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Brevetti Stendalto



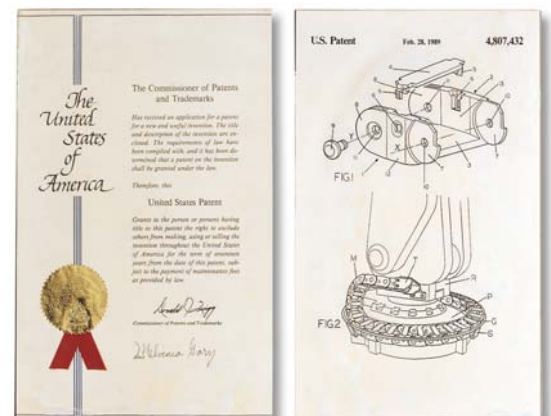
1968:

The history of Brevetti Stendalto begins in 1968, when the founder Mr. Giovanni Mauri and current MD of Brevetti Stendalto, designed the world's first plastic cable chain, as an alternative cable chain to the steel chains used at that time, which were very heavy and expensive.

The new concept of nylon cable chain immediately achieved great attention from the machine tool industry, due to its lightweight, strong construction and most of all a much lower price level than steel chains. Nowadays Brevetti Stendalto is one of the worldwide leading manufacturers of cable chains in both Nylon and Steel. Our cable chains have for many years been installed with success around the world in various fields of applications. Just to mention some of the most significant fields: machine tool centres, general automation, robotics, wood-, stone-, metal working equipment, packing machines, harbour cranes, off-shore equipment.

Our mission is placing our customers in the centre of our activities, making them feel unique, like their applications often are, while offering our experience and technical know-how. Therefore as a natural development Brevetti Stendalto started in 1992 to offer its own range of quality High-flexible cables for use in cable chains, hereby supporting its customers with a complete package solution for dynamic power supply. Our current wide range of selected cables of different dimensions and construction, can fully satisfy even the special applications of dynamic power supply, a guaranteed Brevetti package solution: Cable chains & Flexible cables

The complete range of quality highly flexible-cables are designed to withstand severe operation conditions, with high speed and frequency with small bending radius. All cables are UL and CSA approved, while the servo motor cables and the bus cables are also Desina approved.



Patent for the circular nylon cable chain.

Applications

From our initial experience from the machine tool centres, more than 30 years ago, Brevetti has acquired the technical know-how to diversify its product range. Nowadays the cable chains are offered together with our range of Highly flexible as a guaranteed package solution for all kinds of heavy duty applications for dynamic power supply as: Industrial robots, high-speed automation, automatic storage systems, container cranes.

Our package solution of Brevetti cable chains & flexible chains are also being implemented in many sectors of engineering: steel works, offshore, cranes, harbour cranes and compost plants.



Typical single-loop power chain installation on a KCI Konecrane RTG unit in operation



Machine tools equipped with Heavy series cable chains



SR445 vertical nylon chain on machine tool

Signal, Control and Power cables with PVC jacket

BC410



Technical data

Nominal voltage:

sect.0,34 mm ²	300 V
sect.0,5-50 mm ²	600 V

Testing voltage:

sect.0,34 mm ²	1500 V
sect.0,5-2,5 mm ²	2000 V
sect.4-50 mm ²	3000 V

Temperature range:

-10°C +80°C

Speed:

160 m/min

Acceleration:

6 m/s²

Burning characteristics:

CEI 20-35,
VDE 0472-804 test A,
NFC 32070 cat. C1 test 1,
IEC 332.1

Flame resistance:

CEI 20-22/II,
VDE 0472-804 test C,
NFC 32070 cat. C1 test 2,
IEC 332.3C

Oil resistance:

VDE 0472 part 803/B,
UL 1581,
CNOMO E.03.40.150N,
NFT46-013

Homologation UL/CSA:

sect.0,34 mm² UL-AWM 80°C - 300V
CSA-AWM 75°C - 300V FT1

sect.0,5-50 mm² UL-AWM 80°C-600V
CSA-AWM 80°C - 600V FT1

Construction

Conductor:

High-flexible class 6, complying with:
CEI 20-29, VDE 0295,
NFC 32012, IEC 228

Insulation:

PVC complying with standard UL-CSA

Core ident.:

sect.0,34 mm² colour codification
complying with DIN 47100

sect.0,5-50 mm² black num.
+G/V complying with VDE 0293,
CEI UNEL 00725-74

Jacket material:

Special compound type PVC,
Colour grey RAL 7001

BC411

Shielding:

Tinned copper braid > 80%

Item no.	no. of cores x section n x mm ²	Diameter Ø mm	Bending radius mm	Cable weight kg/km
4100303	3x0,34	4,45	38	25
4100403	4x0,34	4,70	40	32
4100503	5x0,34	5,15	44	38
4100703	7x0,34	5,38	46	47
4101203	12x0,34	6,83	58	74
4101803	18x0,34	8,73	74	90
4102503	25x0,34	9,98	85	110
4100305	3x0,50	6,24	53	50
4100405	4x0,50	6,73	57	62
4100505	5x0,50	7,20	61	73
4100705	7x0,50	8,55	73	105
4101205	12x0,50	10,85	92	160
4101805	18x0,50	13,10	111	246
4102505	25x0,50	15,15	129	330
4100307	3x0,75	6,75	57	60
4100407	4x0,75	7,33	62	70
4100507	5x0,75	8,40	71	82
4100707	7x0,75	9,15	78	90
4101207	12x0,75	11,85	101	204
4101807	18x0,75	14,30	122	295
4102507	25x0,75	17,90	152	370
4100310	3x1,0	7,05	60	75
4100410	4x1,0	8,15	69	100
4100510	5x1,0	8,75	74	120
4100710	7x1,0	9,65	82	150
4101210	12x1,0	12,85	109	250
4101810	18x1,0	15,15	129	360
4102510	25x1,0	19,25	164	560
4100315	3x1,5	8,12	69	100
4100415	4x1,5	8,75	74	120
4100515	5x1,5	9,62	82	150
4100715	7x1,5	10,55	90	190
4101215	12x1,5	14,15	120	320
4101815	18x1,5	17,20	146	500
4102515	25x1,5	21,00	179	700
4103815	38x1,5	24,35	207	900
4100425	4x2,5	10,45	89	185
4100725	7x2,5	13,00	111	298
4101225	12x2,5	17,60	150	526
4100440	4x4,0	13,20	112	288
4100540	5x4,0	14,90	127	315
4100460	4x6,0	14,30	122	390
4104100	4x10,0	19,10	162	625
4104160	4x16,0	23,90	203	960
4104250	4x25,0	27,50	234	1480
4104350	4x35,0	31,30	266	1960
4104500	4x50,0	36,30	309	2860



