

BU 0,6/1(1,2)kV P17 Power cable, Unarmoured



Fire resistant, flame retardant halogen-free power cable. Mud resistant

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

MGT/EPR/EVA

NEK TS 606 CodeP17

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

Application

Fixed installation for power, control and lighting in safe areas, emergency and critical systems where requirement for fire resistance exists. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the MUD resistance requirement in NEK TS 606:2009. These cables are double-insulated and Single core cables are used as battery cables.

Standards applied

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	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	B	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering		No inner covering. (Additional tapes may be applied)
Armour/screen		No armour.
Outer sheath	U	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 BU 0,6/1kV P17 1 x 70 mm ² IEC 60092-353 IEC 60331-1*) or IEC 60331-2*) IEC 60331-21**) IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		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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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 ²	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	4.05	1.0	1	8.5 ± 0.5	165	91
1	16	5.15	1.0	1.1	10 ± 0.8	235	146
1	25	6.45	1.2	1.1	11.5 ± 0.8	350	231
1	35	7.65	1.2	1.2	13 ± 0.8	460	314
1	50	9.0	1.4	1.2	15 ± 0.8	620	434
1	70	10.85	1.4	1.3	17 ± 0.8	850	632
1	95	12.60	1.6	1.4	19.5 ± 0.8	1120	847
1	120	14.20	1.6	1.4	21 ± 1	1380	1082
1	150	15.90	1.8	1.5	23.5 ± 1	1730	1360
1	185	17.70	2.0	1.6	25.5 ± 1	2100	1664
1	240	20.15	2.2	1.7	29 ± 1	2700	2165
2	1.5	1.6	1.0	1.1	10 ± 0.8	150	28
3	1.5	1.6	1.0	1.1	10.5 ± 0.8	175	42
7	1.5	1.6	1.0	1.2	13 ± 0.8	310	98
19	1.5	1.6	1.0	1.5	21 ± 1	740	266
3G	1.5	1.6	1.0	1.1	10.5 ± 0.8	175	42
7G	1.5	1.6	1.0	1.2	13 ± 0.8	310	98
2	2.5	2.0	1.0	1.1	11 ± 0.8	185	46
3	2.5	2.0	1.0	1.2	11.5 ± 0.8	220	69
7	2.5	2.0	1.0	1.3	14.5 ± 0.8	400	161
12	2.5	2.0	1.0	1.4	19.5 ± 0.8	640	276
19	2.5	2.0	1.0	1.6	23 ± 1	970	436
3G	2.5	2.0	1.0	1.2	11.5 ± 0.8	220	69
4G	2.5	2.0	1.0	1.2	13 ± 0.8	265	92
5G	2.5	2.0	1.0	1.3	14.5 ± 0.8	340	115
3	4	2.55	1.0	1.2	13 ± 0.8	295	110
3G	4	2.55	1.0	1.2	13 ± 0.8	295	110
4G	4	2.55	1.0	1.3	14.5 ± 0.8	370	147
2	6	3.15	1.0	1.2	13.5 ± 0.8	310	110
3	6	3.15	1.0	1.2	14.5 ± 0.8	380	164
4G	6	3.15	1.0	1.3	16 ± 0.8	480	219
5G	6	3.15	1.0	1.4	18 ± 0.8	600	273
2	10	4.05	1.0	1.3	15.5 ± 0.8	440	182
3	10	4.05	1.0	1.3	16.5 ± 0.8	550	272
4G	10	4.05	1.0	1.4	18.5 ± 0.8	690	363
3	16	5.15	1.0	1.4	19 ± 0.8	790	438

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4G	16	5.15	1.0	1.5	21.5 ± 1	1000	584
3	25	6.45	1.2	1.5	23 ± 1	1190	694
3G	25	6.45	1.2	1.5	23 ± 1	1190	694
3	35	7.65	1.2	1.7	26 ± 1	1550	942
4G	35	7.65	1.2	1.7	29 ± 1	2000	1256
3	50	9.0	1.4	1.9	30 ± 1.5	2120	1306
3	150	15.9	1.8	2.3	48 ± 2	5910	4091
4G	150	15.9	1.8	2.5	53.5 ± 2.5	7750	5455

