

Halogen-free, mud resistant MV power cable, RFOU 8,7/15(17,5)kV, P4/P11



Flame retardant halogen-free medium voltage (MV) cable. Mud resistant

RFOU 8,7/15(17,5) kV

EPR/EPR/TCWB/EVA

NEK TS 606 CodeP4/P11

Operating temperature : 90°C
Operating Voltage : 8,7/15(17,5) kV

Standards applied

Application

Fixed installation for medium voltage (MV) power in both EX- and safe areas, general purposes. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the MUD resistance requirement in NEK TS 606:2009

IEC 60092-354	- 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 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned stranded and compressed copper (STCC), IEC 60228 class 2
Conductor screen semiconductive		Semiconductive layer (EP-rubber)
Insulation	R	EP-rubber, IEC 60092-360 (EPR)
Insulation screen semiconductive		Semiconductive layer (EP-rubber)
Lay up / Shielding		Cores are laid up together. Cores are identified by Brown, Black or Grey threads under and over the metallic screen on each conductor.
Inner covering	F	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape
Armour/screen	O	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	U	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 04 RFOU 8,7/15(17,5)KV P4/P11 1 x 300/29 mm ² IEC 60332-3-22
Manufacturing unit		DRAKA 04 = Draka Industrial Cable, Germany
Outer sheath colour		Red

Range and dimensions

Number of elements	Cross section core, mm ²	Electrical Cross section braid, mm ²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm ²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	25	20	6.5	4.5	1.0	22 ± 1.0	0.4	35	1.8	28.0 ± 1.5	1370	733
1	35	20	7.4	4.5	1.0	23.0 ± 1.5	0.4	27.1	1.8	29.0 ± 1.5	1500	824
1	50	20	8.8	4.5	1.0	24.0 ± 1.5	0.4	27.1	1.9	30.5 ± 1.5	1700	978
1	70	20	10.3	4.5	1.0	26.0 ± 1.5	0.4	27.1	1.9	32.0 ± 1.5	2000	1204
1	95	20	12.1	4.5	1.2	28.0 ± 1.5	0.4	31.7	2.0	34.5 ± 2.0	2450	1500
1	120	20	13.6	4.5	1.2	29.5 ± 1.5	0.4	31.7	2.0	36.0 ± 2.0	2700	1766
1	150	20	15.1	4.5	1.2	31.0 ± 1.5	0.4	31.7	2.1	38.0 ± 2.0	3000	1793
1	185	20	16.8	4.5	1.2	33.0 ± 1.5	0.4	31.7	2.2	39.5 ± 2.5	3500	2424
1	240	25	19.1	4.5	1.2	35.0 ± 1.5	0.4	36.2	2.3	42.0 ± 2.5	4300	2996
1	300	29	21.5	4.5	1.2	37.5 ± 1.5	0.4	40.7	2.4	44.5 ± 2.5	5000	3612
1	400	30	25.6	4.5	1.5	42 ± 2.0	0.4	49.8	2.6	49.5 ± 2.5	6250	4772
3	25	35	6.5	4.5	1.4	46.5 ± 2.0	0.5	35	2.7	55 ± 3.0	4800	1864
3	35	35	7.4	4.5	1.6	49.0 ± 2.0	0.5	49.5	2.8	57.5 ± 3.0	5400	2152
3	50	40	8.8	4.5	1.6	52.0 ± 2.0	0.5	56.5	2.9	61.0 ± 3.0	6100	2667
3	70	40	10.3	4.5	1.6	55.5 ± 2.5	0.5	56.5	3.1	64.5 ± 3.0	7250	3344
3	95	55	12.1	4.5	1.6	59 ± 2.5	0.5	70.7	3.2	68.5 ± 3.0	8500	3998
3	120	60	13.6	4.5	1.6	62.5 ± 2.5	0.5	84.8	3.4	72 ± 3.5	9750	5166
3	150	80	15.1	4.5	1.8	66.0 ± 2.5	0.6	112	3.5	76.0 ± 3.5	11150	6321
3	185	95	16.8	4.5	1.8	69.5 ± 2.5	0.6	122.1	3.7	80.0 ± 4.0	13200	7606
3	240	95	19.1	4.5	1.8	74.5 ± 3.0	0.6	122.1	3.9	85.5 ± 4.0	15650	9114
3	300	95	21.5	4.5	1.8	80.0 ± 3.0	0.6	122.1	4.0	91.0 ± 4.0	17800	10420