Signal, Control and Power cables, Shielded with PVC jacket

BC411



Item no.	no. of cores x section n x mm ²	Diameter Ø mm	Bending radius mm	Cable weight kg/km
4110303	3x0,34	4,80	41	40
4110403	4x0,34	5,30	45	46
4110503	5x0,34	5,50	47	51
4110703	7x0,34	5,90	50	64
4111203	12x0,34	7,25	62	105
4111803	18x0,34	8,95	76	136
4112503	25x0,34	10,55	90	180
4110305	3x0,50	6,65	57	70
4110405	4x0,50	7,25	62	83
4110505	5x0,50	8,22	70	100
4110705	7x0,50	8,83	75	120
4111205	12x0,50	11,40	97	206
4111805	18x0,50	13,74	117	240
4112505	25x0,50	15,80	134	330
4110307	3x0,75	7,26	62	78
4110407	4x0,75	7,85	67	85
4110507	5x0,75	8,90	76	110
4110707	7x0,75	9,70	82	150
4111207	12x0,75	12,35	105	250
4111807	18x0,75	14,95	127	360
4112507	25x0,75	18,45	157	480
4110310	3x1,0	7,45	63	96
4110410	4x1,0	8,65	74	120
4110510	5x1,0	9,33	79	150
4110710	7x1,0	10,28	87	190
4111210	12x1,0	13,30	113	300
4111810	18x1,0	16,88	143	430
4112510	25x1,0	19,80	168	630
4110315	3x1,5	8,50	72	125
4110415	4x1,5	9,35	79	160
4110515	5x1,5	10,20	87	200
4110715	7x1,5	11,10	94	230
4111215	12x1,5	14,55	124	400
4111815	18x1,5	17,78	151	570
4112515	25x1,5	21,59	184	810
4110425	4x2,5	11,20	95	230
4110725	7x2,5	13,60	116	355
4111225	12x2,5	18,90	161	540
4110440	4x4,0	13,90	118	340
4110460	4x6,0	15,15	129	440
4114100	4x10,0	19,85	169	690
4114160	4x16,0	24,80	211	900
4114250	4x25,0	28,70	244	1480
4114350	4x35,0	31,55	268	2100
4114500	4x50,0	37,70	320	2960



BC410 BC411

Speed: 160 m/min
Acceleration: 6 m/s²

Complying with UL and CSA for the European and USA market

Voltage 600V by sect. $\geq 0,5 \text{ mm}^2$

Jacket in PVC with high resistance to oils

For further information please consult Brevetti Stendalto's Technical Office

Signal, Control and Power cables, with PUR jacket

BC414



Technical data

Nominal voltage:

sect.0,34 mm ²	300 V
sect.0,5-50 mm ²	600 V

Testing voltage:

sect.0,34 mm ²	1500 V
sect.0,5-2,5 mm ²	2000 V
sect.4-50 mm ²	3000 V

Temperature range:

-10°C +80°C

Speed:

220 m/min

Acceleration:

10 m/s²

Burning characteristics:

CEI 20-35,
VDE 0472-804 test A,
NFC 32070 cat. C1 test 1,
IEC 332.1

Oil resistance:

VDE 0472 part 803-A/B,
UL 1581,
VDE 0282 part 10,
HD 22.10 S1

Homologation UL/CSA:

sect.0,34 mm² UL-AWM 80°C - 300V
CSA-AWM 80°C - 300V FT1

sect.0,5-50 mm² UL-AWM 80°C - 600V
CSA-AWM 80°C - 600V FT1

Construction

Conductor:

High-flexible class 6, complying with:
CEI 20-29, VDE 0295,
NFC 32012, IEC 228

Insulation:

PVC complying with standard UL-CSA

Core ident.:

sect.0,34 mm² colour codification
complying with DIN 47100

sect.0,5-50 mm² black num.
+G/V complying with VDE 0293,
CEI UNEL 00725-74

Jacket material:

PUR complying with standard UL/CSA
color black

BC415

Shielding:

Tinned copper braid > 80%

Item no.	no. of cores x section n x mm ²	Diameter Ø mm	Bending radius mm	Cable weight kg/km
4140303	3x0,34	4,45	38	27
4140403	4x0,34	4,75	40	35
4140503	5x0,34	5,30	45	40
4140703	7x0,34	5,55	47	49
4141203	12x0,34	6,80	58	76
4141803	18x0,34	8,60	73	92
4142503	25x0,34	10,20	87	115
4140305	3x0,50	7,00	60	52
4140405	4x0,50	7,60	65	63
4140505	5x0,50	8,15	69	77
4140705	7x0,50	8,80	75	106
4141205	12x0,50	11,20	95	160
4141805	18x0,50	13,10	111	247
4142505	25x0,50	15,20	129	345
4140307	3x0,75	7,65	65	75
4140407	4x0,75	8,20	70	80
4140507	5x0,75	8,83	75	97
4140707	7x0,75	9,56	81	120
4141207	12x0,75	12,50	106	219
4141807	18x0,75	14,41	122	310
4142507	25x0,75	17,90	152	380
4140310	3x1,0	7,90	67	82
4140410	4x1,0	8,55	73	105
4140510	5x1,0	9,24	79	130
4140710	7x1,0	10,00	85	152
4141210	12x1,0	12,70	108	250
4141810	18x1,0	15,10	128	362
4142510	25x1,0	19,20	163	555
4140315	3x1,5	8,56	73	100
4140415	4x1,5	9,27	79	136
4140515	5x1,5	9,95	85	154
4140715	7x1,5	10,90	93	200
4141215	12x1,5	14,10	120	320
4141815	18x1,5	17,15	146	480
4142515	25x1,5	20,95	178	722
4143815	38x1,5	24,55	209	920
4140425	4x2,5	11,00	94	190
4140725	7x2,5	13,00	111	300
4141225	12x2,5	17,60	150	530
4140440	4x4,0	13,10	111	295
4140460	4x6,0	14,30	122	375
4144100	4x10,0	19,20	163	610
4144160	4x16,0	23,90	203	980
4144250	4x25,0	27,60	235	1490
4144350	4x35,0	31,40	267	1980
4144500	4x50,0	37,50	319	2880



