 | IEC 60332-3 PN-EN 60332-3 | halogen-free | oxygen index | low smoke emission

No cat.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S10050	2x2x0,5	8,6	84	24
S10051	4x2x0,5	9,8	132	43
S10052	8x2x0,5	14,8	219	82
S10053	12x2x0,5	16,6	292	120
S10054	16x2x0,5	17,5	359	158
S10056	24x2x0,5	21,4	506	235
S10058	32x2x0,5	23,7	663	312
S10061	48x2x0,5	30,2	981	466

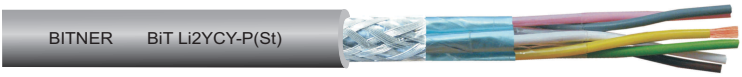
Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

Core identification

pair number	conductor "a"	conductor "b"
1	blue	red
2	grey	yellow
3	green	brown
4	white	black

BiT Li2YCY-P(St)

Data transmission cables, paired, with reduced capacitance



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Individually and collectively screened data transmission cable with paired PE insulated conductors
Operating temperature: -40°C to 80°C
Installation temperature: -5°C do 70°C
Operating voltage (max): U=300 V
Voltage test:
core/core: 2000 V
core/screen: 1000 V
Insulation resistance: 5 GΩ x km
Approximate capacitance (at 800Hz):
core/core 75pF/m
Approx. inductance: 0,40 mH/km
Min. bending radius:
Flexible connections: 12 x Ø
Fixed installation: 6 x Ø

Construction:

Conductors: multi-stranded copper conductors, class 5 as per EN 60228
Insulation: special polyethylene
Conductor marking: colours as per DIN 47100
Core arrangement: cores twisted in pairs, pairs individually screened with aluminium backed polyester tape and tinned copper drain wire Ø 0.4mm
Common screen: tinned copper wire braid
Sheath: special PVC, oil resistant (cf. chemical resistance table), self-extinguishing and flame retardant (as per EN 60332-1)
Sheath colour: grey.

Application:

Cables designed for cabling data transmission systems, for transmission of signals under conditions of high attenuation requirements, and for crosstalk. Common braided screen provides additional protection against the impact of strong interfering fields. In order to maintain EMC electromagnetic compatibility, it is recommended to earth the screen at both ends of the cable. Cable is suitable for indoor applications only.

industrial applications | internal application | PN-EN 60332-1 | data transmission | high flexibility | EMC

No cat.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S31705	2x2x0,34	8,6	76,8	46,2
S31706	3x2x0,34	9,1	90,5	55,3
S31707	4x2x0,34	10,2	112,4	66,3
S31708	8x2x0,34	13,4	198,4	127,2
S31709	10x2x0,34	15,9	246,0	156,0
S31710	2x2x0,5	10,1	95,1	54,9
S31711	3x2x0,5	10,8	118,7	69,1
S31712	4x2x0,5	11,9	141,9	83,0
S31713	8x2x0,5	16,0	259,5	156,5
S31714	10x2x0,5	18,8	319,0	194,2

No cat.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
S31715	2x2x0,75	11,1	115,9	66,2
S31716	3x2x0,75	11,8	144,0	85,5
S31717	4x2x0,75	13,4	184,0	102,7
S31718	8x2x0,75	17,7	328,0	196,6
S31719	10x2x0,75	20,9	406,6	247,7
S31720	2x2x1	12,4	137,1	80,3
S31721	3x2x1	13,2	169,7	102,6
S31722	4x2x1	14,7	208,5	125,7
S31723	8x2x1	20,2	406,7	242,3
S31724	10x2x1	23,8	497,2	297,9

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT NOVAK

Cables for industrial process control, computer systems and instrumentation

BITNER BiT NOVAK

RoHS 2002/95/WE

Technical data:

Temperature range:
Operating temperature: -30°C to 70°C
During installation (min): -5°C
Max operating voltage: 75V
Conductor resistance (20°C) max:
81 Ω/km
Insulation resistance (min): 100MΩxkm
Effective capacitance in pair (800Hz):
80nF/km
Characteristic impedance (10MHz):
75Ω+/-10%
Min bendig radius:
Flexible connections: 15 x Ø
Fixed installations: 10 x Ø

Construction:

Conductors: tinned copper conductors, stranded class 2, cross section 0,5mm2 (construction 7x0,3mm)
Insulation: special PVC
Conductor colours: orange and white with printed numbers
Common screed: aluminium backed polyester tape, tinned copper drain wire class 2, 0,5mm^2 (construction 7x0,3mm) placed under the tape
Outer sheath: special self-extinguishing, flame retardant (PN-EN 60332-1) PVC compound
Sheath colour: grey, RAL 7035

Application:

Cables are intended for analog and digital signals transmission. Screened pairs, twisted together ensure very good attenuation loss characteristics while common screen protects against external electromagnetic fields. They are suitable for fixed installations in places not exposed to mechanical stresses.They are intended for internal application only.


industrial applications


internal application


PN-EN 60332-1


data transmission

No cat.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]
S10670	2x2x0,5+0,5	7,0	57
S10671	4x2x0,5+0,5	8,8	93
S10672	8x2x0,5+0,5	11,0	153
S10673	12x2x0,5+0,5	12,5	209
S10674	24x2x0,5+0,5	17,0	376
S10675	48x2x0,5+0,5	23,1	725

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT KJAAM

Data transmission cables for numerical control systems

BITNER BiT KJAAM

RoHS 2002/95/WE

Technical data:

Operating temperature: -30°C do 70°C
Operating voltage (peak value): 75 V
Conductor resistance (20°C) max: 81Ω/km
Insulation resistance (min): 2 GΩxkm
Min. bending radius:
Flexible connections: 15 x Ø
Fixed installation: 10 x Ø

Construction:

Conductors: stranded tinned copper conductors class 2, cross section 0,5mm^2 (7x0,3mm)
Insulation: PE, insulation thickness 0,4mm
Conductor colours: blue and red
Individual screen: aluminium backed polyester tape with stranded, tinned copper drain wire 0,5mm^2 (7x0,3mm) placed under the tape and twisted together with cores
Core arrangement: screened pairs twisted together and wrapped with numbered identification tapes
Collective screen: aluminium backed polyester tape with stranded tinned copper drain wire 0,5mm^2 (7x0,3mm) placed under the tape
Outer sheath: special PVC self-extinguishing and flame retardant (as per EN 60332-1)
Sheath colour: grey

Application:

Cables designed for analog and digital signals transmission, protected against interferences from external electromagnetic fields by collective screen. Individually screened, twisted pairs ensure very good coefficient of attenuation loss. Cables designed for indoor applications.


industrial applications


internal application


PN-EN 60332-1


data transmission

No cat.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]
S10550	2x(2+1)x0,5+0,5	9,3	116
S10551	4x(2+1)x0,5+0,5	11,2	166
S10552	8x(2+1)x0,5+0,5	14,8	285
S10553	12x(2+1)x0,5+0,5	17,9	390
S10554	24x(2+1)x0,5+0,5	25,1	711

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT KJAAM-HF UV

Halogen-free data transmission cables for numerical control systems

RoHS 2002/95/WE

Technical data:

Operating temperature: -30°C do 70°C
Operating voltage (peak value): 75 V
Conductor resistance (20°C) max: 81Ω/km
Insulation resistance (min): 2 GΩxkm
Min. bending radius:
Flexible connections: 15 x Ø
Fixed installation: 10 x Ø

Construction:

Conductors: stranded tinned copper conductors class 2, cross section 0,5mm^2 (7x0,3mm)
Insulation: PE, insulation thickness 0,4mm
Conductor colours: blue and red
Individual screen: aluminium backed polyester tape with stranded, tinned copper drain wire 0,5mm^2 (7x0,3mm) placed under the tape and twisted together with cores
Core arrangement: screened pairs twisted together and wrapped with numbered identification tapes
Collective screen: aluminium backed polyester tape with stranded tinned copper drain wire 0,5mm^2 (7x0,3mm) placed under the tape
Outer sheath: special halogen-free, self-extinguishing and flame retardant (as per EN 60332-1)
Sheath colour: black

Application:

Cables designed for analog and digital signals transmission, protected against interferences from external electromagnetic fields by collective screen. Individually screened twisted pairs ensure very good coefficient of attenuation loss. Cables designed for applications not exposed to mechanical stresses both indoor and outdoor. Outer sheath resistant to UV radiation and weather conditions.

No cat.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]
S10590	2x(2+1)x0,5+0,5	10,9	79
S10591	4x(2+1)x0,5+0,5	12,4	135
S10592	8x(2+1)x0,5+0,5	16,0	245
S10593	12x(2+1)x0,5+0,5	19,1	343
S10594	24x(2+1)x0,5+0,5	26,6	648

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT KJAAM OUTDOOR

Data transmission cables for numerical control systems outdoors

RoHS 2002/95/WE

Technical data:

Operating temperature: -30°C do 70°C
Operating voltage (peak value): 75 V
Conductor resistance (20°C) max: 81Ω/km
Insulation resistance (min): 2 GΩxkm
Min. bending radius:
Flexible connections: 15 x Ø
Fixed installation: 10 x Ø

Construction:

Conductors: stranded tinned copper conductors class 2, cross section 0,5mm^2 (7x0,3mm)
Insulation: PE, insulation thickness 0,4mm
Conductor colours: blue and red
Individual screen: aluminium backed polyester tape with stranded tinned copper drain wire 0,5mm^2 (7x0,3mm) placed under the tape and twisted together with cores
Core arrangement: screened pairs twisted together and wrapped with numbered identification tapes
Collective screen: aluminium backed polyester tape with stranded tinned copper drain wire 0,5mm^2 (7x0,3mm) placed under the tape
Outer sheath: special reinforced PVC self-extinguishing and flame retardant (as per EN 60332-1), UV resistant
Sheath colour: black

Application:

Cables designed for analog and digital signals transmission, protected against interferences from external electromagnetic fields by collective screen. Individually screened, twisted pairs ensure very good coefficient of attenuation loss. Cables designed mainly for fixed installations outdoors or buried directly in ground, in places not exposed to significant mechanical damage.


industrial application


internal application


external application


underground installation


EN60332-1


data transmission

UV resistance

Cat no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]
S10570	2x(2+1)x0,5+0,5	10,9	116
S10571	4x(2+1)x0,5+0,5	12,4	166
S10572	8x(2+1)x0,5+0,5	16,0	285
S10573	12x(2+1)x0,5+0,5	19,1	390
S10574	24x(2+1)x0,5+0,5	26,6	711

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

BiT KJAAM ARM

Armoured data transmission cables for numerical control systems

RoHS 2002/95/WE

Technical data:

Operating temperature: -30°C do 70°C
Operating voltage (peak value): 75V
Conductor resistance (20°C) max: 81Ω/km
Insulation resistance (min): 2 GΩxkm
Min. bending radius: 10 x Ø

Construction:

Conductors: stranded tinned copper conductors class 2, cross section 0,5mm^2 (7x0,3mm)
Insulation: PE, insulation thickness 0,4mm
Conductor colours: blue and red
Individual screen: aluminium backed polyester tape with stranded tinned copper drain wire 0,5mm^2 (7x0,3mm) placed under the tape and twisted together with cores
Core arrangement: screened pairs twisted together and wrapped with numbered identification tapes
Collective screen: aluminium backed polyester tape with stranded tinned copper drain wire 0,5mm^2 (7x0,3mm) placed under the tape
Inner sheath: special PVC
Armour: galvanized, double steel tape armour
Outer sheath: special oil resistant PVC, self-extinguishing and flame retardant (as per EN 60332-1), UV resistant
Sheath colour: black


industrial application


internal application


external application


underground installation


EN60332-1


data transmission


UV resistance

Application:

Cables designed for analog and digital signals transmission, protected against interferences from external electromagnetic fields by collective screen. Individually screened, twisted pairs ensure very good coefficient of attenuation loss. Cables designed mainly for fixed installations outdoors or buried directly in ground, in places exposed to significant mechanical stresses.

Cat no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]
S10650	2x(2+1)x0,5+0,5	12,9	235
S10651	4x(2+1)x0,5+0,5	15,0	320
S10652	8x(2+1)x0,5+0,5	18,8	490
S10653	12x(2+1)x0,5+0,5	22,1	640
S10654	24x(2+1)x0,5+0,5	29,7	1091

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

ELAQBY, ELAQBY-S

Halogen-free, paired, collectively screened telecommunication cable

BITNER ELAQBY, ELAQBY-S

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Temperature range:
Operating temperature: -40°C to 80°C
Installation temperature: -5°C to 50°C
Operating voltage: 100V
Conductor resistance at 20°C max.: 66,6 Ω/km
Insulation resistance: 5 GΩxkm
Max loop resistance unbalance: 2 %
Max capacitance in pair: core/core: 59 nF/km
Max capacitance unbalance: 150 pF/500m
Attenuation loss at 1 Mhz: 17 dB/km
Min. bending radius: 10 x Ø

Standards:

IEC 60332-1
IEC 60754-2
SS 424 16 52

Construction:

Conductors: solid, bare, annealed copper conductors
Insulation: special PE
Core arrangement: cores twisted in pairs, pairs in bundles wrapped with identification tapes, bundles twisted together in layers.
Screen:
ELAQBY - longitudinally applied copolymer coated (on both sides) aluminium tape with 2 tinned copper drain wires Ø 0,5mm. This screen acts also as a moisture barrier
ELAQBY-S – aluminium backed polyester tape with 2 tinned copper drain wires Ø 0,.5mm
Outer sheath: special, halogen-free and flame retardant compound acc to EN 60332-1
Outer sheath colour: white

Application:

PE-insulated, collectively screened, halogen-free telecommunication cables for indoor (ELAQBY-S) and outdoor (ELAQBY) applications in fixed installations. ELAQBY can be installed outdoors and in ground only with suitable protection against mechanical damage. ELAQBY cables have longitudinally applied copolymer coated aluminium foil which is bonded to the sheath and is acting also as a moisture barrier. Cable is used for analogue and digital transmissions.

internal application

external application

halogen-free

EN60332-1

Insulation colours:

1-100pairs Pair	Insulation colours:	
	a	b
1	white	blue
2	white	orange
3	white	green
4	white	brown
5	white	grey
6	red	blue
7	red	orange
8	red	green
9	red	brown
10	red	grey

RINGS:
Conductor A: rings in colour of conductor B
Conductor B: rings in colour of conductor A

Units:	identification tape for each unit of 10 pairs
Pair 1-10	blue
Pair 11-20	orange
Pair 21-30	green
Pair 31-40	brown
Pair 41-50	grey
Pair 51-60	white
Pair 61-70	red
Pair 71-80	black
Pair 81-90	yellow
Pair 91-100	violet

BITNER®

ELAQBY, ELAQBY-S

Halogen-free, paired, collectively screened telecommunication cable

Cat no.	Cable type	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]
TP0900	ELAQBY-S	2x2x0,6	6,0	60
TP0901	ELAQBY-S	5x2x0,6	9,0	95
TP0907	ELAQBY	5x2x0,6	10,0	102
TP0902	ELAQBY	10x2x0,6	11,5	140
TP0903	ELAQBY	20x2x0,6	14,0	230
TP0904	ELAQBY	30x2x0,6	16,0	320
TP0905	ELAQBY	50x2x0,6	19,0	500
TP0906	ELAQBY	100x2x0,6	25,0	880

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

ELQXB

Halogen-free, paired telecommunication cable

BITNER ELQXB

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Temperature range:
Operating temperature: -40°C to 80 C
Installation temperature: -5°C to 50°C
Operating voltage: 100V
Conductor resistance at 20°C (max.): 97,5 Ω/km
Insulation resistance: 5 GΩxkm
Max loop resistance unbalance: 2%
Max capacitance in pair:
core/core: 59 nF/km
Max capacitance unbalance:
for ≤ 6x2x0,5 : 400pF/500m
for ≥10x2x0,5: 150pF/500m
Attenuation loss at 1 Mhz: 21 dB/km
Min. bending radius: 10 x Ø

internal application

halogen-free

EN60332-1

Construction:

Conductors: solid, bare, annealed copper conductors
Insulation: special PE
Core arrangement: cores twisted in pairs, pairs in bundles wrapped with identification tapes, bundles twisted together in layers.
Outer sheath: special, halogen-free and flame retardant compound acc to EN 60332-1
Outer sheath colour: white

Application:

Halogen-free data transmission cable for numerical control systems. Suitable for fixed installations indoors.

Standards:

IEC 60332-1
IEC 60754-2
SS 424 16 08

Insulation colours:

1-100pairs Pair	Insulation colours:	
	a	b
1	white	blue
2	white	orange
3	white	green
4	white	brown
5	white	grey
6	red	blue
7	red	orange
8	red	green
9	red	brown
10	red	grey

RINGS:
Conductor A: rings in colour of conductor B
Conductor B: rings in colour of conductor A

core A	core B	core C	core D
blue	turquoise	white	violet

Units:	identification tape for each unit of 10 pairs
Pair 1-10	blue
Pair 11-20	orange
Pair 21-30	green
Pair 31-40	brown
Pair 41-50	grey
Pair 51-60	white
Pair 61-70	red
Pair 71-80	black
Pair 81-90	yellow
Pair 91-100	violet

ELQXB

Halogen-free, paired telecommunication cable

Cat no.	Cable type	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]
TP1000	ELQXB	1x4x0,5*	3,4	17
TP1001	ELQXB	2x2x0,5	4,5	22
TP1002	ELQXB	4x2x0,5	5,3	35
TP1003	ELQXB	6x2x0,5	6,2	46
TP1004	ELQXB	10x2x0,5	7,6	72
TP1005	ELQXB	20x2x0,5	10,0	130
TP1006	ELQXB	30x2x0,5	12,0	190
TP1007	ELQXB	50x2x0,5	15,0	300
TP1008	ELQXB	100x2x0,5	20,0	550

(*) 1x4x0,5mm twisted as diagonal pair
Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

ELQXBE

Halogen-free, paired telecommunication cable

BITNER ELQXBE

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Temperature range:
Operating temperature: -40°C to 80 C
Installation temperature: -5°C to 50°C
Operating voltage: 100V
Conductor resistance at 20°C (max.): 95,9 Ω/km
Insulation resistance: 5 GΩxkm
Max loop resistance unbalance: 2 %
Max capacitance in pair: core/core: 46 nF/km
Max capacitance unbalance: 150pF/500m
Wave impedance: 120 Ω
Attenuation loss at 1 Mhz: 21 dB/km
Min. bending radius: 10 x Ø

internal application | halogen-free | EN60332-1

Construction:

Conductors: solid, bare, annealed copper conductors
Insulation: special PE
Core arrangement: cores twisted in pairs, pairs in bundles wrapped with identification tapes, bundles twisted together in layers.
Outer sheath: special, halogen-free and flame retardant compound acc to EN 60332-1
Outer sheath colour: white

Application:

Halogen-free data transmission cable for numerical control systems. Suitable for fixed installations indoors. Designed for installation in digital telecommunication networks (xDSL).

Standards:

IEC 60332-1
IEC 60754-2
SS 424 16 92

Insulation colours:

1-100 pairs Pair	Insulation colours:	
	a	b
1	white	blue
2	white	orange
3	white	green
4	white	brown
5	white	grey
6	red	blue
7	red	orange
8	red	green
9	red	brown
10	red	grey

RINGS:
Conductor A: rings in colour of conductor B
Conductor B: rings in colour of conductor A

core A	core B	core C	core D
blue	turquoise	white	violet

Units:	identification tape for each unit of 10 pairs
Pair 1-10	blue
Pair 11-20	orange
Pair 21-30	green
Pair 31-40	brown
Pair 41-50	grey
Pair 51-60	white
Pair 61-70	red
Pair 71-80	black
Pair 81-90	yellow
Pair 91-100	violet

ELQXBE

Halogen-free, paired telecommunication cable

Cat no.	Cable type	nx2xmm	Outer diameter [mm]	Approximate cable weight [kg/km]
TP0950	ELQXBE	1x4x0,5*	3,5	20
TP0951	ELQXBE	4x2x0,5	6,4	43
TP0952	ELQXBE	6x2x0,5	7,7	58
TP0953	ELQXBE	10x2x0,5	8,9	87
TP0954	ELQXBE	20x2x0,5	12,0	157
TP0955	ELQXBE	30x2x0,5	14,0	225
TP0956	ELQXBE	50x2x0,5	17,5	355
TP0957	ELQXBE	100x2x0,5	24,5	670

(*) 1x4x0,5mm twisted as diagonal pair

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

ELQYB Halogen-free, sensor cable for fire alarm installations

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Temperature range:
Operating temperature: -40°C to 80 C
Installation temperature: -5°C to 50°C
Operating voltage: 100V
Insulation resistance: 5 GΩxkm
Max capacitance in pair: 50 nF/km
Attenuation loss (800Hz): 0,6dB/km
Min. bending radius: 10 x Ø

Construction:

Conductors: solid, bare, annealed copper conductors
Insulation: special solid PE
Core arrangement: cores twisted in pairs, pairs twisted together
Outer sheath: special, halogen-free and flame retardant compound acc to EN 60332-1
Outer sheath colour: red or white

Application:

Halogen-free, low smoke sensor cable for fire alarm installations.


internal application


PN-EN60332-1

halogen-free


low smoke emission

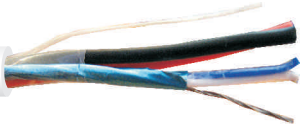
Cat no.	nx2xmm	Max. outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TP1070	1x2x1	5,8	396	15,8
TP1071	10x2x1	16,1	286	152,3

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

FLAQQBR

Halogen-free, composite power supply and signalling cable

BITNER FLAQQBR



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Temperature range:
Operating temperature: -15°C to 80 C
Installation temperature: -10°C to 50°C
Operating voltage: 100V
Conductor resistance:
for 0,22mm^2 (max) 90 Ω/km
for 1,0mm^2 (max) 20,2 Ω/km
Insulation resistance:
for HFFR insulated conductors (min) 500 MΩxkm
for PE insulated conductors (min) 5000 MΩxkm
Max capacitance in signalling pair:
for 1x2x0,22: 75 nF/km
for 2x2x0,22: 65 nF/km
Min. bending radius: 10 x Ø

Construction:

Conductors: power conductors: stranded, tinned annealed copper conductors 1,0mm^2 (7x0,43mm)
Signalling conductors: stranded, bare annealed copper conductors 0,22mm^2 (7x0,2mm)
Insulation: power conductors: halogen free, flame retardant compound
Signalling conductors: PE
Insulation colours:
Power conductors: red, black
Signalling conductors: white, blue
Core arrangement: power cores twisted together with signalling pair
Screen: (on signalling pair) aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special, halogen-free and flame retardant compound acc to EN 60332-1
Outer sheath colour: white

Application:

Halogen-free composite cable for application in control and measuring systems. Cable's construction combines both signalling and power supply. Designed for indoor installations.


internal application


PN-EN60332-1

halogen-free


low smoke emission

Cat no.	n x mm	Max. outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TP1050	2x1+1x2x0,22	6,5	51	23,5
TP1051	2x1+2x2x0,22	8,0	65	27,7

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

FQAR-PG 150/250V

Halogen-free, screened signalling cable

BITNER FQAR-PG 150/250V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

FQAR-PG is a halogen free, screened signalling cable
Conductor resistance (max.):
for 0,5 mm^2 40,4 Ω/km
for 1,0 mm^2 20,2 Ω/km
Insulation resistance (min.): 2 GΩxkm
Test voltage: 1,4 kV AC 1min.
Crosstalk attenuation at 1 kHz (min.): 100 dB
Near-end crosstalk NEXT at 100 kHz (min.): 60 dB
Transfer impedance
at 10 kHz (max.): 100 mOhm/m
at 10 MHz (max.): 1000 mOhm/m
Operating temperature: -40°C to 70°C
Installation temperature: -20°C to 70°C
Min. bending radius:
Fixed installation: 12xØ

Construction:

Conductors:
0,5 mm²: tinned copper, stranded, IEC 60228, Class 2 (7x0.30 mm)
1,0 mm²: tinned copper, stranded, IEC 60228, Class 2 (7x0.43 mm)
Insulation: halogen free polyolefin
Conductor colors: black with printed numbers
Core arrangement: cores twisted together to form a pairs, pairs shall be laid up in concentric layers to form a round cable
Screen: aluminium backed polyester tape with tinned copper drain wire
Sheath: special halogen-free, flame retardant acc. IEC 60332-3, thermoplastic compound, UV resistant
Sheath colour: light grey

Application:

Halogen-free flame retardant signalling cables used for fixed installation indoors and outdoors for control and signalling functions in power electrical applications.

internal application

PN-EN60332-1

halogen-free

low smoke emission

Cat no.	Size (mm^2)	Nominal O.D. [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TP1080	2x0,5	7,0	43	19,2
TP1081	2x2x0,5	8,0	73	28,8
TP1082	4x2x0,5	10,5	115	48
TP1083	2x1	7,0	62	28,8
TP1084	2x2x1	9,7	98	48
TP1085	4x2x1	12,3	160	86,4

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

EKKX Paired telecommunication cable for fixed installations indoors

BITNER EKKX

RoHS 2002/95/WE

Technical data:

Temperature range:
Operating temperature: -15°C to 80 C
Installation temperature: -10°C to 50°C
Operating voltage: 100V
Conductor resistance at 20°C (max.): 97,5 Ω/km
Insulation resistance: ≥ 200 MΩxkm
Max capacitance in pair: 85 nF/km
Max capacitance unbalance: 400pF/500m
Attenuation loss at 800Hz: 1,7 dB/km
Attenuation loss at 1 Mhz: 25 dB/km
Min. bending radius: 10 x Ø

Construction:

Conductors: solid, tinned, annealed copper conductors Ø 0,5mm
Insulation: special PVC
Core arrangement: cores twisted in pairs (1x4x0,5 is a star quad)
Outer sheath: special PVC
Outer sheath colour: white

Application:

Cables designed for internal communication networks

internal application

PN-EN60332-1

Cat no.	Number of pairs [n x 2 x mm]	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TZ0300	1x4x0,5	3,4	17	7,54
TZ0301	2x2x0,5	4,5	21	7,54
TZ0302	4x2x0,5	5,2	35	15,1
TZ0303	6x2x0,5	6,0	50	22,6
TZ0304	10x2x0,5	7,5	75	37,7

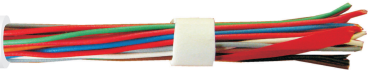
Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

Insulation colours:

pair number	Cores colours	
	core a	core b
1	white	blue
2		orange
3		green
4		brown
5		grey
6	red	blue
7		orange
8		green
9		brown
10		grey

YTKSY Telecommunication station cable

BITNER YTKSY



RoHS 2002/95/WE

Technical data:

Telecommunication (T), station (S) cable (K), with solid copper conductors and PVC insulation (Y) and outer sheath (Y)
Operating temperature: -40°C to 80°C
Installation temperature: -10°C do 50°C
Bending radius: 10 x Ø

internal application

PN-EN60332-1

Construction:

Conductors: solid copper conductors
Insulation: special PVC
Insulation colours: acc to PN-92/T-90321
Core arrangement: pairs 1-21: pairs twisted together in layers
pairs 25-53: pairs twisted in bundles, bundles twisted together in layers
Outer sheath: special PVC, self-extinguishing and flame retardant acc to EN 60332-1
Outer sheath colour: white

Application:

Cables designed for connections of telephone and tele-transmission devices.

