

# Hydro Carbon Fire resistant MV power cable RFOU-HCF 8,7/15(17,5)kV, P31

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

## RFOU-HCF

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

EPR/EPR/TCWB/EVA/HCF/SHF1

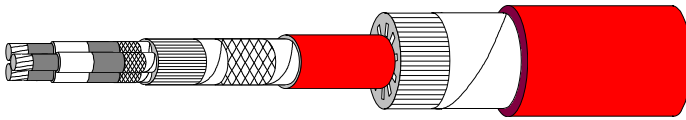
NEK 606 Code P31

## FlexFlame | HCF

<sup>Draka</sup>  
1100°C / 2000°F / 200 kW/m<sup>2</sup>

Operating temperature : 90°C

Operating Voltage : 8,7/15(17,5)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	- 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	
<b>Conductor</b>		Tinned stranded and compressed copper (STCC), IEC 60228 class 2
<b>Conductor screen semiconductive</b>		Semiconductive layer (EP-rubber)
<b>Insulation</b>	<b>R</b>	EP-rubber, IEC 60092-360 (EPR)
<b>Insulation screen semiconductive</b>		Semiconductive layer (EP-rubber)
<b>Lay up / Shielding</b>		Cores are laid up together. Cores are identified by Brown, Black or Grey threads under and over the metallic screen on each conductor.
<b>Inner covering</b>	<b>F</b>	Flame retardant and halogen-free thermoset compound
<b>Tape over bedding</b>		PET tape
<b>Armour/screen</b>	<b>O</b>	Tinned copper wire braid
<b>Tape over armour/screen</b>		PET tape
<b>Outer sheath</b>	<b>U</b>	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
<b>HCF protection</b>	<b>-HCF</b>	Extruded heatblock compound
<b>Tape</b>		Lapped glassfibre tape
<b>Overall sheath</b>		Flame retardant, halogen-free thermoplastic compound, SHF1 (IEC 60092-360)
<b>Marking text</b>		Eg. "meter" "year" DRAKA NORSK KABEL RFOU-HCF 8,7/15(17,5)kV P31 3x 35/35 mm <sup>2</sup> HCF 1100/60 FLEX - FLAME
<b>Outer sheath colour</b>		Red



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## Range and dimensions

New Part number	Old Part number	Type [mm <sup>2</sup> ]	Diameter over bedding [mm]	Thickness of armour wires [mmØ]	Diameter sheath [mm]	Diameter overall HCF-protection (mm)	Weight of cable approx. [kg/km]
		1x 70/20	26.0 ± 1.5	0.4	32.0 ± 1.5	64.5 ± 3.0	5750
		1x 120/20	29.5 ± 1.5	0.4	36.0 ± 2.0	69.0 ± 3.0	6850
		3x 35/35	49,0 ± 2,0	0,5	57,5 ± 3,0	92,0 ± 4,5	11600

Type (mm <sup>2</sup> )	Diameter of copper conductor approx. mmØ	Insulation thickness, nominal mm	Semi-conducting layer thickness approx. mm	Diameter over insulated, screened conductor, approx. mm
1x 70/20	10.3	4.5	0.8	21.8
1x 120/20	13.6	4.5	0.8	26.0
3x 35/35	7.4	4.5	0.8	19.6

## ELECTRICAL DATA

No. of cores x cross section [mm <sup>2</sup> ]	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 70/20	0.270	0.339	0.130	0.156	225	9800	17892
1x 120/20	0.154	0.193	0.120	0.144	320	16800	30672
3x 35/35	0.529	0.675	0.122	0.685	100	4900	8946

## INSTALLATION DATA

TYPE [mm <sup>2</sup> ]	Overall Diameter [mmØ]	Minimum bending radius		Maximum pulling tension [N]
		During Installation [mm]	Fixed Installed [mm]	
		<b>20 x D</b>	<b>12 x D</b>	
1x 70/20	64.5 ± 3.0	1290	774	3500
1x 120/20	69.0 ± 3.0	1380	828	6000
3x 35/35	92,0±4,5	1840	1104	5250

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.



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