Signal, Control and Power cables, Shielded with PUR jacket

BC415



Item no.	no. of cores x section n x mm ²	Diameter Ø mm	Bending radius mm	Cable weight kg/km
4150303	3x0,34	4,80	41	42
4150403	4x0,34	5,26	45	48
4150503	5x0,34	5,60	48	53
4150703	7x0,34	5,90	50	68
4151203	12x0,34	7,20	61	108
4151803	18x0,34	8,90	76	198
4152503	25x0,34	10,68	91	240
4150305	3x0,50	7,39	63	72
4150405	4x0,50	8,00	68	90
4150505	5x0,50	8,63	73	110
4150705	7x0,50	9,15	78	125
4151205	12x0,50	11,80	100	210
4151805	18x0,50	13,60	116	260
4152505	25x0,50	15,95	136	350
4150307	3x0,75	8,00	68	80
4150407	4x0,75	8,65	74	100
4150507	5x0,75	9,33	79	115
4150707	7x0,75	10,15	86	165
4151207	12x0,75	12,80	109	270
4151807	18x0,75	14,98	127	370
4152507	25x0,75	19,10	162	490
4150310	3x1,0	8,36	71	118
4150410	4x1,0	8,95	76	135
4150510	5x1,0	9,70	82	155
4150710	7x1,0	10,70	91	200
4151210	12x1,0	13,36	114	310
4151810	18x1,0	15,69	133	435
4152510	25x1,0	19,80	168	630
4150315	3x1,5	8,90	76	130
4150415	4x1,5	9,65	82	165
4150515	5x1,5	10,60	90	210
4150715	7x1,5	11,50	98	240
4151215	12x1,5	14,60	124	410
4151815	18x1,5	17,90	152	575
4152515	25x1,5	21,60	184	820
4150425	4x2,5	11,60	99	185
4150725	7x2,5	13,55	115	355
4151225	12x2,5	18,10	154	495
4150440	4x4,0	14,55	124	340
4150460	4x6,0	15,60	133	435
4154100	4x10,0	19,95	170	700
4154160	4x16,0	24,85	211	1074
4154250	4x25,0	29,15	248	1490
4154350	4x35,0	32,95	280	2150
4154500	4x50,0	38,95	331	2980



BC414 BC415

Speed: 220 m/min
Acceleration: 10 m/s²

Resistance and robust

Complying with UL and CSA for the European and USA market

Voltage 600V by sect. $\geq 0,5 \text{ mm}^2$

The polyurethan jacket resistance to hydrolysis, microbics and very good oils resistance

For further information please consult Brevetti Stendalto's Technical Office

Signal and Control cables. Inner insulation in TPE-E with PUR jacket

BC418



Technical data

Nominal voltage:

600 V

Testing voltage:

3000 V

Temperature range:

-30°C +80°C

Speed:

300 m/min

Acceleration:

25 m/s²

Burning characteristics:

CEI 20-35,
VDE 0472-804 test A,
NFC 32070 cat. C1 test 1,
IEC 332.1

Oil resistance:

VDE 0472 part 803/B,
UL 1581,
VDE 0282 part 10,
HD 22.10 S1

Construction

Conductor:

High-flexible class 6, complying with:
CEI 20-29, VDE 0295,
NFC 32012, IEC 228

Insulation:

TPE-E

Core ident.:

black num. +G/V complying with
VDE 0293,
CEI UNEL 00725-74

Jacket material:

PUR complying with standard UL/CSA
color black

BC419

Shielding:

Tinned copper braid > 80%

*UL-CSA Homologation available upon request

Item no.	no. of cores x section n x mm ²	Diameter Ø mm	Bending radius mm	Cable weight kg/km
4180303	3x0,34	5,65	28	36
4180503	5x0,34	6,55	33	62
4180703	7x0,34	7,45	37	71
4181203	12x0,34	8,60	43	117
4181803	18x0,34	9,95	50	157
4182503	25x0,34	12,05	60	218
4180305	3x0,50	5,95	30	40
4180505	5x0,50	6,85	34	55
4180705	7x0,50	7,95	40	76
4181205	12x0,50	9,15	46	114
4181805	18x0,50	10,60	53	165
4182505	25x0,50	13,05	65	219
4180310	3x1,0	14,48	72	61
4180510	5x1,0	8,25	41	93
4180710	7x1,0	9,35	47	122
4181210	12x1,0	11,26	56	196
4181810	18x1,0	13,11	66	274
4182510	25x1,0	17,40	87	385
4180415	4x1,5	8,35	42	100
4180515	5x1,5	9,05	45	128
4180715	7x1,5	10,44	52	177
4181215	12x1,5	12,43	62	275
4181815	18x1,5	14,65	73	405
4182515	25x1,5	19,33	97	565
4180425	4x2,5	10,50	53	150
4180725	7x2,5	12,10	61	238
4181225	12x2,5	16,10	81	422
4181825	18x2,5	18,70	140	650
4182525	25x2,5	26,00	208	910



Signal and Control cables. Shielded with inner insulation in TPE-E and PUR jacket

BC419



Item no.	no. of cores x section n x mm ²	Diameter Ø mm	Bending radius mm	Cable weight kg/km
4190303	3x0,34	6,10	31	56
4190503	5x0,34	6,95	35	76
4190703	7x0,34	7,85	39	95
4191203	12x0,34	8,95	45	163
4191803	18x0,34	10,55	53	198
4192503	25x0,34	12,64	63	297
4190305	3x0,50	6,45	32	79
4190505	5x0,50	7,32	37	107
4190705	7x0,50	8,36	42	132
4191205	12x0,50	9,65	48	190
4191805	18x0,50	11,30	57	245
4192505	25x0,50	13,65	68	367
4190310	3x1,0	7,55	38	109
4190510	5x1,0	8,05	40	147
4190710	7x1,0	9,90	50	196
4191210	12x1,0	11,85	59	292
4191810	18x1,0	13,70	69	418
4192510	25x1,0	18,00	90	575
4190415	4x1,5	8,75	44	136
4190515	5x1,5	9,45	47	198
4190715	7x1,5	11,00	55	254
4191215	12x1,5	13,00	65	416
4191815	18x1,5	15,20	76	564
4192515	25x1,5	19,90	100	811
4190425	4x2,5	11,50	70	203
4190725	7x2,5	14,40	90	343
4191225	12x2,5	17,10	105	499