No cat.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TS0037	1x2x0,4	3,0	12	2,4
TS0038	2x2x0,4	3,8	16	4,8
TS0039	3x2x0,4	4,2	23	7,2
TS0040	5x2x0,4	4,8	32	12,1
TS0041	6x2x0,4	5,4	38	14,5
TS0042	7x2x0,4	5,4	43	16,9
TS0043	10x2x0,4	6,2	55	24,1
TS0044	12x2x0,4	6,6	63	28,9
TS0045	14x2x0,4	7,3	71	33,8
TS0046	21x2x0,4	8,6	102	50,6
TS0047	28x2x0,4	9,6	128	67,5
TS0048	30x2x0,4	10,9	137	72,3
TS0049	35x2x0,4	11,8	160	84,4
TS0050	42x2x0,4	15,0	187	101,3
TS0051	48x2x0,4	16,0	205	115,8
TS0052	53x2x0,4	16,5	228	127,8
TS0002	1x2x0,5	3,0	15	3,8
TS0003	2x2x0,5	3,9	20	7,5
TS0005	3x2x0,5	4,2	29	11,3
TS0007	5x2x0,5	4,8	41	18,8
TS0008	6x2x0,5	5,4	51	22,6
TS0009	7x2x0,5	5,8	57	26,4
TS0011	10x2x0,5	6,4	76	37,7
TS0012	12x2x0,5	6,9	87	45,2
TS0013	14x2x0,5	7,4	98	52,8
TS0015	21x2x0,5	9,1	144	79,1
TS0017	28 x 2x0,5	10,3	188	105,5
TS0018	30 x 2x0,5	11,3	196	113,0
TS0019	35 x 2x0,5	12,2	227	131,9

No cat.	nx2xmm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TS0020	42x2x0,5	16,5	266	158,3
TS0021	48x2x0,5	17,5	295	180,9
TS0022	53x2x0,5	18,0	324	199,7
TS0023	1x2x0,6	3,2	20	5,4
TS0024	2x2x0,6	4,1	30	10,8
TS0025	3x2x0,6	4,7	47	16,2
TS0026	5x2x0,6	5,4	69	27,2
TS0061	6x2x0,6	5,8	83	32,6
TS0062	7x2x0,6	6,2	94	38,0
TS0063	10x2x0,6	7,0	131	54,3
TS0064	12x2x0,6	7,6	152	65,1
TS0065	14x2x0,6	8,0	174	76,0
TS0066	21x2x0,6	9,7	248	114,0
TS0028	1x2x0,8	4,0	25	9,6
TS0029	2x2x0,8	5,4	38	19,3
TS0031	3x2x0,8	6,3	59	28,9
TS0032	5x2x0,8	7,5	87	48,2
TS0033	6x2x0,8	8,0	104	57,9
TS0034	7x2x0,8	8,6	118	67,5
TS0035	10x2x0,8	10,0	164	96,5
TS0053	12x2x0,8	10,7	191	115,8
TS0054	14x2x0,8	11,3	218	135,0
TS0036	21x2x0,8	13,7	310	202,6
TS0055	28x2x0,8	20,5	408	270,1
TS0056	30x2x0,8	21,0	434	289,4
Ts0057	35x2x0,8	23,5	495	337,6
TS0058	42x2x0,8	24,5	602	405,1
TS0059	48x2x0,8	26,0	674	463,0
TS0060	53x2x0,8	27,0	740	511,2

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

YTKSYekw Screened telecommunication station cable

BITNER YTKSYekw

RoHS 2002/95/WE

Technical data:

Telecommunication (T), station (S) cable (K), with solid copper conductors and PVC insulation (Y) and outer sheath (Y), with common screen (ekw)
Operating temperature: -40°C to 80°C
Installation temperature: -10°C do 50°C
Bending radius: 10 x Ø

Construction:

Conductors: solid copper conductors
Insulation: special PVC
Insulation colours: acc to PN-92/T-90321
Core arrangement: pairs 1-21: pairs twisted together in layers pairs 25-53: pairs twisted in bundles, bundles twisted together in layers
Screen: aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, self-extinguishing and flame retardant acc to EN 60332-1
Outer sheath colour: white

Application:

Cables designed for connections of telephone and tele-transmission devices with additional protection against electromagnetic interferences.

internal application

PN-EN60332-1

No cat.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TS0132	1x2x0,4	3,7	14	3,6
TS0133	2x2x0,4	4,0	20	6,0
TS0134	3x2x0,4	4,2	24	8,4
TS0135	5x2x0,4	5,0	32	13,3
TS0136	6x2x0,4	5,6	40	15,7
TS0137	7x2x0,4	6,0	45	18,1
TS0138	10x2x0,4	6,4	57	25,3
TS0139	12x2x0,4	7,0	65	30,1
TS0140	14x2x0,4	7,5	73	35,0
TS0141	21x2x0,4	9,0	105	51,8
TS0142	28x2x0,4	10,5	132	68,7
TS0143	30x2x0,4	11,4	139	73,6
TS0144	35x2x0,4	12,5	163	85,6
TS0145	42x2x0,4	15,0	190	102,5
TS0146	48x2x0,4	16,0	212	117,0
TS0147	53x2x0,4	16,5	230	129,0
TS0100	1x2x0,5	3,9	16	5,0
TS0101	2x2x0,5	4,1	24	8,7
TS0103	3x2x0,5	4,4	30	12,5
TS0105	5x2x0,5	5,0	43	20,0
TS0106	6x2x0,5	5,6	53	23,8
TS0107	7x2x0,5	6,0	59	27,6
TS0108	10x2x0,5	6,6	78	37,7
TS0109	12x2x0,5	7,1	89	46,4
TS0110	14x2x0,5	7,6	101	54,0
TS0112	21x2x0,5	9,3	146	80,3
TS0114	28x2x0,5	10,6	190	105,5
TS0115	30x2x0,5	11,6	202	114,2
TS0116	35x2x0,5	12,5	230	133,1

No cat.	nx2xmm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TS0117	42x2x0,5	16,5	269	159,5
TS0118	48x2x0,5	17,5	302	182,1
TS0119	53x2x0,5	18,5	330	200,9
TS0120	1x2x0,6	4,2	20	6,6
TS0121	2x2x0,6	5,6	26	12,1
TS0122	3x2x0,6	6,5	35	17,5
TS0132	5x2x0,6	7,7	49	28,3
TS0133	6x2x0,6	8,2	65	33,8
TS0134	7x2x0,6	8,8	72	39,2
TS0135	10x2x0,6	10,2	86	55,5
TS0136	12x2x0,6	10,9	98	66,3
TS0137	14x2x0,6	11,5	118	77,2
TS0138	21x2x0,6	13,9	162	115,2
TS0123	1x2x0,8	4,2	26	10,9
TS0124	2x2x0,8	5,6	43	20,5
TS0126	3x2x0,8	6,5	61	30,1
TS0127	5x2x0,8	7,7	89	49,4
TS0128	6x2x0,8	8,2	107	59,1
TS0129	7x2x0,8	8,8	121	68,7
TS0130	10x2x0,8	10,2	166	97,7
TS0148	12x2x0,8	10,9	194	117,0
TS0149	14x2x0,8	11,5	220	136,3
TS0131	21x2x0,8	13,9	313	203,8
TS0150	28x2x0,8	15,5	411	271,3
TS0151	30x2x0,8	18,0	437	290,6
TS0152	35x2x0,8	21,2	502	338,8
TS0153	42x2x0,8	24,5	606	406,3
TS0154	48x2x0,8	26,0	683	464,2
TS0155	53x2x0,8	27,5	747	512,4

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

YnTKSY Fire alarm cables for fixed installations

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Telecommunication switchboard cable, PVC insulated and sheathed, red, flame retardant, suitable for fire alarm installation
Operating temperature: -40°C to 80°C
Installation temperature: -5°C to 50°C
Operating voltage: 150V
Test voltage:
AC 1500 V
DC 2250 V
Insulation resistance: >200MΩ x km
Conductor resistance (at 20°C):
0,8mm: 37,5 Ω/km
1mm: 24Ω/km
Conductor capacitance:
Max. 120 nF/km
Average 100 nF/km
Inductance: ca.0,7mH/km
Min. bending radius: 10 x Ø

Construction:

Conductors: solid copper conductor, class 1
Insulation: special PVC
Core colours: acc. PN-92/T-90320 (90321)
Core arrangement: cores twisted in pairs, pairs twisted together
Outer sheath: special PVC, highly flame retardant and self-extinguishing EN 60332-1, EN 60332-3-24, IEC 60332-3, cat. C, oxygen index >29
Outer sheath colour: red

Application:

Special cables for connections of telephone switchboards and data transmission devices, using analogue and digital signals for control and fire alarm installations. Cables are used mainly as transmission lines and power line for fire alarm systems' devices (sensors, linear modules) and for autonomous fire fighting control systems and smoke extraction systems. Cables are suitable for installations used at the „0" moment of fire detection (moment of fire detection by the fire detection centre). Cables are intended for transmission of signal to auxiliary devices, which in case of fire detection are run by the central fire alarm (power cut-off, bringing down the lifts/elevators, ventilation cut-off) .


internal application

oxygen index


PN-EN60332-1

Conductor marking of YnTKSY cable

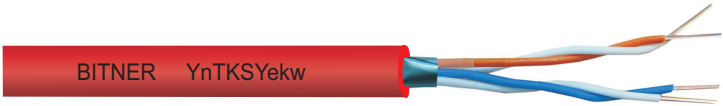
Number of pair	Conductor insulation colours	
	a	b
1	white	blue
2		orange
3		green
4		brown
5		grey
6	red	blue
7		orange
8		green
9		brown
10		grey

YnTKSY Fire alarm cables for fixed installations

Cat no.	Number of pairs [nx2xmm]	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TN0001	1x2x0,8	4,0	22	9,7
TN0002	1x4x0,8	4,6	35	19,3
TN0003	2x2x0,8	4,9	36	19,3
TN0004	3x2x0,8	6,5	55	29
TN0005	4x2x0,8	7,2	70	38,6
TN0006	5x2x0,8	7,7	83	48,3
TN0009	6x2x0,8	8,1	100	57,9
TN0405	7x2x0,8	9,1	116	67,6
TN0402	10x2x0,8	10,4	161	96,5
TN0007	1x2x1,0	4,6	30	15,1
TN0013	1x4x1,0	7,1	59	30,2
TN0008	2x2x1,0	5,8	54	30,2
TN0010	3x2x1,0	8,0	83	45,3
TN0014	4x2x1,0	9,3	109	60,3
TN0404	5x2x1,0	10,4	140	75,4
TN0015	7x2x1,0	11,5	180	105,6
TN0016	10x2x1,0	13,6	250	150,8
TN0017	12x2x1,0	14,7	295	180,9
TN0018	14x2x1,0	16,0	340	211,1
TN0019	1x2x1,4	6,3	56	29,6
TN0020	1x4x1,4	7,3	96	59,1
TN0021	2x2x1,4	9,4	107	59,1
TN0022	3x2x1,4	10,3	150	88,7
TN0023	4x2x1,4	12,2	195	118,2
TN0024	5x2x1,4	13,4	235	147,8
TN0025	7x2x1,4	14,8	315	206,8
TN0026	10x2x1,4	17,8	450	295,5
TN0027	1x2x1,5mm^2	6,3	56	29,6
TN0028	1x4x1,5mm^2	7,3	96	59,1
TN0029	2x2x1,5mm^2	9,4	107	59,1
TN0030	3x2x1,5mm^2	10,3	150	88,7
TN0031	4x2x1,5mm^2	12,2	195	118,2
TN0032	5x2x1,5mm^2	13,4	235	147,8
TN0033	7x2x1,5mm^2	14,8	315	206,8
TN0034	10x2x1,5mm^2	17,8	450	295,5
TN0035	1x2x1,8	7,5	82	48,9
TN0036	1x4x1,8	8,9	147	97,7
TN0037	2x2x1,8	11,2	160	97,7
TN0038	3x2x1,8	12,6	225	146,5
TN0039	4x2x1,8	14,7	290	195,4
TN0040	5x2x1,8	16,2	355	244,2
TN0041	7x2x1,8	18,3	495	341,9
TN0042	10x2x1,8	21,6	680	488,4
TN0043	1x2x2,3	8,9	122	79,8
TN0044	1x4x2,3	10,4	217	159,5
TN0045	2x2x2,3	13,3	235	159,5
TN0046	3x2x2,3	14,7	330	239,2
TN0047	4x2x2,3	17,6	450	319
TN0048	5x2x2,3	19,4	550	398,7
TN0049	7x2x2,3	21,5	740	558,2
TN0050	10x2x2,3	25,8	1050	797,4
TN0051	1x2x2,8	10,1	168	118,2
TN0052	1x4x2,8	12,0	310	236,4
TN0053	2x2x2,8	15,2	325	236,4
TN0054	3x2x2,8	16,9	465	354,5
TN0055	4x2x2,8	20,2	625	472,7
TN0056	5x2x2,8	22,3	765	590,9
TN0057	7x2x2,8	25,2	1060	827,2
TN0058	10x2x2,8	30,1	1510	1181,7

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

YnTKSYekw Screened fire alarm cables for fixed installations



RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Telecommunication switchboard cable, screened, PVC insulated and sheathed, red, flame retardant, suitable for fire alarm installation
Operating temperature: -40°C to 80°C
Installation temperature: -5°C to 50°C
Operating voltage: 150V
Test voltage:
AC 1500 V
DC 2250 V
Insulation resistance: >200MΩ x km
Conductor resistance (at 20°C):
0,8mm: 37,5 Ω/km
1mm: 24Ω/km
Conductor capacitance:
Max. 150 nF/km
Average 140 nF/km
Inductance: ca.0,7mH/km
Min. bending radius: 10 x Ø

Construction:

Conductors: solid copper conductor, class 1
Insulation: special PVC
Core colours: acc. PN-92/T-90320 (90321)
Core arrangement: cores twisted in pairs, pairs twisted together
Screen: aluminium backed polyester tape with tinned copper drain wire
Outer sheath: special PVC, highly flame retardant and self-extinguishing EN 60332-1, EN 60332-3-24, IEC 60332-3, cat. C), oxygen index >29
Outer sheath colour: red

Application:

Special cables for connections of telephone switchboards and data transmission devices, using analogue and digital signals for control and fire alarm installations. Cables are used mainly as transmission lines and power line for fire alarm systems' devices (sensors, linear modules) and for autonomous fire fighting control systems and smoke extraction systems. Cables are suitable for installations used at the „0" moment of fire detection (moment of fire detection by the fire detection centre). Cables are intended for transmission of signal to auxiliary devices, which in case of fire detection are run by the central fire alarm (power cut-off, bringing down the lifts/elevators, ventilation cut-off) . Electrostatic screen protects the cables against external electromagnetic fields' interferences.


internal application

oxygen index


PN-EN60332-1

Conductor marking of YnTKSYekw cable

Number of pair	Conductor insulation colours	
	a	b
1	white	blue
2		orange
3		green
4		brown
5		grey
6	red	blue
7		orange
8		green
9		brown
10		grey

BITNER®

YnTKSYekw Screened fire alarm cables for fixed installations

Cat no.	Number of pairs [nx2xmm]	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TN0100	1x2x0,8	4,2	25	10,9
TN0101	1x4x0,8	4,8	40	20,5
TN0102	2x2x0,8	5,8	43	20,5
TN0103	3x2x0,8	7,1	60	30,2
TN0104	4x2x0,8	7,3	75	39,8
TN0105	5x2x0,8	7,8	90	49,5
TN0112	6x2x0,8	8,8	107	59,1
TN0106	7x2x0,8	9,0	121	68,8
TN0107	10x2x0,8	10,0	168	97,7
TN0113	12x2x0,8	12,3	197	117
TN0114	14x2x0,8	13,3	225	136,3
TN0115	20x2x0,8	14,3	307	194,2
TN0108	1x2x1,0	4,8	35	16,3
TN0408	1x4x1,0	5,9	60	31,4
TN0109	2x2x1,0	7,1	65	31,4
TN0411	3x2x1,0	8,2	90	46,5
TN0116	4x2x1,0	8,5	115	61,5
TN0412	5x2x1,0	9,7	145	76,6
TN0117	7x2x1,0	10,9	188	106,8
TN0406	10x2x1,0	12,4	260	152
TN0118	12x2x1,0	15,4	305	182,1
TN0119	14x2x1,0	16,6	350	212,3
TN0120	1x2x1,4	7,0	62	30,8
TN0121	1x4x1,4	7,9	101	60,3
TN0122	2x2x1,4	10,0	115	60,3
TN0123	3x2x1,4	10,9	155	89,9
TN0124	4x2x1,4	12,8	205	119,4
TN0125	5x2x1,4	14,0	245	149
TN0126	7x2x1,4	15,4	320	208
TN0127	10x2x1,4	18,4	460	296,7
TN0407	1x2x1,5mm^2	7,0	62	30,8
TN0409	1x4x1,5mm^2	7,9	101	60,3
TN0128	2x2x1,5mm^2	10,0	115	60,3
TN0129	3x2x1,5mm^2	10,9	155	89,9
TN0130	4x2x1,5mm^2	12,8	205	119,4
TN0131	5x2x1,5mm^2	14,0	245	149
TN0132	7x2x1,5mm^2	15,4	320	208
TN0133	10x2x1,5mm^2	18,4	460	296,7
TN0134	1x2x1,8	8,2	88	50,1
TN0135	1x4x1,8	9,6	155	98,9
TN0136	2x2x1,8	12,1	170	98,9
TN0137	3x2x1,8	13,2	235	147,8
TN0138	4x2x1,8	15,3	300	196,6
TN0139	5x2x1,8	16,8	365	245,4
TN0140	7x2x1,8	18,9	505	343,1
TN0141	10x2x1,8	22,2	695	489,6
TN0142	1x2x2,3	9,5	130	81
TN0143	1x4x2,3	11,0	225	160,7
TN0144	2x2x2,3	13,9	245	160,7
TN0145	3x2x2,3	15,4	340	240,4
TN0146	4x2x2,3	18,2	460	320,2
TN0147	5x2x2,3	20,0	560	399,9
TN0148	7x2x2,3	22,1	750	559,4
TN0149	10x2x2,3	26,4	1060	798,6
TN0150	1x2x2,8	10,7	140	119,4
TN0151	1x4x2,8	12,6	248	237,6
TN0152	2x2x2,8	15,9	265	237,6
TN0153	3x2x2,8	17,9	390	355,7
TN0154	4x2x2,8	20,8	495	473,9
TN0155	5x2x2,8	23,3	625	592,1
TN0156	7x2x2,8	25,8	830	828,4
TN0157	10x2x2,8	30,7	1170	1182,9

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

H 1000

High frequency (2,4GHz) coaxial cable

RoHS 2002/95/WE

Technical data:

Cable designed for installation in wireless networks IEEE 802,11b/g/a operating in 2,4GHz frequency bands.
Operating temperature: -40°C to 80°C
Installation temperature: -5°C to 40°C
Conductor resistance (at 20°C): 3,2 Ω/km
Screen resistance (at 20°C): 7,9 Ω/km
Capacitance: 80 nF/km
Characteristic impedance: 50 Ω
Screen attenuation: 30-2150MHz>85 dB
Min. bending radius: 75mm

Construction:

Conductor: solid, bare, annealed copper conductor
Insulation: foamed PE
Double screen: special Cu backed polyester tape and bare copper wire braid
Outer sheath: special PE
Outer sheath colour: black

Application:

H-1000 cable is designed for installation in wireless networks IEEE 802,11b/g/a operating in 2,4GHz frequency bands especially in cases where lower attenuation is required (longer distances between the antennas).

internal application | external application | underground installation | industrial application | EN60332-1 | UV resistance

Cat no.	Conductor dia/ insulation dia. [mm]	Outer diameter [mm]	Approximate cable weight [kg/km]
LF0319	2,62/7,15	10,3	118

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

Attenuation loss:

Mhz:	100	200	300	500	800	1000	2000	2400
[dB/100m]	3,9	5,7	7	9,6	12,3	13,9	21,2	23,2

BITNER®

H 155

High frequency (2,4GHz) coaxial cable

RoHS 2002/95/WE

Technical data:

Cable designed for 2,4GHz WLAN installations
Operating temperature: -40°C to 80°C
Installation temperature: -5°C to 40°C
Conductor resistance (at 20°C): 15,0 Ω/km
Screen resistance (at 20°C): 17,0 Ω/km
Capacitance: 80 nF/km
Characteristic impedance: 50 Ω
Screen attenuation: 30-2150MHz>75dB
Min. bending radius: 35mm

Construction:

Conductor: multi-stranded, bare, annealed copper conductor
Insulation: foamed PE
Double screen: special polyester tape coated with aluminium layer on both sides, tinned copper wire braid
Outer sheath: special PE
Outer sheath colour: black

Application:

H-155 cable is used in antennae installations operating at 2,4GHz frequency due to its simplified laying characteristics (flexibility) and acceptable attenuation loss 49,6dB/100m in 2,4GHz band.


industrial application


internal application


external application


underground installation


EN60332-1

UV resistance

Cat no.	Conductor dia/ insulation dia. [mm]	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
LF0321	1,2/3,9	5,7	36	22

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

Attenuation loss:

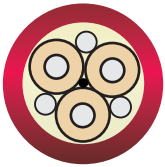
Mhz:	100	200	300	500	800	1000	2000	2400
[dB/100m]	9,3	13,1	16,3	16,6	21,6	30,9	45,2	49,6

CHAPTER VI

Mining cables

BiTmining® NTSCGEWOEU-W .../3

Medium voltage, flexible power supply cable for use in water



Technical data:

Operating temperature:
Fixed systems: -40°C to 90°C
Flexible operation: -25°C to 80°C
Maximum permissible water temperature: 40°C
Maximum permissible operating temperature of the conductor: 90°C
Maximum conductors operating temperature in short-circuit: 250°C
Tensile load: 15 N/mm²
Torsional stresses: +/- 100°/m
Min. bending radius: according to DIN VDE 0298, Part 3
Operating voltage: U_0/U= 3,6/6 kV to 18/30 kV
Test voltage: 11 kV to 43 kV
Standard: according to DIN VDE 0250, p.813

Construction:

Conductor: finely stranded class 5 (EN 60228, DIN VDE 0295) tinned, electrolytic copper
Insulation: EPR compound with improved electrical and mechanical characteristics (DIN VDE 0207, Part 20)
Arrangement of protective-earth conductor: protective-earth conductor split into 3 in the outer interstices
Electrical field control: inner and outer layer of semiconductive rubber
Core colours: natural colouring with black semiconductive rubber with printed white digits 1-3
Core arrangement: three main conductors laid-up with protective-earth conductor split into 3 in the outer interstices
Wrapping: semiconductive, reinforced, swellable, binding and separating tape
Inner sheath: EPR compound type GM1b, waterproof (acc. to DIN VDE 0207, Part 21)
Outer sheath: 5GM5 compound with improved mechanical characteristics (acc. to DIN VDE 0207, Part 21), colour: red

Rated voltage U_0/U [kV]	3,6/6	6/10	8,7/15	12/20	14/25	18/30
Maximum permissible operating voltage in AC systems U_0/U [kV]	4,2/7,2	6,9/12	10,4/18	13,9/24	17,3/30	20,8/36
Maximum permissible operating voltage in DC systems U_0/U [kV]	5,4/10,8	9/18	13,5/27	18/36	22,5/45	27/54
AC test voltage [kV]	11	17	24	29	36	43
Current-carrying capacity	According to DIN VDE 0298, Part 4					

Chemical parameters:

Resistance to oil: EN 60811-2-1, IEC 60811-2-1
Behaviour in case of fire: VDE 0482 Part 332-1-2, EN 60332-1-2, IEC 60332-1-2
Water compatability: HD 22.16 (VDE 0282 Part 16)
Weather resistance: Unrestricted use outdoors and indoors, resistant to ozone, UV and moisture

Application:

Power supply cable for use strip and open-pit mining facilities designed for operation in water and exposed to high mechanical stresses, e.g. for connection to dredgers, floating docks, submersible pumps, etc. Cables are suitable to work in sewage, salt and brackish water.


industrial applications


mining applications


PN-EN60332-1


high flexibility

oxygen index

UV resistance


oil resistant


mechanical resistance


low operating temperature

explosion hazardous areas

BITNER®

BiTmining® NTSCGEWOEU-W .../3

BiTmining® NTSCGEWOEU-W .../3 3,6/6kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0001	3x25+3x25/3	45,8	0,795	0,36	0,34	131	3,0	3050	1125
BM0002	3x35+3x25/3	48,0	0,565	0,34	0,38	162	4,3	3400	1575
BM0003	3x50+3x25/3	52,4	0,393	0,32	0,44	202	6,1	4150	2250
BM0004	3x70+3x35/3	57,1	0,277	0,31	0,48	250	8,5	5300	3150
BM0005	3x95+3x50/3	61,8	0,210	0,29	0,54	301	11,6	6550	4275
BM0006	3x120+3x70/3	64,3	0,164	0,28	0,59	352	14,6	7450	5400
BM0007	3x150+3x70/3	70,1	0,132	0,28	0,64	404	18,3	8750	6750
BM0008	3x185+3x95/3	75,8	0,108	0,27	0,69	461	22,6	10450	8325

BiTmining® NTSCGEWOEU-W .../3 6/10kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0015	3x25+3x25/3	48,2	0,795	0,37	0,31	131	3,0	3250	1125
BM0016	3x35+3x25/3	50,3	0,565	0,35	0,35	162	4,3	3650	1575
BM0017	3x50+3x25/3	54,5	0,393	0,33	0,39	202	6,1	4400	2250
BM0018	3x70+3x35/3	59,4	0,277	0,31	0,43	250	8,5	5570	3150
BM0019	3x95+3x50/3	63,1	0,210	0,30	0,49	301	11,6	6720	4275
BM0020	3x120+3x70/3	66,5	0,164	0,29	0,53	352	14,6	7750	5400
BM0021	3x150+3x50/3	72,4	0,132	0,28	0,58	404	18,3	9100	6750
BM0022	3x150+3x70/3	72,4	0,132	0,28	0,58	404	18,3	9100	6750
BM0023	3x185+3x50/3	77,9	0,108	0,28	0,62	461	22,6	10700	8325
BM0024	3x185+3x95/3	77,9	0,108	0,28	0,62	461	22,6	10800	8325

BiTmining® NTSCGEWOEU-W .../3 8,7/15kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0030	3x25+3x25/3	53,6	0,795	0,39	0,25	139	3,0	3860	1125
BM0031	3x35+3x25/3	55,8	0,565	0,37	0,28	172	4,3	4260	1575
BM0032	3x50+3x25/3	60,3	0,393	0,35	0,31	215	6,1	5100	2250
BM0033	3x70+3x35/3	64,9	0,277	0,33	0,34	265	8,5	6300	3150
BM0034	3x95+3x50/3	69,6	0,210	0,32	0,39	319	11,6	7650	4275
BM0035	3x120+3x70/3	72,3	0,164	0,31	0,42	371	14,6	8600	5400
BM0036	3x150+3x70/3	77,8	0,132	0,30	0,46	428	18,3	10100	6750
BM0037	3x185+3x95/3	83,6	0,108	0,29	0,48	488	22,6	11800	8325

BiTmining® NTSCGEWOEU-W .../3

BiTmining® NTSCGEWOEU-W .../3 12/20kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0040	3x25+3x25/3	58,0	0,795	0,41	0,22	139	3,0	4360	1125
BM0041	3x35+3x25/3	61,1	0,565	0,39	0,24	172	4,3	4900	1575
BM0042	3x50+3x25/3	65,4	0,393	0,37	0,27	215	6,1	5770	2250
BM0043	3x70+3x35/3	70,2	0,277	0,35	0,30	265	8,5	7050	3150
BM0044	3x95+3x50/3	73,9	0,210	0,33	0,33	319	11,6	8300	4275
BM0045	3x120+3x70/3	77,3	0,164	0,32	0,36	371	14,6	9370	5400
BM0046	3x150+3x70/3	83,2	0,132	0,31	0,39	428	18,3	10900	6750
BM0047	3x185+3x95/3	88,6	0,108	0,30	0,41	488	22,6	12650	8325

BiTmining® NTSCGEWOEU-W .../3 14/25kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0050	3x25+3x25/3	65,4	0,795	0,43	0,19	139	3,0	5350	1125
BM0051	3x35+3x25/3	67,5	0,565	0,41	0,21	172	4,3	5780	1575
BM0052	3x50+3x25/3	72,0	0,393	0,39	0,23	215	6,1	6750	2250
BM0053	3x70+3x35/3	76,6	0,277	0,37	0,25	265	8,5	8050	3150
BM0054	3x95+3x50/3	81,3	0,210	0,35	0,28	319	11,6	9500	4275
BM0055	3x120+3x70/3	83,9	0,164	0,34	0,30	371	14,6	10500	5400
BM0056	3x150+3x70/3	89,6	0,132	0,33	0,33	428	18,3	12050	6750
BM0057	3x185+3x95/3	95,4	0,108	0,32	0,35	488	22,6	14000	8325

BiTmining® NTSCGEWOEU-W .../3 18/30kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0060	3x25+3x25/3	71,5	0,795	0,45	0,17	139	3,0	6220	1125
BM0061	3x35+3x25/3	73,6	0,565	0,43	0,19	172	4,3	6690	1575
BM0062	3x50+3x25/3	77,9	0,393	0,41	0,21	215	6,1	7660	2250
BM0063	3x70+3x35/3	82,8	0,277	0,39	0,23	265	8,5	9100	3150
BM0064	3x95+3x50/3	86,5	0,210	0,37	0,25	319	11,6	10400	4275
BM0065	3x120+3x70/3	89,8	0,164	0,35	0,27	371	14,6	11600	5400
BM0066	3x150+3x70/3	95,8	0,132	0,34	0,30	428	18,3	13250	6750
BM0067	3x185+3x95/3	101,3	0,108	0,33	0,31	488	22,6	15200	8325

Cable Factory BITNER reserve the right to modify specifications without prior notification.
*Cable outer diameter may differ from the one shown in table
Note: On customer's request other cross sections or number of cores can be produced

BiTmining® NTSCGEWOEU-W .../3E

Medium voltage, flexible power supply cable for use in water

Technical data:

Operating temperature:
Fixed systems: -40°C to 90°C
Flexible operation: -25°C to 80°C
Maximum permissible water temperature: 40°C
Maximum permissible operating temperature of the conductor: 90°C
Maximum conductors operating temperature in short-circuit: 250°C
Tensile load: 15 N/mm²
Torsional stresses: +/- 25°/m
Min. bending radius: according to DIN VDE 0298, Part 3
Operating voltage: U_0/U= 3,6/6 kV to 18/30 kV
Test voltage: 11 kV to 43 kV
Standard: according to DIN VDE 0250, p.813

Construction:

Conductor: finely stranded class 5 (EN 60228, DIN VDE 0295) tinned, electrolytic copper
Insulation: EPR compound with improved electrical and mechanical characteristics (DIN VDE 0207, Part 20)
Arrangement of protective-earth conductor: individual concentric protective-earth conductors distributed over the insulation of three power cores
Electrical field control: inner and outer layers of semiconductive rubber and individual concentric protective-earth conductor
Core colours: natural colouring with black semiconductive rubber with printed white digits 1-3
Core arrangement: three main conductors and protective-earth conductor split into 3 elements distributed concentrically over the insulation of three power conductors laid-up together
Wrapping: semiconductive, reinforced, swellable, binding and separating tape
Inner sheath: EPR compound type GM1b, waterproof (acc. to DIN VDE 0207, Part 21)
Outer sheath: 5GM5 compound with improved mechanical characteristics (acc. to DIN VDE 0207, Part 21), colour: red

Rated voltage U_0/U [kV]	3,6/6	6/10	8,7/15	12/20	14/25	18/30
Maximum permissible operating voltage in AC systems U_0/U [kV]	4,2/7,2	6,9/12	10,4/18	13,9/24	17,3/30	20,8/36
Maximum permissible operating voltage in DC systems U_0/U [kV]	5,4/10,8	9/18	13,5/27	18/36	22,5/45	27/54
AC test voltage [kV]	11	17	24	29	36	43
Current-carrying capacity	According to DIN VDE 0298, Part 4					

Chemical parameters:

Resistance to oil: EN 60811-2-1, IEC 60811-2-1
Behaviour in case of fire: VDE 0482 Part 332-1-2, EN 60332-1-2, IEC 60332-1-2
Water compatability: HD 22.16 (VDE 0282 Part 16)
Weather resistance: Unrestricted use outdoors and indoors, resistant to ozone, UV and moisture

Application:

Power supply cable for use strip and open-pit mining facilities designed for operation in water and exposed to high mechanical stresses, e.g. for connection to dredgers, floating docks, submersible pumps, etc. Cables are suitable to work in sewage, salt and brackish water.


mining applications


industrial applications


PN-EN60332-1


high flexibility

oxygen index

UV resistance


oil resistant


mechanical resistance


low operating temperature

explosion hazardous areas

BiTmining® NTSCGEWOEU-W .../3E

Medium voltage, flexible power supply cable for use in water

BiTmining® NTSCGEWOEU-W .../3E 3,6/6kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0070	3x25+3x16/3E	48,9	0,795	0,36	0,34	131	3,0	3250	1125
BM0071	3x35+3x16/3E	51,0	0,565	0,34	0,38	162	4,3	3630	1575
BM0072	3x50+3x25/3E	56,2	0,393	0,32	0,44	202	6,1	4620	2250
BM0073	3x70+3x35/3E	60,1	0,277	0,31	0,48	250	8,5	5660	3150
BM0074	3x95+3x50/3E	66,0	0,210	0,29	0,54	301	11,6	7070	4275
BM0075	3x120+3x70/3E	67,0	0,164	0,28	0,59	352	14,6	8270	5400
BM0076	3x150+3x70/3E	74,0	0,132	0,28	0,64	404	18,3	9500	6750
BM0077	3x185+3x95/3E	80,5	0,108	0,27	0,69	461	22,6	11580	8325

BiTmining® NTSCGEWOEU-W .../3E 6/10kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0080	3x25+3x16/3E	50,1	0,795	0,37	0,31	131	3,0	3380	1125
BM0081	3x35+3x16/3E	54,1	0,565	0,35	0,34	162	4,3	3980	1575
BM0082	3x50+3x25/3E	57,5	0,393	0,33	0,38	202	6,1	4770	2250
BM0083	3x70+3x35/3E	61,4	0,277	0,31	0,43	250	8,5	5830	3150
BM0084	3x95+3x50/3E	67,3	0,210	0,30	0,48	301	11,6	7250	4275
BM0085	3x120+3x70/3E	70,3	0,164	0,29	0,54	352	14,6	8460	5400
BM0086	3x150+3x70/3E	77,1	0,132	0,28	0,58	404	18,3	10000	6750
BM0087	3x185+3x95/3E	81,8	0,108	0,28	0,61	461	22,6	11800	8325

BiTmining® NTSCGEWOEU-W .../3E 8,7/15kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0090	3x25+3x16/3E	56,7	0,795	0,39	0,25	139	3,0	4130	1125
BM0091	3x35+3x16/3E	58,8	0,565	0,37	0,28	172	4,3	4550	1575
BM0092	3x50+3x25/3E	62,3	0,393	0,35	0,31	215	6,1	5355	2250
BM0093	3x70+3x35/3E	67,9	0,277	0,33	0,34	265	8,5	6730	3150
BM0094	3x95+3x50/3E	72,0	0,210	0,32	0,39	319	11,6	7950	4275
BM0095	3x120+3x70/3E	76,9	0,164	0,31	0,42	371	14,6	9470	5400
BM0096	3x150+3x70/3E	81,8	0,132	0,30	0,46	428	18,3	10780	6750
BM0097	3x185+3x95/3E	88,3	0,108	0,29	0,48	488	22,6	12980	8325

BiTmining® NTSCGEWOEU-W .../3E

Medium voltage, flexible power supply cable for use in water

BiTmining® NTSCGEWOEU-W .../3E 12/20kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0100	3x25+3x16/3E	61,0	0,795	0,41	0,22	139	3,0	4650	1125
BM0101	3x35+3x16/3E	65,0	0,565	0,39	0,24	172	4,3	5340	1575
BM0102	3x50+3x25/3E	68,4	0,393	0,37	0,27	215	6,1	6200	2250
BM0103	3x70+3x35/3E	72,3	0,277	0,35	0,30	265	8,5	7340	3150
BM0104	3x95+3x50/3E	78,2	0,210	0,33	0,33	319	11,6	8900	4275
BM0105	3x120+3x70/3E	81,2	0,164	0,32	0,36	371	14,6	10200	5400
BM0106	3x150+3x70/3E	86,1	0,132	0,31	0,39	428	18,3	11550	6750
BM0107	3x185+3x95/3E	92,6	0,108	0,30	0,41	488	22,6	13800	8325

BiTmining® NTSCGEWOEU-W .../3E 14/25kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0110	3x25+3x16/3E	68,3	0,795	0,43	0,19	139	3,0	5650	1125
BM0111	3x35+3x16/3E	70,5	0,565	0,41	0,21	172	4,3	6120	1575
BM0112	3x50+3x25/3E	73,9	0,393	0,39	0,23	215	6,1	7050	2250
BM0113	3x70+3x35/3E	79,6	0,277	0,37	0,25	265	8,5	8520	3150
BM0114	3x95+3x50/3E	83,7	0,210	0,35	0,28	319	11,6	9850	4275
BM0115	3x120+3x70/3E	88,6	0,164	0,34	0,30	371	14,6	11500	5400
BM0116	3x150+3x70/3E	93,5	0,132	0,33	0,33	428	18,3	12950	6750
BM0117	3x185+3x95/3E	98,2	0,108	0,32	0,35	488	22,6	14900	8325

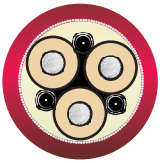
BiTmining® NTSCGEWOEU-W .../3E 18/30kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0120	3x25+3x16/3E	73,5	0,795	0,45	0,17	139	3,0	6420	1125
BM0121	3x35+3x16/3E	77,5	0,565	0,43	0,19	172	4,3	7220	1575
BM0122	3x50+3x25/3E	80,9	0,393	0,41	0,21	215	6,1	8170	2250
BM0123	3x70+3x35/3E	84,8	0,277	0,39	0,23	265	8,5	9400	3150
BM0124	3x95+3x50/3E	90,7	0,210	0,37	0,25	319	11,6	11120	4275
BM0125	3x120+3x70/3E	93,7	0,164	0,35	0,27	371	14,6	12460	5400
BM0126	3x150+3x70/3E	100,5	0,132	0,34	0,30	428	18,3	14350	6750
BM0127	3x185+3x95/3E	105,2	0,108	0,33	0,31	488	22,6	16400	8325

Cable Factory BITNER reserve the right to modify specifications without prior notification.
*Cable outer diameter may differ from the one shown in table
Note: On customer's request other cross sections or number of cores can be produced

BiTmining® (N)TSKCGECWOEU-CH

Medium voltage, flexible power supply coal cutter cable for chain operation



Technical data:

Operating temperature:
Fixed systems: -40°C to 90°C
Flexible operation: -25°C to 80°C
Maximum permissible operating temperature of the conductor: 90°C
Maximum conductors operating temperature in short-circuit: 250°C
Tensile load: 15 N/mm^2
Min. bending radius: acc. to DIN VDE 0298, Part 3, or 2.3x D with tensile load limited to 5 N/mm^2
Minimum distance with S-type directional changes: 20 x D
Operating voltage: U_0/U= 3,6/6 kV
Test voltage: 11 kV
Standard: based on DIN VDE 0250, p.813

Construction:

Conductor: finely stranded class 6 (EN 60228, DIN VDE 0295) tinned, electrolytic copper
Control/protective conductor: spirally applied concentric CuSn wires forming control conductors around support element, EPR insulation and spirally applied concentric CuSn wires to form protective conductor
Insulation: EPR compound with improved electrical and mechanical characteristics (DIN VDE 0207, Part 20)
Electrical field control: inner and outer layers of semiconductive rubber
Core identification: natural colouring with black semiconductive rubber with printed white digits 1-3
Core arrangement: three power conductors laid-up with double concentric control/protective conductor elements in the outer interstices, with optimised lay length
Inner sheath: GM1b (acc. to DIN VDE 0207, Part 21)
Signal/monitoring conductor: spirally applied FeZn and CuSn wires in a vulcanized bond between inner and outer sheath.
Outer sheath: 5GM5 compound with improved mechanical characteristics (acc. to DIN VDE 0207, Part 21), colour: red

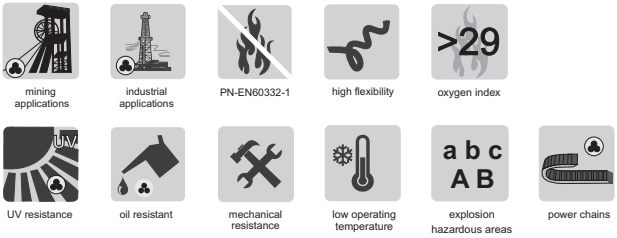
Rated voltage U_0/U [kV]	3,6/6
Maximum permissible operating voltage in AC systems U_0/U [kV]	4,2/7,2
Maximum permissible operating voltage in DC systems U_0/U [kV]	5,4/10,8
AC test voltage [kV]	11
Current-carrying capacity	According to DIN VDE 0298, Part 4

Chemical parameters:

Resistance to oil: EN 60811-2-1, IEC 60811-2-1
Behaviour in case of fire: VDE 0482 Part 332-1-2, EN 60332-1-2, IEC 60332-1-2
Weather resistance: Unrestricted use indoors, outdoors, resistance to ozone, UV and moisture

Application:

Flexible power supply cable for use in underground mining facilities for mobile machines like coal cutters etc. Designed for use in cable chains trailed behind the machines. Chains have protective function and absorb the tensile forces occuring during operation.



mining applications | industrial applications | PN-EN60332-1 | high flexibility | oxygen index

UV resistance | oil resistant | mechanical resistance | low operating temperature | explosion hazardous areas | power chains

BITNER®

BiTmining® (N)TSKCGECWOEU-CH

Medium voltage, flexible power supply coal cutter cable for chain operation

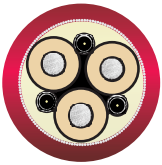
BiTmining® (N)TSKCGECWOEU-CH 3,6/6kV

Number of cores and nominal cross-section n x mm² Cat. no.	Overall cable diameter* [mm]	Conductor resistance at 20 °C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30 °C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
Cat. no. BM0130 3x35+3x(1,5ST KON+25/3KON) + 6ÜL KON)	56,6	0,554	0,31	0,38	162	4,3	4710	1575
Cat. no. BM0131 3x50+3x(1,5ST KON+25/3KON) + 6ÜL KON)	60,9	0,386	0,30	0,43	202	6,1	6060	2250
Cat. no. BM0132 3x70+3x(1,5ST KON+35/3KON) + 6ÜL KON)	64,0	0,272	0,29	0,49	250	8,5	6640	3150
Cat. no. BM0133 3x95+3x(1,5ST KON+50/3KON) + 6ÜL KON)	67,0	0,206	0,28	0,55	301	11,6	8160	4275
Cat. no. BM0134 3x120+3x(1,5ST KON+70/3KON) + 6ÜL KON)	71,3	0,164	0,27	0,60	352	14,6	9700	5400

Cable Factory BITNER reserve the right to modify specifications without prior notification.
*Cable outer diameter may differ from the one shown in table
Note: On customer's request other cross sections or number of cores can be produced

BiTmining® (N)TSKCGECWOEU-FN

Medium voltage, flexible power supply cable for underground festoon systems



Technical data:

Operating temperature:
Fixed systems: -40°C to 90°C
Flexible operation: -25°C to 80°C
Maximum permissible operating temperature of the conductor: 90°C
Maximum conductors operating temperature in short-circuit: 250°C
Tensile load: 15 N/mm²
Min. bending radius: acc. to DIN VDE 0298, Part 3
Operating voltage: U_0/U= 3,6/6 kV
Test voltage: 11 kV
Standard: based on DIN VDE 0250 p.813

Construction:

Conductor: finely stranded class 5 (EN 60228, DIN VDE 0295) tinned, electrolytic copper
Control/protective conductor: spirally applied concentric CuSn wires forming control conductors around support element, EPR insulation and spirally applied concentric CuSn wires to form protective conductor
Insulation: EPR compound with improved electrical and mechanical characteristics (DIN VDE 0207, Part 20)
Electrical field control: inner and outer layers of semiconductive rubber
Core identification: natural colouring with black semiconductive rubber with printed white digits 1-3
Core arrangement: three power conductors laid-up with double concentric control/protective conductor elements in the outer interstices, with optimised lay length
Inner sheath: GM1b (acc. to DIN VDE 0207, Part 21)
Signal/monitoring conductor: spirally applied FeZn and CuSn wires in a vulcanized bond between inner and outer sheath.
Outer sheath: 5GM5 compound with improved mechanical characteristics (acc. to DIN VDE 0207, Part 21), colour: red

Rated voltage U_0/U [kV]	3,6/6
Maximum permissible operating voltage in AC systems U_0/U [kV]	4,2/7,2
Maximum permissible operating voltage in DC systems U_0/U [kV]	5,4/10,8
AC test voltage [kV]	11
Current-carrying capacity	According to DIN VDE 0298, Part 4

Chemical parameters:

Resistance to oil: EN 60811-2-1, IEC 60811-2-1
Behaviour in case of fire: VDE 0482 Part 332-1-2, EN 60332-1-2, IEC 60332-1-2
Weather resistance: Unrestricted use indoors, outdoors, resistance to ozone, UV and moisture

Application:

Flexible power supply cable for use in underground mining facilities especially for festoon systems


mining applications


industrial applications


PN-EN60332-1


high flexibility

oxygen index

UV resistance


oil resistant


mechanical resistance


low operating temperature

explosion hazardous areas

BITNER®

BiTmining® (N)TSKCGECWOEU-FN

Medium voltage, flexible power supply cable for underground festoon systems

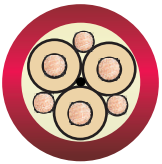
BiTmining® (N)TSKCGECWOEU-FN 3,6/6kV

Number of cores and nominal cross-section n x mm² Cat. no.	Overall cable diameter* [mm]	Conductor resistance at 20 °C [Ω/km]	Inductance [mH/km]	Operating capacitance [μF/km]	Current carrying capacity at 30 °C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
Cat. no. BM0140 3x35+3x(1,5ST KON+3x25/3KON) + 6ÜL KON	50,1	0,554	0,30	0,28	162	4,3	4120	1575
Cat. no. BM0141 3x50+3x(1,5ST KON+3x25/3KON) + 6ÜL KON	54,5	0,386	0,29	0,33	202	6,1	5000	2250
Cat. no. BM0142 3x70+3x(1,5ST KON+3x35/3KON) + 6ÜL KON	58,5	0,272	0,28	0,37	250	8,5	6060	3150
Cat. no. BM0143 3x95+3x(1,5ST KON+3x50/3KON) + 6ÜL KON	65,0	0,206	0,27	0,42	301	11,6	7310	4275
Cat. no. BM0144 3x120+3x(1,5ST KON+3x70/3KON) + 6ÜL KON	68,2	0,164	0,26	0,46	352	14,6	8670	5400

Cable Factory BITNER reserve the right to modify specifications without prior notification.
*Cable outer diameter may differ from the one shown in table
Note: On customer's request other cross sections or number of cores can be produced

BiTmining® (N)TSCGEWOEU-F

Medium voltage, flexible power supply cable for fixed installations



Technical data:

Operating temperature:
Fixed systems: -40°C to 90°C
Flexible operation: -25 °C to 80 °C
Maximum permissible water temperature: 40°C
Maximum permissible operating temperature of the conductor: 90°C
Maximum conductors operating temperature in short-circuit: 250°C
Tensile load: 15 N/mm^2
Torsional stresses: +/-100°/m
Min. bending radius: acc. to DIN VDE 0298, Part 3
Travel speed on rewinding: up to 100m/min
Operating voltage: U_0/U= 3,6/6 kV to 18/30 kV
Test voltage: 11 kV to 43 kV
Standard: based on DIN VDE 0250 p.813

Construction:

Conductor: finely stranded class 5 (EN 60228, DIN VDE 0295) not tinned, electrolytic copper
Insulation: EPR compound with improved electrical and mechanical characteristics (DIN VDE 0207, Part 20)
Electrical field control: inner and outer layers of semiconductive rubber
Core identification: natural colouring with black semiconductive rubber and printed white digits 1 to 3
Core arrangement: three main conductors laid-up with protective-earth conductor split into 3 in the outer interstices
Inner sheath: special EPR compound (acc. to DIN VDE 0207, Part 21)
Outer sheath: 5GM5 compound with improved mechanical characteristics (acc. to DIN VDE 0207, Part 21), waterproof, colour: red

Rated voltage U_0/U [kV]	3,6/6	6/10	8,7/15	12/20	14/25	18/30
Maximum permissible operating voltage in AC systems U_0/U [kV]	4,2/7,2	6,9/12	10,4/18	13,9/24	17,3/30	20,8/36
Maximum permissible operating voltage in DC systems U_0/U [kV]	5,4/10,8	9/18	13,5/27	18/36	22,5/45	27/54
AC test voltage [kV]	11	17	24	29	36	43
Current-carrying capacity	According to DIN VDE 0298, Part 4					

Application:

Flexible power supply cable for fixed installations in strip and open-pit mining facilities, alongside belt conveyors also for continuous slight movements (free overhang, slight twisting). Can also be used as connection cable between upper and lower part of excavator, stacker/reclaimer. It is suitable also for constant operation in water as power supply cable to submersible pumps.

