FlexFlame RFOU-FR 6/10(12)kV P121 Fire Resistant

Drawing for indication only

Fire Resistant halogen-free medium voltage (MV) cable. Mud resistant

RFOU-FR 6/10(12) kV

EPR/EPR/TCWB/HBC/EVA

NEK TS 606:2016 Code P121

Operating temperature : 90°C
Operating Voltage : 6/10(12) 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. Meets the MUD resistance requirement in NEK TS 606:2016.

Standards applied

IEC 60092-354	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60331-21 (830°C / 2 hours)	- Fire Resistant
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, IEC 60228 class 2
Conductor screen semiconductive		Semi-conductive layer (EP-rubber)
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Insulation screen semicoductive		Semi-conductive layer (EP-rubber) Semi-conductive tape
Metallic screen		Tinned copper wire braid
Tape over screen		PET tape + Fire Resistant tape
Lay up		Single core cables
Inner covering	**F**	Flame retardant and halogenfree extruded compound
Tape over inner covering		PET tape
Armour	**O**	Tinned annealed copper wire braid
Tape over armour		PET tape + Fire Resistant tape
Heat Block Barrier		Extruded Heat Block Compound
Tape over Heat Block Barrier		Fire Resistant tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)

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Marking text (example)		"meter" "year/week" DRAKA 01 Part no. <SAP-code> RFOU-FR 6/10(12)KV P121 1 x 120/16 mm2 IEC 60092-354 IEC 60331-21 (830 DEG. C) IEC 60332-3-22 Production no. <Production order number>
Manufacturing unit		DRAKA 01 = Prysmian Group Norge AS
Outer sheath colour		Red

Range and dimensions

Number of elements	Cross section core, mm²	Electrical Cross section braided armour, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braided armour, mm²	Thickness of Heat Block Barrier mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	95	16	12.1	3.4	1.1	25.5 ± 1	0.30	20.4	5.0	1.9	42 ± 2	3225	1296
1	120	16	13.5	3.4	1.1	27 ± 1	0.30	20.4	5.0	2.0	43.5 ± 2	3465	1417
1	150	16	14.7	3.4	1.2	28.5 ± 1	0.30	22.9	5.0	2.1	45.5 ± 2	3875	1698
1	185	16	16.8	3.4	1.2	30.5 ± 1.5	0.30	22.9	5.0	2.1	47.5 ± 2	4410	2079
1	240	25	19.1	3.4	1.2	32.5 ± 1.5	0.40	36.2	5.0	2.2	50 ± 2.5	5390	2861
1	300	25	21.6	3.4	1.2	35 ± 1.5	0.40	36.2	5.0	2.3	53 ± 2.5	5970	3231

Ordering information

Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20269620	RFOU-FR 6/10KV 1X 95/16mm² P121 RD	RED	-	7021528878592	-
20269621	RFOU-FR 6/10KV 1X 120/16mm² P121 RD	RED	-	7021528878608	-
20269622	RFOU-FR 6/10KV 1X 150/16mm² P121 RD	RED	-	7021528878615	-
20269623	RFOU-FR 6/10KV 1X185/16mm² P121 RD	RED	-	7021528878622	-
20269624	RFOU-FR 6/10KV 1X 240/25mm² P121 RD	RED	-	7021528878639	-
20269625	RFOU-FR 6/10KV 1X 300/25mm² P121 RD	RED	-	7021528878646	-

Electrical values power cables

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	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	95	16	0.195	0.249	0.116	0.139	380	293	13300
1	120	16	0.154	0.196	0.120	0.144	410	339	16800
1	150	16	0.126	0.161	0.124	0.149	450	389	21000
1	185	16	0.100	0.128	0.130	0.156	480	444	25900
1	240	25	0.0762	0.0972	0.133	0.160	540	522	33600
1	300	25	0.0607	0.0774	0.138	0.165	590	601	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
18 x D	12 x D	50 N x total cross section (mm²) of conductors	-20°C