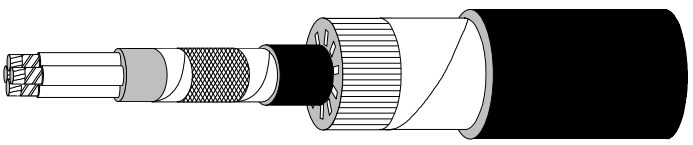
Hydro Carbon Fire resistant power cable BFOU-HCF 0,6/1(1,2)kV, P34



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

BFOU-HCF 0,6/1(1,2)kV

MGT/EPR/EPR/TCWB/EVA/HCF/SHF1

NEK 606 Code P34

FlexFlame | HCF

Draka

1100°C / 2000°F / 200 kW/m²

Operating temperature : 90°C
Operating Voltage : 0,6/1kV

Standards applied

IEC 60092-353	- 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

Application

Fixed installation for power, control and lightning in both EX- and safe areas, emergency and critical systems where requirement for fire resistance is vital.

Construction

	Code Letter	
Conductor		Tinned stranded circular copper, IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering	**F**	Flame retardant and halogen-free thermoplastic 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" "år" DRAKA NORSK KABEL BFOU-HCF 0,6/1kV P34 12 x 2,5/10 mm2 HCF 1100/30 FLEX - FLAME IEC 60331-21 IEC 60332-3-22
Outer sheath colour		Black

Core identification power cables

Single core	Black
Two cores	Blue – Brown
Two cores + earth	Blue - Brown - Yellow/green
Three cores	Brown - Black – Grey
Three cores + earth	Brown - Black - Grey - Yellow/green
Four cores	Blue - Brown - Black – Grey
Four cores + earth	Blue - Brown - Black - Grey - Yellow/green
Five cores	Blue - Brown - Black - Grey - Black
Above five cores	Black numbers on white base

Range and dimensions

New Part number	Old Part number	Type [mm2]	Diameter over bedding [mm]	Thickness of armour wires [mmØ]	Diameter sheath [mm]	Diameter overall HCF-protection (mm)	Weight of cable approx. [kg/km]
		1x 50/6	15,0±0,8	0,20	18,5±0,8	45,5±2,5	2900
		1x 70/6	16,5±0,8	0,30	20,5±1,0	47,5±2,5	3300
		1x 95/10	18,5±0,8	0,30	23,0±1,0	50,5±3,0	3800
		1x 120/10	20,5±1,0	0,30	25,0±1,0	52,5±3,0	4260
		1x 150/10	23,0±1,0	0,30	27,0±1,0	54,5±3,0	4750
		1x 185/10	25,0±1,0	0,30	29,5±1,0	57,5±3,0	5380
	886549	1x 240/16	28,0±1,0	0,30	32,5±1,5	66,0±3,5	7050
		1x 300/16	30,5±1,5	0,30	35,5±1,5	68,0±3,5	8000
	886375	2x 1,5/4	10,0±0,8	0,20	13,0±0,8	40,5±2,5	1890
	886700	2x 2,5/6	11,0±0,8	0,30	14,5±0,8	42,0±2,5	2080
		3x 1,5/4	10,5±0,8	0,20	14,0±0,8	42.0±2,5	2140
	886338	3x 2,5/6	11,5±0,8	0,30	15,0±0,8	42,5±2,5	2200
	885499	3x 4/6	13,0±0,8	0,30	16,5±0,8	43,0±2,5	2400
	885882	3x 6/6	14,0±0,8	0,30	18,0±0,8	45,0±2,5	2600
	885138	3x 16/16	18,5±0,8	0,40	23,0±1,0	50,0±3,0	3500
		3x 35/16	25,0±1,0	0,30	29,5±1,0	57,5±3,0	4840
		3x 70/35	33,0±1,5	0,50	39,0±1,5	72,0±4,0	8150
		3x 120/60	41,0±2,0	0,60	48,0±2,0	81,5±4,5	11300
		3x 150/70	46,0±2,0	0,40 *	54,5±2,5	88,5±4,5	13300
	886799	3x 4 + E	14.0 ± 0.8	0.30	18.0 ± 0.8	45.5 ± 2.5	2580
	886174	3x 6 + E	15.5 ± 0.8	0.30	19.5 ± 0.8	47.5 ± 2.5	2870
	886680	3x 10 + E	18.0 ± 0.8	0.30	22.0 ± 1.0	50.0 ± 3.0	3180
	886175	3x 16 + E	20.5 ± 1.0	0.30	25.0 ± 1.0	53,5±3,0	3750
	886547	4x 2,5/6	12.5 ± 0.8	0.30	16.5 ± 0.8	44,0±2,5	2300
		4x 4/6	14.0 ± 0.8	0.30	18.0 ± 0.8	45,5 ± 2,5	2650
	886607	4x 6/6	15.5 ± 0.8	0.30	19.5 ± 0.8	47,5±2,5	2870
		4x 10/10	18.0 ± 0.8	0.30	22.0 ± 1.0	50.0 ± 3.0	3180