Chemical parameters:

Resistance to oil: EN 60811-2-1, IEC 60811-2-1
Behaviour in case of fire: VDE 0482 Part 332-1-2, EN 60332-1-2, IEC 60332-1-2
Water compatability: HD 22.16 (VDE 0282 Part 16)
Weather resistance: Unrestricted use indoors, outdoors, resistance to ozone, UV and moisture


mining applications


industrial applications


PN-EN60332-1


high flexibility

oxygen index

UV resistance


oil resistant


mechanical resistance


low operating temperature

explosion hazardous areas

BITNER®

BiTmining® (N)TSCGEWOEU-F

Medium voltage, flexible power supply cable for fixed installations

BiTmining® (N)TSCGEWOEU-F 3,6/6kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0150	3x25+3x25/3	39,2	0,780	0,33	0,45	131	3,58	2475	1125
BM0151	3x25+3x50/3	43,6	0,780	0,36	0,45	131	3,58	3225	1125
BM0152	3x35+3x25/3	42,7	0,554	0,31	0,50	162	5,01	2950	1575
BM0153	3x35+3x50/3	45,3	0,554	0,33	0,50	162	5,01	3540	1575
BM0154	3x50+3x25/3	46,2	0,386	0,30	0,58	202	7,15	3565	2250
BM0155	3x50+3x50/3	46,6	0,386	0,30	0,58	202	7,15	3960	2250
BM0156	3x70+3x35/3	50,0	0,272	0,29	0,64	250	10,01	4560	3150
BM0157	3x70+3x50/3	50,0	0,272	0,29	0,64	250	10,01	4780	3150
BM0158	3x95+3x50/3	54,5	0,206	0,27	0,73	301	13,6	5750	4275
BM0159	3x120+3x70/3	57,1	0,161	0,26	0,80	352	17,16	6600	5400
BM0160	3x150+3x70/3	64,8	0,129	0,26	0,88	404	21,45	8140	6750
BM0161	3x185+3x95/3	69,6	0,106	0,25	0,94	462	26,46	9640	8325
BM0162	3x240+3x120/3	74,5	0,080	0,24	1,07	540	34,32	11750	10800
BM0163	3x300+3x150/3	81,2	0,004	0,24	1,18	620	42,90	14440	13500

BiTmining® (N)TSCGEWOEU-F 6/10kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0170	3x25+3x25/3	41,9	0,780	0,34	0,40	131	3,58	2716	1125
BM0171	3x25+3x50/3	43,6	0,780	0,36	0,40	131	3,58	3220	1125
BM0172	3x35+3x25/3	44,0	0,554	0,32	0,45	162	5,01	3065	1575
BM0173	3x35+3x50/3	46,2	0,554	0,34	0,45	162	5,01	3625	1575
BM0174	3x50+3x25/3	47,5	0,386	0,30	0,51	202	7,15	3690	2250
BM0175	3x50+3x50/3	47,5	0,386	0,30	0,51	202	7,15	4040	2250
BM0176	3x70+3x35/3	53,1	0,272	0,29	0,57	250	10,01	4915	3150
BM0177	3x70+3x50/3	53,1	0,272	0,29	0,57	250	10,01	5140	3150
BM0178	3x95+3x50/3	55,8	0,206	0,28	0,65	301	13,60	5900	4275
BM0179	3x120+3x70/3	58,4	0,161	0,27	0,71	352	17,16	6760	5400
BM0180	3x150+3x70/3	66,1	0,129	0,26	0,78	404	21,45	8320	6750
BM0181	3x185+3x95/3	70,8	0,106	0,26	0,83	462	26,46	9830	8325
BM0182	3x240+3x120/3	77,6	0,080	0,25	0,95	540	34,32	12276	10800
BM0183	3x300+3x150/3	82,5	0,004	0,24	1,04	620	42,90	14666	13500

BiTmining® (N)TSCGEWOEU-F 8,7/15kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0185	3x25+3x25/3	45,3	0,780	0,36	0,32	139	3,58	3040	1125
BM0186	3x25+3x50/3	46,2	0,780	0,38	0,32	139	3,58	3470	1125
BM0187	3x35+3x25/3	47,5	0,554	0,34	0,36	172	5,01	3400	1575
BM0188	3x35+3x50/3	47,5	0,554	0,34	0,36	172	5,01	3755	1575
BM0189	3x50+3x25/3	50,9	0,386	0,32	0,41	215	7,15	4060	2250
BM0190	3x50+3x50/3	50,9	0,386	0,32	0,41	215	7,15	4400	2250
BM0191	3x70+3x35/3	56,6	0,272	0,31	0,45	265	10,01	5320	3150
BM0192	3x70+3x50/3	56,6	0,272	0,31	0,45	265	10,01	5545	3150
BM0193	3x95+3x50/3	59,2	0,206	0,29	0,51	319	13,60	6325	4275
BM0194	3x120+3x70/3	63,1	0,161	0,28	0,56	371	17,16	7380	5400
BM0195	3x150+3x70/3	69,6	0,129	0,28	0,60	428	21,45	8820	6750
BM0196	3x185+3x95/3	74,3	0,106	0,27	0,65	488	26,46	10365	8325
BM0197	3x240+3x120/3	81,0	0,080	0,26	0,73	574	34,32	12860	10800
BM0198	3x300+3x150/3	86,0	0,004	0,25	0,80	665	42,90	15290	13500

BiTmining® (N)TSCGEWOEU-F

Medium voltage, flexible power supply cable for fixed installations

BiTmining® (N)TSCGEWOEU-F 12/20kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0200	3x25+3x25/3	48,3	0,780	0,38	0,28	139	3,58	3345	1125
BM0201	3x25+3x50/3	48,3	0,780	0,38	0,28	139	3,58	3690	1125
BM0202	3x35+3x25/3	50,5	0,554	0,36	0,31	172	5,01	3725	1575
BM0203	3x35+3x50/3	50,5	0,554	0,36	0,31	172	5,01	4075	1575
BM0204	3x50+3x25/3	55,7	0,386	0,34	0,35	215	7,15	4625	2250
BM0205	3x50+3x50/3	55,7	0,386	0,34	0,35	215	7,15	4975	2250
BM0206	3x70+3x35/3	59,6	0,272	0,32	0,38	265	10,01	5695	3150
BM0207	3x70+3x50/3	59,6	0,272	0,32	0,38	265	10,01	5920	3150
BM0208	3x95+3x50/3	65,0	0,206	0,31	0,43	319	13,60	7125	4275
BM0209	3x120+3x70/3	67,6	0,161	0,30	0,47	371	17,16	8040	5400
BM0210	3x150+3x70/3	72,6	0,129	0,29	0,51	428	21,45	9280	6750
BM0211	3x185+3x95/3	79,1	0,106	0,28	0,54	488	26,46	11180	8325
BM0212	3x240+3x120/3	84,0	0,080	0,27	0,62	574	34,32	13395	10800
BM0213	3x300+3x150/3	89,0	0,004	0,26	0,67	665	42,90	15850	13500

BiTmining® (N)TSCGEWOEU-F 14/25kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0220	3x25+3x25/3	54,4	0,780	0,40	0,24	139	3,58	4030	1125
BM0221	3x25+3x50/3	54,4	0,780	0,40	0,24	139	3,58	4380	1125
BM0222	3x35+3x25/3	56,6	0,554	0,37	0,26	172	5,01	4440	1575
BM0223	3x35+3x50/3	56,6	0,554	0,37	0,26	172	5,01	4790	1575
BM0224	3x50+3x25/3	60,0	0,386	0,35	0,30	215	7,15	5160	2250
BM0225	3x50+3x50/3	60,0	0,386	0,35	0,30	215	7,15	5510	2250
BM0226	3x70+3x35/3	65,7	0,272	0,34	0,33	265	10,01	6535	3150
BM0227	3x70+3x50/3	65,7	0,272	0,34	0,33	265	10,01	6760	3150
BM0228	3x95+3x50/3	69,3	0,206	0,32	0,36	319	13,60	7750	4275
BM0229	3x120+3x70/3	71,9	0,161	0,31	0,40	371	17,16	8680	5400
BM0230	3x150+3x70/3	76,9	0,129	0,30	0,43	428	21,45	9970	6750
BM0231	3x185+3x95/3	83,4	0,106	0,29	0,46	488	26,46	11930	8325
BM0232	3x240+3x120/3	88,3	0,080	0,28	0,52	574	34,32	14185	10800
BM0233	3x300+3x150/3	93,3	0,004	0,27	0,56	665	42,90	16690	13500

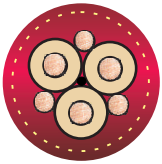
BiTmining® (N)TSCGEWOEU-F 18/30kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0240	3x25+3x25/3	57,9	0,780	0,41	0,21	139	3,58	4450	1125
BM0241	3x25+3x50/3	57,9	0,780	0,41	0,21	139	3,58	4800	1125
BM0242	3x35+3x25/3	60,0	0,554	0,39	0,24	172	5,01	4875	1575
BM0243	3x35+3x50/3	60,0	0,554	0,39	0,24	172	5,01	5220	1575
BM0244	3x50+3x25/3	65,3	0,386	0,37	0,26	215	7,15	5885	2250
BM0245	3x50+3x50/3	65,3	0,386	0,37	0,26	215	7,15	6230	2250
BM0246	3x70+3x35/3	69,1	0,272	0,35	0,29	265	10,01	7030	3150
BM0247	3x70+3x50/3	69,1	0,272	0,35	0,29	265	10,01	7260	3150
BM0248	3x95+3x50/3	72,8	0,206	0,33	0,32	319	13,60	8275	4275
BM0249	3x120+3x70/3	77,2	0,161	0,32	0,35	371	17,16	9545	5400
BM0250	3x150+3x70/3	82,1	0,129	0,31	0,38	428	21,45	10880	6750
BM0251	3x185+3x95/3	86,8	0,106	0,30	0,40	488	26,46	12555	8325
BM0252	3x240+3x120/3	91,8	0,080	0,29	0,46	574	34,32	14850	10800
BM0253	3x300+3x150/3	96,7	0,004	0,28	0,49	665	42,90	17390	13500

Cable Factory BITNER reserve the right to modify specifications without prior notification.
*Cable outer diameter may differ from the one shown in table
Note: On customer's request other cross sections or number of cores can be produced

BiTmining® (N)TSCGEWOEU-R

Medium voltage, flexible power supply cable for reeling applications



Technical data:

Operating temperature:
Fixed systems: -40°C to 90°C
Flexible operation: -25°C to 80°C
Maximum permissible operating temperature of the conductor: 90°C
Maximum conductors operating temperature in short-circuit: 250°C
Tensile load: 20 N/mm^2
Torsional stresses: +/-100°/m
Min. bending radius: acc. to DIN VDE 0298, Part 3
Minimum distance with S-type directional changes: 20 x D
Travel speed:
- In operation: up to 60m/min
- On rewinding: up to 100m/min

Operating voltage: U_0/U= 3,6/6 kV to 18/30 kV
Test voltage: 11 kV to 43 kV
Standard: based on DIN VDE 0250 p.813

Construction:

Conductor: very finely stranded class 6 (EN 60228, DIN VDE 0295) not tinned, electrolytic copper
Insulation: EPR compound with improved electrical and mechanical characteristics (DIN VDE 0207, Part 20)
Electrical field control: inner and outer layers of semiconductive rubber
Core identification: natural colouring with black semiconductive rubber and printed white digits 1 to 3
Core arrangement: three main conductors laid-up with protective-earth conductor split into 3 in the outer interstices
Inner sheath: special EPR compound (acc. to DIN VDE 0207, Part 21)
Anti-torsion reinforcement: braid of polyamide threads in a vulcanized bond between inner and outer sheath being integral part of an outer sheath. Protection from transverse and longitudinal stress.
Outer sheath: 5GM5 compound with improved mechanical characteristics (acc. to DIN VDE 0207, Part 21), waterproof, colour: red

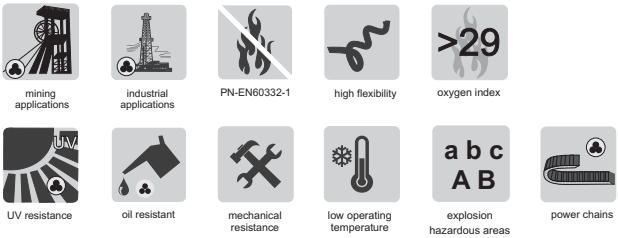
Rated voltage U_0/U [kV]	3,6/6	6/10	8,7/15	12/20	14/25	18/30
Maximum permissible operating voltage in AC systems U_0/U [kV]	4,2/7,2	6,9/12	10,4/18	13,9/24	17,3/30	20,8/36
Maximum permissible operating voltage in DC systems U_0/U [kV]	5,4/10,8	9/18	13,5/27	18/36	22,5/45	27/54
AC test voltage [kV]	11	17	24	29	36	43
Current-carrying capacity	According to DIN VDE 0298, Part 4					

Chemical parameters:

Resistance to oil: EN 60811-2-1, IEC 60811-2-1
Behaviour in case of fire: VDE 0482 Part 332-1-2, EN 60332-1-2, IEC 60332-1-2
Weather resistance: Unrestricted use indoors, outdoors, resistance to ozone, UV and moisture

Application:

Flexible power supply cable for use in strip and open-pit mining facilities, for high mechanical stresses, designed for connection of large material handling machines such as excavators, dumpers or mobile crushers. Main application: operation on cable reels



BiTmining® (N)TSCGEWOEU-R

Medium voltage, flexible power supply cable for reeling applications

BiTmining® (N)TSCGEWOEU-R 3,6/6kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0255	3x25+3x25/3	39,2	0,780	0,31	0,44	131	3,58	2545	1500
BM0256	3x25+3x50/3	43,1	0,780	0,35	0,44	131	3,58	3216	1500
BM0257	3x35+3x25/3	43,3	0,554	0,30	0,50	162	5,01	3087	2100
BM0258	3x35+3x50/3	45,8	0,554	0,32	0,50	162	5,01	3660	2100
BM0259	3x50+3x25/3	46,8	0,386	0,28	0,58	202	7,15	3810	3000
BM0260	3x50+3x50/3	48,0	0,386	0,30	0,58	202	7,15	4280	3000
BM0261	3x70+3x35/3	50,5	0,272	0,27	0,65	250	10,01	4750	4200
BM0262	3x70+3x50/3	50,5	0,272	0,27	0,65	250	10,01	4960	4200
BM0263	3x95+3x50/3	56,2	0,206	0,26	0,74	301	13,6	6230	5700
BM0264	3x120+3x70/3	58,4	0,161	0,25	0,82	352	17,16	7136	7200
BM0265	3x150+3x70/3	65,5	0,129	0,25	0,90	404	21,45	8650	9000
BM0266	3x185+3x95/3	69,1	0,106	0,24	0,97	462	26,46	9585	11100
BM0267	3x240+3x120/3	74,1	0,080	0,24	1,10	540	34,32	11772	14400
BM0268	3x300+3x150/3	80,8	0,064	0,23	1,21	620	42,90	14440	18000

BiTmining® (N)TSCGEWOEU-R 6/10kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0270	3x25+3x25/3	41,8	0,780	0,32	0,39	131	3,58	2765	1500
BM0271	3x25+3x50/3	44,5	0,780	0,32	0,39	131	3,58	3355	1500
BM0272	3x35+3x25/3	45,0	0,554	0,31	0,45	162	5,01	3250	2100
BM0273	3x35+3x50/3	47,1	0,554	0,31	0,45	162	5,01	3795	2100
BM0274	3x50+3x25/3	48,5	0,386	0,29	0,51	202	7,15	3985	3000
BM0275	3x50+3x50/3	48,5	0,386	0,29	0,51	202	7,15	4320	3000
BM0276	3x70+3x35/3	53,3	0,272	0,28	0,58	250	10,01	5055	4200
BM0277	3x70+3x50/3	55,1	0,272	0,28	0,58	250	10,01	5485	4200
BM0278	3x95+3x50/3	57,9	0,206	0,27	0,66	301	13,60	6430	5700
BM0279	3x120+3x70/3	60,1	0,161	0,26	0,73	352	17,16	7340	7200
BM0280	3x150+3x70/3	67,2	0,129	0,25	0,79	404	21,45	8890	9000
BM0281	3x185+3x95/3	70,8	0,106	0,25	0,86	462	26,46	9840	11100
BM0282	3x240+3x120/3	77,6	0,080	0,24	0,97	540	34,32	12360	14400
BM0283	3x300+3x150/3	82,5	0,064	0,24	1,07	620	42,90	14740	18000

BiTmining® (N)TSCGEWOEU-R 8,7/15kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0290	3x25+3x25/3	45,2	0,780	0,34	0,31	139	3,58	3085	1500
BM0291	3x25+3x50/3	46,1	0,780	0,34	0,31	139	3,58	3500	1500
BM0292	3x35+3x25/3	48,4	0,554	0,33	0,36	172	5,01	3590	2100
BM0293	3x35+3x50/3	48,4	0,554	0,33	0,36	172	5,01	3925	2100
BM0294	3x50+3x25/3	52,0	0,386	0,31	0,41	215	7,15	4350	3000
BM0295	3x50+3x50/3	52,0	0,386	0,31	0,41	215	7,15	4690	3000
BM0296	3x70+3x35/3	57,1	0,272	0,30	0,45	265	10,01	5505	4200
BM0297	3x70+3x50/3	57,1	0,272	0,30	0,45	265	10,01	5715	4200
BM0298	3x95+3x50/3	61,4	0,206	0,28	0,51	319	13,60	6870	5700
BM0299	3x120+3x70/3	64,8	0,161	0,27	0,57	371	17,16	7975	7200
BM0300	3x150+3x70/3	70,6	0,129	0,27	0,62	428	21,45	9390	9000
BM0301	3x185+3x95/3	74,3	0,106	0,26	0,67	488	26,46	10370	11100
BM0302	3x240+3x120/3	81,0	0,080	0,25	0,75	574	34,32	12940	14400
BM0303	3x300+3x150/3	86,0	0,064	0,25	0,82	665	42,90	15350	18000

BiTmining® (N)TSCGEWOEU-R

Medium voltage, flexible power supply cable for reeling applications

BiTmining® (N)TSCGEWOEU-R 12/20kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0305	3x25+3x25/3	48,2	0,780	0,36	0,27	139	3,58	3385	1500
BM0306	3x25+3x50/3	48,2	0,780	0,36	0,27	139	3,58	3720	1500
BM0307	3x35+3x25/3	51,4	0,554	0,34	0,31	172	5,01	3910	2100
BM0308	3x35+3x50/3	51,4	0,554	0,34	0,31	172	5,01	4240	2100
BM0309	3x50+3x25/3	56,8	0,386	0,32	0,35	215	7,15	4925	3000
BM0310	3x50+3x50/3	56,8	0,386	0,32	0,35	215	7,15	5460	3000
BM0311	3x70+3x35/3	60,5	0,272	0,31	0,39	265	10,01	5935	4200
BM0312	3x70+3x50/3	60,5	0,272	0,31	0,39	265	10,01	6145	4200
BM0313	3x95+3x50/3	65,4	0,206	0,30	0,44	319	13,60	7415	5700
BM0314	3x120+3x70/3	69,3	0,161	0,29	0,48	371	17,16	8650	7200
BM0315	3x150+3x70/3	73,6	0,129	0,28	0,52	428	21,45	9850	9000
BM0316	3x185+3x95/3	79,1	0,106	0,27	0,56	488	26,46	11170	11100
BM0317	3x240+3x120/3	84,0	0,080	0,26	0,63	574	34,32	13460	14400
BM0318	3x300+3x150/3	89,0	0,064	0,26	0,69	665	42,90	15900	18000

BiTmining® (N)TSCGEWOEU-R 14/25kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0320	3x25+3x25/3	54,4	0,780	0,38	0,23	139	3,58	4030	1500
BM0321	3x25+3x50/3	54,4	0,780	0,38	0,23	139	3,58	4380	1500
BM0322	3x35+3x25/3	56,6	0,554	0,36	0,26	172	5,01	4440	2100
BM0323	3x35+3x50/3	56,6	0,554	0,36	0,26	172	5,01	4790	2100
BM0324	3x50+3x25/3	60,0	0,386	0,34	0,30	215	7,15	5160	3000
BM0325	3x50+3x50/3	60,0	0,386	0,34	0,30	215	7,15	5510	3000
BM0326	3x70+3x35/3	65,7	0,272	0,32	0,33	265	10,01	6535	4200
BM0327	3x70+3x50/3	65,7	0,272	0,32	0,33	265	10,01	6760	4200
BM0328	3x95+3x50/3	69,3	0,206	0,31	0,37	319	13,60	7750	5700
BM0329	3x120+3x70/3	71,9	0,161	0,30	0,41	371	17,16	8680	7200
BM0330	3x150+3x70/3	76,9	0,129	0,29	0,44	428	21,45	9970	9000
BM0331	3x185+3x95/3	83,4	0,106	0,28	0,47	488	26,46	11930	11100
BM0332	3x240+3x120/3	88,3	0,080	0,27	0,53	574	34,32	14185	14400
BM0333	3x300+3x150/3	93,3	0,064	0,27	0,58	665	42,90	16690	18000

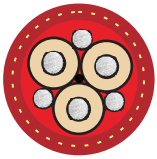
BiTmining® (N)TSCGEWOEU-R 18/30kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0335	3x25+3x25/3	57,4	0,780	0,40	0,21	139	3,58	4415	1500
BM0336	3x25+3x50/3	57,4	0,780	0,40	0,21	139	3,58	4750	1500
BM0337	3x35+3x25/3	60,6	0,554	0,38	0,24	172	5,01	5005	2100
BM0338	3x35+3x50/3	60,6	0,554	0,38	0,24	172	5,01	5340	2100
BM0339	3x50+3x25/3	64,5	0,386	0,35	0,26	215	7,15	5920	3000
BM0340	3x50+3x50/3	64,5	0,386	0,35	0,26	215	7,15	6255	3000
BM0341	3x70+3x35/3	69,3	0,272	0,34	0,29	265	10,01	7145	4200
BM0342	3x70+3x50/3	69,3	0,272	0,34	0,29	265	10,01	7360	4200
BM0343	3x95+3x50/3	73,1	0,206	0,32	0,33	319	13,60	8550	5700
BM0344	3x120+3x70/3	78,5	0,161	0,31	0,36	371	17,16	10095	7200
BM0345	3x150+3x70/3	82,8	0,129	0,30	0,39	428	21,45	11380	9000
BM0346	3x185+3x95/3	86,8	0,106	0,29	0,42	488	26,46	12530	11100
BM0347	3x240+3x120/3	91,8	0,080	0,28	0,46	574	34,32	14900	14400
BM0348	3x300+3x150/3	96,7	0,064	0,27	0,51	665	42,90	17425	18000

