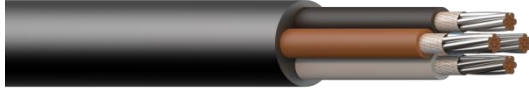


## BU 1kV P17/P110 Power cable, Unarmoured



Fire resistant, flame retardant halogen-free power cable.

# BU 0,6/1(1,2)kV

MGT/EPR/EVA

BU 1kV      NEK TS 606 Code P110  
 BU M 1kV    NEK TS 606 Code P17/P110

Operating temperature                   : 90°C  
 Operating Voltage                        : 0,6/1(1,2)kV

### Standards applied

### Application

Fixed installation for power, control and lighting in safe areas, emergency and critical systems where requirement for fire resistance exists.

BU M 1kV meets the Oil & Mud resistance requirement in NEK TS 606:2016.

These cables are double-insulated and Single core cables are used as battery cables.

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1,-2,-21	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

### Construction

	Code Letter	
<b>Conductor</b>		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
<b>Insulation</b>	<b>B</b>	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
<b>Lay up / Shielding</b>		Cores laid up in concentric layers
<b>Inner covering</b>		No inner covering. (Additional tapes may be applied)
<b>Armour/screen</b>		No armour.
<b>Outer sheath</b>	<b>U</b>	Flame retardant, halogen-free thermoset compound, SHF2 (IEC 60092-360)
<b>Marking text (example)</b>		"meter" "year/week" DRAKA 01 Part no. <SAP code> BU M 0,6/1kV P17/P110 1 x 70 mm <sup>2</sup> IEC 60092-353 IEC 60331-1*) or IEC 60331-2*) IEC 60331-21**) IEC 60332-3-22 Production no. <Prod.ordre no.>
<b>Manufacturing unit</b>		DRAKA 01 = Prysmian Group Norge AS
<b>Outer sheath colour</b>		Black

\*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm  
 \*\*) IEC 60331-21 also at enhanced temperature 1000°C for 180 minutes

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## BU 1kV P17/P110 Power cable, Unarmoured

### Core identification power cables

Single core – Black

Two cores - Blue – Brown

Three cores - Brown - Black – Grey

Four cores - Blue - Brown - Black – Grey

Five cores - Blue - Brown - Black - Grey – Black

Seven cores and above - White with black numbers

Two cores + earth (3G) - Yellow/green - Blue – Brown

Three cores + earth (4G) - Yellow/green - Brown - Black – Grey

Four cores + earth (5G) - Yellow/green - Blue - Brown - Black – Grey

G / X in cable description - G = One of the cores are yellow/green - X = no yellow/green core

Core identification - to HD308S2 - and IEC 60445 Ed 5.0 2010-08

### Range and dimensions

Number of elements	Cross section core, mm <sup>2</sup>	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	10	4.0	1.0	1	8.5 ± 0.5	157	87
1	16	5.05	1.0	1.1	9.5 ± 0.5	223	139
1	25	6.3	1.2	1.1	11.5 ± 0.8	331	220
1	35	7.4	1.2	1.2	12.5 ± 0.8	434	302
1	50	8.75	1.4	1.2	14.5 ± 0.8	577	410
1	70	10.6	1.4	1.3	16.5 ± 0.8	809	608
1	95	12.35	1.6	1.4	19 ± 0.8	1070	819
1	120	14.0	1.6	1.4	20.5 ± 1	1338	1059
1	150	15.4	1.8	1.5	22.5 ± 1	1618	1284
1	185	17.3	2.0	1.6	24.5 ± 1	1989	1595
1	240	19.85	2.2	1.7	28 ± 1	2593	2105
2	1.5	1.6	1.0	1.1	9.5 ± 0.5	138	27
4	1.5	1.6	1.0	1.1	11 ± 0.8	195	53
7	1.5	1.6	1.0	1.2	13.5 ± 0.8	295	93
12	1.5	1.6	1.0	1.4	18 ± 0.8	470	159
19	1.5	1.6	1.0	1.5	21 ± 1	705	252
24	1.5	1.6	1.0	1.6	25 ± 1	885	319
3G	1.5	1.6	1.0	1.1	10 ± 0.8	161	40
2	2.5	2.0	1.0	1.1	10.5 ± 0.8	173	43
3	2.5	2.0	1.0	1.1	11 ± 0.8	204	64
7	2.5	2.0	1.0	1.3	15 ± 0.8	385	149
3G	2.5	2.0	1.0	1.1	11 ± 0.8	204	64
4G	2.5	2.0	1.0	1.2	12.5 ± 0.8	252	85
5G	2.5	2.0	1.0	1.2	13.5 ± 0.8	309	106
2	4	2.5	1.0	1.1	11.5 ± 0.8	223	69
3	4	2.5	1.0	1.2	12.5 ± 0.8	277	103
3G	4	2.5	1.0	1.2	12.5 ± 0.8	277	103
4G	4	2.5	1.0	1.2	13.5 ± 0.8	337	138
5G	4	2.5	1.0	1.3	15.5 ± 0.8	418	172
2	6	3.1	1.0	1.2	13 ± 0.8	297	108
3	6	3.1	1.0	1.2	13.5 ± 0.8	363	162
4G	6	3.1	1.0	1.3	15.5 ± 0.8	454	216
2	10	4.0	1.0	1.2	14.5 ± 0.8	411	175
3	10	4.0	1.0	1.3	16 ± 0.8	535	272
4G	10	4.0	1.0	1.3	17.5 ± 0.8	645	349

