

IB-BiT 500®

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



industrial application



internal application



external application



high flexibility



EN 60332-1-2



EN 60332-3



oxygen index



UV resistance



oil resistant
EN 60811-404

RoHS 2015/863/EU



LVD 2014/35/EU



CPR 305/2011



Technical data:

Thermal parameters:

Operating temperature:

fixed installation: -40 °C to 80 °C

flexible connections: -5 °C to 80 °C

Electrical parameters:

Operating voltage: $U_0/U=300/500V$

Test voltage (50Hz): 3000V

Mechanical parameters:

Insulation resistance: 20MΩxkm

Inductance max: 0,6mH/km

Min. bending radius:

flexible connections: 7,5xØ

fixed installation: 4xØ

Design:

Conductors:

bare 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

Outer sheath:

special PVC, oil resistant (EN 60811-404), self-extinguishing and flame retardant (acc. to EN 60332-1-2, EN 60332-3-24, cat. C), UV resistant; colour: blue

Application:

Flexible power/control cables designed for operation 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. Cables classified according to **EN 50575 (CPR)**.

Cat. no.	n x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
S55100	2x0,5	5,0	36
S55101	3x0,5	5,3	44
S55102	4x0,5	5,7	52
S55103	5x0,5	6,2	62
S55104	7x0,5	7,0	78
S55105	8x0,5	7,7	92
S55140	10x0,5	9,4	126
S55106	12x0,5	9,4	135
S55141	14x0,5	9,8	150
S55142	16x0,5	10,3	170
S55107	18x0,5	10,9	185
S55143	19x0,5	10,9	190
S55144	21x0,5	11,6	215
S55145	25x0,5	13,1	255
S55146	27x0,5	13,1	265
S55109	30x0,5	13,7	290
S55147	34x0,5	14,8	335
S55110	37x0,5	14,8	345
S55148	40x0,5	15,3	370
S55149	50x0,5	17,6	475
S55150	61x0,5	18,9	560
S55111	2x0,75	5,4	45
S55112	3x0,75	5,7	54
S55113	4x0,75	6,2	64
S55114	5x0,75	7,0	80
S55151	6x0,75	7,6	94
S55115	7x0,75	7,6	100
S55116	8x0,75	8,3	116
S55152	10x0,75	10,2	158
S55117	12x0,75	10,2	168
S55153	14x0,75	10,7	190
S55154	16x0,75	11,5	220
S55118	18x0,75	12,1	245
S55155	19x0,75	12,1	250

Cat. no.	n x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
S55156	21x0,75	12,6	275
S55157	25x0,75	14,5	335
S55158	27x0,75	14,5	345
S55159	30x0,75	15,0	375
S55160	34x0,75	16,6	450
S55161	37x0,75	16,6	465
S55162	40x0,75	17,1	500
S55163	50x0,75	19,5	625
S55120	2x1,0	5,7	52
S55121	3x1,0	6,1	64
S55122	4x1,0	6,8	80
S55123	5x1,0	7,4	96
S55164	6x1,0	8,0	112
S55124	7x1,0	8,0	118
S55125	8x1,0	9,2	148
S55165	10x1,0	10,8	188
S55126	12x1,0	10,8	204
S55166	14x1,0	11,5	235
S55167	16x1,0	12,2	264
S55127	18x1,0	12,8	294
S55168	19x1,0	12,8	300
S55169	21x1,0	13,6	336
S55170	25x1,0	15,4	405
S55171	30x1,0	16,4	470
S55129	2x1,5	6,7	71
S55130	3x1,5	7,1	87
S55131	4x1,5	7,8	110
S55132	5x1,5	8,5	130
S55172	6x1,5	9,6	162
S55133	7x1,5	9,6	172
S55173	8x1,5	10,6	202
S55174	10x1,5	12,7	265
S55134	12x1,5	12,7	285
S55175	14x1,5	13,5	325

