

## RU 0,6/1(1,2)kV P18 Power cable, Unarmoured



Flame retardant halogen-free power cable. Mud resistant

**RU 0,6/1(1,2)kV**  
EPR/EVA

NEK TS 606 CodeP18

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

### Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-351	- Insulation
IEC 60092-359	- Sheath
IEC 60332-1	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

### Application

Fixed installation for power, control and lighting in both EX- and safe areas, general purposes. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the OIL & MUD resistance requirement in NEK TS 606:2009. These cables are double-insulated and Single core cables are used as battery cables.

### Construction

	Code Letter	
<b>Conductor</b>		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
<b>Insulation</b>	R	EP-rubber, IEC 60092-351 (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>	U	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-359)
<b>Marking text</b>		E.g. "meter" "year" DRAKA 01 RU 0,6/1KV P18 3 x 2,5 mm <sup>2</sup> IEC 60332-3-22
<b>Manufacturing unit</b>		DRAKA 01 = Draka Norsk Kabel,
<b>Outer sheath colour</b>		Black

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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 60446:2007-05

### 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	25	6.45	1.2	1.1	11.5 ± 0.8	340	231
1	50	9.0	1.4	1.2	14.5 ± 0.8	610	434
1	70	10.9	1.4	1.3	16.5 ± 0.8	820	620
1	95	12.60	1.6	1.4	19 ± 0.8	1110	847
1	120	14.20	1.6	1.4	20.5 ± 1	1370	1082
1	150	15.90	1.8	1.5	23 ± 1	1710	1357
1	185	17.70	2.0	1.6	25.5 ± 1	2090	1664
1	240	20.15	2.2	1.7	28.5 ± 1	2680	2165
1	300	22.60	2.4	1.8	31.5 ± 1.5	3370	2757
2	1.5	1.6	1.0	1.1	9.5 ± 0.5	135	28
3G	1.5	1.6	1.0	1.1	10 ± 0.8	160	42
3	1.5	1.6	1.0	1.1	10 ± 0.8	160	42
4G	1.5	1.6	1.0	1.1	11 ± 0.8	190	56
4	1.5	1.6	1.0	1.1	11 ± 0.8	190	56
7G	1.5	1.6	1.0	1.2	13.5 ± 0.8	290	98
5	1.5	1.6	1.0	1.2	12 ± 0.8	240	70
7	1.5	1.6	1.0	1.2	13.5 ± 0.8	290	98
12	1.5	1.6	1.0	1.4	18 ± 0.8	470	168
19	1.5	1.6	1.0	1.5	21 ± 1	700	266
24	1.5	1.6	1.0	1.6	25 ± 1	890	333
2	2.5	2.0	1.0	1.1	10.5 ± 0.8	170	46
3G	2.5	2.0	1.0	1.1	11 ± 0.8	205	69
3	2.5	2.0	1.0	1.1	11 ± 0.8	205	69
4G	2.5	2.0	1.0	1.2	12 ± 0.8	255	92
4	2.5	2.0	1.0	1.2	12 ± 0.8	250	92
5G	2.5	2.0	1.0	1.2	13.5 ± 0.8	320	115
5	2.5	2.0	1.0	1.2	13.5 ± 0.8	320	115
7	2.5	2.0	1.0	1.3	14.5 ± 0.8	390	160
2	4	2.55	1.0	1.2	11.5 ± 0.8	225	74
3G	4	2.55	1.0	1.2	12 ± 0.8	275	110
3	4	2.55	1.0	1.2	12 ± 0.8	275	110
4G	4	2.55	1.0	1.2	13.5 ± 0.8	340	147
4	4	2.55	1.0	1.2	13.5 ± 0.8	340	147
5G	4	2.55	1.0	1.3	15 ± 0.8	410	183
2	6	3.15	1.0	1.2	12.5 ± 0.8	290	109
3G	6	3.15	1.0	1.2	13.5 ± 0.8	360	164
3	6	3.15	1.0	1.2	13.5 ± 0.8	360	164
4	6	3.15	1.0	1.3	15 ± 0.8	450	219
5G	6	3.15	1.0	1.3	16.5 ± 0.8	550	273
4G	6	3.15	1.0	1.3	15 ± 0.8	450	219
2	10	4.05	1.0	1.2	14.5 ± 0.8	410	181