BC418 BC419

Speed: 300 m/min
Acceleration: 25 m/s²

Small outer dimension, with low
min. bending radius

Complying with UL and CSA for the
European and USA market

Voltage 600V

The polyurethan jacket resistance
to hydrolysis, microbics and very
good oils resistance

Suitable for outdoor applications at
-30°C

For further information please
consult Brevetti Stendalto's
Technical Office

Multipair oil resistance shielded with PVC jacket

BC412



Technical data

Nominal voltage:

300 V

Testing voltage:

1500 V

Temperature range:

BC412-BC416 -10°C +80°C

BC417 -30°C +80°C

Speed:

BC412 160 m/min

BC416 220 m/min

Acceleration:

BC412 6 m/s²

BC416 - BC417 10 m/s²

Burning characteristics:

CEI 20-35, VDE 0472-804 test A,

NFC 32070 cat. C1 test 1,

IEC 332.1

Flame resistance:

BC412

CEI 20/22II,

VDE 0472-804 test C,

NFC 32070 cat. C1 test 2,

IEC 332.3C

Oil resistance:

BC412

VDE 0472 part 803/B, UL 1581

CNOMO E.03.40.150N, NFT46-013

BC416 - BC417

VDE 0472 part 803-A/B, UL 1581

VDE 0282 part 10 HD 22.10 S1

Homologation UL/CSA:

BC412

UL-AWM 80°C - 300V

CSA-AWM 75°C - 300V FT1

BC416 - BC417

UL-AWM 80°C - 300V

CSA-AWM 80°C - 300V FT1

Construction

Conductor:

High-flexible class 5/6 complying with:

CEI 20-29, VDE 0295,

NFC 32012, IEC 228

Insulation:

BC412-BC416

PVC complying with standard UL-CSA

BC417 TPE-E

Core ident.:

colour codification complying with

DIN 47100

Jacket material:

BC412

Special compound type PVC,

Colour grey RAL 7001

BC416 - BC417

PUR complying with standard

UL/CSA color black

Shielding:

Tinned copper braid > 80%

Item no.	no. of cores x section n x mm ²	Diameter Ø mm	Bending radius mm	Cable weight kg/km
4120203	2x2x0,34	6,35	54	64
4120303	3x2x0,34	6,68	57	72
4120403	4x2x0,34	7,15	61	67
4120503	5x2x0,34	8,14	69	83
4120603	6x2x0,34	8,70	74	100



Multipair oil resistance shielded with PUR jacket

BC416



Item no.	no. of cores x section n x mm ²	Diameter Ø mm	Bending radius mm	Cable weight kg/km
4160203	2x2x0,34	6,37	54	79
4160303	3x2x0,34	6,70	57	110
4160403	4x2x0,34	7,20	61	124
4160503	5x2x0,34	8,20	70	145
4160603	6x2x0,34	8,75	74	170

Multipair oil resistance shielded with PUR jacket

BC417



Item no.	no. of cores x section n x mm ²	Diameter Ø mm	Bending radius mm	Cable weight kg/km
4170307	3x2x0,75	11,30	85	140
4170410	4x2x1,0	12,00	90	175
4170615	6x2x1,5	18,00	135	425
4170325	3x2x2,5	16,00	120	403
4170625	6x2x2,5	22,00	165	620

Multipair Double shielded cable with PUR jacket

4170610W	6x2x1,0	21,00	150	563
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Encoder, measuring systems, resolver cables

BC440

Item no.	no. of cores x section n x mm ²	Diameter Ø mm	Bending radius mm	Cable weight kg/km	Appr.
4400001	(4x2x0,25+2x1)C	8,70	74	110	UL-CSA
4400002	(4x2x0,38+4x0,50)C	8,80	90	120	DESINA UL-CSA
4400003	[4x2x0,14+4x0,50+(4x0,14C)]C	8,10	80	102	
4400004	[3x(2x0,14C)+2x1C]	8,35	80	110	
4400005	(4x2x0,14+4x0,50)C	8,45	80	92	UL-CSA
4400006	(3x2x0,14+4x0,14+4x0,25+2x0,50)C	9,45	90	139	DESINA UL/CSA
4400007	4x(2x0,25C)	8,80	90	140	
4400008	4x(2x0,34C)	11,72	120	160	
4400009	[4x(2x0,25C)]C	9,90	100	160	
4400010	[4x(2x0,35C)]C	12,40	120	180	
4400011	[4x(2x0,25C)]C	9,90	85	154	UL-CSA
4400012	[3x(2x0,35C)]C	9,40	80	145	UL-CSA
4400013	[4x(2x0,35C)]C	10,40	90	170	UL-CSA

Technical data

Nominal voltage:

250 V

Testing voltage:

1500 V

Temperature range:

For cables 4400001-2-3-4-5-6

0°C +80°C

For cables 4400007-8-9-10-11-12-13

-10°C +80°C

Speed:

For cables 4400001-2-3-4-5-6-11-12-13

220 m/min

For cables 4400007-8-9-10

60 m/min

Acceleration:

For cables 4400001-2-3-4-5-6-11-12-13

10 m/s²

For cables 4400007-8-9-10

2 m/s²

Burning characteristics:

For cables 4400002-6-7-8-9-10

CEI 20-35,

VDE 0472-804 test A,

NFC 32070 cat. C1 test 1,

IEC 332.1

Oil resistance:

For cables 4400001-2-3-6-11-12-13

complying with VDE 0472 part 803 A/B

For cables 4400004-5-7-8-9-10

complying with VDE 0472 part 803 B

Homologation UL/CSA:

For cables 4400001-5-11-12-13

UL-AWM 80°C - 300V

CSA-AWM 75°C - 300V FT1

For cables 4400002-6

UL-AWM 80°C - 30V

CSA-AWM 75°C 30V FT1

Construction

Conductor:

High flexible

Insulation:

For cables 4400001

Polyolefin

For cables 4400002-6-11-12-13

PP

For cables 4400003-4-5

TPE-E

For cables 4400007-8-9-10

PVC

Core ident.:

coloured

Jacket material:

For cables 4400001 PUR orange RAL 2003

For cables 4400002-6 PUR green RAL 6018

For cables 4400003-4-5-11-12-13 PUR black

For cables 4400007-8-9-10 PVC black

Totally shielded:

Tinned copper braid > 85%

except 4400007-8

Shielded multipair:

for 4400006 (3 Cp da 0,14 mm² spirale in Cu

Tinned copper spiral, coverage >90% on the

single groups)

for 4400003 (Tinned copper spiral, single on

the 4x0,14 mm² Overall : Tinned copper

coverage >85%)

for 4400004 (Tinned copper spiral, single on

the pair coverage >85%)

for 4400007-8-9-10-11-12-13 (Tinned copper

braid, single on the pair coverage >85%)

Capacity:

for 4400006-11-12-13 cond./cond. =100

pF/m; cond./schem. =168 pF/m

for 4400003-4 cond./cond. =140

pF/m; cond./schem. =235 pF/m

for 4400007-8-9-10-11 cond./cond. =150

pF/m; cond./schem. =270 pF/m

BC440

4400001+2

Encoder cables

4400003+6

Measuring system cables

4400007+13

Resolver cables



For further information please
consult Brevetti Stendalto's
Technical Office

Oil resistant power cables with PUR jacket

BC420

Technical data

Nominal voltage:

power: **BS420-BC421-BC435**

600/1000 V

power: **BS430** 1000 V

signal: **BS435** 250 V

Testing voltage:

4000 V

Temperature range:

-30°C +80°C

Speed:

220 m/min

Acceleration:

10 m/s²

Burning characteristics:

CEI 20-35, VDE 0472-804 test A,

NFC 32070 cat. C1 test 1, IEC 332.1

Oil resistance:

BC420-BC421-BC435

VDE 0472 part 803/B,

BC430

VDE 0472 part 803/B,

UL 1581, VDE 0282 part 10,

HD 22.10 S1

Homologation UL/CSA:

UL-AWM 80°C - 1000V

CSA-AWM 80°C - 1000V FT1

Construction

Conductor:

High-flexible class 6, complying with:

CEI 20-29, VDE 0295,

NFC 32012, IEC 228

Insulation:

BC421-BC435 TPE-E complying
with standard VDE 0250 1/4

BC420-BC430 TPE-E

Core ident.:

BC420-BC421-BC435

black U-V-W +G/V

BC430

power: black num. 1-2-3 +G/V

signal: black num. 5-6-7-8

Jacket material:

BC420

PUR black UV resistant

BC421

PUR complying with standard UL/CSA,
color orange RAL 2003

BC430-BC435 PUR color orange
RAL 2003

Shielding:

BC421-BC435

Totale: Tinned copper braid > 85%

BC435 Tinned copper braid
coverage > 80%

BC430 Tinned copper braid
coverage > 85%

Signal: Tinned copper braid > 85%,
+ all/polyester, coverage 100%

Item no.	no. of cores x section n x mm ²	diameter Ø mm	Bending radius mm	Cable weight kg/km
4200440N	4x4	12,1		250
4200460N	4x6	13,9		350
4200100N	4x10	16,0		510
4200160N	4x16	21,0		815
4204250N	4x25	24,0		1280
4204350N	4x35	32,0		2010
4204500N	4x50	38,0		2200



Oil resistant shielded cables with PUR jacket, for power supply of brushless motors

BC421



Item no.	no. of cores x section n x mm ²	diameter Ø mm	Bending radius mm	Cable weight kg/km
4210415	(3+T) x 1,5	9,90	84	155
4210425	(3+T) x 2,5	11,65	99	230
4210440	(3+T) x 4,0	12,70	108	314
4210460	(3+T) x 6,0	14,80	126	420
4214100	(3+T) x 10,0	17,50	149	626
4214160	(3+T) x 16,0	21,55	183	940
4214250	(3+T) x 25,0	25,30	215	1480
4214350	(3+T) x 35,0	29,20	250	1900
4214500	(3+T) x 50,0	34,10	290	2900



Oil resistant shielded cables with PUR jacket, for power supply of Indramat® brushless motors **BC430**



Item no.	no. of cores x section n x mm ²	iameter Ø mm	Bending radius mm	Cable weighth kg/km
4300410	(3+T)x1+2x2x0,75	11,40	97	222
4300415	(3+T)x1.5+2x2x0,75	12,10	103	246
4300425	(3+T)x2.5+2x2x1	15,00	128	360
4300440	(3+T)x4+2x1+2x1.5	15,85	135	510
4300460	(3+T)x6+2x1+2x1.5	18,70	159	590
4304100	(3+T)x10+2x1+2x1.5	22,05	187	840
4304160	(3+T)x16+2x2x1.5	25,12	214	1276
4304250	(3+T)x25+2x2x1.5	27,90	237	1700
4304350	(3+T)x35+2x2x1.5	30,20	257	2120
4304500	(3+T)x50+2x2x2.5	36,80	313	3050



Oil resistant shielded cables with PUR jacket, for power supply of brushless motors **BC435**



Item no.	no. of cores x section n x mm ²	iameter Ø mm	Bending radius mm	Cable weighth kg/km
4350415	4x1.5+2x1.5	12,40	105	242
4350425	4x2.5+2x1.5	13,75	117	302
4350440	4x4+2x1.5	14,82	126	397
4350460	4x6+2x1.5	16,90	144	527
4354100	4x10+2x1.5	19,80	168	780
4354160	4x16+2x1.5	23,20	197	1040
4354250	4x25+2x1.5	26,90	229	1510
4354350	4x35+2x1,5	31,30	266	2000
4354500	4x50+2x1.5	34,70	295	2740