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Cat. no.	n x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
S55176	16x1,5	14,3	370
S55177	19x1,5	15,0	420
S55178	21x1,5	16,2	475
S55179	25x1,5	18,5	580
S55180	2x2,5	7,8	102
S55135	3x2,5	8,3	126
S55136	4x2,5	9,5	166

Cat. no.	n x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
S55137	5x2,5	10,3	200
S55138	6x2,5	11,5	240
S55139	7x2,5	11,5	260
S55181	10x2,5	15,2	390
S55182	12x2,5	15,2	425
S55183	14x2,5	16,3	495
S55184	16x2,5	17,2	560

Cat. no.	nx2xmm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
S59520	2x2x0,5	7,3	63
S59521	3x2x0,5	8,2	72
S59522	4x2x0,5	9,3	97
S59523	5x2x0,5	10,0	122
S59524	6x2x0,5	10,3	130
S59525	7x2x0,5	11,8	156
S59526	8x2x0,5	12,3	172
S59527	10x2x0,5	13,2	205
S59528	12x2x0,5	14,2	245
S59529	14x2x0,5	15,1	275
S59530	16x2x0,5	16,6	335
S59531	18x2x0,5	17,3	360
S59532	20x2x0,5	17,8	390
S59533	24x2x0,5	18,5	455
S59534	2x2x0,75	7,9	80
S59535	3x2x0,75	9,3	98
S59536	4x2x0,75	10,1	122
S59537	5x2x0,75	10,9	152
S59538	6x2x0,75	11,5	170
S59539	7x2x0,75	12,8	196
S59540	8x2x0,75	13,6	225
S59541	10x2x0,75	14,6	270
S59542	12x2x0,75	16,0	325
S59543	14x2x0,75	16,9	370
S59544	16x2x0,75	18,3	435
S59545	18x2x0,75	19,1	470
S59546	20x2x0,75	19,7	510
S59547	24x2x0,75	20,3	590
S59548	2x2x1,0	8,4	92

Cat. no.	nx2xmm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
S59549	3x2x1,0	9,9	116
S59550	4x2x1,0	10,7	142
S59551	5x2x1,0	11,8	184
S59552	6x2x1,0	12,2	202
S59553	7x2x1,0	13,8	240
S59554	8x2x1,0	14,5	270
S59555	10x2x1,0	15,5	320
S59556	12x2x1,0	17,0	390
S59557	14x2x1,0	18,2	450
S59558	16x2x1,0	19,5	515
S59559	2x2x1,5	10,1	132
S59560	3x2x1,5	11,6	160
S59561	4x2x1,5	12,6	198
S59562	5x2x1,5	13,8	258
S59563	6x2x1,5	14,3	280
S59564	7x2x1,5	16,4	340
S59565	8x2x1,5	17,2	380
S59566	10x2x1,5	18,6	465
S59567	12x2x1,5	19,9	540
S59568	14x2x1,5	21,1	620
S59569	2x2x2,5	12,1	192
S59570	3x2x2,5	13,8	235
S59571	4x2x2,5	15,0	295
S59572	5x2x2,5	16,6	385
S59573	6x2x2,5	17,2	425
S59574	7x2x2,5	19,6	500
S59575	8x2x2,5	20,5	560
S59576	10x2x2,5	22,2	690
S59577	12x2x2,5	23,7	805

*Outer diameter tolerance: +/-5%

Cable Factory BITNER reserves the right to modify the specifications without prior notice

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

Electrical parameters IB-BiT 500[®]

Core cross-section mm ²	Max. resistance at 20°C [Ω/km]	Core-core capacitance at 1kHz [nF/km]
0,5	39,0	130
0,75	26,0	140
1	19,5	140
1,5	13,3	140
2,5	7,98	170

Electrical parameters - paired cables IB-BiT 500[®]

Przekrój żyły mm ²	Max. loop resistance at 20°C [Ω/km]	Core-core capacitance at 1kHz [nF/km]
0,5	78,0	130
0,75	52,0	140
1	39,0	140
1,5	26,6	140
2,5	16,0	170