Cable Factory BITNER reserve the right to modify specifications without prior notification.
*Cable outer diameter may differ from the one shown in table
Note: On customer's request other cross sections or number of cores can be produced

BiTmining® (N)TSCGEWOEU-SR

Medium voltage, flexible power supply cable for high speed reeling applications



Technical data:

Operating temperature:
Fixed systems: -50°C to 90°C
Flexible operation: -35°C to 80°C
Maximum permissible water temperature: 40°C
Maximum permissible operating temperature of the conductor: 90°C
Maximum conductors operating temperature in short-circuit: 250°C
Tensile load: 20 N/mm²
Torsional stresses: +/-25°/m
Min. bending radius: acc. to DIN VDE 0298, Part 3
Minimum distance with S-type directional changes: 20 x D
Travel speed on gantry (reeling operation): 240m/min
Operating voltage: U_0/U= 3,6/6 kV to 18/30 kV
Test voltage: 11 kV to 43 kV
Standard: based on DIN VDE 0250 p.813

Construction:

Conductor: very finely stranded class 6 (EN 60228, DIN VDE 0295) tinned, electrolytic copper
Insulation: EPR compound with improved electrical and mechanical characteristics (DIN VDE 0207, Part 20)
Electrical field control: inner and outer layers of semiconductive rubber
Core identification: natural colouring with black semiconductive rubber and printed white digits 1 to 3
Core arrangement: three main conductors laid-up with optimised lay length, protective-earth conductor split into 3 in the outer interstices
Inner sheath: special rubber compound, better than 5GM5 (acc. to DIN VDE 0207, Part 21) acting as a water barrier, colour red
Anti-torsion reinforcement: braid of polyamide threads in a vulcanized bond between inner and double outer sheath being integral part of an outer sheath. Protection from transverse and longitudinal stress
Outer sheath: special double layer sheath made of 5GM5 compound, water-, abrasion- and tear-proof (acc. to DIN VDE 0207, Part 21), colour: red

Rated voltage U_0/U [kV]	3,6/6	6/10	8,7/15	12/20	14/25	18/30
Maximum permissible operating voltage in AC systems U_0/U [kV]	4,2/7,2	6,9/12	10,4/18	13,9/24	17,3/30	20,8/36
Maximum permissible operating voltage in DC systems U_0/U [kV]	5,4/10,8	9/18	13,5/27	18/36	22,5/45	27/54
AC test voltage [kV]	11	17	24	29	36	43
Current-carrying capacity	According to DIN VDE 0298, Part 4					

Chemical parameters:

Resistance to oil: EN 60811-2-1, IEC 60811-2-1
Behaviour in case of fire: VDE 0482 Part 332-1-2, EN 60332-1-2, IEC 60332-1-2
Water compatability: HD 22.16 (VDE 0282 Part 16)
Weather resistance: Unrestricted use indoors, outdoors, resistance to ozone, UV and moisture

Application:

Flexible power supply cable for use in open-pit and underground mining facilities, a shipyards and docks for extremely high mechanical stresses during high travel speeds, multiple changes of direction into different planes, dynamic tensile loads etc. Cable designed mainly for large mobile equipment, excavators, container cranes etc.


mining applications


industrial applications


PN-EN60332-1


high flexibility

oxygen index

UV resistance


oil resistant


mechanical resistance


low operating temperature

explosion hazardous areas


power chains

BITNER®

BiTmining® (N)TSCGEWOEU-SR

Medium voltage, flexible power supply cable for high speed reeling applications

BiTmining® (N)TSCGEWOEU-SR 3,6/6kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0350	3x25+3x25/3	39,4	2730	1500
BM0351	3x35+3x25/3	42,7	3230	2100
BM0352	3x50+3x25/3	46,0	3955	3000
BM0353	3x70+3x35/3	51,3	5130	4200
BM0354	3x95+3x50/3	56,4	6600	5700
BM0355	3x120+3x70/3	59,8	7715	7200
BM0356	3x150+3x70/3	65,3	9090	9000
BM0357	3x185+3x95/3	69,3	10155	11100
BM0358	3x240+3x120/3	76,3	12790	14400
BM0359	3x300+3x150/3	81,4	15310	18000

BiTmining® (N)TSCGEWOEU-SR 6/10kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0365	3x25+3x25/3	41,4	2915	1500
BM0366	3x35+3x25/3	44,8	3450	2100
BM0367	3x50+3x25/3	47,3	4100	3000
BM0368	3x70+3x35/3	53,5	5400	4200
BM0369	3x95+3x50/3	57,7	6790	5700
BM0370	3x120+3x70/3	61,3	7930	7200
BM0371	3x150+3x70/3	66,6	9300	9000
BM0372	3x185+3x95/3	70,6	10380	11100
BM0373	3x240+3x120/3	78,0	13120	14400
BM0374	3x300+3x150/3	83,9	15810	18000

BiTmining® (N)TSCGEWOEU-SR 8,7/15kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0380	3x25+3x25/3	45,0	3290	1500
BM0381	3x35+3x25/3	48,2	3840	2100
BM0382	3x50+3x25/3	51,4	4585	3000
BM0383	3x70+3x35/3	56,9	5855	4200
BM0384	3x95+3x50/3	61,2	7280	5700
BM0385	3x120+3x70/3	66,0	8665	7200
BM0386	3x150+3x70/3	70,0	9860	9000
BM0387	3x185+3x95/3	74,1	10980	11100
BM0388	3x240+3x120/3	81,4	13770	14400
BM0389	3x300+3x150/3	89,2	16890	18000

BiTmining® (N)TSCGEWOEU-SR

Medium voltage, flexible power supply cable for high speed reeling applications

BiTmining® (N)TSCGEWOEU-SR 12/20kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0395	3x25+3x25/3	48,8	3715	1500
BM0396	3x35+3x25/3	52,2	3720	2100
BM0397	3x50+3x25/3	55,6	5120	3000
BM0398	3x70+3x35/3	60,3	6340	4200
BM0399	3x95+3x50/3	65,6	7950	5700
BM0400	3x120+3x70/3	68,7	9100	7200
BM0401	3x150+3x70/3	73,0	10380	9000
BM0402	3x185+3x95/3	78,7	11820	11100
BM0403	3x240+3x120/3	84,8	14460	14400
BM0404	3x300+3x150/3	91,2	17330	18000

BiTmining® (N)TSCGEWOEU-SR 14/25kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0410	3x25+3x25/3	54,1	4370	1500
BM0411	3x35+3x25/3	57,7	5040	2100
BM0412	3x50+3x25/3	59,9	5720	3000
BM0413	3x70+3x35/3	65,4	7100	4200
BM0414	3x95+3x50/3	70,3	8715	5700
BM0415	3x120+3x70/3	73,2	9870	7200
BM0416	3x150+3x70/3	78,5	11380	9000
BM0417	3x185+3x95/3	82,6	12575	11100
BM0418	3x240+3x120/3	90,1	15565	14400
BM0419	3x300+3x150/3	95,5	18300	18000

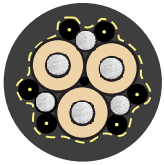
BiTmining® (N)TSCGEWOEU-SR 18/30kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0425	3x25+3x25/3	57,6	4830	1500
BM0426	3x35+3x25/3	61,2	5530	2100
BM0427	3x50+3x25/3	63,3	6230	3000
BM0428	3x70+3x35/3	69,7	7790	4200
BM0429	3x95+3x50/3	73,7	9300	5700
BM0430	3x120+3x70/3	77,7	10660	7200
BM0431	3x150+3x70/3	82,0	12040	9000
BM0432	3x185+3x95/3	86,0	13270	11100
BM0433	3x240+3x120/3	93,6	16320	14400
BM0434	3x300+3x150/3	99,9	19320	18000

Cable Factory BITNER reserve the right to modify specifications without prior notification.
*Cable outer diameter may differ from the one shown in table
Note: On customer's request other cross sections or number of cores can be produced

BiTmining® (N)TSCGEWOEU-TR

Medium voltage, flexible power supply trailing cable



Technical data:

Operating temperature:
Fixed systems: -40°C to 90°C
Flexible operation: -25°C to 80°C
Maximum permissible operating temperature of the conductor: 90°C
Maximum conductors operating temperature in short-circuit: 250°C
Tensile load: 15 N/mm^2
Torsional stresses: +/-100°/m
Min. bending radius: acc. to DIN VDE 0298, Part 3
Operating voltage: U_0/U= 3,6/6 kV to 18/30 kV
Test voltage: 11 kV to 43 kV
Standard: based on DIN VDE 0250 p.813

Construction:

Conductor: finely stranded class 5 (EN 60228, DIN VDE 0295) tinned, electrolytic copper
Protective-earth conductor: very finely stranded class 6 (EN 60228, DIN VDE 0295) tinned, electrolytic copper
Insulation: EPR compound with improved electrical and mechanical characteristics (DIN VDE 0207, Part 20)
Electrical field control: inner and outer layers of semiconductive rubber
Core identification: natural colouring with black semiconductive rubber and printed white digits 1 to 3
Core arrangement: three main conductors laid-up with protective-earth conductor split into 3 in the outer interstices
Reinforcement: extremely tear-resistant reinforcing tape preventing sheath movements and protecting from transverse and longitudinal stress
Inner and outer sheath: special EPR based 5GM5 compound (acc. to DIN VDE 0207, Part 21) with special tear- and abrasion resistance characteristics, inner and outer sheath are inseparably bonded. Sheath colour black.

Rated voltage U_0/U [kV]	3,6/6	6/10	8,7/15	12/20	14/25	18/30
Maximum permissible operating voltage in AC systems U_0/U [kV]	4,2/7,2	6,9/12	10,4/18	13,9/24	17,3/30	20,8/36
Maximum permissible operating voltage in DC systems U_0/U [kV]	5,4/10,8	9/18	13,5/27	18/36	22,5/45	27/54
AC test voltage [kV]	11	17	24	29	36	43
Current-carrying capacity	According to DIN VDE 0298, Part 4					

Chemical parameters:

Resistance to oil: EN 60811-2-1, IEC 60811-2-1
Behaviour in case of fire: VDE 0482 Part 332-1-2, EN 60332-1-2, IEC 60332-1-2
Weather resistance: Unrestricted use indoors, outdoors, resistance to ozone, UV and moisture

Application:

Flexible cable for power supply or connections for large material handling or mining machines in open-pit mines where exposed to extremely high mechanical stresses, abrasion and tear usually during trailing operation.


mining applications


industrial applications


PN-EN60332-1


high flexibility

oxygen index

UV resistance


oil resistant


mechanical resistance


low operating temperature

explosion hazardous areas

BiTmining® (N)TSCGEWOEU-TR

Medium voltage, flexible power supply trailing cable

BiTmining® (N)TSCGEWOEU-TR 3,6/6kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0440	3x25+3x25/3	45,8	0,795	0,36	0,34	131	3,05	3120	1125
BM0441	3x35+3x25/3	48,0	0,565	0,34	0,39	162	4,27	3500	1575
BM0442	3x50+3x25/3	52,4	0,393	0,32	0,43	202	6,10	4289	2250
BM0443	3x70+3x35/3	57,1	0,277	0,30	0,49	250	8,54	5450	3150
BM0444	3x95+3x50/3	61,7	0,210	0,29	0,54	301	11,59	6750	4275
BM0445	3x120+3x70/3	64,3	0,164	0,28	0,60	352	14,64	7650	5400
BM0446	3x150+3x50/3	70,1	0,132	0,27	0,65	404	18,30	9015	6750
BM0447	3x185+3x95/3	75,8	0,108	0,27	0,70	461	22,57	10755	8325

BiTmining® (N)TSCGEWOEU-TR 6/10kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0450	3x25+3x25/3	48,1	0,795	0,37	0,31	131	3,05	3365	1125
BM0451	3x35+3x25/3	50,3	0,565	0,34	0,35	162	4,27	3750	1575
BM0452	3x50+3x25/3	54,5	0,393	0,33	0,39	202	6,10	4540	2250
BM0453	3x70+3x35/3	59,4	0,277	0,31	0,44	250	8,54	5745	3150
BM0454	3x95+3x50/3	63,0	0,210	0,30	0,49	301	11,59	6925	4275
BM0455	3x120+3x70/3	66,4	0,164	0,29	0,54	352	14,64	7960	5400
BM0456	3x150+3x50/3	72,4	0,132	0,28	0,58	404	18,30	9370	6750
BM0457	3x150+3x70/3	72,4	0,132	0,28	0,58	404	18,30	9380	6750
BM0458	3x185+3x50/3	77,9	0,108	0,28	0,63	461	22,57	10970	8325
BM0459	3x185+3x95/3	77,9	0,108	0,27	0,63	461	22,57	11120	8325

BiTmining® (N)TSCGEWOEU-TR 8,7/15kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0465	3x25+3x25/3	53,7	0,795	0,39	0,25	139	3,05	4000	1125
BM0466	3x35+3x25/3	55,8	0,565	0,37	0,28	172	4,27	4410	1575
BM0467	3x50+3x25/3	60,2	0,393	0,35	0,31	215	6,10	5270	2250
BM0468	3x70+3x35/3	64,9	0,277	0,33	0,35	265	8,54	6520	3150
BM0469	3x95+3x50/3	69,6	0,210	0,32	0,39	319	11,59	7900	4275
BM0470	3x120+3x70/3	72,1	0,164	0,31	0,42	371	14,64	8840	5400
BM0471	3x150+3x70/3	77,9	0,132	0,30	0,46	428	18,30	10300	6750
BM0472	3x185+3x95/3	83,6	0,108	0,29	0,50	488	22,57	12140	8325

BiTmining® (N)TSCGEWOEU-TR

Medium voltage, flexible power supply trailing cable

BiTmining® (N)TSCGEWOEU-TR 12/20kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0480	3x25+3x25/3	58,0	0,795	0,41	0,22	139	3,05	4530	1125
BM0481	3x35+3x25/3	61,1	0,565	0,39	0,25	172	4,27	5100	1575
BM0482	3x50+3x25/3	65,3	0,393	0,37	0,27	215	6,10	5985	2250
BM0483	3x70+3x35/3	70,2	0,277	0,35	0,30	265	8,54	7310	3150
BM0484	3x95+3x50/3	73,9	0,210	0,33	0,33	319	11,59	8580	4275
BM0485	3x120+3x70/3	77,2	0,164	0,32	0,36	371	14,64	9690	5400
BM0486	3x150+3x70/3	83,2	0,132	0,31	0,39	428	18,30	11250	6750
BM0487	3x185+3x95/3	88,5	0,108	0,30	0,42	488	22,57	13100	8325

BiTmining® (N)TSCGEWOEU-TR 14/25kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0490	3x25+3x25/3	65,3	0,795	0,43	0,19	139	3,05	5550	1125
BM0491	3x35+3x25/3	67,5	0,565	0,41	0,21	172	4,27	6020	1575
BM0492	3x50+3x25/3	71,9	0,393	0,39	0,23	215	6,10	6990	2250
BM0493	3x70+3x35/3	76,6	0,277	0,37	0,25	265	8,54	8350	3150
BM0494	3x95+3x50/3	81,3	0,210	0,35	0,28	319	11,59	9850	4275
BM0495	3x120+3x70/3	83,8	0,164	0,34	0,30	371	14,64	10870	5400
BM0496	3x150+3x70/3	89,6	0,132	0,33	0,33	428	18,30	12480	6750
BM0497	3x185+3x95/3	95,3	0,108	0,32	0,35	488	22,57	14470	8325

BiTmining® (N)TSCGEWOEU-TR 18/30kV

Cat. no.	Number of cores and nominal cross-section n x mm²	Overall cable diameter* [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0500	3x25+3x25/3	71,5	0,795	0,45	0,17	139	3,05	6480	1125
BM0501	3x35+3x25/3	73,7	0,565	0,43	0,19	172	4,27	6980	1575
BM0502	3x50+3x25/3	77,9	0,393	0,40	0,21	215	6,10	7990	2250
BM0503	3x70+3x35/3	82,8	0,277	0,38	0,23	265	8,54	9440	3150
BM0504	3x95+3x50/3	86,4	0,210	0,37	0,25	319	11,59	10810	4275
BM0505	3x120+3x70/3	89,8	0,164	0,35	0,27	371	14,64	12020	5400
BM0506	3x150+3x70/3	95,7	0,132	0,34	0,29	428	18,30	13740	6750
BM0507	3x185+3x95/3	101,3	0,108	0,33	0,31	488	22,57	15770	8325

Cable Factory BITNER reserve the right to modify specifications without prior notification.
*Cable outer diameter may differ from the one shown in table
Note: On customer's request other cross sections or number of cores can be produced

BiTmining® NTMCGCWOEU

Medium voltage, flexible power supply cable

Technical data:

Fixed systems: -40°C to 90°C
Flexible operation: -25°C to 60°C
Maximum permissible operating temperature of the conductor: 90°C
Maximum conductors operating temperature in short-circuit: 250°C
Tensile load: up to 15 N/mm^2
Torsional stresses: +/-25°/m
Min. bending radius: acc. to DIN VDE 0298, Part 3
Operating voltage: U_0 /U= 6/10kV, 12/20kV
Test voltage: 17kV, 29kV
Standard: DIN VDE 0250 p.813

Construction:

Conductor: finely stranded class 5 (EN 60228, DIN VDE 0295) tinned, electrolytic copper
Insulation: EPR compound (DIN VDE 0207, Part 20)
Electrical field control: inner and outer layers of semi-conductive rubber
Screen: spinning of tinned copper wires with cross section 16 or 25mm2
Outer sheath: 5GM3 compound, (acc. to DIN VDE 0207, Part 21), colour: red

Application:

Flexible single core power supply cable for short connections of mobile transformer substations to overhead lines, also fFor use in railway vehicles, switching stations and control panels. Installation in cable ducts, tubes and outside. Unrestricted use outdoors and indoors, resistant to ozone, UV and moisture. Current-carrying capacity acc. to EN 50343 as well as VDE 0298 part 4

Chemical parameters:

Resistance to oil: EN 60811-2-1, IEC 60811-2-1
Behaviour in case of fire: VDE 0482 Part 332-1-2, EN 60332-1-2, IEC 60332-1-2
Weather resistance: Unrestricted use indoors, outdoors, resistance to ozone, UV and moisture

mining applications | industrial applications | PN-EN60332-1 | high flexibility | oxygen index | UV resistance | oil resistant EN 60811-2-1

Rated voltage U_0/U [kV]	6/10	12/20
Maximum permissible operating voltage in AC system U_0/U [kV]	6,9/12	13,9/24
Maximum permissible operating voltage in DC system U_0/U [kV]	9/18	18/36
AC test voltage [kV]	17	29
Current-carrying capacity	According to DIN VDE 0298, Part 4	

BITNER®

BiTmining® NTMCGCWOEU

Medium voltage, flexible power supply cable

BiTmining® NTMCGCWOEU 6/10kV

Cat. no.	Number of cores and nominal cross-section [nxmm²]	Conductor diameter [mm]	Cable diameter [mm]	Conductor resistance at 20°C [Ω/km]	Operating capacitance [μF/km]	Current carrying capacity at 30°C [A]	Approx. net weight [kg/km]
BM0800	1x25/16	6,4	25,3	0,795	0,33	178	945
BM0801	1x35/16	7,4	26,3	0,565	0,37	220	1040
BM0802	1x50/16	9,0	27,9	0,393	0,43	275	1200
BM0803	1x70/16	10,8	29,7	0,277	0,49	340	1470
BM0804	1x95/16	12,5	32,4	0,210	0,55	409	1800
BM0805	1x120/16	13,7	33,6	0,164	0,61	479	2060
BM0806	1x150/25	16,0	37,6	0,132	0,66	549	2540
BM0807	1x185/25	18,2	39,8	0,108	0,72	627	2940
BM0808	1x240/25	20,0	41,6	0,0817	0,82	744	3460

BiTmining® NTMCGCWOEU 12/20kV

Cat. no.	Number of cores and nominal cross-section [nxmm²]	Conductor diameter [mm]	Cable diameter [mm]	Conductor resistance at 20°C [Ω/km]	Operating capacitance [μF/km]	Current carrying capacity at 30°C [A]	Approx. net weight [kg/km]
BM0850	25/16	6,4	29,5	0,795	0,23	189	1180
BM0851	35/16	7,4	30,5	0,565	0,26	234	1280
BM0852	50/16	9,0	32,1	0,393	0,29	294	1470
BM0853	70/16	10,8	33,9	0,277	0,33	360	1740
BM0854	95/16	12,5	36,6	0,210	0,37	434	2100
BM0855	120/16	13,7	37,8	0,164	0,40	505	2360
BM0856	150/25	16,0	41,8	0,132	0,44	582	2890
BM0857	185/25	18,2	44,0	0,108	0,47	664	3310
BM0858	240/25	20,0	45,8	0,0817	0,54	782	3850

Cable Factory BITNER reserve the right to modify specifications without prior notification.
*Cable outer diameter may differ from the one shown in table
Note: On customer's request other cross sections or number of cores can be produced

CHAPTER VII

Special application cables

BiT (N)GFLCGOEU-J

Screened, flexible, flat rubber cables for festoon systems, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Screened, flexible, flat cable based on DIN VDE 0250-809 with rubber insulation and sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -30°C to 80°C
Max conductor operating temperature: 90°C
Max short-circuit conductor temperature: 250°C
Operating voltage: U_0/U=600/1000V
Test voltage (50Hz): 4000V
Min. bending radius: acc. to DIN VDE 0298-3 (*)

Construction:

Conductors:
bare, annealed copper conductors, multi-stranded acc. to EN 60228
<= 25 mm²: very finely stranded class 6, highly flexible
>= 35 mm²: finely stranded class 5, flexible
Insulation: EPR, type 3GI3 acc to DIN VDE 0207 part 20
Core identification:
4-cores: brown, green/yellow, grey, black
5-cores: blue, brown, green/yellow, black, grey
>5 cores: black, numbered cores and green/yellow
Screen: tinned copper wire braid, braiding coverage 85%
Outer sheath: 5GM3 rubber compound resistant to oil (EN 60811-2-1), ozone and UV radiation, flame retardant.

Application:

Flexible, flat rubber cables for use in festoon systems, material handling equipment, lifts etc. Suitable for applications exposed to high mechanical stresses and frequent bending in one plane. Individual screening of cores ensures protection against external electromagnetic interferences. Cables are suitable for both indoor and outdoor applications.

Bending radius	Height of cable (mm)	
	up to 12	over 12
Fixed installation	3xD	4xD
Flexible applications (incl. festoon)	4xD	5xD

industrial application | internal application | external application | PN-EN60332-1 | high flexibility | EMC | UV resistant | oil resistant EN 60811-2-1

Cat. no.	n x mm²	Nominal outer dimensions [mm]		Approximate cable weight [kg/km]	Cu [kg/km]
IP4120	4x1,5	19,3	7,9	240	115
IP4121	8x1,5	37,3	7,9	535	231
IP4122	10x1,5	46,8	8,5	720	276
IP4123	12x1,5	55,8	8,5	875	364
IP4124	4x2,5	22,9	8,7	330	168
IP4125	6x2,5	32,4	8,7	530	270
IP4126	12x2,5	62,4	9,3	1175	575
IP4127	4x4	26,7	9,1	430	241
IP4128	4x6	29,4	9,8	560	358
IP4129	4x10	35,6	11,3	800	538
IP4130	4x16	39,8	12,8	1075	805
IP4131	4x25	46,8	14,3	1530	1200
IP4132	4x35	53,4	16,4	2080	1657
IP4133	4x50	61,4	18,4	2750	2261

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BITNER®

BiT (N)GFLGOEU-J

Flexible, flat rubber cables for festoon systems, rated 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Flexible, flat cable based on DIN VDE 0250-809 with rubber insulation and sheath
Operating temperature:
Fixed installation: -40°C to 80°C
Flexible connections: -30°C to 80°C
Max conductor operating temperature: 90°C
Max short-circuit conductor temperature: 250°C
Operating voltage: U_0 /U=600/1000V
Test voltage (50Hz): 4000V
Min. bending radius: acc. to DIN VDE 0298-3 (*)

Construction:

Conductors:
bare, annealed copper conductors, multi-stranded acc. to EN 60228
<= 25 mm²: very finely stranded class 6, highly flexible
>= 35 mm²: finely stranded class 5, flexible
Insulation: EPR, type 3GI3 acc to DIN VDE 0207 part20
Core identification:
4-cores: brown, green/yellow, grey, black
5-cores: blue, brown, green/yellow, black, grey
>5 cores: black, numbered cores and green/yellow
Outer sheath: 5GM3 rubber compound resistant to oil (EN 60811-2-1), ozone and UV radiation, flame retardant.