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## BU 1kV P17/P110 Power cable, Unarmoured

Number of elements	Cross section core, mm <sup>2</sup>	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
3	16	5.05	1.0	1.4	18.5 ± 0.8	743	419
4G	16	5.05	1.0	1.4	20 ± 1	936	559
4G	25	6.3	1.2	1.6	25 ± 1	1455	882
4G	35	7.4	1.2	1.7	27.5 ± 1	1888	1211
4	50	8.75	1.4	1.8	31.5 ± 1.5	2506	1645
3	70	10.6	1.4	1.9	33 ± 1.5	2760	1829
3	120	14.0	1.6	2.1	41.5 ± 2	4607	3187
4G	150	15.4	1.8	2.5	51 ± 2.5	7220	5149

### Ordering information

Part number	Description	Sheath Colour	GTIN 1m	EL No.
20130809	BU M 0.6/1kV 1X 10mm <sup>2</sup> P17/P110 BK	BLACK	7021528012149	-
20157866	BU M 0.6/1kV 1X 16mm <sup>2</sup> P17/P110 BK	BLACK	7021528012002	-
20147973	BU M 0.6/1kV 1X 25mm <sup>2</sup> P17/P110 BK	BLACK	7021528012019	1061201
20110766	BU M 0.6/1kV 1X 35mm <sup>2</sup> P17/P110 BK	BLACK	7021528012026	-
20121092	BU M 0.6/1kV 1X 50mm <sup>2</sup> P17/P110 BK	BLACK	7021528012033	1061203
20110767	BU M 0.6/1kV 1X 70mm <sup>2</sup> P17/P110 BK	BLACK	7021528012040	-
20139920	BU M 0.6/1kV 1X 95mm <sup>2</sup> P17/P110 BK	BLACK	7021528012057	1061205
20121093	BU M 0.6/1kV 1X 120mm <sup>2</sup> P17/P110 BK	BLACK	7021528012064	-
20109454	BU M 0.6/1kV 1X 150mm <sup>2</sup> P17/P110 BK	BLACK	7021528012071	1061207
20132893	BU M 0.6/1kV 1X 185mm <sup>2</sup> P17/P110 BK	BLACK	7021528012088	-
20140646	BU M 0.6/1kV 1X 240mm <sup>2</sup> P17/P110 BK	BLACK	7021528012095	-
20109455	BU M 0.6/1kV 2X 1.5mm <sup>2</sup> P17/P110 BK	BLACK	7021528012156	-
20326952	BU M 0.6/1kV 4X 1.5mm <sup>2</sup> P17/P110 BK	BLACK	7021528012194	-
20169924	BU M 0.6/1kV 7X 1.5mm <sup>2</sup> P17/P110 BK	BLACK	7021528012255	-
20155435	BU M 0.6/1kV 12X 1.5mm <sup>2</sup> P17/P110 BK	BLACK	7021528012262	-
20204199	BU M 0.6/1kV 19X 1.5mm <sup>2</sup> P17/P110 BK	BLACK	7021528012286	-
20326953	BU M 0.6/1kV 24X 1.5mm <sup>2</sup> P17/P110 BK	BLACK	7021528012293	-
20112689	BU M 0.6/1kV 3G 1.5mm <sup>2</sup> P17/P110 BK	BLACK	7021528012163	-
20170925	BU M 0.6/1kV 2X 2.5mm <sup>2</sup> P17/P110 BK	BLACK	7021528012330	-
20134055	BU M 0.6/1kV 3X 2.5mm <sup>2</sup> P17/P110 BK	BLACK	7021528012361	-
20172950	BU M 0.6/1kV 7X 2.5mm <sup>2</sup> P17/P110 BK	BLACK	7021528012446	-
20096771	BU M 0.6/1kV 3G 2.5mm <sup>2</sup> P17/P110 BK	BLACK	7021528012347	-
20117121	BU M 0.6/1kV 4G 2.5mm <sup>2</sup> P17/P110 BK	BLACK	7021528012378	-
20131218	BU M 0.6/1kV 5G 2.5mm <sup>2</sup> P17/P110 BK	BLACK	7021528012408	-
20154740	BU 0,6/1KV 2X 4 MM2 P17/P110 BK	BLACK	7021528012521	-
20109456	BU 0,6/1KV 3X 4 MM2 P17/P110 BK	BLACK	7021528012538	-
20184101	BU M 0.6/1kV 3G 4mm <sup>2</sup> P17/P110 BK	BLACK	7021528012545	-
20109457	BU M 0.6/1kV 4G 4mm <sup>2</sup> P17/P110 BK	BLACK	7021528012569	-
20149812	BU M 0.6/1kV 5G 4mm <sup>2</sup> P17/P110 BK	BLACK	7021528012583	-
20109458	BU 0,6/1KV 2X 6 MM2 P17/P110 BK	BLACK	7021528012590	-
20169925	BU M 0.6/1kV 3X 6mm <sup>2</sup> P17/P110 BK	BLACK	7021528012613	-