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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	10	4.05	1.0	1.3	15.5 ± 0.8	530	272
4G	10	4.05	1.0	1.3	17.5 ± 0.8	660	363
5G	10	4.05	1.0	1.4	19 ± 0.8	820	453
3	16	5.15	1.0	1.4	18.5 ± 0.8	780	438
4	16	5.15	1.0	1.4	20 ± 1	950	579
3G	16	5.15	1.0	1.4	18.5 ± 0.8	780	438
4G	16	5.15	1.0	1.4	20 ± 1	980	584
5G	16	5.15	1.0	1.5	22.5 ± 1	1200	730
3	25	6.45	1.2	1.5	22.5 ± 1	1170	694
4	25	6.45	1.2	1.6	24.5 ± 1	1420	916
4G	25	6.45	1.2	1.6	25 ± 1	1500	925
2	35	7.65	1.2	1.5	23 ± 1	1150	618
3	35	7.65	1.2	1.6	25 ± 1	1520	943
4G	35	7.65	1.2	1.7	28 ± 1	1950	1257
5G	35	7.65	1.2	1.8	31 ± 1.5	2370	1571
3	50	9.0	1.4	1.7	29.5 ± 1	2090	1306
5G	50	9.0	1.4	2	36.5 ± 1.5	3310	2177
3	70	10.85	1.4	1.9	34 ± 1.5	2900	1900
5G	70	10.85	1.4	2.1	42 ± 2	4550	3167

### Ordering information

Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
831701	RU 0.6/1kV 1X 25mm <sup>2</sup> P18	BLACK	-	7021528317015	-
831703	RU 0.6/1kV 1X 50mm <sup>2</sup> P18	BLACK	-	7021528317039	1061403
831704	RU 0,6/1KV 1X 70 MM2 P18	BLACK	-	7021528317046	-
831705	RU 0.6/1kV 1X 95mm <sup>2</sup> P18	BLACK	-	7021528317053	-
831706	RU 0.6/1kV 1X 120mm <sup>2</sup> P18	BLACK	-	7021528317060	-
831707	RU 0.6/1kV 1X 150mm <sup>2</sup> P18	BLACK	-	7021528317077	1061407
831708	RU 0.6/1kV 1X 185mm <sup>2</sup> P18	BLACK	-	7021528317084	-
831709	RU 0.6/1kV 1X 240mm <sup>2</sup> P18	BLACK	-	7021528317091	-
831710	RU 0.6/1kV 1X 300mm <sup>2</sup> P18	BLACK	-	7021528317107	-
831715	RU 0.6/1kV 2X 1.5mm <sup>2</sup> P18	BLACK	-	7021528317152	-
831716	RU 0.6/1kV 3G 1.5mm <sup>2</sup> P18	BLACK	-	7021528317169	-
831718	RU 0.6/1kV 3X 1.5mm <sup>2</sup> P18	BLACK	-	7021528317183	-
831719	RU 0.6/1kV 4G 1.5mm <sup>2</sup> P18	BLACK	-	7021528317190	-
831721	RU 0.6/1kV 4X 1.5mm <sup>2</sup> P18	BLACK	-	7021528317213	-
831723	RU 0.6/1kV 7G 1.5mm <sup>2</sup> P18	BLACK	-	7021528317237	-
831724	RU 0.6/1kV 5X 1.5mm <sup>2</sup> P18	BLACK	-	7021528317244	-
831725	RU 0.6/1kV 7X 1.5mm <sup>2</sup> P18	BLACK	-	7021528317251	-
831726	RU 0.6/1kV 12X 1.5mm <sup>2</sup> P18	BLACK	-	7021528317268	-
831728	RU 0.6/1kV 19X 1.5mm <sup>2</sup> P18	BLACK	-	7021528317282	-
831729	RU 0,6/1KV 24X 1,5 MM2 P18	BLACK	-	7021528317299	-
831733	RU 0.6/1kV 2X 2.5mm <sup>2</sup> P18	BLACK	-	7021528317336	-
831734	RU 0.6/1kV 3G 2.5mm <sup>2</sup> P18	BLACK	-	7021528317343	1061434
831736	RU 0.6/1kV 3X 2.5mm <sup>2</sup> P18	BLACK	-	7021528317367	-
831737	RU 0.6/1kV 4G 2.5mm <sup>2</sup> P18	BLACK	-	7021528317374	1061437
831739	RU 0,6/1KV 4X 2,5 MM2 P18	BLACK	-	7021528317398	-
831740	RU 0.6/1kV 5G 2.5mm <sup>2</sup> P18	BLACK	-	7021528317404	-
831741	RU 0.6/1kV 5X 2.5mm <sup>2</sup> P18	BLACK	-	7021528317411	-
831743	RU 0,6/1KV 7X 2,5 MM2 P18	BLACK	-	7021528317435	-
831751	RU 0,6/1KV 2X 4 MM2 P18	BLACK	-	7021528317510	-
831752	RU 0.6/1kV 3G 4mm <sup>2</sup> P18	BLACK	-	7021528317527	-
831753	RU 0.6/1kV 3X 4mm <sup>2</sup> P18	BLACK	-	7021528317534	-
831754	RU 0.6/1kV 4G 4mm <sup>2</sup> P18	BLACK	-	7021528317541	-
831755	RU 0,6/1KV 4X 4 MM2 P18	BLACK	-	7021528317558	-
831756	RU 0,6/1KV 5G 4mm <sup>2</sup> P18	BLACK	-	7021528317565	-
831759	RU 0,6/1KV 2X 6 MM2 P18	BLACK	-	7021528317596	-