Application:

Flexible, flat rubber cables for use in festoon systems, material handling equipment, lifts etc. Suitable for applications exposed to high mechanical stresses and frequent bending in one plane. Cables applicable for both indoor and outdoor installations

Bending radius	Height of cable (mm)	
	up to 12	over 12
Fixed installation	3xD	4xD
Flexible applications (incl. festoon)	4xD	5xD

internal application | external application | industrial application | PN-EN60332-1 | high flexibility | UV resistant | oil resistant EN 60811-2-1

Cat. no.	n x mm²	Nominal outer dimensions [mm]		Approximate cable weight [kg/km]	Cu [kg/km]
IP4090	4x1,5	16,2	7,1	169	57,6
IP4091	5x1,5	20,4	7,1	224	72
IP4092	7x1,5	26,8	7,1	317	100,8
IP4093	8x1,5	31,0	7,1	372	115,2
IP4094	10x1,5	39,0	7,7	504	144
IP4095	12x1,5	46,4	7,7	611	172,8
IP4096	4x2,5	19,8	8,5	257	96
IP4097	5x2,5	24,8	8,5	339	120
IP4098	6x2,5	28,7	8,5	411	144
IP4099	7x2,5	32,7	8,5	483	168
IP4100	8x2,5	37,6	8,5	564	192
IP4101	12x2,5	56,0	9,1	914	288
IP4102	4x4	23,4	9,8	373	153,6
IP4103	5x4	29,1	9,8	489	192
IP4104	7x4	38,5	9,8	699	268,8
IP4105	4x6	26,4	10,3	476	230,4
IP4106	5x6	31,6	10,3	609	288
IP4107	7x6	42,0	10,3	875	403,2
IP4108	4x10	31,4	11,8	691	384
IP4109	5x10	39,1	11,8	912	480
IP4110	4x16	35,6	13,3	949	614,4
IP4111	4x25	42,6	14,8	1389	960
IP4112	4x35	47,6	16,5	1800	1344
IP4113	4x50	55,6	18,5	2433	1920

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT NSHTOEU

Multi-core drum reeling cable, rubber insulated and sheated, 0,6/1kV

BITNER BiT NSHTOEU 0,6/1kV

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Multicore cable with copper conductors class 5, insulation and inner sheath made of special rubber compound, reinforcing textile braid and outer sheath made of flame retardant rubber.
Temperature range: -30°C to 70°C
Conductor operating temperature: 80°C
Short-circuit conductor temp.: 200°C
Test voltage: 3000V
Operating voltage: 600/1000V
Bending radius: 10 x Ø

Construction:

Conductors: flexible tinned copper wires, class 5 as per DIN VDE 0295 and EN 60228
Insulation: special rubber compound
Colour coding: for cables with up to 5 conductors, specific conductor colours are used (earth conductor green/yellow), while for cables with more than 5 conductors – black numbered and green/yellow in external layer
Core arrangement: insulated conductors twisted together around strain-relief element
Inner sheath: special rubber compound
Reinforcement: textile braid
Outer sheath: flame retardant rubber compound (as per PN-EN 60332-1), oil and UV resistant
Sheath colour: black

Application:

Cable used to supply power to mobile and portable devices in conditions of mechanical stresses and wherever cables are often reeled and unreeled. Especially recommended for power supplying to cranes, conveyors and transporting machines.


internal application


external application


industrial application


high flexibility

UV resistance


oil resistant


mechanical resistance

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
IP1000	3x1,5	12,2	196	43,2
IP1001	3x2,5	13,6	237	72,0
IP1002	3x4	16,3	392	115,2
IP1003	3x6	17,4	476	172,8
IP1004	3x10	21,4	780	288,0
IP1005	3x16	22,9	934	460,8
IP1006	3x25	28,2	1472	720,0
IP1007	3x35	31,8	1860	1008,0
IP1008	3x50	37,5	2590	1440,0
IP1009	3x70	41,4	3390	2016,0
IP1010	3x95	47,7	4480	2736,0
IP1011	3x120	50,3	5250	3456,0
IP1012	3x150	55,8	6380	4320,0
IP1013	4x1,5	13,0	226	57,6
IP1014	4x2,5	15,8	345	96,0
IP1015	4x4	17,5	465	153,6
IP1016	4x6	18,8	570	230,4
IP1017	4x10	23,0	880	384,0
IP1018	4x16	26,0	1200	614,4

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
IP1019	4x25	32,5	1920	960,0
IP1020	4x35	35,0	2290	1344,0
IP1021	4x50	41,5	3150	1920,0
IP1022	4x70	45,5	4210	2688,0
IP1023	4x95	52,5	5550	3648,0
IP1024	4x120	56,5	6830	4608,0
IP1025	4x150	61,4	8200	5760,0
IP1026	5x1,5	14,0	260	72,0
IP1027	5x2,5	16,8	392	120,0
IP1028	7x1,5	18,1	534	100,8
IP1029	7x2,5	21,0	680	168,0
IP1030	11x2,5	31,2	1010	264,0
IP1031	12x1,5	28,9	1043	172,8
IP1032	12x2,5	34,0	1360	288,0
IP1033	18x1,5	38,6	1320	259,2
IP1034	18x2,5	37,8	1340	432,0
IP1035	18x4	41,6	1812	691,2
IP1036	24x1,5	29,1	1480	345,6
IP1037	24x2,5	33,8	1520	576,0

Cable Factory Bitner reserves the right to modify specifications without prior notification.
Depending on customer requirements we may produce the cable with different construction, with or without g/y,

BITNER®

BiT NSSHOEU

Heavy duty rubber cable for industrial and mining devices, rated 0,6/1kV

RoHS 2002/95/WE

DIN VDE 0250 p. 812

Technical data:

Temperature range: - 40°C to 90°C
Max conductor operating temperature:
- during operation: 90°C
- during short circuit: 250°C

Operating voltage: 0,6/1kV
Test voltage: 3500V
Max acceptable mechanical load: 15 N/mm
Min bending radius:
fixed installation: 4 x Ø
mobile connections: 10 x Ø
guide systems: 15 x Ø

Construction:

Conductors: multi stranded tinned copper conductors, class 5 as per DIN VDE 0295 (EN 60228)
Insulation: heat resistant EPR rubber, 3GI3 type, as per DIN VDE 0207
Colour coding: acc. to the table below
Inner sheath: special rubber compound
Outer sheath: CPR rubber, flame retardant (EN 60332-1) and oil resistant with increased abrasion and tear resistance , 5GM5 type, as per DIN VDE 0207
Outer sheath colour: yellow

Application:

Cable designed for power supply to mobile and portable devices operating in conditions of severe mechanical stresses in open pits, excavation sites, machinery industry and in construction sites. Based acc. to DIN VDE 0250 p. 812. Suitable for use in dry and damp rooms as well as for outdoor installation. Cable with increased mechanical resistance, moisture-, UV- and oil resistance characteristics.


mining applications


industrial applications


EN60332-1


high fexibility

UV resistant


oil resistant


mechanical resistant

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
IP1400	1x1,5	6,3	55	14,4
IP1401	1x2,5	7,0	75	24
IP1402	1x4	7,7	95	38,4
IP1403	1x6	8,2	120	58
IP1404	1x10	9,7	180	96
IP1405	1x16	10,8	240	154
IP1406	1x25	13,2	360	240
IP1407	1x35	13,9	460	336
IP1408	1x50	16,3	630	480
IP1409	1x70	18,5	850	672
IP1410	1x95	21,0	1100	912
IP1411	1x120	22,7	1370	1152
IP1412	1x150	24,9	1680	1440
IP1413	1x185	28,6	2100	1776
IP1414	1x240	30,5	2700	2304
IP1415	1x300	35,5	3360	2880
IP1487	1x400	37,8	4250	3840
IP1416	2x1,5	11,4	175	28,8
IP1417	2x2,5	12,8	230	48
IP1418	2x4	15,3	330	76,8
IP1419	2x6	16,5	400	116
IP1420	2x10	20,1	600	192
IP1421	2x16	22,6	800	307
IP1422	2x25	26,7	1200	480
IP1423	2x35	28,2	1400	672
IP1424	2x50	34,4	2050	960

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
IP1425	2x70	39,4	2750	1344
IP1426	2x95	44,4	3500	1824
IP1427	2x120	48,3	4300	2304
IP1428	3x1,5	11,9	200	43,2
IP1429	3x2,5	13,3	250	72
IP1430	3x4	16,0	380	115
IP1431	3x6	17,2	470	172
IP1432	3x10	21,1	720	288
IP1433	3x16	23,7	1000	460
IP1434	3x25	28,1	1400	720
IP1435	3x35	31,1	1830	1008
IP1436	3x50	37,7	2630	1440
IP1437	3x70	41,5	3390	2016
IP1438	3x95	48,7	4550	2736
IP1439	3x120	51,0	5370	3456
IP1440	3x150	55,9	6540	4320
IP1441	3x185	63,4	8150	5328
IP1445	4x1,5	12,7	230	58
IP1446	4x2,5	15,5	340	96
IP1447	4x4	17,1	440	154
IP1448	4x6	18,5	550	230
IP1449	4x10	22,8	850	384
IP1450	4x16	26,7	1230	614
IP1451	4x25	31,9	1800	960
IP1452	4x35	33,7	2230	1344
IP1453	4x50	40,9	3200	1920

BiT NSSHOEU

Heavy duty rubber cable for industrial and mining devices, rated 0,6/1kV

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
IP1454	4x70	45,2	4160	2688
IP1455	4x95	53,0	5570	3684
IP1456	4x120	57,4	6870	4608
IP1457	4x150	62,9	8370	5760
IP1458	4x185	71,0	10360	7100
IP1459	5x1,5	13,6	270	72
IP1460	5x2,5	16,6	400	120
IP1461	5x4	18,4	520	192
IP1462	5x6	20,8	700	308
IP1463	5x10	24,6	1030	480
IP1464	5x16	28,9	1500	768
IP1465	5x25	34,5	2200	1200
IP1466	5x35	37,9	2840	1680
IP1467	5x50	44,4	3900	2400
IP1468	5x70	51,0	5300	3360
IP1469	6x1,5	15,7	350	86,4
IP1470	6x2,5	17,7	460	144
IP1471	6x4	20,6	650	230
IP1472	6x6	22,3	800	346
IP1473	6x10	26,6	1200	576
IP1474	6x16	31,2	1750	922
IP1475	6x25	37,3	2560	1440
IP1476	6x35	40,9	3350	2016
IP1477	6x50	49,9	4820	2880
IP1478	7x1,5	16,6	390	101
IP1479	7x2,5	18,9	520	168
IP1480	7x4	21,9	730	268
IP1481	7x6	23,8	920	429
IP1482	7x10	29,5	1460	672
IP1483	7x16	34,9	2100	1075
IP1484	7x25	41,4	3100	1680
IP1485	7x35	43,8	3860	2352
IP1486	7x50	53,6	5600	3360
IP1488	8x1,5	17,9	460	115
IP1489	10x1,5	19,6	520	144
IP1490	10x2,5	22,3	700	240
IP1491	12x1,5	20,1	560	173

Cat. no.	n x mm^2	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
IP1492	12x2,5	22,9	770	288
IP1493	12x4	26,7	1080	460
IP1494	14x2,5	23,9	850	336
IP1495	15x1,5	21,8	670	216
IP1496	15x2,5	25,0	920	360
IP1497	16x2,5	25,0	940	384
IP4000	18x1,5	22,7	750	259
IP4001	18x2,5	27,1	1100	432
IP4002	18x4	31,9	1600	691
IP4003	19x2,5	28,2	1200	456
IP4004	24x2,5	30,9	1350	576
IP4005	2x4+2,5	16,0	370	101
IP4006	2x6+4	17,2	450	154
IP4007	2x10+6	21,1	700	250
IP4008	2x16+10	23,7	930	403
IP4009	3x10+6	22,1	820	346
IP4010	3x25+16	30,9	1730	874
IP4011	3x35+16	32,2	2070	1162
IP4054	3x50+16	41,0	3070	1594
IP4012	3x50+25	41,2	3150	1680
IP4013	3x70+35	42,6	3800	2352
IP4014	3x95+50	50,4	5150	3216
IP4015	3x120+70	56,7	6770	4128
IP4016	4x16+2x2,5	25,7	1200	662
IP4017	4x25+2x2,5	30,5	1750	1008
IP4018	4x35+2x2,5	33,7	2280	1392
IP4019	4x50+2x2,5	40,9	3270	1968
IP4020	4x70+2x2,5	45,2	4230	2736
IP4021	4x95+2x2,5	53,0	5660	3696
IP4022	4x120+2x2,5	55,6	6730	4656
IP4023	4x2,5+3x1	18,6	470	125
IP4024	4x6+3x1	22,2	720	260
IP4025	4x6+3x1,5	21,2	680	274
IP4026	4x10+3x1,5	24,9	960	427
IP4027	5x2,5+4x1	20,2	560	158
IP4028	5x6+4x1	24,3	870	326
IP4029	7x6+2x1,5	23,8	920	432

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

Conductor colour coding:

No of cores	With protective conductor (G/Y)	Without protective conductor
1	-	black
2	-	blue, brown,
3	Green-yellow, blue, brown	brown, black, grey
4	Green-yellow, brown, black, grey	blue, brown, black, grey
5	Green-yellow, blue, brown, black, grey	blue, brown, black, grey, black
More than 5	Green-yellow + black, number coded cores	black, number coded cores

BiT NSSHOEU

Heavy duty rubber cable for industrial and mining devices, rated 0,6/1kV

Current rating acc to DIN VDE 0298-4 for ambient temperature of 30'C
Single cable laid in air with 3 operating power conductors

Nominal cross section [mm²]	Current rating [A]
2,5	30
4	41
6	53
10	74
16	99
25	131
35	162
50	202
70	250
95	301
120	352
150	404
185	461

Correction factors for temperature > 30°C

Ambient temperature [°C]	Correction factor
30	1,00
35	0,95
40	0,89
45	0,84
50	0,77
55	0,71
60	0,63
65	0,55
70	0,45
75	0,32

Correction factors for multicore cables

Number of cores	Correction factors
5	0,75
7	0,65
10	0,55
14	0,50
19	0,45
24	0,40

BiT NSSHCOEU

Low voltage, flexible, motor power supply cable for frequency converters

RoHS 2002/95/WE

DIN VDE 0250 cz. 812

Technical data:

Operating temperature:
Fixed systems: -40°C to 90°C
Flexible operation: -25°C to 90°C
Maximum permissible operating temperature of the conductor: 90°C
Maximum conductors operating temperature in short-circuit: 250°C
Tensile load: up to 15 N/mm^2
Torsional stresses: +/-25°/m
Min. bending radius: acc. to DIN VDE 0298, Part 3
Operating voltage [V]: U_0/U= 600/1000 and 640/1140
Test voltage [kV]: 3 kV

Construction:

Conductor: finely stranded class 5 (EN 60228, DIN VDE 0295) tinned, electrolytic copper
Insulation: EPR compound type 3GI3 (DIN VDE 0207, Part 20)
Core identification: Natural colouring with black printed digits 1 to 3
Core arrangement: Three power conductors laid-up with protective-earth conductor split into 3 in the outer interstices
Screen: tinned copper wire braid
Inner sheath: EPR compound, type: Gm1b (acc. to DIN VDE 0207, Part 21)
Outer sheath: special 5GM5 compound (acc. to DIN VDE 0207, Part 21)
Colour: yellow

Application:

Flexible cables for installation as motor power supply cables for frequency converters in mining industry. Suitable for laying on material handling equipment, also for continuous slight movements. Can also be used as a connection cable between upper and lower part of excavator, stacker/reclaimer etc.


mining applications


industrial applications


EN60332-1

Chemical parameters:

Resistance to oil: EN 60811-2-1, IEC 60811-2-1
Behaviour in case of fire: VDE 0482 Part 332-1-2, EN 60332-1-2, IEC 60332-1-2
Weather resistance: Unrestricted use indoors, outdoors, resistance to ozone, UV and moisture


high fexibility

UV resistant


oil resistant


mechanical resistant

Cat. no.	n x mm^2	Nominal O.D [mm]	Approximate cable weight [kg/km]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [μF/km]	Current carrying short-circuit current at 30°C [A]	Permissible short-circuit current (1s) [kA]	Maximum permissible tensile force [N]
IP4200	3x16+3x2,5	25,0	1130	1,24	0,32	0,36	99	1,95	720
IP4201	3x25+3x4	30,3	1700	0,795	0,32	0,36	131	3,05	1125
IP4202	3x35+3x6	32,5	2065	0,565	0,38	0,38	162	4,27	1575
IP4203	3x50+3x25/3	38,6	2950	0,393	0,38	0,38	202	6,10	2250
IP4204	3x70+3x35/3	43,9	4040	0,277	0,30	0,40	250	8,54	3150
IP4205	3x95+3x50/3	49,7	5400	0,210	0,30	0,40	301	11,59	4275
IP4206	3x120+3x70/3	53,6	6520	0,164	0,29	0,42	352	14,64	5400
IP4207	3x150+3x70/3	59,4	7740	0,132	0,29	0,45	404	18,30	6750

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT NSHXAFOE

Halogen-free, special rubber insulated cable, rated 1,8/3kV

RoHS 2002/95/WE

Technical data:

Halogen-free power cables for power supply acc. to VDE 0250 part. 606
Operating temperature:
Fixed system: -40°C to 90°C
Flexible systems: -5°C to 90°C
Permissible operating temperature at conductor: 90°C
Nominal voltage: U_0/U=1,8/3kV
Test voltage: 6kV
Max. permissible operating voltage for three and one phase
AC: U_0/U=2,16/3,6 kV,
DC: U_0/U=2,7/5,4 kV
Min. bending radius:
Flexible connections: 10 x Ø
Fixed installations: 6 x Ø

Construction:

Conductors: tinned copper conductor, fine wire to DIN VDE 0295 cl. 5, EN 60228 cl. 5
Insulation: special rubber 3GI3 acc. to DIN VDE0207 part 20
Sheath: halogen-free polymer sheath HN3 acc. to DIN VDE 0207 part 24
Sheath colour: black

Application:

Particulary suitable for protection against short circuits in laying and for inherently earth-fault proof routing in rail veichles. Also suitable for laying in in dry environments. In switching units and distributors.

Features:

- Ozone resistance
- UV resistance
- High insulation resistance
- Resistant against fats, oil and aliphatic hydrocarbons


industrial application


internal application


PN-EN 60332-1


IEC 60332-3
PN-EN 60332-3


high flexibility

halogen-free


low smoke emission

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
EM6020	1x1,5	5,8	60	14
EM6021	1x2,5	6,3	75	24
EM6022	1x4	6,7	90	38
EM6023	1x6	8,4	130	58
EM6024	1x10	9,7	180	96
EM6025	1x16	10,6	260	154
EM6026	1x25	13,2	400	240
EM6027	1x35	14,2	490	336

Cat. no.	n x mm²	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
EM6028	1x50	15,8	640	480
EM6029	1x70	17,6	880	672
EM6030	1x95	20,1	1200	912
EM6031	1x120	21,3	1450	1152
EM6032	1x150	24,0	1750	1440
EM6033	1x185	26,6	2200	1776
EM6034	1x240	29,3	2800	2304
EM6035	1x300	32,0	3250	2880

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BiT STN

Highly flexible rubber cable with support element, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Highly flexible rubber cable with support element
Operating temperature:
fixed instalation: -40°C do 70°C
flexible operation: -30°C do 70°C
Max. operating temp off conductor:
during operation: 70°C
during short-circuit: 200°C
Operating voltage: U_0/U=300/500V
Test voltage 50Hz, 5min: 3000V
Insulation resistance: 20 MΩ x km
Min. bending radius: 10 x Ø

Cable construction:

Conductors: very finely stranded bare copper conductors, class 6 acc. to EN 60228
Insulation: special rubber compound
Cores marking: colour coded conductors as below:
2 cores: blue, brown
3 cores: green-yellow, blue, brown
4 cores: green-yellow, brown, black, grey
5 cores: green-yellow,blue, brown, black, grey
6 cores and more: black, numbered and green-yellow core
Core arrangement: cores stranded around support element
Sheath: special compound based on EM2 rubber, oil resistant flame retardant acc. EN 60332-1
Sheath color: black

Application:

Highly flexible cables with support element for use in lifting equipment, transportation, construction equipment and shipyard machinery. It is highly resistant to weather conditions, UV, moisture, water, polluted water and sea water. Can be used indoors and outdoors without any additional restrictions. Integrated support element increases the mechanical strength of the cables. It is also suitable for use in energy chains and festoon systems.


industrial application


internal application


external application


UV resistance


PN-EN 60332-1


high flexibility


oil resistant

Cat. no.	n x mm^2	Nominal outer diameter [mm]	Approx. cable weight [kg/km]	Cu [kg/km]	Tensile strength [N]
IP4300	2x1,0	7,5	95	19,2	300
IP4301	3G1,0	9,5	130	28,8	300
IP4302	4G1,0	9,8	140	38,4	300
IP4303	5G1,0	10,5	150	48,0	300
IP4304	7G1,0	12,8	230	67,2	2500
IP4305	9G1,0	14,5	300	86,4	2500
IP4306	12G1,0	19,0	445	115,2	2500
IP4307	18G1,0	19,3	500	172,8	1550
IP4308	24G1,0	24,0	750	230,4	2500
IP4309	2x1,5	8,2	120	28,8	300
IP4310	3G1,5	10,0	155	43,2	300
IP4311	4G1,5	10,7	175	57,6	300
IP4312	5G1,5	11,2	200	72,0	1000
IP4313	7G1,5	13,3	275	100,8	2500
IP4314	8G1,5	15,4	340	115,2	2500
IP4315	9G1,5	16,3	375	129,6	2500
IP4316	12G1,5	19,9	540	172,8	2500
IP4317	18G1,5	21,3	660	259,2	2500
IP4318	24G1,5	25,3	900	345,6	2000
IP4319	2x2,5	10,2	150	48,0	300
IP4320	3G2,5	10,8	190	72,0	300
IP4321	4G2,5	13,2	280	96,0	350
IP4322	5G2,5	14,6	320	120,0	1200
IP4323	7G2,5	16,6	400	168,0	2500
IP4324	9G2,5	18,9	600	216,0	2500

Cable Factory BITNER reserve the right to modify the specifications without prior notice
Note: On customer's request other cross sections or number of cores can be produced

BITFLEX TWIN BATTERY CABLE

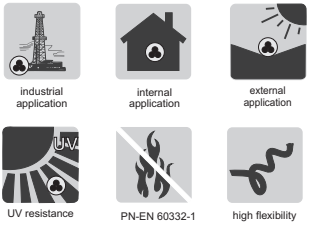
Extra flexible battery cable, rated 300/500V

RoHS 2002/95/WE

LVD 2006/95/WE

Technical data:

Voltage: 300/500V
Temperature range: -25°C to 70°C
Min bending radius: 6x O.D.



Construction:

Conductors: plain, annealed copper conductors, extra flexible with extra fine wires, class 6
Insulation: special, acid resistant TPE (thermoplastic elastomer)
Insulation colours: red/blue or red/black
Sheath: transparent PVC

Application:

Extra flexible battery cable, TPE insulated with transparent PVC outer sheath used mainly on battery powered equipment such as forklift trucks, field conveyors and in motorized vehicles. Can also be used as jumper cables. Suitable for use in dry and wet environment both indoors and outdoors.

