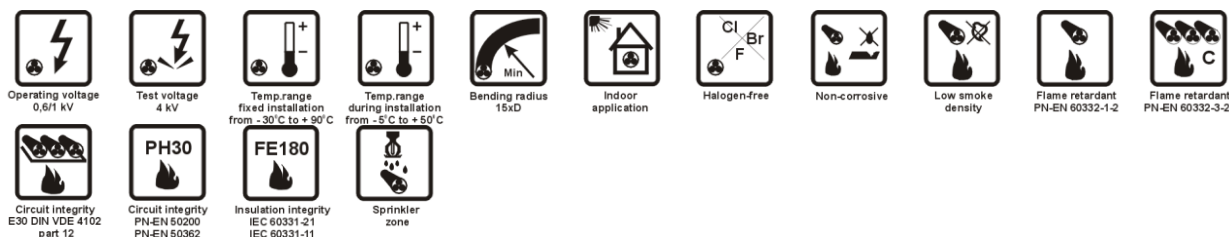


NHXCH FE180 PH30/E30 0,6/1 kV

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FIRE RESISTANT HALOGEN FREE POWER CABLES**APPLICATIONS**

NHXCH FE180 PH30/E30 0,6/1 kV fire resistant and halogen free power cables, are intended for power supply to fire protection equipment in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

Functions of the cables are maintained – power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. water pumps in fire extinguishing systems, smoke removing fans, emergency lighting and elevators).

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpowazarowej - PIB) at Józefów.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are resistant to water in accordance with EN 50200 Annex E and can be used in fire protected rooms with fixed pressure water spraying fire extinguishing systems (**sprinkler zones**).

The cables are suitable for fixed indoor and outdoor installations. UV radiation protection is required for outdoor installations. Laying cables in water or direct earth burial are only permitted if additional protection is used.

CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
 - RE** - class 1 single wire round conductor,
 - RM** - class 2 multiwire round conductor,
- mica tape and halogen free cross-linked compound insulation – colours:
 - up to 5 wires in accordance with PN-HD 308,
 - above 5 wires black and white conductor number printed on it,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound,
- concentric conductor formed by bare copper wires with counter helix of copper tape over the inner sheath,
- concentric conductor wrapped in polyester tape,
- orange cable sheath made of halogen free compound type HM4 according to HD 604 S1 and VDE 0276-604, (oxygen index bigger than 35%).

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CHARACTERISTICS

Operating voltage	0.6/1 kV	Operating temperature range	
Voltage test	4.0 kV rms	during operation	from -30 to +90°C
Insulation resistance at 90°C, minimum	10 ¹¹ Ω·cm	during installation	from -5 to +50°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	15 x cable diameter
Conductor temperature limit		Cable combustibility	fire resistant
in work conditions	+ 90°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
in short-circuit	+ 250°C		PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Circuit integrity *	
pH, approximate	6.8	E30	DIN 4102-12
conductivity, approximate	0.4 µS/mm	PH30	PN-EN 50200 Annex E or PN-EN 50362
Smoke density per	PN-EN 61034-2, IEC 61034-2	Insulation integrity FE180	IEC 60331-21, IEC 60331-11
light transmittance, minimum	70%	Reference standards	AT-0603-0496/2016, WT-TK-44 DIN VDE 0266, PN-HD 604 S1
		*Circuit integrity is dependent on installation method.	

Cable installation - Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.

CE = the cable meets requirements of the low voltage directive 2014/35/EU

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm ²	mm	kg/km	kg/km	kWh/m
0700 021	2 x 1,5 RE/ 1,5	11.9	43.2	198	0.68
0700 032	2 x 2,5 RE/ 2,5	13.0	72.0	250	0.77
0700 019	2 x 4 RE/ 4	14.2	115.0	315	0.89
0700 033	2 x 6 RE/ 6	15.7	173.0	405	1.05
0700 034	2 x 10 RE/ 10	17.6	288.0	560	1.27
0700 035	2 x 16 RE/ 16	19.9	461.0	790	1.55
0700 036	2 x 25 RM/ 16	23.6	634.0	1120	2.29
0700 037	2 x 35 RM/ 16	25.8	826.0	1390	2.73
0700 038	2 x 50 RM/ 25	29.1	1200.0	1850	3.34
0700 039	2 x 70 RM/ 35	33.0	1680.0	2520	4.30
0700 040	2 x 95 RM/ 50	37.8	2304.0	3500	5.47
0700 041	2 x 120 RM/ 70	42.2	2976.0	4450	6.58
0700 010	3 x 1,5 RE/ 1,5	12.4	58.0	220	0.71
0700 042	3 x 2,5 RE/ 2,5	13.5	96.0	280	0.81
0700 043	3 x 4 RE/ 4	14.8	154.0	360	0.92
0700 044	3 x 6 RE/ 6	16.3	230.0	465	1.08
0700 045	3 x 10 RE/ 10	18.4	384.0	665	1.31
0700 046	3 x 16 RE/ 16	21.1	614.0	950	1.62
0700 047	3 x 25 RM/ 16	24.9	874.0	1350	2.32
0700 048	3 x 35 RM/ 16	27.2	1162.0	1700	2.73
0700 049	3 x 50 RM/ 25	30.9	1680.0	2290	3.40
0700 050	3 x 70 RM/ 35	35.3	2352.0	3200	4.41
0700 051	3 x 95 RM/ 50	40.0	3216.0	4350	5.38

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm ²	mm	kg/km	kg/km	kWh/m
0700 052	3 x 120 RM/ 70	44.7	4128.0	5550	6.45
0700 004	4 x 1,5 RE/ 1,5	13.2	72.0	255	0.80
0700 053	4 x 2,5 RE/ 2,5	14.3	120.0	325	0.90
0700 020	4 x 4 RE/ 4	16.0	192.0	430	1.06
0700 054	4 x 6 RE/ 6	17.4	288.0	555	1.21
0700 055	4 x 10 RE/ 10	19.7	480.0	795	1.45
0700 007	4 x 16 RE/ 16	22.7	768.0	1150	1.80
0700 056	4 x 25 RM/ 16	27.2	1114.0	1660	2.64
0700 057	4 x 35 RM/ 16	29.5	1498.0	2100	3.03
0700 006	4 x 50 RM/ 25	33.5	2160.0	2860	3.91
0700 058	4 x 70 RM/ 35	38.6	3024.0	3950	4.97
0700 059	4 x 95 RM/ 50	43.2	4128.0	5450	5.99
0700 060	4 x 120 RM/ 70	48.4	5280.0	6850	7.39
0700 061	7 x 1,5 RE/ 2,5	15.5	125.0	360	1.05
0700 062	7 x 2,5 RE/ 2,5	16.6	192.0	455	1.18
0700 063	12 x 1,5 RE/ 2,5	19.0	197.0	535	1.49
0700 064	12 x 2,5 RE/ 4	20.9	326.0	710	1.74
0700 065	24 x 1,5 RE/ 6	25.3	403.0	945	2.40
0700 066	24 x 2,5 RE/ 10	28.1	672.0	1290	2.80
0700 067	30 x 1,5 RE/ 6	26.8	490.0	1110	2.74
0700 068	30 x 2,5 RE/ 10	29.4	816.0	1510	3.12

Other cross-sections and conductor counts available on request.
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.