

Halogen-free, mud resistant MV power cable, RFOU 18/30(36)kV, P20/P22

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

RFOU 18/30(36) kV

EPR/EPR/TCWB/EVA

NEK 606 CodeP20/P22



Operating temperature : 90°C
Operating Voltage : 18/30(36) kV

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.

Standards applied

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 18/30(36)KV P20/P22 3x 120/60 mm2 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	Cross section screen, 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	50	25	8.8	8.0	1,5	32.0±1.5	0.4	36.2	2.0	38.5±2.0	2500	1119
1	70	30	10.3	8.0	1,5	33,5±2,0	0,4	36.2	2,2	40,0±3.0	3000	1463
1	95	30	12,1	8.0	1,5	35,0±2.0	0,4	40.7	2,2	42,0±3.0	3400	1698
1	120	20	13,6	8.0	1.5	37.0±2.5	0.4	40.7	2.4	44.0±3.0	3500	1939
1	150	30	15.1	8.0	1,5	39,0±2.5	0,4	45.2	2,3	45,5±3.0	3900	2280
1	185	30	16.8	8.0	1.5	40.0±2.5	0.4	49.8	2.5	47.5±3.0	4600	2675
1	240	40	19.1	8.0	1,5	42.0±2.5	0.4	49.8	2.4	50.0±3.0	5400	3250
1	300	35	21,5	8,0	1,5	45,0±2,5	0,4	54.3	2,6	53,0+,-3,5	6200	3867
3	35	45	7.4	8.0	1,8	65.0±2.5	0,6	112	3.5	74.5±3.5	7750	2879
3	70	85	10.3	8.0	1,8	70.0±2.5	0,6	122	3,7	80.5±3.5	10500	4244
3	95	90	12.1	8.0	1.8	74.0±2.5	0.6	122	3.6	85.0±3.5	11850	5088
3	120	95	13.6	8.0	2,0	78.0±2.5	0,6	122	3.8	88,0±4,0	13000	5403

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	804303	RFOU 18/30KV 1x 50/25mm ² P20/P22	RED	-	7021528043037	-
	804304	RFOU 18/30KV 1x 70/30mm ² P20/P22	RED	-	7021528043044	-
	804305	RFOU 18/30KV 1x 95/30mm ² P20/P22	RED	-	7021528043051	-
20099892		RFOU 18/30KV 1x 120/20mm ² P20/P22	RED	-	7021528043068	-
	804307	RFOU 18/30KV 1x 150/ 30mm ² P20/P22	RED	-	7021528043075	-
	804308	RFOU 18/30KV 1x 185/ 30mm ² P20/P22	RED	-	7021528043082	-
	804309	RFOU 18/30KV 1x 240/40mm ² P20/P22	RED	-	7021528043099	-
20077940		RFOU 18/30KV 1x 300/35mm ² P20/P22	RED	-	7021528043105	-
	804322	RFOU 18/30KV 3x 35/45mm ² P20/P22	RED	-	7021528043228	-
	804324	RFOU 18/30KV 3x 70/85mm ² P20/P22	RED	-	7021528043242	-
	804325	RFOU 18/30KV 3x 95/90mm ² P20/P22	RED	-	7021528043259	-
	804326	RFOU 18/30KV 3x 120/95mm ² P20/P22	RED	-	7021528043266	-

Electrical values power cables

Number of elements	Cross section core, mm ²	Cross section screen, 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	Capacitans per phase, nF/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	50	25	STCC	0.391	0.499	0.152	0.182	180	196	7000
1	70	30	STCC	0.270	0.344	0.145	0.174	190	242	9800
1	95	30	STCC	0.195	0.249	0.138	0.165	210	293	13300
1	120	20	STCC	0.154	0.193	0.133	0.160	190	339	16800
1	150	30	STCC	0.126	0.161	0.129	0.154	250	389	21000
1	185	30	STCC	0.097	0.122	0.125	0.149	265	444	25900
1	240	40	STCC	0,0762	0,0972	0.120	0.143	290	522	33600
1	300	35	STCC	0.0607	0.0774	0.115	0.135	270	601	42000
3	35	45	STCC	0.529	0.675	0.141	0.170	160	110	4900
3	70	85	STCC	0.270	0.344	0.126	0.151	190	169	9800
3	95	90	STCC	0.195	0.249	0.117	0.141	180	205	13300
3	120	95	STCC	0.154	0.196	0.115	0.135	230	237	16800

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