Standards:

Based on VDE 0250

Cross section [mm²]	Max wire dia.	Nominal insulation thickness [mm]	Nominal sheath thickness [mm]	Nominal overall dia. [mm]	Nominal cable weight [kg/km]	Current rating Amps [30°C]	Current rating Jumper cable Amps [max.3min.]
2x2,5	0,16	0,85	0,85	5,1x10,6	108	33	68
2x4	0,21	0,85	0,85	5,7x11,7	150	45	110
2x6	0,21	0,85	0,85	6,5x14,0	197	58	150
2x10	0,21	1,05	0,85	7,2x14,8	288	80	220
2x16	0,21	1,05	0,85	8,8x17,2	415	107	300
2x25	0,21	1,25	1,05	11,2x23,5	630	138	400
2x35	0,21	1,25	1,05	12,5x26,3	799	171	500
2x50	0,21	1,45	1,05	14,3x30,2	1130	209	600
2x70	0,21	1,45	1,05	16,2x34,2	1550	268	700
2x95	0,21	1,65	1,05	18,2x38,3	2020	328	850

Conversion factors

ambient temperature	Up to 30	30 ÷ 35	35 ÷ 40	40 ÷ 45	45 ÷ 50	50 ÷ 55	55 ÷ 60	60 ÷ 65
Conversion factor	1	0,94	0,87	0,79	0,71	0,61	0,5	0,35

Packaging: wooden drums or coils of 100m

CHAPTER VIII

Technical Data

List of standards pertaining to the construction, properties, parameters and testing of cables

PN-E-01002:1997 Dictionary of electric engineering terminology - Cables and wires
PN-E-04160-00:1991 Electric cables - Test methods (sheet-based standard)
PN-E-79100:2001 Electric cables and cables - Packing, storage and transport
PN-E-90150:1983 Electric cables and cables - Properties of copper wires
PN-EN ISO 6892-1:2009 Metals - Tensile test - Part 1:
Room temperature testing method (orig.)
PN-EN-60332-1-2:2005 Testing the flammability of electric and optical waveguide cables and wires - Parts 1 -2:
Checking the resistance of the single insulated cable or cable to vertical flame propagation - Method of testing using a burner with a mixed flame 1 kW (orig.)
PN-EN 50289 (parts) Telecommunication cables - Test methods - Part 1:1 Methods of testing electrical properties
PN-EN 50290-2-23:2002 Telecommunication cables - Part 2-23: Common structural principles - Insulating polyethylene (orig.)
PN-EN 60811-1-1:1999 Common methods of testing materials used for the manufacture of insulation and sheaths for electrical cables and wires - Methods of general application - Thickness and external dimension measurements. Checking mechanical properties
PN-EN 60811-1-2:1999 Common methods of testing materials used for the manufacture of insulation and sheaths for electrical cables and wires - Methods of general application - Thermal ageing methods
PN-EN 60811-1-3:1999 Common methods of testing materials used for the manufacture of insulation and sheaths for electrical cables and wires - Methods of general application - Density designation methods. Checking water absorbability. Checking shrinkage
PN-EN 60811-1-4:1999 Common methods of testing materials used for the manufacture of insulation and sheaths for electrical cables and wires - Methods of general application - Low temperature tests
PN-EN 60811-3-1:1999 Common methods of testing materials used for the manufacture of insulation and sheaths for electrical cables and wires - Methods of testing PVC mixes - Checking resistance to pressure under increased temperatures. Checking resistance to cracking
PN-EN 60811-3-2:1999 Common methods of testing materials used for the manufacture of insulation and sheaths for electrical cables and wires - Methods of testing PVC mixes - Checking the mass decrement - Checking thermal resistance
PN-EN 60228:2007 Cable and wire conductors
PN-HD 605 S2:2008 Power engineering cables - Additional test methods (orig.)
PN-IEC 60028:2006 International Standard for copper resistance - instead of IEC 60028
PN-HD 308 S2:2007 Identification of conductors in cables and wires, and in laced wires

Insulating materials

Insulating materials are one of the main components of cables and wires. In order to obtain improved usage properties, manufacturers use an ever broader assortment of insulating materials intended both for cable insulations and sheaths. We have presented below information concerning insulating materials, while thermal and electric properties, and chemical resistance have all been described in the pertinent tables.

PVC a group of plastic materials produced on the basis of plasticized polyvinyl chloride. They are characterised by improved resistance to fire (they do not convey flames), oils, ozone, UV radiation and the majority of dissolvents. The electric permeability of PVC is greater than that of PE polyethylene, which limits the applications of transmission cables insulated with PVC due to their relatively high capacitance (in the case of high frequencies, cables with a PE insulation should be used). PVCs may be freely modified, changing their mechanical, thermal, electric properties, and chemical resistance.

Polyethylene (PE) has good electric properties, and is characterised by a small dielectric constant, small lossiness, and high electric strength and resistivity. The hardness and elasticity of polyethylene depends on its density. Low density polyethylene (LDPE) is more elastic and soft, while polyethylene with a greater density (HDPE) is harder. Polyethylene insulation is light, and resistant to water and the majority of chemical compounds. Due to the small dielectric constant and low lossiness, polyethylene is used as insulation for data transmission cables and wherever low conductor capacitance is required. Polyethylene is not UV-resistant, but the addition of antioxidants and pigments makes it resistant to solar radiation and weather conditions. Polyethylene is flammable and propagates flames, and during combustion it discharges flaming drops, but these drawbacks may be eliminated by using admixes that decrease flammability.

Foamed polyethylene is created by the introduction of gas bubbles into the structure of polyethylene (polyethylene foaming process). The dielectric constant of foamed polyethylene decreases in inverse proportion to the degree of foam formation. This material is excellent for the insulation of conductors of concentric cables intended for the transmission of high frequency signals. Due to its low mechanical resistance, during the production process a thin layer of polyethylene is extruded onto foamed polyethylene (foamed polyethylene with a skin)

Cross-linked polyethylene (XLPE) is created during the so-called process of cross-linking PE polyethylene, which consists in the formation of additional bonds between crosswise polyethylene chains; this type of polyethylene retains the electrical properties of thermoplastic polyethylene, however its mechanical properties are superior. A cross-linked polyethylene insulation is used primarily in power engineering cables, also due to the low lossiness and high electrical strength. The long-term temperature permitted for XLPE insulations is 90°C (PVC 70°C), while the temperature permitted during a short-circuit is as high as 250°C (PVC 160°C); in consequence, the long-term current-carrying capacity is approx. 20% than that of PVC

Polypropylene (PP) has electric properties similar to those of polyethylene, but it is harder and more resistant to temperature. It is stiffer than polyethylene, and is used mainly for insulating cables with small dimensions.

Thermoplastic elastomers (TPE) are a group of plastic materials with exceptional properties. Although they can be extruded in the same way as the majority of thermoplastic materials, their usage properties are similar to those of rubber. Their fundamental feature is resistance to a wide range of temperatures.

Halogen-free plastic materials (HFFR) do not contain chemical elements from the halogen group and during combustion do not emit aggressive and poisonous gases and smoke. Their electric and mechanical properties are similar to those of PVCs.

Properties of insulating materials

Electric properties of insulating materials

	Electric strength kV/mm at a temperature of. 20°	Dielectric constant at 50 Hz and 20°C	Dielectric loss coefficient	Resistivity at 30°C [Ω·cm]
PVC	25	3,5-6,5	0,1	10^{12} - 10^{15}
Heat resistant PVC	25	3,5-6,5	0,1	10^{12} - 10^{15}
Oil resistant PVC	25	3,5-6,5	0,1	10^{10} - 10^{12}
Polyethylene	70-85	2,3	0,0001 - 0,0003	10^{17}
Cross-linked polyethylene	30	2,3	0,0005	10^{17}
Foamed polyethylene	50	dependent on the degree of foam formation	0,00015	10^{17}
Polyurethane	20	4-8	0,03 - 0,08	10^{10} - 10^{13}
Polypropylene	75	2,3	0,0008	10^{17}

Thermal properties of insulating and sheathing materials

	PVC	Heat resistant PVC	LDPE	HDPE
Operating temp. [°C]	-30 do 70	-20 do 105	-50 do 70	-50 do 100
Melting point [°C]	>140	>140	105-110	130
Oxygen index	23-42	23-42	≤22	≤22

	Foamed PE	XLPE	PUR	Silicone	Neoprene rubber
Operating temp. [°C]	-40 do 70	-35 do 90	-55 do 80	-60 do 180	-30 do 90
Melting point [°C]	105		150		
Oxygen index	18-30	≤22	20-26	25-35	≤22

Chemical resistance of insulating and sheathing materials

Type of material	Concentration	Temp. to [°C]	PVC	Oilproof PVC	PE	PUR	Silicone	Neoprene rubber
Ethyl alcohol	100	20	-	-	+	O	+	+
Methyl alcohol	100	20	O	O	+	O	+	O
Petrol		50	-	-	-	+	O	-
Butane		20	+	+			O	
Ethylene glycol		50	+	+		+		
Concentrated hydrochloric acid	100	20	-	-	+	-	-	-
Hydrochloric acid	10	20					+	
Sulphuric acid	50	50	+	+				
Citric acid			+	+		O	+	+
Acetic acid	20	20	O	O			+	
Soda lye	50	50	+	+				
Butter		50	+	+		O	+	
Gear oil		100	+	+		O	+	
Machine oil		20	O	+		O	+	O
Diesel fuel			-	-		+	O	
Engine oil		120	+	+	-		+	
Vegetable oils			+	+	+	+	+	O
Olive oil		50	+	+	+	+	+	
Brake fluid			O	O		O	+	
Mercury	100	20	+	+	+	+	+	+
Sea water		20	+	+		+	O	+

+ resistant
O resistant under certain conditions
– not resistant

Conductor insulation colours

Colour codes as per DIN 47100

Conductor no.	Colour	Conductor no.	Colour	Conductor no.	Colour
1	white	17	white/grey	33	green/red
2	brown	18	grey/brown	34	yellow/red
3	green	19	white/pink	35	green/black
4	yellow	20	pink/brown	36	yellow/black
5	grey	21	white/blue	37	grey/blue
6	pink	22	brown/blue	38	pink/blue
7	blue	23	white/red	39	grey/red
8	red	24	brown/red	40	pink/red
9	black	25	white/black	41	grey/black
10	purple	26	brown/black	42	pink/black
11	grey/pink	27	grey/green	43	blue/black
12	red/blue	28	yellow/grey	44	red/black
13	white/green	29	pink/green		
14	brown/green	30	yellow/pink		
15	white/yellow	31	green/blue		
16	yellow/brown	32	yellow/blue		

Colour codes as per DIN 47100 for cables with paired conductors

Pair no.	Conductor colour-a	Conductor colour-b	Pair no.	Conductor colour-a	Conductor colour-b
1	white	brown	13	white/black	brown/black
2	green	yellow	14	grey/green	yellow/grey
3	grey	pink	15	pink/green	yellow/pink
4	blue	red	16	green/blue	yellow/blue
5	black	purple	17	green/red	yellow/red
6	grey/pink	red/blue	18	green/black	yellow/black
7	white/green	brown/green	19	grey/blue	pink/blue
8	white/yellow	yellow/brown	20	grey/red	pink/red
9	white/grey	grey/brown	21	grey/black	pink/black
10	white/pink	pink/brown	22	blue/black	red/black
11	white/blue	brown/blue			
12	white/red	brown/red			

Conductor insulation colours, cables LIHH, LIHCH

Colour codes as per DIN 47100

Conductor no.	Colour	Conductor no.	Colour	Conductor no.	Colour
1	white	17	white/grey	33	green/red
2	brown	18	grey/brown	34	yellow/red
3	green	19	white/pink	35	green/black
4	yellow	20	pink/brown	36	yellow/black
5	grey	21	white/blue	37	grey/blue
6	pink	22	brown/blue	38	pink/blue
7	blue	23	white/red	39	grey/red
8	red	24	brown/red	40	pink/red
9	black	25	white/black	41	grey/black
10	purple	26	brown/black	42	pink/black
11	grey/pink	27	grey/green	43	blue/black
12	red/blue	28	yellow/grey	44	red/black
13	white/green	29	pink/green		
14	brown/green	30	yellow/pink		
15	white/yellow	31	green/blue		
16	yellow/brown	32	yellow/blue		

Colour codes as per DIN 47100 for cables with paired conductors

Pair no.	Conductor colour-a	Conductor colour-b	Pair no.	Conductor colour-a	Conductor colour-b
1	white	brown	13	white/black	brown/black
2	green	yellow	14	grey/green	yellow/grey
3	grey	pink	15	pink/green	yellow/pink
4	blue	red	16	green/blue	yellow/blue
5	black	purple	17	green/red	yellow/red
6	grey/pink	red/blue	18	green/black	yellow/black
7	white/green	brown/green	19	grey/blue	pink/blue
8	white/yellow	yellow/brown	20	grey/red	pink/red
9	white/grey	grey/brown	21	grey/black	pink/black
10	white/pink	pink/brown	22	blue/black	red/black
11	white/blue	brown/blue			
12	white/red	brown/red			

Conductor flexibility classes

Standard PN-EN 60228 specifies a number of conductor flexibility classes
Class 1: conductors executed as a single wire in cables intended for permanent installations
Class 2: stranded conductors for cables intended for permanent installations
Class 5: flexible multi-stranded conductors
Class 6: very flexible multi-stranded conductors

Cross section [mm^2]	Class 2 Column 1 Number of wires x wire outer diameter [mm]	Column 2 Number of wires x wire outer diameter [mm]	Class 5 Column 3 Number of wires x wire outer diameter [mm]	Class 6 Column 4 Number of wires x wire outer diameter [mm]
0,14			~18 x 0,1	~18 x 0,1
0,25			~14 x 0,15	~32 x 0,1
0,34		7 x 0,25	~19 x 0,15	~42 x 0,1
0,5	7 x 0,3	7 x 0,3	~16 x 0,2	~28 x 0,15
0,75	7 x 0,37	7 x 0,37	~24 x 0,2	~42 x 0,15
1	7 x 0,43	7 x 0,43	~32 x 0,2	~56 x 0,15
1,5	7 x 0,52	7 x 0,52	~30 x 0,25	~84 x 0,15
2,5	7 x 0,67	19 x 0,41	~50 x 0,25	~140 x 0,15
4	7 x 0,85	19 x 0,52	~56 x 0,3	~224 x 0,15
6	7 x 1,05	19 x 0,64	~84 x 0,3	~192 x 0,2
10	7 x 1,35	49 x 0,51	~80 x 0,4	~320 x 0,2
16	7 x 1,70	49 x 0,65	~128 x 0,4	~512 x 0,2
25	7 x 2,13	84 x 0,62	~200 x 0,4	~800 x 0,2
35	7 x 2,52	133 x 0,58	~280 x 0,4	~1120 x 0,2
50	19 x 1,83	133 x 0,69	~400 x 0,4	~705 x 0,3
70	19 x 2,17	189 x 0,69	~356 x 0,5	~990 x 0,3
95	19 x 2,52	259 x 0,69	~485 x 0,5	~1340 x 0,3
120	37 x 2,03	336 x 0,67	~614 x 0,5	~1690 x 0,3
150	37 x 2,27	392 x 0,69	~765 x 0,5	~2123 x 0,3
185	37 x 2,52	494 x 0,69	~944 x 0,5	~1470 x 0,4
240	37 x 2,87	627 x 0,70	~1225 x 0,5	~1905 x 0,4
300	61 x 2,50	790 x 0,70	~1530 x 0,5	~2385 x 0,4
400	61 x 2,89		~2035 x 0,5	

Conductor resistance

Cross section [mm²]	Copper conductors [Ω/km]		Tinned copper conductors [Ω/km]	
	class 1 and class 2	class 5 and class 6	class 1 and class 2	class 5 and class 6
0,14	–	~134	–	~138
0,25	–	~76	–	~79
0,34	–	~53	–	~56
0,5	36	39	36,7	40,1
0,75	24,5	26	24,8	26,7
1	18,1	19,5	18,2	20
1,5	12,1	13,3	12,2	13,7
2,5	7,41	7,98	7,56	8,21
4	4,61	4,95	4,7	5,09
6	3,08	3,3	3,11	3,39
10	1,83	1,91	1,84	1,95
16	1,15	1,21	1,16	1,24
25	0,727	0,78	0,734	0,795
35	0,524	0,554	0,529	0,565
50	0,387	0,386	0,391	0,393
70	0,268	0,272	0,27	0,277
95	0,193	0,206	0,195	0,21
120	0,153	0,161	0,154	0,164
150	0,124	0,129	0,126	0,132
185	0,0991	0,106	0,1	0,108
240	0,0754	0,0801	0,0762	0,0817
300	0,0601	0,0641	0,0607	0,0654
400	0,047	0,0486	0,0475	0,0495

Long-term current-carrying capacity of control and power supply cables with PVC insulation

Cross section [mm²]	Group 1 current-carrying capacity [A]	Group 2 current-carrying capacity [A]	Group 3 current-carrying capacity [A]
0,14	2	2	3,5
0,25	4	4,5	6
0,34	6	6	9
0,5	9	9	12
0,75	12	12	15
1	15	15	19
1,5	18	18	24
2,5	26	26	32
4	34	34	42
6	44	44	54
10	61	61	73
16	82	82	98
25	108	108	129
35	135	135	158
50	168	168	198
70	207	207	245
95	250	250	292
120	292	292	344
150	335	335	391
185	382	382	448
240	–	453	528
300	–	523	608

Group 1: Single-conductor cables and wires with PVC insulation placed in cable ducts (Lgy, H05 V-K, H07 V-K, BiT 1000 single-conductor).
Group 2: Multicore cables with sheaths, smooth cables, cables in metal armours or with screens, placed in open or ventilated cable ducts (BiT 500, BiT 500-CY, BiT 750, BiT 1000, YSTY, YKSLY).
Group 3: Single-conductor cables installed with a space equal to at least the outer diameter of the cable.

Correction factors for an ambient temperature above 30°C, permitted conductor temperature 70°C

Ambient temperature	Correction factor
31 do 35	0,94
36 do 40	0,87
41 do 45	0,79
46 do 50	0,71
51 do 55	0,61
56 do 60	0,50
61 do 65	0,35

Current-carrying capacity of cables with silicone insulation

Cross section [mm²]	Group A current-carrying capacity [A]	Group B current-carrying capacity [A]	Group C current-carrying capacity [A]
0,25	2,8	–	5
0,5	6	7	10
0,75	9	12	15
1	12	15	19
1,5	16	18	24
2,5	21	26	32
4	28	34	42
6	36	44	54
10	49	61	73
16	65	82	98
25	85	108	129
35	105	135	158
50	140	168	198
70	175	207	245
95	210	250	292
120	250	292	344
150	–	335	391
185	–	382	448
240	–	453	528
300	–	523	608

Group A: Single-conductor cables placed singularly or in bundles in cable ducts
Group B: Multicore cables routed in the air or in ventilated cable ducts
Group C: Single-conductor cables routed in the air installed with a space equal to at least the outer diameter of the cable.

Correction factors for an ambient temperature in excess of 150°C

Temperature [°C]	Correction factor
To 150	1
151 to 155	0,91
156 to 160	0,82
161 to 165	0,71
166 to 170	0,58
171 to 175	0,41

Selection of frequency converter cables adapted to the power of the frequency converter

	BiTservo **2YSLCY-J** BiTservo **2YSLCYn-J** BiTservo **2YSLCH-J** BiTservo **UV 2YSLCYK-J** BiTservo **3 PLUS-2YSLCY-J** BiTservo **3 PLUS-2YSLCYn-J** BiTservo **3 PLUS-2YSLCH-J** BiTservo **UV 3 PLUS-2YSLCYK-J**		BiTservo **2XSLCY-J** BiTservo **2XSLCYn-J** BiTservo **2XSLCH-J** BiTservo **UV 2XSLCYK-J** BiTservo **3 PLUS-2XSLCY-J** BiTservo **3 PLUS-2XSLCYn-J** BiTservo **3 PLUS-2XSLCH-J** BiTservo **UV 3 PLUS-2XSLCYK-J**	
power [kW]	cross section [mm²]		cross section [mm²]	
	asymmetrical	symmetrical	asymmetrical	symmetrical
0,18	4G1,5	3x1,5+3G0,25	4G1,5	3x1,5+3G0,25
0,25	4G1,5	3x1,5+3G0,25	4G1,5	3x1,5+3G0,25
0,37	4G1,5	3x1,5+3G0,25	4G1,5	3x1,5+3G0,25
0,55	4G1,5	3x1,5+3G0,25	4G1,5	3x1,5+3G0,25
1,1	4G1,5	3x1,5+3G0,25	4G1,5	3x1,5+3G0,25
1,5	4G1,5	3x1,5+3G0,25	4G1,5	3x1,5+3G0,25
2,2	4G2,5	3x2,5+3G0,5	4G2,5	3x2,5+3G0,5
3	4G2,5	3x2,5+3G0,5	4G2,5	3x2,5+3G0,5
4	4G4	3x4+3G0,75	4G4	3x4+3G0,75
5,5	4G4	3x4+3G0,75	4G4	3x4+3G0,75
7,5	4G4	3x4+3G0,75	4G4	3x4+3G0,75
11	4G6	3x6+3G1	4G6	3x6+3G1
15	4G10	3x10+3G1,5	4G10	3x10+3G1,5
18,5	4G16	3x16+3G2,5	4G10	3x10+3G1,5
22	4G25	3x25+3G4	4G16	3x16+3G2,5
30	4G25	3x25+3G4	4G25	3x25+3G4
37	4G35	3x35+3G6	4G25	3x25+3G4
45	4G35	3x35+3G6	4G35	3x35+3G6
55	4G50	3x50+3G10	4G35	3x35+3G6
75	4G70	3x70+3G10	4G70	3x70+3G10
90	4G95	3x95+3G16	4G70	3x70+3G10
110	4G120	3x120+3G16	4G95	3x95+3G16
132	4G150	3x150+3G25	4G120	3x120+3G16
160	4G185	3x185+3G35	4G150	3x150+3G25
200	4G240	3x240+3G50	4G185	3x185+3G35

Conductor insulation colours, cables BiTflame AS(St) FE180/E90

No. of pair	Insulation colours	
	conductor a	conductor b
1	white	blue
2		orange
3		green
4		brown
5		grey
6	red	blue
7		orange
8		green
9		brown
10		grey
11	black	blue
12		orange
13		green
14		brown

Conductor insulation colours, cables (N)HXH, NHXH, (N)HXCH, NHXCH

No. of cores	Insulation colours	
	with protective conductor	without protective conductor
1	green-yellow	black
2	-	blue, brown
3	green-yellow, blue, brown	brown, black, grey
4	green-yellow, brown, black, grey	blue, brown, black, grey
5	green-yellow, blue, brown, czarna, black, grey	blue, brown, black, grey, black
above 5	in the external layer: green-yellow, remaining conductors black, numbered	all black, numbered

Rules for laying cable support systems in fire safety installations

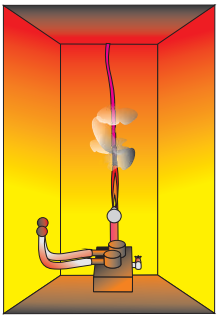
1. A base for laying cable support systems should have a fire resistance classification at least equal to the cable way category (30 or 90 min.). The optimal base for cable support systems that supports their proper functioning is either concrete (category B25 min.) or natural stone.
A sprinkler system should be used if for constructional reasons it is impossible to reach base category 90 min.
2. Support systems should be run in a manner which does not risk a deterioration in proper functioning during fires (falling construction elements, installations exposed to risk of explosion, expansion joints in buildings).
3. Support systems should be run above the sprinkler system, because cable insulation is not tight during fire (mica or ceramics).
4. In the case of vertical cable support systems, compensation reserves should be provided every 3.5m (according to the DIN 4102-12) and cables should be fastened to a supporting structure min. every 300mm. Instead of compensation reserves, other elements can be used to prevent the cable from slipping after the sheath burns (cable boxes, culverts).
5. All other system elements including connection boxes and wall culverts should have a category at least equal to that of the cable support systems.
6. Cables shall be laid with a reserve compensating for ceiling bend and deflection of supporting structures.
7. Do not use clamps with sharp edges, which may block cable movement or cause insulation damage.
8. In order to ensure proper functioning of the system, it is recommended that clamps are used to stabilise the cable's distance from the base.
9. A suitably larger clamp compared to the cable diameter should be selected so as to ensure that the cable moves freely.
10. When selecting the cables, one should bear in mind the possible effects occurring during fire, particularly cable movement due to expansion of the working conductors.

In case of any questions, please contact the manufacturers of the cable support systems elements.

The way a cable support systems and its elements are designed and made determines about safety during fire.

PROTECT HUMAN LIFE AND PROPERTY BY USING CLASSIFIED CABLE SUPPORT SYSTEMS!

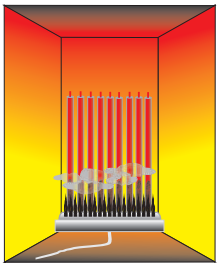
Tests for halogen-free and fire-resistant cables



Test of cable fire resistance to flame propagation for a single cable acc. to the IEC 60332-1, (PN-EN 60332-1)

The test involves putting a standard burner to a vertically fixed, 600mm-long cable section placedin a chamber, at an angle of 45° for specific time (1-2min), depending on sample diameter. The test result is considered positive if, after the fire source is removed, the flame on the sample goes out automatically and there is no visible charring or other damage along a maximum 50mm-long cable section

The duration of the test depends on the dimensions of the cable sample.



Test of cable resistance to flame propagation for bunched of cables acc. to the IEC 60332-3, (PN-EN 60332-3)

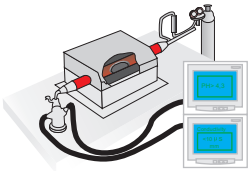
A specific number of 3.5m-long cable sections is fixed to a vertical rack placed in a chamber. The amount of flammable cable materials and the flame application time depends on the category to which a given cable belongs to.

Category A – 7 dm^3 of flammable cable materials – fire application time:
40 minutes.

Category B – 3.5 dm^3 of flammable cable materials – fire application time:
40 minutes.