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20130809		BU 0.6/1kV 1X 10mm ² P17	BLACK	-	7021528012149	-
	801200	BU 0.6/1kV 1X 16mm ² P17	BLACK	-	7021528012002	-
	801201	BU 0.6/1kV 1X 25mm ² P17	BLACK	-	7021528012019	1061201
20110766		BU 0.6/1kV 1X 35mm ² P17	BLACK	-	7021528012026	-
20121092		BU 0.6/1kV 1X 50mm ² P17	BLACK	-	7021528012033	1061203
20110767		BU 0.6/1kV 1X 70mm ² P17	BLACK	-	7021528012040	-
20139920		BU 0.6/1kV 1X 95mm ² P17	BLACK	-	7021528012057	1061205
20121093		BU 0.6/1kV 1X 120mm ² P17	BLACK	-	7021528012064	-
20109454		BU 0.6/1kV 1X 150mm ² P17	BLACK	-	7021528012071	1061207
20132893		BU 0.6/1kV 1X 185mm ² P17	BLACK	-	7021528012088	-
	801209	BU 0.6/1kV 1X 240mm ² P17	BLACK	-	7021528012095	-
20109455		BU 0.6/1kV 2X 1.5mm ² P17	BLACK	-	7021528012156	-
	801218	BU 0.6/1kV 3X 1.5mm ² P17	BLACK	-	7021528012187	-
	801225	BU 0.6/1kV 7X 1.5mm ² P17	BLACK	-	7021528012255	-
	801228	BU 0.6/1kV 19X 1.5mm ² P17	BLACK	-	7021528012286	-
20112689		BU 0.6/1kV 3G 1.5mm ² P17	BLACK	-	7021528012163	-
	801224	BU 0.6/1kV 7G 1.5mm ² P17	BLACK	-	7021528012248	-
	801233	BU 0.6/1kV 2X 2.5mm ² P17	BLACK	-	7021528012330	-
20134055		BU 0.6/1kV 3X 2.5mm ² P17	BLACK	-	7021528012361	-
	801244	BU 0.6/1kV 7X 2.5mm ² P17	BLACK	-	7021528012446	-
	801245	BU 0.6/1kV 12X 2.5mm ² P17	BLACK	-	7021528012453	-
	801246	BU 0.6/1kV 19X 2.5mm ² P17	BLACK	-	7021528012460	-
20096771		BU 0.6/1kV 3G 2.5mm ² P17	BLACK	Yes	7021528012347	-
20117121		BU 0.6/1kV 4G 2.5mm ² P17	BLACK	-	7021528012378	-
20131218		BU 0.6/1kV 5G 2.5mm ² P17	BLACK	-	7021528012408	-
20109456		BU 0,6/1KV 3X 4 MM2 P17	BLACK	-	7021528012538	-
	801254	BU 0.6/1kV 3G 4mm ² P17	BLACK	-	7021528012545	-
2019457		BU 0.6/1kV 4G 4mm ² P17	BLACK	-	7021528012569	-
20109458		BU 0,6/1KV 2X 6 MM2 P17	BLACK	-	7021528012590	-
	801261	BU 0.6/1kV 3X 6mm ² P17	BLACK	-	7021528012613	-
20109459		BU 0.6/1kV 4G 6mm ² P17	BLACK	-	7021528012620	-
	801263	BU 0.6/1kV 5G 6mm ² P17	BLACK	-	7021528012637	-
	801266	BU 0.6/1kV 2X 10mm ² P17	BLACK	-	7021528012668	-
	801267	BU 0.6/1kV 3X 10mm ² P17	BLACK	-	7021528012675	-