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Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
831760	RU 0.6/1kV 3G 6mm <sup>2</sup> P18	BLACK	-	7021528317602	-
831761	RU 0.6/1kV 3X 6mm <sup>2</sup> P18	BLACK	-	7021528317619	-
831762	RU 0.6/1kV 4X 6mm <sup>2</sup> P18	BLACK	-	7021528317626	-
831763	RU 0.6/1kV 5G 6mm <sup>2</sup> P18	BLACK	-	7021528317633	-
831764	RU 0.6/1kV 4G 6mm <sup>2</sup> P18	BLACK	-	7021528317640	1061461
831766	RU 0,6/1KV 2X 10 MM2 P18	BLACK	-	7021528317664	-
831767	RU 0.6/1kV 3X 10mm <sup>2</sup> P18	BLACK	-	7021528317671	-
831769	RU 0.6/1kV 4G 10mm <sup>2</sup> P18	BLACK	-	7021528317695	-
831770	RU 0.6/1kV 5G 10mm <sup>2</sup> P18	BLACK	-	7021528317701	-
831773	RU 0.6/1kV 3X 16mm <sup>2</sup> P18	BLACK	-	7021528317732	-
831774	RU 0,6/1KV 4X 16 MM2 P18	BLACK	-	7021528317749	-
831775	RU 0.6/1kV 3G 16mm <sup>2</sup> P18	BLACK	-	7021528317756	-
831776	RU 0.6/1kV 4G 16mm <sup>2</sup> P18	BLACK	-	7021528317763	-
831777	RU 0.6/1kV 5G 16mm <sup>2</sup> P18	BLACK	-	7021528317770	-
831780	RU 0.6/1kV 3X 25mm <sup>2</sup> P18	BLACK	-	7021528317800	-
831781	RU 0,6/1KV 4X 25 MM2 P18	BLACK	-	7021528317817	-
831782	RU 0.6/1kV 4G 25mm <sup>2</sup> P18	BLACK	-	7021528317824	-
831785	RU 0,6/1KV 2X 35 MM2 P18	BLACK	-	7021528317855	-
831786	RU 0.6/1kV 3X 35mm <sup>2</sup> P18	BLACK	-	7021528317862	-
831788	RU 0.6/1kV 4G 35mm <sup>2</sup> P18	BLACK	-	7021528317886	-
831789	RU 0.6/1kV 5G 35mm <sup>2</sup> P18	BLACK	-	7021528317893	-
831792	RU 0.6/1kV 3X 50mm <sup>2</sup> P18	BLACK	-	7021528317923	-
831796	RU 0.6/1kV 5G 50mm <sup>2</sup> P18	BLACK	-	7021528317961	-
831798	RU 0.6/1kV 3X 70mm <sup>2</sup> P18	BLACK	-	7021528317985	-
831799	RU 0.6/1kV 5G 70mm <sup>2</sup> P18	BLACK	-	7021528317992	-