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	804501	RFOU 8.7/15KV 1X 25/20mm ² P4/P11	RED	-	7021528045017	-
	804502	RFOU 8.7/15KV 1X 35/20mm ² P4/P11	RED	-	7021528045024	-
	804503	RFOU 8.7/15KV 1X 50/20mm ² P4/P11	RED	-	7021528045031	-
	804504	RFOU 8.7/15KV 1X 70/20mm ² P4/P11	RED	-	7021528045048	-
	804505	RFOU 8.7/15KV 1X 95/20mm ² P4/P11	RED	-	7021528045055	-
	804506	RFOU 8.7/15KV 1X 120/20mm ² P4/P11	RED	-	7021528045062	-
	804507	RFOU 8.7/15KV 1X 150/20 P4/P11	RED	-	7021528045079	-
	804508	RFOU 8.7/15KV 1X 185/20mm ² P4/P11	RED	-	7021528045086	-
	804509	RFOU 8.7/15KV 1X 240/25mm ² P4/P11	RED	-	7021528045093	-
20076154		RFOU 8.7/15KV 1X 300/29mm ² P4/P11	RED	-	7021528045109	-
	804511	RFOU 8.7/15KV 1X 400/30mm ² P4/P11	RED	-	7021528045116	-
	804521	RFOU 8.7/15KV 3X 25/35mm ² P4/P11	RED	-	7021528045215	-
	804522	RFOU 8.7/15KV 3X 35/35mm ² P4/P11	RED	-	7021528045222	-
	804523	RFOU 8.7/15KV 3X 50/40mm ² P4/P11	RED	-	7021528045239	-
	804524	RFOU 8.7/15KV 3X 70/40mm ² P4/P11	RED	-	7021528045246	-
	804525	RFOU 8.7/15KV 3X 95/55mm ² P4/P11	RED	-	7021528045253	-
	804526	RFOU 8.7/15KV 3X 120/60mm ² P4/P11	RED	-	7021528045260	-
	804527	RFOU 8.7/15KV 3X 150/80mm ² P4/P11	RED	-	7021528045277	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	804528	RFOU 8.7/15KV 3X 185/95mm ² P4/P11	RED	-	7021528045284	-
	804529	RFOU 8.7/15KV 3X 240/95mm ² P4/P11	RED	-	7021528045291	-
	804530	RFOU 8.7/15KV 3X 300/95mm ² P4/P11	RED	-	7021528045307	-

Electrical values power cables

Number of elements	Cross section core, mm ²	Electrical Cross section braid, mm ²	Conductor type 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	Capacitance per phase, nF/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	25	20	STCC	0.734	0.936	0.151	0.181	210	127	3500
1	35	20	STCC	0.529	0.675	0.145	0.174	230	157	4900
1	50	20	STCC	0.391	0.499	0.137	0.165	250	196	7000
1	70	20	STCC	0.270	0.344	0.130	0.156	280	242	9800
1	95	20	STCC	0.195	0.249	0.125	0.150	310	293	13300
1	120	20	STCC	0.154	0.196	0.120	0.144	340	339	16800
1	150	20	STCC	0.126	0.161	0.116	0.140	370	389	21000
1	185	20	STCC	0.100	0.128	0.113	0.135	400	444	25900
1	240	25	STCC	0.0762	0.0972	0.109	0.130	440	522	33600
1	300	29	STCC	0.0607	0.0774	0.105	0.126	480	601	42000
1	400	30	STCC	0.047	0.059	0.101	0.121	550	690 dc / 670 ac	56000
3	25	35	STCC	0.734	0.936	0.127	0.152	210	89	3500
3	35	35	STCC	0.529	0.675	0.122	0.146	230	110	4900
3	50	40	STCC	0.391	0.499	0.115	0.138	250	137	7000
3	70	40	STCC	0.270	0.344	0.109	0.131	280	169	9800
3	95	55	STCC	0.195	0.249	0.104	0.125	310	205	13300
3	120	60	STCC	0.154	0.196	0.100	0.121	340	237	16800
3	150	80	STCC	0.126	0.161	0.097	0.117	370	272	21000
3	185	95	STCC	0.100	0.128	0.097	0.117	400	311	25900
3	240	95	STCC	0.0762	0.0972	0.091	0.109	440	365	33600
3	300	95	STCC	0.0607	0.0774	0.088	0.106	480	421	42000

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
15 x D	9 x D	50 N /mm ²	-20°C