BC421 BC430 BC435

Speed: 220 m/min
Acceleration: 10 m/s²

Highly flexible with small outer
dimensions

Complying with UL and CSA for the
European and USA market

The polyurethan jacket resistance
to hydrolysis, microbics and very
good oils resistance

Suitable for outdoor applications at
-30°C

For further information please
consult Brevetti Stendalto's
Technical Office

Single conductor with PUR jacket

BC425

Technical data

Nominal voltage:

600/1000 V

Testing voltage:

4000 V

Temperature range:

-30°C +80°C

Construction

Conductor:

extraflessibile Classe 6

Insulation:

TPE-E

Jacket material:

PUR complying with standard UL/CSA
color black

BC426

Shielding:

Tinned copper braid > 80%

Item no.	no. of cores x section n x mm ²	diameter Ø mm	Bending radius mm	Cable weight kg/km
4250110	1X10	8,10	61	140
4250116	1X16	9,50	71	190
4250125	1X25	11,40	85	290
4250135	1X35	12,90	97	400
4250150	1X50	14,20	106	530
4250170	1X70	15,80	118	710
4250195	1X95	19,90	149	1080
4251120	1X120	21,50	160	1240



Single conductor, Shielded with PUR jacket

BC426

Item no.	no. of cores x section n x mm ²	diameter Ø mm	Bending radius mm	Cable weight kg/km
4260110	1X10	8,9	67	170
4260116	1X16	10,1	76	230
4260125	1X25	11,9	89	350
4260135	1X35	13,3	100	450
4260150	1X50	14,8	111	590
4260170	1X70	17,4	130	840
4260195	1X95	20,3	152	1150
4261120	1X120	22,5	165	1360



BUS cable

BC450



Item no.	no. of cores x section n x mm ²	Diameter Ø mm	Bending radius mm	Cable weight kg/km
4500001	1x2x0,64/2.55	7,95	Fixed laying	75
4500002	1x2x0,64/2.55	7,95	Fixed laying	97
4500003	1X2X0,64/2.55	7,90	68	67
4500004	3X2X0,22C	7,10	Fixed laying	55
4500005	3X2X0,22C	7,95	68	65
4500006	(1x2x22AWG)+(1x2x24AWG)	7,10	Fixed laying	58
4500007	(1x2x22AWG)+(1x2x24AWG)	7,10	60	60

Technical data

For non dynamic application:
4500001-2-4-6

For dynamic application:
4500003-5-7

Temperature range:
-5°C +60°C
For cables 4500007 da -20°C a +80°C

Speed:
For cables 4500003-5-7
180 m/min

Acceleration:
For cables 4500003-5-7
7 m/s²

Normative references:
For cables 4400001-5-11-12-13
UL-listed for all
DESINA for all
EN 50170 e DIN 19245 for
4500001-2-3

Construction

Conductor:
flexible, except 4500001-2

Insulation:
For cables 4500001-2-3 Foam skin
For cables 4500004-5 Polyolefin
For cables 4500006-7
power: PVC
signal: Foam skin

Core ident.:
For cables 4500001-2-3 green-red
For cables 4500004-5 DIN 47100
For cables 4500006-7
power: red
signal: blue-white

Shielding:
For cables 4500001-2-3:
1° all/polyester 2° Tinned copper
braid >65%
For cables 4500004-5:
Tinned copper braid >80%
For cables 4500006-7:
pairs: all/polyester
totale: Tinned copper braid >70%

Jacket material:

For cables 4500001-2-4-6
PVC purple RAL 4001

For cables 4500003-5-7
PUR purple RAL 4001

Impedenza (±15 % > 1 MHz):
For cables 4500001-2-3 150 Ohm
For cables 4500004-5 100 Ohm
For cables 4500006-7 120 Ohm

D.C. resistance:
For cables 4500001-2 57,5 Ohm/km
For cables 4500003 76 Ohm/km
For cables 4500004-5 96 Ohm/km
For cables 4500006-7 78,4 Ohm/km

Isolation resistance:
For cables 4500001-2-3
>2500 MOhm/km
For cables 4500004-5-6-7
>5000 MOhm/km

Attenuation to 4 MHz:
For cables 4500001-2 2,2 db/100 m
For cables 4500003 2,5 db/100 m
For cables 4500004-5 5,2 db/100 m

Data pair attenuation 1 MHz:
For cables 4500006-7 2 db/100 m

Capacity:
For cables 4500004-5 <60 pF/m

Data pair capacitance:
For cables 4500006-7 39 pF/m

Near-End crosstalk 4 MHz:
For cables 4500004-5 50 db

Calculation of attenuation with different frequency

$$\alpha_x = \sqrt{(f_x / f_n) * \alpha_n}$$

α_x = to calculate
 f_x = reference frequency
 f_n = actual frequency
 α_n = attenuation as per above table

BC450

4500001+3
PROFIBUS Cables

4500004+5
INTERBUS Cables

4500006+7
DeviceNet™ Cables



For further information please
consult Brevetti Stendalto's
Technical Office

Colour tables

DIN 47100 Multipair cables

N°	Conductor A	Conductor B
1	White	Brown
2	Green	Yellow
3	Grey	Pink
4	Blue	Red
5	Black	Purple
6	Grey/Pink	Red/Blue
7	White/Green	Brown/Green
8	White/Yellow	Yellow/Brown
9	White/Grey	Grey/Brown
10	White/Pink	Pink/Brown
11	White/Blue	Brown/Blue
12	White/Red	Brown/Red
13	White/Black	Brown/Black
14	Grey/Green	Yellow/Grey
15	Pink/Green	Yellow/Pink
16	Green/Blue	Yellow/Blue
17	Green/Red	Yellow/Red
18	Green/Black	Yellow/Black
19	Grey/Blue	Pink/Blue
20	Grey/Red	Pink/Red
21	Grey/Black	Pink/Black
22	Blue/Black	Red/Black

