

RFOU-HCF 6/10(12)kV P30 / 1100°C / 30-60 minutes

HydroCarbon Fire resistant, flame retardant halogen-free medium voltage power cable.

RFOU-HCF 6/10(12)kV

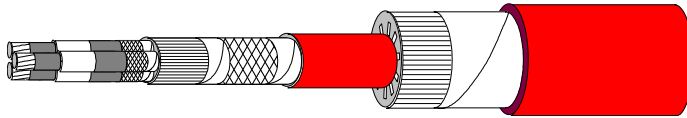
EPR/EPR/TCWB/EVA/HCF/SHF1

NEK 606 Code P30

FlexFlame | HCF

Draka
1100°C / 2000°F / 200 kW/m²

Operating temperature : 90°C
 Operating Voltage : 6/10(12)kV



Application

Fixed installation for medium voltage (MV) power in both EX- and safe areas, emergency and critical systems where requirement for fire resistance is vital.

Standards applied

IEC 60092-354	- Design
Draka Norsk Kabel	- HCF protection
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 60331-21 and -31	- Fire Resistant
EN 1363-2 / ISO 834	- HC Fire resistance
IEC 600754-1,2	- 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 bedding		PET tape
Armour/screen	O	Tinned 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)
HCF protection	-HCF	Extruded heatblock compound
Tape		Lapped glassfibre tape
Overall sheath		Flame retardant, halogen-free thermoplastic compound, SHF1 (IEC 60092-360)
Marking text		Eg. "meter" "year" DRAKA NORSK KABEL RFOU-HCF 6/10(12)kV P30 1x 70/16 mm ² HCF 1100/60 FLEX - FLAME

Subject to change without prior notice

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	Code Letter	
Outer sheath colour		Red

Range and dimensions

New Part number	Old Part number	Type [mm ²]	Diameter over bedding [mm]	Thickness of armour wires [mmØ]	Diameter sheath [mm]	Diameter overall HCF-protection (mm)	Weight of cable approx. [kg/km]
	886498	1x 70/16	23,5±1,5	0,3	30,0±2,0	62,0±3,0	5220
	886795	1x 95/16	25,5±1,5	0,3	32,0±2,0	64,5±3,0	5900
20126563		1x 120/20	27,5±1,5	0,3	34,0±2,0	66,5±3,0	6340
		1x 150/19	28,5±1,5	0,3	35,0±2,0	67,5±3,0	6670
20110680		1x 185/18	30,5±1,5	0,3	36,5±2,0	69,0±3,0	7320
		1x 240/21	33,0±1,5	0,3	39,0±2,0	72,0±3,5	8250
		1x 300/29	35,0±1,5	0,3	41,5±2,5	74,5±3,5	9280
		3x 50/31	47,0±2,0	0,4	55,0±3,0	89,0±4,5	10970

Other no. of cores and cross sectional area are available on request.

Type (mm ²)	Diameter of copper conductor approx. mmØ	Insulation thickness, nominal mm	Semi-conducting layer thickness approx. mm	Diameter over insulated, screened conductor, approx. mm
1x 70/16	10,3	3,4	0,8	21,5
1x 95/16	12,1	3,4	0,8	23,0
1x 120/20	13,6	3,4	0,8	24,5
1x 150/19	15,1	3,4	0,8	26,0
1x 185/18	16,8	3,4	0,8	28,0
1x 240/21	19,1	3,4	0,8	30,0
1x 300/29	21,5	3,4	0,8	32,5
3x 50/31	8,8	3,4	0,8	20,0

ELECTRICAL DATA

No. of cores x cross section [mm ²]	Conductor resistance DC [Ω/km]		Reactance [Ω/km] at 50 Hz	Impedance [Ω/km] at 90 °C at 50 Hz	Continuous current rating at 45 °C	Short circuit (conductor) [Ampere]	
	at 20 °C	at 90 °C				1 sec	0,3 sec
1x 70/16	0,270	0,344	0,172	0,385	242	9800	17892
1x 95/16	0,195	0,249	0,164	0,298	293	13300	24282
1x 120/20	0,154	0,196	0,159	0,253	339	16800	30672
1x 150/19	0,126	0,161	0,153	0,222	389	21000	38340

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No. of cores x cross section [mm ²]	Conductor resistance DC [Ω/km]		Reactance [Ω/km] at 50 Hz	Impedance [Ω/km] at 90 °C at 50 Hz	Continuous current rating at 45 °C	Short circuit (conductor) [Ampere]	
	at 20 °C	at 90 °C				1 sec	0,3 sec
1x 185/18	0,100	0,128	0,148	0,195	444	25900	47286
1x 240/21	0,0762	0,0972	0,143	0,173	522	33600	61344
1x 300/29	0,0607	0,0774	0,137	0,158	601	42000	76681
3x 50/31	0,391	0,499	0,108	0,261	137	7000	12780

INSTALLATION DATA

TYPE [mm ²]	Overall Diameter [mmØ]	Minimum bending radius		Maximum pulling tension [N]
		During Installation	Fixed Installed	
		[mm]		
		20 x D	12 x D	
1 x70/16	62,0±3,0	1240	744	3500
1x 95/16	64,5±3,0	1290	774	4750
1x 120/20	66,5±3,0	1330	798	6000
1x 150/19	67,5±3,0	1350	810	7500
1x 185/18	69,0±3,0	1380	828	9250
1x 240/21	72,0±3,5	1440	864	12000
1x 300/29	74,5±3,5	1490	894	15000
3x 50/31	89,0±4,5	1780	1068	7500

Minimum installation temperature: - 10 °C

The RFOU-HCF MV cables are available on request in all voltage levels from 3,6/6(7,2)kV up to and including 26/45(52)kV. Please be aware that we have a limitation on the cable diameter which allows us to manufacture mainly single core cables on these voltage levels.