New Part number	Old Part number	Type [mm2]	Diameter over bedding [mm]	Thickness of armour wires [mmØ]	Diameter sheath [mm]	Diameter overall HCF-protection (mm)	Weight of cable approx. [kg/km]
	886546	4x 16/16	20.5 ± 1.0	0.40	25.5 ± 1.0	53,0 ± 3,0	3830
	886644	4x 25/16	25.0 ± 1.0	0.30	29.5 ± 1.0	58.5 ± 3.0	4730
	886676	4x 10 + E	20.0 ± 1.0	0.3	24.0 ± 1.0	52.5 ± 3.0	3540
	886608	7x 1,5/6	14,0±0,8	0,30	17,5±0,8	44,5±2,5	2550
	885139	12x 1,5/10	18,5±0,8	0,30	22,5±1,0	50,0±3,0	3140
	885124	7x 2,5/6	15,0±0,8	0,30	19,0±0,8	46,0±2,5	2760
	886036	12x 2,5/10	20,5±1,0	0,30	24,5±1,0	52,0±3,0	3500
	886548	27x 1,5/16	26.5±1.0	0.30	31.0±1.5	64,5±3,5	5070
	886645	37x 1,5/16	30.0 ±1.5	0.30	35.5 ± 1.5	69.0 ± 3.5	5920

* This cable has a double braid (two layers of wires)
Other no. of cores and cross sectional area are available on request.

ELECTRICAL DATA

No. of cores x cross section	Conductor resistance DC [Ω/km] at 20 °C	at 90 °C	Reactance [Ω/km] at 50 / 60 Hz	Impedance [Ω/km] at 90 °C At 50 / 60 Hz	Continous current rating at 45 °C	Short circuit [Ampere] 1 sec	0,3 sec
1 X 50/6	0,391	0,4986	0,161/0,193	0,524/0,535	196	7000	12780
1 X 70/6	0,270	0,344	0,152/0,182	0,376/0,390	242	9800	17892
1 X 95/10	0,195	0,2486	0,146/0,176	0,289/0,305	293	13300	24282
1 X 120/10	0,154	0,1964	0,141/0,170	0,242/0,260	339	16800	30672
1 X 150/10	0,126	0,161	0,137/0,164	0,211/0,223	389	21000	38340
1 X 185/10	0,100	0,128	0,133/0,160	0,185/0,205	444	25900	47286
1 X 240/16	0,0762	0,0972	0,133/0,159	0,165/0,187	522	3360	61344
1 X 300/16	0,0607	0,0774	0,128/0,154	0,150/0,173	601	42000	76681
2x 1,5/4	12,2	15,56	0,115/0,138	15,556/15,567	20	210	383
2x 2,5/6	7,56	9,64	0,107/0,129	9,640/9,641	26	350	639
3x 1,5/4	12,2	15,56	0,115/0,138	15,556/15,567	16	210	383
3x 2,5/6	7,56	9,64	0,107/0,129	9,640/9,641	21	350	639
3x 4/6	4,70	5,99	0,100/0,120	5,993/5,994	28	560	1022
3x 6/6	3,11	3,97	0,094/0,112	3,967/3,9672	36	840	1534
3x 16/16	1,16	1,46	0082/0,099	1,481/1,482	67	2240	4089
3x 35/16	0,529	0,675	0,078/0,094	0,679/0,681	110	4900	8946
3x 70/35	0,270	0,344	0,077/0,092	0,352/0,356	169	9800	17892
3x 120/60	0,154	0,196	0,073/0,088	0,209/0,215	237	16800	30672
3x 150/70	0,126	0,161	0,073/0,088	0,177/0,183	272	21000	38340
3x 4 + E	4,70	5,99	0,100/0,120	5,993/5,994	28	560	1022
3x 6 + E	3,11	3,97	0,094/0,112	3,967/3,9672	36	840	1534
3x 10 + E	1.84	2.35	0.088/0.105	2.351/2.352	50	1400	2556
3x 16 + E	1,16	1,46	0082/0,099	1,481/1,482	67	2240	4089