DIN 47100 Multi conductor cables

N°	Color conductor
1	White
2	Brown
3	Green
4	Yellow
5	Grey
6	Pink
7	Blue
8	Red
9	Black
10	Purple
11	Grey/Pink
12	Red/Blue
13	White/Green
14	Brown/Green
15	White/Yellow
16	Yellow/Brown
17	White/Grey
18	Grey/Brown
19	White/Pink
20	Pink/Brown
21	White/Blue
22	Brown/Blue
23	White/Red
24	Brown/Red
25	White/Black
26	Brown/Black
27	Grey/Green
28	Yellow/Grey
29	Pink/Green
30	Yellow/Pink
31	Green/Blue
32	Yellow/Blue
33	Green/Red
34	Yellow/Red
35	Green/Black
36	Yellow/Black
37	Grey/Blue
38	Pink/Blue
39	Grey/Red
40	Pink/Red
41	Grey/Black
42	Pink/Black
43	Blue/Black
44	Red/Black

Conversion table for AWG/mm²

AWG	Section mm²	Diameter mm	D.C. resistance 20°C Ω
44	0,0020	0,050	8498
43	0,0025	0,055	7021
42	0,0032	0,063	5446
41	0,0039	0,071	4330
40	0,0049	0,079	3540
39	0,0062	0,089	2780
38	0,0081	0,102	2130
37	0,0103	0,114	1680
36	0,0127	0,127	1360
35	0,0159	0,142	1080
34	0,0201	0,160	857
33	0,0255	0,180	675
32	0,0324	0,203	532
31	0,0401	0,226	430
30	0,0507	0,254	340
29	0,0649	0,287	266
28	0,0806	0,320	214
27	0,102	0,361	169
26	0,128	0,404	135
25	0,162	0,455	106
24	0,205	0,511	84,2
23	0,259	0,574	66,6
22	0,324	0,643	53,2
21	0,411	0,724	41,9
20	0,519	0,813	33,2
19	0,653	0,912	26,4
18	0,823	1,02	21,0
17	1,04	1,15	16,6
16	1,31	1,29	13,2
15	1,65	1,45	10,4
14	2,08	1,63	8,28
13	2,63	1,83	6,56
12	3,31	2,05	5,21
11	4,17	2,30	4,14
10	5,26	2,588	3,277
9	6,63	2,906	2,600
8	8,37	3,264	2,061
7	10,55	3,655	1,634
6	13,30	4,115	1,296
5	16,77	4,620	1,028
4	21,15	5,189	0,8152
3	26,67	5,287	0,6466
2	33,62	6,543	0,5128
1	42,41	7,348	0,4065
1/0	53,49	8,252	0,3223
2/0	67,43	9,266	0,2557
3/0	85,01	10,40	0,2028
4/0	107,22	11,68	0,1608

Installation

For correct installation of cables in the cable chain, it is important to follow the guidelines listed below:

1 - The cables have to be installed and unrolled from the drum carefully to avoid damage. It is therefore important to follow the indications in Figure.1. The coil should not be unrolled from the centre, but it should be placed on a support or on a turning plane and then be unrolled starting from the external ends.

2 - Check the minimum allowed bending radius of the chosen cable and compare it with the bending radius of the chain. For a correct installation, the last mentioned should be larger compared to the bending radius of the cable.

3 - There must be at least 10%-20% free space between the cable diameters and the internal dimensions of the chain. Install the cables/hoses symmetrically in the chain with the larger and heavier towards the outside and the smaller and lighter in the centre. Further, it is necessary to separate the cables using the separators, available for all the chains, or the split cross pieces with holes done in the appropriate sizes according to the external diameter of the cable. (Figure 2) It is important, when having high velocities and accelerations, to avoid the superimposing of the cables. Avoid contact between the different cables and hoses internally in the chain.

4 - The cables/hoses must be placed and installed in such a way so that they can move freely side ways during the movement of the chain and also so that in the bending curve they do not cause any tension or traction on the cable chain.

5 - The chains must be installed and fixed using the appropriate accessories at the extremities of the movement of the chain (the mobile point). For chains that work in the self-supported state it is suggested that the fixed extremity of the chain (fixed point) should be fixed, however this shouldn't be done on applications with long travel distances, where the chain slides on itself in the guide channel.

6 - Verify the installation of the cables in the chains with Brevetti Stendalto's technical office or request a personalised project by filling in the appropriate module

Figure 1

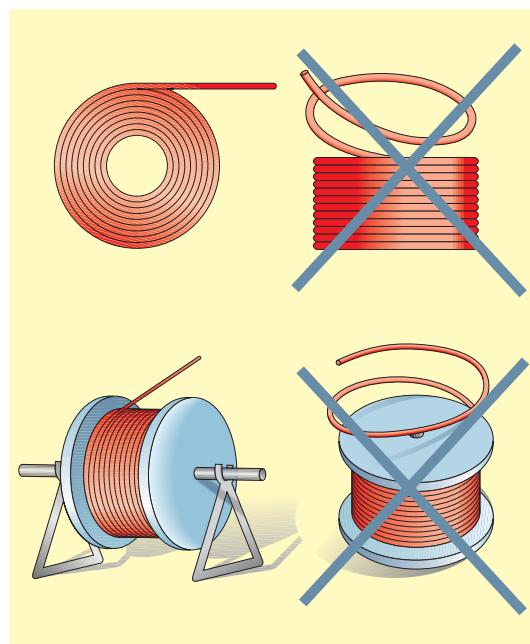
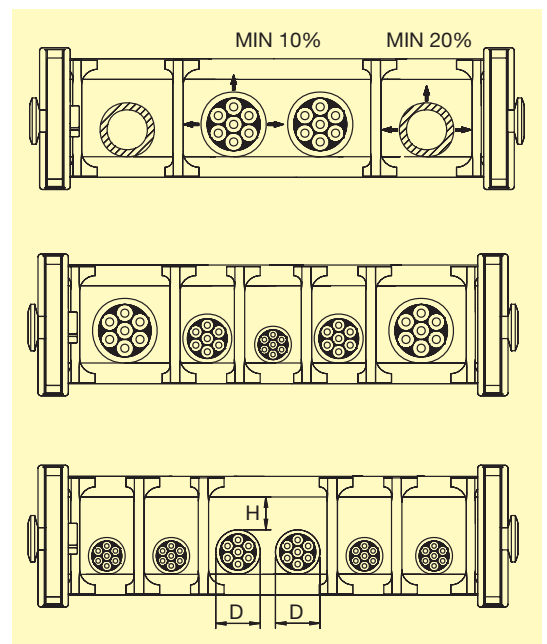