### 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	25	0.734	0.499	0.089	0.107	127	3500
1	50	0.391	0.499	0.089	0.107	196	7000
1	70	0.27	0.344	0.099	0.120	242	9800
1	95	0.195	0.249	0.084	0.101	293	13300
1	120	0.154	0.196	0.082	0.099	339	16800
1	150	0.126	0.161	0.082	0.098	389	21000
1	185	0.1	0.128	0.081	0.098	444	25900
1	240	0.0762	0.0972	0.080	0.096	522	33600
1	300	0.0607	0.0774	0.080	0.096	601	42000
2	1.5	12.2	15.6	0.110	0.132	20	210
3G	1.5	12.2	15.6	0.110	0.132	20	210
3	1.5	12.2	15.6	0.110	0.132	16	210
4G	1.5	12.2	15.6	0.110	0.132	16	210
4	1.5	12.2	15.6	0.110	0.132	16	210
7G	1.5	12.2	15.6	0.110	0.132	12.5	210
5	1.5	12.2	15.6	0.110	0.132	13.5	210
7	1.5	12.2	15.6	0.110	0.132	12	210
12	1.5	12.2	15.6	0.110	0.132	10	210
19	1.5	12.2	15.6	0.110	0.132	8.5	210
24	1.5	12.2	15.6	0.110	0.132	8	210
2	2.5	7.56	9.64	0.102	0.123	26	350
3G	2.5	7.56	9.64	0.103	0.123	26	350
3	2.5	7.56	9.64	0.103	0.123	21	350
4G	2.5	7.56	9.64	0.103	0.123	21	350
4	2.5	7.56	9.64	0.103	0.123	21	350
5G	2.5	7.56	9.64	0.103	0.123	21	350
5	2.5	7.56	9.64	0.103	0.123	17.5	350
7	2.5	7.56	9.64	0.103	0.123	15.5	350

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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	4	4.7	5.99	0.096	0.115	34	560
3G	4	4.7	5.99	0.096	0.115	34	560
3	4	4.7	5.99	0.096	0.115	28	560
4G	4	4.7	5.99	0.096	0.115	28	560
4	4	4.7	5.99	0.096	0.115	28	560
5G	4	4.7	5.99	0.096	0.115	28	560
2	6	3.11	3.97	0.090	0.108	44	840
3G	6	3.11	3.97	0.090	0.108	44	840
3	6	3.11	3.97	0.090	0.108	36	840
4	6	3.11	3.97	0.090	0.108	36	840
5G	6	3.11	3.97	0.090	0.108	36	840
4G	6	3.11	3.97	0.090	0.108	36	840
2	10	1.84	2.35	0.084	0.101	61	1400
3	10	1.84	2.35	0.084	0.101	50	1400
4G	10	1.84	2.35	0.084	0.101	50	1400
5G	10	1.84	2.35	0.084	0.101	50	1400
3	16	1.16	1.48	0.080	0.096	67	2240
4	16	1.16	1.48	0.080	0.096	67	2240
3G	16	1.16	1.48	0.080	0.096	80	2240
4G	16	1.16	1.48	0.080	0.096	67	2240
5G	16	1.16	1.48	0.103	0.123	67	2240
3	25	0.734	0.936	0.079	0.095	89	3500
4	25	0.734	0.936	0.079	0.095	89	3500
4G	25	0.734	0.936	0.079	0.095	89	3500
2	35	0.529	0.675	0.076	0.092	133	4900
3	35	0.529	0.675	0.076	0.092	110	4900
4G	35	0.529	0.675	0.076	0.092	110	4900
5G	35	0.529	0.675	0.076	0.092	110	4900
3	50	0.391	0.499	0.076	0.092	137	7000
5G	50	0.391	0.499	0.076	0.092	137	7000
3	70	0.27	0.344	0.075	0.091	169	9800
5G	70	0.27	0.344	0.076	0.092	169	9800

### 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

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm <sup>2</sup>	-20°C