No. of cores x cross section	Conductor resistance DC [Ω/km] at 20 °C	at 90 °C	Reactance [Ω/km] at 50 / 60 Hz	Impedance [Ω/km] at 90 °C At 50 / 60 Hz	Continous current rating at 45 °C	Short circuit [Ampere] 1 sec	0,3 sec
4x 2,5/6	7,56	9,64	0,107/0,129	9,640/9,641	21	350	639
4x 4/6	4,70	5,99	0.100/0.120	5,991/5,9912	28	560	1022
4x 6/6	3,11	3,97	0,094/0,112	3,967/3,9672	36	840	1534
4x 10/10	1.84	2.35	0.088/0.105	2.351/2.352	50	1400	2556
4x 16/16	1,16	1,46	0082/0,099	1,481/1,482	67	2240	4089
4x 25/16	0.734	0.936	0.081/	0.098	89	3500	6390
4x 10 + E	1.84	2.35	0.088/0.105	2.351/2.352	50	1400	2556
7x 1,5/6	12,2	15,56	0,115/0,138	15,556/15,567	12	210	383
12x 1,5/10	12,2	15,56	0,115/0,138	15,556/15,567	10	210	383
7x 2,5/6	7,56	9,64	0,107/0,129	9,640/9,641	15,5	350	639
12x 2,5/10	7,56	9,64	0,107/0,129	9,640/9,641	13	350	639
27x 1,5/16	12,2	15,56	0,115/0,138	15,556/15,567	7,5	210	383
37x 1,5/16	12,2	15,56	0,115/0,138	15,556/15,567	7	210	383

INSTALLATION DATA

TYPE [mm^2]	Overall Diameter [mmØ]	Minimum bending radius During Installation [mm]	Fixed Installed	Maximum pulling tension [N]
		20 x D	**12 x D**	
1x 50/6	45,5±2,5	910	546	2500
1x 70/6	47,5±2,5	950	570	3500
1x 95/10	50,5±3,0	1010	606	4750
1x 120/10	52,5±3,0	1050	630	6000
1x 150/10	54,5±3,0	1090	654	7500
1x 185/10	57,5±3,0	1150	690	9250
1x 240/16	66,0±3,5	1320	792	12000
1x 300/16	68,0±3,5	1360	816	15000
2x 1,5/4	40,5±2,5	810	486	150
2x 2,5/6	42,0±2,5	840	504	250
3x 1,5/4	42,0±2,5	840	504	225
3x 2,5/6	42,5±2,5	850	510	375
3x 4/6	43,0±2,5	860	516	600
3x 6/6	45,0±2,5	900	540	900
3x 16/16	50,0±3,0	1000	600	2400
3x 35/16	57,5±3,0	1150	690	5250
3x 70/35	72,0±4,0	1440	864	10500
3x 120/60	81,5±4,5	1630	978	18000
3x 150/70	88,5±4,5	1770	1062	20000
3x 4 + E	45.5 ± 2.5	910	546	800
3x 6 + E	47.5 ± 2.5	950	570	1200
3x 10 + E	50.0 ± 3.0	1000	600	2000
3x 16 + E	53,5±3,0	1070	642	3200

TYPE [mm^2]	Overall Diameter [mmØ]	Minimum bending radius [mm] During Installation	Fixed Installed	Maximum pulling tension [N]
4x 2,5/6	44,0±2,5	880	528	500
4x 4/6	45,5 ± 2,5	910	546	800
4x 6/6	47,5±2,5	950	570	1200
4x 10/10	50.0 ± 3.0	1000	600	2000
4x 16/16	53,0 ± 3,0	1060	636	3200
4x 25/16	58.5 ± 3.0	1170	702	5000
4x 10 + E	52.5 ± 3.0	1050	630	2500
7x 1,5/6	44,5±2,5	890	536	525
12 x 1,5/10	50,0±3,0	1000	600	900
7x 2,5/6	46,0±2,5	920	552	875
12x 2,5/10	52,0±3,0	1040	624	1500
27x 1,5/16	64,5±3,5	1290	774	2025
37x 1.5/16	69.0 ± 3.5	1380	828	2775

Minimum installation temperature: - 10 °C