Figure 2



Steel cable clamps

C-profile rail

Part.no	Lenght
6000001	Standard 2 m; available on request with different lenght

Single clamp in galvanized steel with plastic pressure cradle

Part.no	Diameter mm	L	H
6000614	06-14	18	62
6001418	14-18	22	66
6001822	18-22	26	70
6002226	22-26	30	74
6002630	26-30	34	78
6003034	30-34	38	82
6003438	34-38	42	86
6003842	38-42	46	90

Double clamp in galvanized steel with plastic pressure cradle

Part.no	Diameter mm	L	H
6021014	10-14	18	78
6021418	14-18	22	86
6021822	18-22	26	94
6022226	22-26	30	103
6022630	26-30	34	112
6023034	30-34	38	120
6023438	34-38	42	129
6023842	38-42	46	138

Triple clamp in galvanized steel with plastic pressure cradle

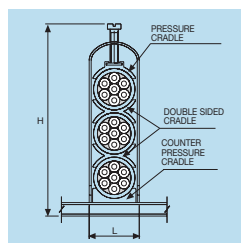
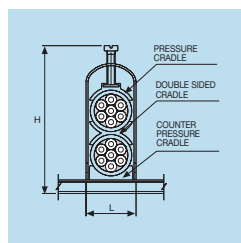
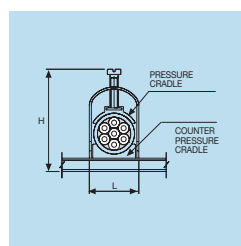
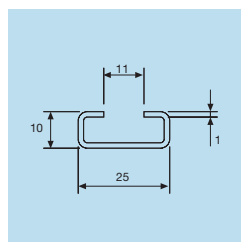
Part.no	Diameter mm	L	H
6031012	10-12	16	87
6031214	12-14	18	93
6031416	14-16	20	99
6031618	16-18	22	105
6031820	18-20	24	111
6032022	20-22	26	117
6032224	22-24	28	123
6032426	24-26	30	129
6032628	26-28	34	135
6032830	28-30	38	141

Counter pressure cradle

Part.no	Diameter mm
6100612	06-12
6101214	12-14
6101416	14-16
6101618	16-18
6101822	18-22
6102226	22-26
6102630	26-30
6103034	30-34
6103438	34-38
6103842	38-42

Doublesided cradle

Part.no	Diameter mm
6201012	10-12
6201214	12-14
6201416	14-16
6201618	16-18
6201820	18-20
6202022	20-22
6202224	22-24
6202426	24-26
6202628	26-28
6202830	28-30
6203034	30-34
6203438	34-38
6203842	38-42



Steel Cable Clamps

The steel cable clamps connect the cable to the extremities of the chain.

The plastic counter pressure cradle with the integrated screw tighten and fix the cable.

The smooth surface and the design of the cradles guarantee high stability and avoid any damage to the cables

Special versions are available on request.

Fixing set is composed by the following parts:

- Steel clamps with pressure cradle
- Counter pressure cradle
- Doublesided cradle for double and triple clamps
- Steel mounting rails

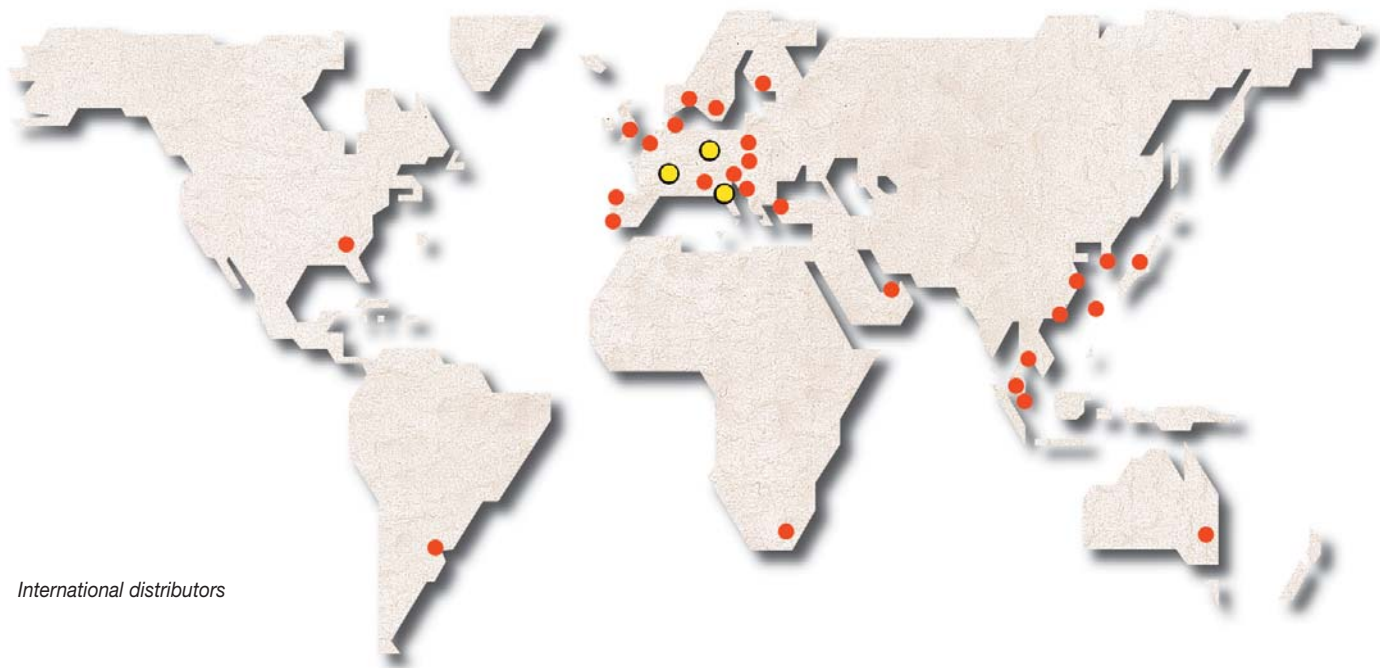


Nylon tie-wraps

As an alternative to steel cable clamps, Brevetti Stendalto offers the possibility to mount on the end-brackets nylon tie-wraps, which allow a more flexible cable fixing. For further information on this system, please consult our cable chain catalogue.



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