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## BU 1kV P17/P110 Power cable, Unarmoured

Part number	Description	Sheath Colour	GTIN 1m	EL No.
20109459	BU M 0.6/1kV 4G 6mm <sup>2</sup> P17/P110 BK	BLACK	7021528012620	-
20184612	BU M 0.6/1kV 2X 10mm <sup>2</sup> P17/P110 BK	BLACK	7021528012668	-
20109460	BU M 0.6/1kV 4G 10mm <sup>2</sup> P17/P110 BK	BLACK	7021528012699	-
20121091	BU M 0.6/1kV 3X 16mm <sup>2</sup> P17/P110 BK	BLACK	7021528012736	-
20113144	BU M 0.6/1kV 4G 16mm <sup>2</sup> P17/P110 BK	BLACK	7021528012750	-
20296759	BU M 0.6/1kV 4G 25mm <sup>2</sup> P17/P110 BK	BLACK	7021528012826	-
20109461	BU M 0.6/1kV 4G 35mm <sup>2</sup> P17/P110 BK	BLACK	7021528012897	-
20154741	BU 0,6/1KV 4X 50 mm <sup>2</sup> P17/P110 BK	BLACK	7021528012934	-
20154742	BU 0,6/1KV 3X 70 mm <sup>2</sup> P17/P110 BK	BLACK	7021528012941	-
20194465	BU 0,6/1KV 3X 120 mm <sup>2</sup> P17/P110 BK	BLACK	7021528012972	-
20109462	BU M 0.6/1kV 4G 150mm <sup>2</sup> P17/P110 BK	BLACK	7021528013078	-

### Electrical values power cables

Number of elements	Cross section core, mm <sup>2</sup>	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	10	1.84	2.35	0.107	0.128	72	1400
1	16	1.16	1.48	0.101	0.121	96	2240
1	25	0.734	0.936	0.097	0.116	127	3500
1	35	0.529	0.675	0.094	0.112	157	4900
1	50	0.391	0.499	0.092	0.111	196	7000
1	70	0.27	0.344	0.088	0.106	242	9800
1	95	0.195	0.249	0.087	0.104	293	13300
1	120	0.154	0.196	0.084	0.101	339	16800
1	150	0.126	0.161	0.084	0.101	389	21000
1	185	0.1	0.128	0.083	0.100	444	25900
1	240	0.0762	0.128	0.082	0.099	522	33600
2	1.5	12.2	15.6	0.115	0.138	20	210
4	1.5	12.2	15.6	0.115	0.138	16	210
7	1.5	12.2	15.6	0.115	0.138	12	210
12	1.5	12.2	15.6	0.115	0.138	10	210
19	1.5	12.2	15.6	0.115	0.138	8.5	210
24	1.5	12.2	15.6	0.115	0.138	8	210
3G	1.5	12.2	15.6	0.115	0.138	20	210
2	2.5	7.56	9.64	0.107	0.129	26	350
3	2.5	7.56	9.64	0.107	0.129	21	350
7	2.5	7.56	9.64	0.107	0.129	16	350
3G	2.5	7.56	9.64	0.107	0.129	26	350
4G	2.5	7.56	9.64	0.107	0.129	21	350
5G	2.5	7.56	9.64	0.107	0.129	21	350
3	4	4.7	5.99	0.100	0.120	28	560
3G	4	4.7	9.64	0.100	0.120	34	560
4G	4	4.7	9.64	0.100	0.120	28	560

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## BU 1kV P17/P110 Power cable, Unarmoured

Number of elements	Cross section core, mm <sup>2</sup>	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
2	6	3.11	3.97	0.094	0.113	44	840
3	6	3.11	3.97	0.094	0.113	36	840
4G	6	3.11	3.97	0.094	0.113	36	840
2	10	1.84	3.97	0.088	0.105	61	1400
3	10	1.84	2.35	0.088	0.105	50	1400
4G	10	1.84	2.35	0.088	0.105	50	1400
3	16	1.16	1.48	0.083	0.099	67	2240
4G	16	1.16	1.48	0.083	0.099	67	2240
4G	25	0.734	0.936	0.082	0.098	89	3500
4G	35	0.529	0.675	0.079	0.095	110	4900
4	50	0.391	0.499	0.078	0.094	137	7000
3	120	0.154	0.196	0.073	0.088	237	16800
4G	150	0.126	0.161	0.073	0.088	272	21000

### Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

### Installation recommendations

Overall diameter of cable (D)	Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
≤25 mm	8 x D	4 x D	50 N x total cross section (mm <sup>2</sup> ) of conductors	-20°C
>25 mm		6 x D		

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