Category C – 1.5 dm^3 of flammable cable materials – fire application time:
20 minutes.

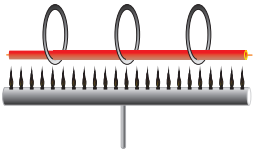
The resistance of bunched cables is correct if, after specific burning time and removal of the fire source, the flame on the sample goes out automatically and the length of charred sections does not exceed 2.5m of the height measured above the lower edge of the burner.



Test of corrosive gases emission levels for during burning process acc. to the IEC 60754-2, (PN-EN 50267)

A specified amount of non-metallic cable materials is burnt in a tubular furnace (500-600 mm). The gases generated are delivered by air blow to a washer with distilled water (1000 ml). The solution thus obtained is tested with respect to acidity, pH (power hydrogen) and conductivity. The test result is considered positive if the pH value of the solution is higher than 4.3, and its conductivity is lower than 10 µS/mm.

Tests for halogen-free and fire-resistant cables



Test of cable insulation resistance to long term fire exposure FE 180 acc. to the IEC 60331-11 and IEC 60331-21,-23

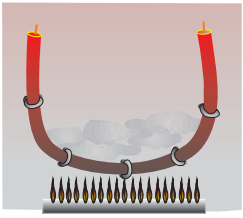
1.2m cable sample is fixed horizontallyin a special ventilated cubicle. During the test, a rated voltage is applied to the cable conductors, thus forming an open electric circuit. A standard source of fire at a temperature of 750°C is placed under the sample.
The fire is applied for 180 minutes. The test result is considered positive if during this period there is no shorting in the circuit examined.

Emission density test for smokes released during cable burning process acc. to the IEC 61034-1 and IEC 61034-2, (PN-EN 50268)

Cable sections (1m) are burned in a special cube-shaped cubicle with a photometric measuring system installed on opposite walls. The number of samples depends on the external diameter of the cable. The photometric measuring system registers light transmittance inside the cubicle. The test result is considered positive if, after completion of the test, light transmittance is not lower than 60%.

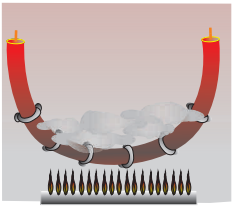
Circuit integrity tests under fire conditions: PH classification

Method used to test thin cables with external diameter no higher than 20 mm.
The standards according to which individual cables are tested are effective throughout Poland.
according to the PN-EN 50200



A 1200mm-long “U”-shaped cable sample is fixed in a chamber onto a board made of inflammable material (on single clamps spaced every 30 cm).
A rated voltage is applied to one side of the conductors, and the load is connected to the other side.
During the test, the cable is exposed to fire (temperature 830÷870°C) and mechanical impact applied for specific time.
The time measured during which the cable functions properly corresponds to the so - called fire resistance class:
PH 15 – 15 min,
PH 30 – 30 min,
PH 60 – 60 min,
PH 90 – 90 min.

Test method and requirements when using fire and mechanical impact - cables and conductors for rated voltage 0.6/1 kV
The standards according to which individual cables are tested are effective throughout Poland.
according to the PN-IEC 60331-31:2004



A 1500mm-long arc-shaped cable sample is fixed on the board made of inflammable material (on single clamp spaced every 30 cm).
A rated voltage is applied to one side of the conductors, and the load is connected to the other side.
During the test, the cable is exposed to fire (temperature 830÷870°C) and mechanical impact applied at specific intervals (every 5 min). The time measured during which the cable functions properly corresponds to the so-called fire resistance class:
PH 15 – 15 min,
PH 30 – 30 min,
PH 60 – 60 min,
PH 90 – 90 min.

Tests for halogen-free and fire-resistant cables

Circiut integrity tests under fire conditions:
E30, E90 classification

The DIN 4102-12 standard is not obligatory in Poland.
Tests conducted according to this standard involve checking cable support systems, that is:

CABLES + SUPPORTING SYSTEM + FASTENINGS

The tests are carried out in a chamber with min. dimensions 2x3x2.5m. The temperature increases up to 970°C (according to the curve specified in the standard). Cable ways are laid along the chamber ceiling. Sections of the following cable types are used in the tests:

- 2 power cables 4 x 1,5 mm^2
- 2 power cables 4 x 50 mm^2
- 2 telecommunication cables with the lowest acceptable number of pairs

The voltage of 400V is connected to the power cables, and 100V - to the telecommunication cables.
If there is no break or shorting in the electric circuit during a specified time, the cable line is classified as follows:

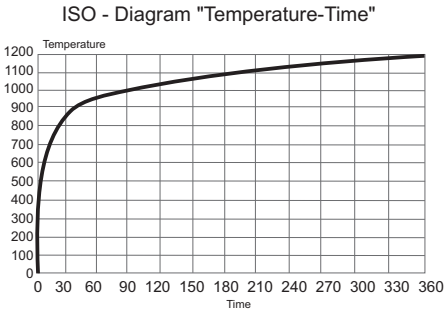
Classes of fire integrity functions:

E30 – for fire integrity functions time ≥ 30 minutes

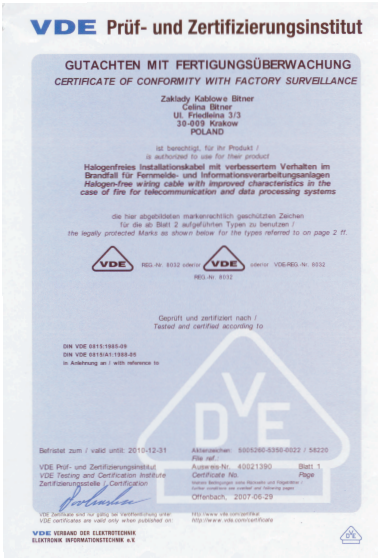
E90 – for fire integrity functions time ≥ 90 minutes

Tests carried out in a horizontal position are transferred to vertical and oblique positions provided that the cables are protected against slipping (fastened).

Picture of chamber for fire testing acc. to DIN 4102-12



Temperature curve during fire testing acc. to DIN 4102-12



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Celina Bitner
Ul. Friedleina 3/3
30-009 Krakow
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Halogen-free wiring cable with improved characteristics in the case of fire for telecommunication and data processing systems

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Electrical parameters of BiTflame S FE180/PH90, BiTflame S(St) FE 180/E90, BiTflame SL FE180/E90 and BiTflame SL(St) FE180/E90 cables

Nominal cross-section mm²	Max. L/R ratio µH/	Core-core capacitance pF/m	Core-screen capacitance pF/m
1	25	100	175
1,5	40	102	180
2,5	50	115	205

Max. core resistance at. 20°C

Nominal cross-section	Class 1 conductor		Class 2 conductor		Class 5 conductor	
	Cu/Bare copper	Tined copper	Cu/Bare copper	Tined copper	Cu/Bare copper	Tined copper
1	18,1	18,2	18,1	18,2	19,5	20,0
1,5	12,1	12,2	12,1	12,2	13,3	13,7
2,5	7,41	7,56	7,41	7,56	7,98	8,21
4	4,61	4,70	4,61	4,70	4,95	5,09

Current raiting
ambient temperature 30°C
current capacity and correction factors acc. to PN-IEC 60364-5-523:2001

cables laid directly on the handles		
Cores cross-section	2-cores cables AC single-phase and DC circuits	2 and 4-core cables three-phase circuits
	Current rating	Current rating
mm²	A	A
1,0	19	17
1,5	24	22
2,5	33	30
4,0	45	40

Electrical parameters of BiTflame S FE180/PH90, BiTflame S(St) FE180/PH90, BiTflame SL FE180/PH90, and BiTflame SL(St) FE180/PH90 cables

Cables laid in insulated tubes with in walls or ceilings and in cable ducts		
Cores cross-section	2-cores cables AC single-phase and DC circuits	2 and 4-core cables three-phase circuits
	Current rating	Current rating
mm^2	A	A
1,0	14,5	13
1,5	18,5	16,5
2,5	25	22
4,0	33	30

Correction factors for different ambient temperature

Ambient temperature [°C]	30	35	40	45	50	55	60	65	70	75	80
Correction factor	1,00	0,96	0,91	0,87	0,82	0,76	0,71	0,65	0,58	0,50	0,41

Current rating for N2XH, N2XCH (according to DIN VDE 0276-604 and DIN VDE 0276-627)

Arrangement	N2XH			N2XCH	
No. of loaded cores	1	3	3	3	3
	Laying in air			Laying in air	
2	33	24	26	25	27
3	43	32	34	33	36
4	57	42	44	43	47
6	72	53	56	54	59
10	99	74	77	75	81
16	131	98	102	100	109
25	177	133	138	136	146
35	217	162	170	165	179

Correction factors for multicore cables

No. of cores	Laying in air
5	0,75
7	0,65
10	0,55
14	0,50
19	0,45
24	0,40
40	0,35
61	0,30

Core temperature during short circuit [°C]	Cores temperature at the moment of short circuit [°C]							
	90	80	70	60	50	40	30	20
	Short-circuit current density [A/mm^2] for 1 second short circuit							
250	143	149	154	159	165	170	176	181

Current rating for NHXH, NHXCH, (N)HXH, (N)HXCH (according to DIN VDE 0276-604 and DIN VDE 0276-627)

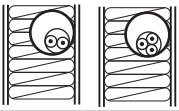
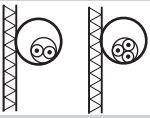
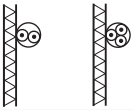
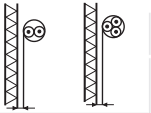
	NHXH (N)HXH			NHXCH (N)HXCH	
Arrangement					
No. of loaded cores	1	3	3	3	3
	Laying in air			Laying in air	
2	33	24	26	25	27
3	43	32	34	33	36
4	57	42	44	43	47
6	72	53	56	54	59
10	99	74	77	75	81
16	131	98	102	100	109
25	177	133	138	136	146
35	217	162	170	165	179
50	265	197	207	201	218
70	336	250	263	255	275
95	415	308	325	314	336
120	485	359	380	364	388
150	557	412	437	416	438
185	646	475	507	480	501
240	774	564	604	565	580
300	901		697		

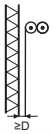
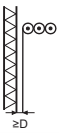
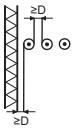
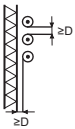
Correction factors for multicore cables

No. of cores	Laying in air
5	0,75
7	0,65
10	0,55
14	0,50
19	0,45
24	0,40
40	0,35
61	0,30

Core temperature during short circuit [°C]	Cores temperature at the moment of short circuit [°C]							
	90	80	70	60	50	40	30	20
	Short-circuit current density [A/mm²] for 1 second short circuit							
250	143	149	154	159	165	170	176	181

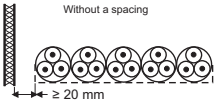
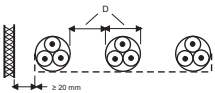
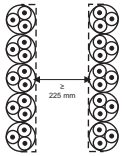
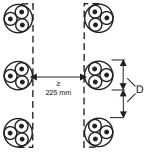
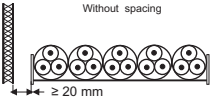
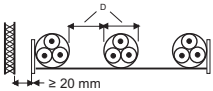
Current rating for N2XH, N2XCH, NHXH, NHXCH, (N)HXH, (N)HXCH (according to DIN VDE 0276-604 and DIN VDE 0276-627)

Installation method	N2XH, N2XCH, NHXH FE180, NHXCH FE180, (N)HXH FE180, (N)HXCH FE180							
	A2		B2		C		E	
								
	Multicore cables in the insulated tube in thermal insulated wall		Cables in the insulated tube mounted on the wall		Single and multicore cables mounted on the wall		Multicore cables with an interval of at least 0,3 x D from the wall	
No. of loaded cores	2	3	2	3	2	3	2	3
cross-section mm²	Obciążalność prądowa (A) / Current rating (A)							
1,5	18,5	16,5	22	19,5	24	22	26	23
2,5	25	22	30	26	33	30	36	32
4	33	30	40	35	45	40	49	42
6	42	38	51	44	58	52	63	54
10	57	51	69	60	80	71	86	75
16	76	68	91	80	107	96	115	100
25	99	89	119	105	138	119	149	127
35	121	109	146	128	171	147	185	158
50	145	130	175	154	209	179	225	192
70	183	164	221	194	269	229	289	246
95	220	197	265	233	328	278	352	298
120	253	227	305	268	382	322	410	346
150	290	259	—	—	441	371	473	399
185	329	295	—	—	506	424	542	456
240	386	346	—	—	599	500	641	538

Installation method	N2XH, N2XCH, NHXH FE180, NHXCH FE180, (N)HXH FE180, (N)HXCH FE180				
	F			G	
	Single core cables with an interval of at least 1 x D from the wall				
	Without a spacing			With spacing = D	
					
No. of loaded cores	2	3	3	3	3
cross-section mm²	Current rating (A)				
25	161	141	135	182	161
35	200	176	169	226	201
50	242	216	207	275	246
70	310	279	268	353	318
95	377	342	328	430	389
120	437	400	383	500	454
150	504	464	444	577	527
185	575	533	510	661	605
240	679	634	607	781	719
300	783	736	703	902	833

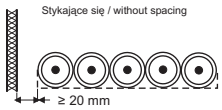
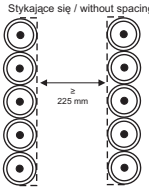
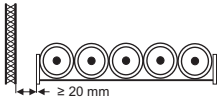
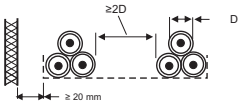
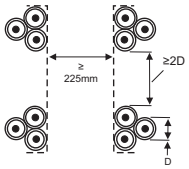
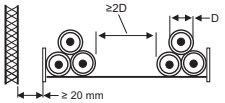
Correction factors for bunched multicore cables

Multicore cables laid in air - Installation Method E

Installation method		Number of cable tray or ladder	Number of multicore cables					
			1	2	3	4	6	9
			Correction factors					
Horizontal perforated cable trays	Without a spacing 	1	1,00	0,88	0,82	0,79	0,76	0,73
		2	1,00	0,87	0,80	0,77	0,73	0,68
		3	1,00	0,86	0,79	0,76	0,71	0,66
	With spacing D 	1	1,00	1,00	0,98	0,95	0,91	-
		2	1,00	0,99	0,96	0,92	0,87	-
		3	1,00	0,98	0,95	0,91	0,85	-
Vertical perforated cable trays	Without spacing 	1	1,00	0,88	0,82	0,78	0,73	0,72
		2	1,00	0,88	0,81	0,76	0,71	0,7
	With spacing D 	1	1,00	0,91	0,89	0,88	0,87	-
		2	1,00	0,91	0,88	0,87	0,85	-
Horizontal ladder, cable clamps etc.	Without spacing 	1	1,00	0,87	0,82	0,80	0,79	0,78
		2	1,00	0,86	0,80	0,78	0,76	0,73
		3	1,00	0,85	0,79	0,76	0,73	0,70
	With spacing D 	1	1,00	1,00	1,00	1,00	1,00	-
		2	1,00	0,99	0,98	0,97	0,96	-
		3	1,00	0,98	0,97	0,96	0,93	-

Correction factors for bunched single core cables

Single core cables layed in air - Installation method F

Installation method		Number of cable tray or ladder	Number of three-phase circuits			Use as a multiplier for the system
			1	2	3	
			Correction factors			
Horizontal perforated cable trays		1	0,98	0,91	0,87	Three cables in horizontal formation
		2	0,96	0,87	0,81	
		3	0,95	0,85	0,78	
Vertical perforated cable trays		1	0,96	0,86	-	three cables in vertical formation
		2	0,95	0,84	-	
Horizontal ladders, cable clamps etc.		1	1,00	0,97	0,96	Three cables in horizontal
		2	0,98	0,93	0,89	
		3	0,97	0,90	0,86	
Horizontal perforated cable trays		1	1,00	0,98	0,96	Three cables in a triangular formation
		2	0,97	0,93	0,89	
		3	0,96	0,92	0,86	
Vertical perforated cable trays		1	1,00	0,91	0,89	
		2	1,00	0,90	0,86	
Horizontal ladders, cable clamps etc.		1	1,00	1,00	1,00	
		2	0,95	0,95	0,95	
		3	0,95	0,95	0,90	

Current rating for 0,6/1 kV cables

Conditions used in calculations

	Value
Long-term permissible conductor temperature: -PVC insulation -XLPE insulation	70°C 90°C
Conductor temperature during short circuit - PVC insulation, cross-section up to 300mm^2 - PVC insulation, cross-section more than 300mm^2 -XLPE insulation	160°C 140°C 250°C
Ambient temperature: -in ground -in air	20°C 25°C
Load factor of cables in the ground	0,70
Installation depth in ground	0,7m
Spacing laid	70 mm

Multicore cables

Installation in earth

cross-section [mm^2]	Current rating [A]	
	PVC insulated	XLPE insulated
1	18	21
1,5	26	30
2,5	34	40
4	44	52
6	56	64
10	75	86
16	98	111
25	128	143
35	157	173
50	185	205
70	228	252
95	275	303
120	313	346
150	353	390
185	399	441
240	464	511

Installation in air

cross-section [mm^2]	Current rating [A]	
	PVC insulated	XLPE insulated
1	15	19
1,5	19,5	25
2,5	26,5	33
4	36	43
6	45	55
10	63	76
16	85	100
25	112	135
35	138	166
50	168	202
70	214	256
95	258	317
120	299	369
150	343	423
185	393	487
240	462	573
300	510	663

Correction factors for multicore cables

Number of cores	Ground	Air
5	0,70	0,75
7	0,60	0,65
10	0,50	0,55
14	0,45	0,50
19	0,40	0,45
24	0,35	0,40
40	0,30	0,35
61	0,25	0,30

Current rating for 0,6/1 kV cables

Single core cables

Installation in ground

Cross-section [mm²]	Current rating [A]			
	PVC insulated		XLPE insulated	
1	18	22	22	27
1,5	25	29	32	39
2,5	33	39	43	51
4	43	51	55	66
6	55	65	68	82
10	75	88	90	109
16	107	127	115	139
25	137	163	149	179
35	165	195	178	213
50	195	230	211	251
70	239	282	259	307
95	287	336	310	366
120	326	382	352	416
150	366	428	396	465
185	414	483	449	526
240	481	561	521	610
300	542	632	587	689

Installation in air

Cross-section [mm²]	Current rating [A]			
	PVC insulated		XLPE insulated	
1	18	23	22	28
1,5	21	26,5	26	33
2,5	28	36	35	43
4	39	47	45	58
6	50	60	59	73
10	70	82	80	99
16	94	109	106	133
25	125	145	144	180
35	156	179	176	220
50	186	218	216	268
70	237	276	275	341
95	287	340	339	420
120	332	396	396	490
150	382	453	455	562
185	436	523	527	651
240	513	625	630	779
300	582	718	725	898

Short-circuit current density [A/mm²] for 1 second short circuit depending on cores temperature at the moment of short circuit for PVC insulated cables

Cables with Cu cores, cross-section	Core temperature during short circuit	Starting core temperature at the moment of short circuit					
		70	60	50	40	30	20
		Short-circuit current density [A/mm²] for 1 second short circuit					
≤ 300mm²	160	115	122	129	136	143	150
> 300mm²	140	103	111	118	126	133	140

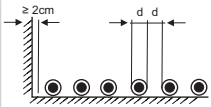
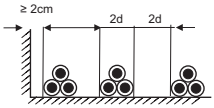
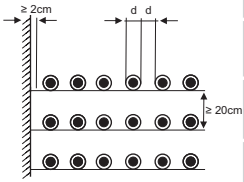
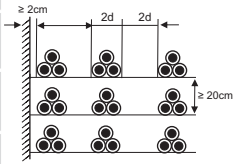
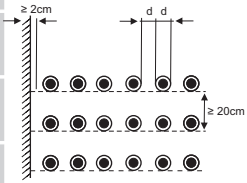
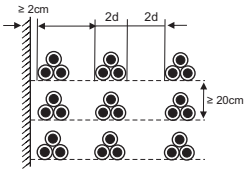
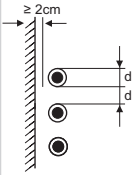
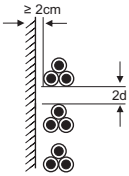
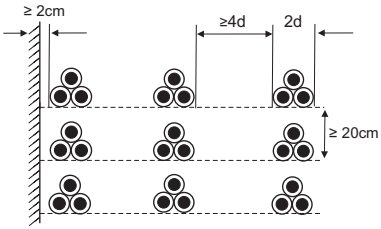
Short-circuit current density [A/mm²] for 1 second short circuit depending on cores temperature at the moment of short circuit for XLPE insulated cables

Core temperature during short circuit	Starting core temperature at the moment of short circuit							
	90	80	70	60	50	40	30	20
	Short-circuit current density [A/mm²] for 1 second short circuit							
250	143	149	154	159	165	170	176	181

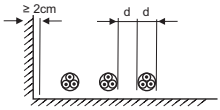
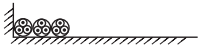
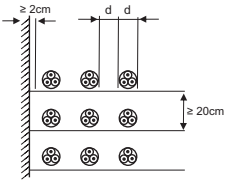
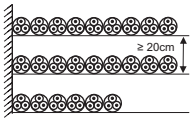
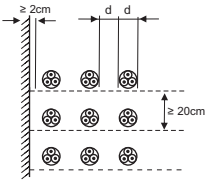
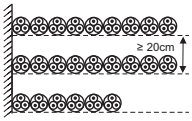
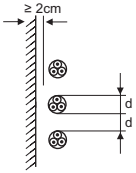
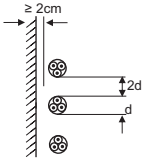
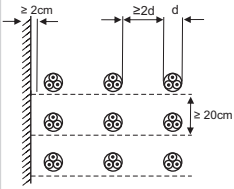
Current rating correction factors depending on ambient temperature

Ambient temperature [°C]	Corrections factors			
	cables laid ground		cables laid air	
	PVC	XLPE	PVC	XLPE
10	1,10	1,07	1,15	1,12
15	1,05	1,04	1,10	1,08
20	1,00	1,00	1,06	1,04
25	0,95	0,95	1,00	1,00
30	0,89	0,93	0,94	0,96
35	0,84	0,89	0,89	0,92
40	0,77	0,85	0,82	0,87
45	0,71	0,80	0,76	0,83
50	0,63	0,76	0,68	0,79

Reduction factors for cables laid singly and in bundles in air

Placement method	Number of cables laying on tray or ladder	installed singly with spacing = cable diameter, distance to wall ≥ 2cm				installed singly with spacing = cable diameter, distance to wall ≥ 2cm			
		No. of systems				No. of systems			
		1	2	3		1	2	3	
On the floor	-	0,92	0,89	0,88		0,95	0,90	0,88	
On trays	1	0,92	0,89	0,88		0,95	0,90	0,88	
	2	0,87	0,84	0,83		0,90	0,85	0,83	
	3	0,84	0,82	0,81		0,88	0,83	0,81	
	6	0,82	0,80	0,79		0,86	0,81	0,79	
On ladders	1	1,00	0,97	0,96		1,00	0,98	0,96	
	2	0,97	0,94	0,93		1,00	0,95	0,93	
	3	0,96	0,93	0,92		1,00	0,94	0,92	
	6	0,94	0,91	0,90		1,00	0,93	0,90	
At the supports or on the wall	-	0,94	0,91	0,89		0,89	0,86	0,84	
Arrangement where there is no need to apply the reduction factors									

Reduction factors for cables laid in air

Placement method	Number of cables laying on tray or ladder	Installed with spacing = cable diameter, distance to wall ≥ 2cm						Installed as bundles without spacing and without distance to the wall					
		number of cables						number of cables					
		1	2	3	6	9		1	2	3	6	9	
On the floor	-	0,95	0,90	0,88	0,85	0,84		0,90	0,84	0,8	0,75	0,73	
On trays	1	0,95	0,90	0,88	0,85	0,84		0,95	0,84	0,80	0,75	0,73	
	2	0,90	0,85	0,83	0,81	0,80		0,95	0,80	0,76	0,71	0,69	
	3	0,88	0,83	0,81	0,79	0,78		0,95	0,78	0,74	0,70	0,68	
	6	0,86	0,81	0,79	0,77	0,76		0,95	0,76	0,72	0,68	0,66	
On ladders	1	1,00	0,98	0,96	0,93	0,92		0,95	0,84	0,80	0,75	0,73	
	2	1,00	0,95	0,93	0,90	0,89		0,95	0,80	0,76	0,71	0,69	
	3	1,00	0,94	0,92	0,89	0,88		0,95	0,78	0,74	0,70	0,68	
	6	1,00	0,93	0,90	0,87	0,86		0,95	0,76	0,72	0,68	0,66	
At the supports or on the wall	-	1,00	0,93	0,90	0,87	0,86		0,95	0,78	0,73	0,68	0,66	
Arrangement where there is no need to apply the reduction factors								Number of cables arranged side by side is unlimited					

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