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New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20109460		BU 0.6/1kV 4G 10mm ² P17	BLACK	-	7021528012699	-
20121091		BU 0.6/1kV 3X 16mm ² P17	BLACK	-	7021528012736	-
20113144		BU 0.6/1kV 4G 16mm ² P17	BLACK	-	7021528012750	-
	801279	BU 0.6/1kV 3X 25mm ² P17	BLACK	-	7021528012798	-
	801280	BU 0.6/1kV 3G 25mm ² P17	BLACK	-	7021528012804	-
	801286	BU 0,6/1KV 3X 35 mm ² P17	BLACK	-	7021528012866	-
20109461		BU 0.6/1kV 4G 35mm ² P17	BLACK	-	7021528012897	-
	801292	BU 0,6/1KV 3X 50 mm ² P17	BLACK	-	7021528012927	-
	801298	BU 0,6/1KV 3X 150 mm ² P17	BLACK	-	702152801298	-
20109462		BU 0.6/1kV 4G 150mm ² P17	BLACK	-	7021528013078	-

Electrical values power cables

Number of elements	Cross section core, mm ²	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	0.1	0.12	96	2240
1	25	0.734	0.936	0.096	0.115	127	3500
1	35	0.529	0.675	0.093	0.111	157	4900
1	50	0.391	0.499	0.091	0.11	196	7000
1	70	0.27	0.344	0.087	0.105	242	9800
1	95	0.195	0.249	0.086	0.103	293	13300
1	120	0.154	0.196	0.084	0.1	339	16800
1	150	0.126	0.161	0.084	0.1	389	21000
1	185	0.1	0.128	0.083	0.099	444	25900
1	240	0.0762	0.128	0.082	0.098	522	33600
2	1.5	12.2	15.6	0.11	0.138	20	210
3	1.5	12.2	15.6	0.11	0.138	16	210
7	1.5	12.2	15.6	0.11	0.138	12	210
19	1.5	12.2	15.6	0.11	0.138	8.5	210
3G	1.5	12.2	15.6	0.11	0.138	20	210
7G	1.5	12.2	15.6	0.11	0.138	12.5	210
2	2.5	7.56	9.64	0.103	0.129	26	350
3	2.5	7.56	9.64	0.103	0.129	21	350
7	2.5	7.56	9.64	0.103	0.129	15.5	350
12	2.5	7.56	15.6	0.103	0.129	13	350
19	2.5	7.56	15.6	0.103	0.129	11	350
3G	2.5	7.56	9.64	0.103	0.129	26	350
4G	2.5	7.56	9.64	0.103	0.129	21	350
5G	2.5	7.56	9.64	0.103	0.129	21	350
3	4	4.7	5.99	0.096	0.120	28	560
3G	4	4.7	9.64	0.096	0.120	34	560
4G	4	4.7	9.64	0.096	0.120	28	560
2	6	3.11	3.97	0.09	0.112	44	840
3	6	3.11	3.97	0.09	0.112	36	840
4G	6	3.11	3.97	0.09	0.112	36	840

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Number of elements	Cross section core, mm ²	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
5G	6	3.11	3.97	0.09	0.112	36	840
2	10	1.84	3.97	0.084	0.105	61	1400
3	10	1.84	2.35	0.084	0.105	50	1400
4G	10	1.84	2.35	0.084	0.105	50	1400
3	16	1.16	1.48	0.08	0.099	67	2240
4G	16	1.16	1.48	0.08	0.099	67	2240
3	25	0.734	0.936	0.079	0.098	89	3500
3G	25	0.734	0.936	0.079	0.098	108	3500
3	35	0.529	0.675	0.076	0.094	110	4900
4G	35	0.529	0.675	0.076	0.094	110	4900
3	50	0.391	0.499	0.076	0.093	137	7000
3	150	0.126	0.161	0.072	0.088	272	21000
4G	150	0.126	0.161	0.072	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 /mm ²	-20°C
>25 mm		6 x D		