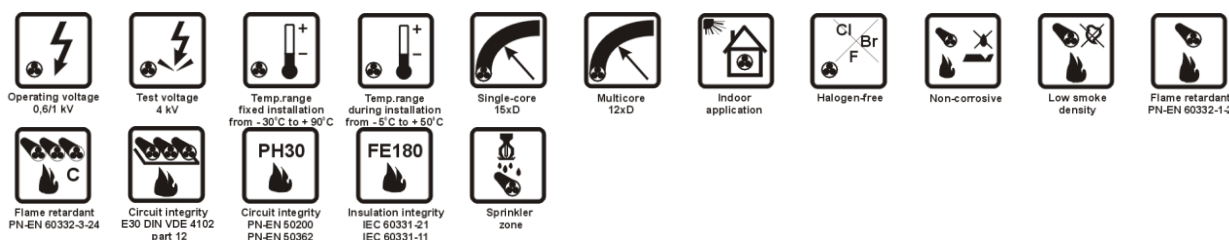


NHXX FE180 PH30/E30 0,6/1 kV, NHXX-J FE180 PH30/E30 0,6/1 kV

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FIRE RESISTANT HALOGEN FREE POWER CABLES**APPLICATIONS**

NHXX FE180 PH30/E30 0.6/1 kV and **NHXX-J FE180 PH30/E30 0.6/1** 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 Przeciwpowozarowej - 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,
 - green-yellow protective conductor in the outer layer in **NHXX-J FE180 PH30/E30 0,6/1 kV** cable,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound,
- orange cable sheath made of halogen free compound type HM4 according to HD 604 S1 and VDE 0276-604, (oxygen index bigger than 35%).

NHXX FE180 PH30/E30 0,6/1 kV, NHXX-J FE180 PH30/E30 0,6/1 kV

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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:	
Conductor temperature limit		single core cables	15 x cable diameter
in work conditions	+ 90°C	multi core cables	12 x cable diameter
in short-circuit	+ 250°C	Cable combustibility	fire resistant
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
pH, approximate	6.8	Circuit integrity *	
conductivity, approximate	0.4 μS/mm	E30	DIN 4102-12
Smoke density per	PN-EN 61034-2, IEC 61034-2	PH30	PN-EN 50200 Annex E or PN-EN 50362
light transmittance, minimum	70%	Insulation integrity FE180	IEC 60331-21, IEC 60331-11
		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
NHXX FE180 PH30/E30 0,6/1 kV					
0699 151	1 x 6 RE	6.9	58.0	101	0.21
0699 152	1 x 10 RE	7.7	96.0	146	0.24
0699 157	1 x 16 RE	8.6	154.0	210	0.28
0699 080	1 x 25 RM	10.6	240.0	315	0.39
0699 023	1 x 35 RM	11.6	336.0	415	0.44
0699 024	1 x 50 RM	13.0	480.0	550	0.53
0699 025	1 x 70 RM	14.8	672.0	760	0.64
0699 026	1 x 95 RM	16.7	912.0	1070	0.76
0699 027	1 x 120 RM	18.4	1152.0	1280	0.88
0699 028	1 x 150 RM	20.5	1440.0	1600	1.10
0699 029	1 x 185 RM	22.4	1776.0	1990	1.29
0699 030	1 x 240 RM	25.1	2304.0	2570	1.51
0699 153	1 x 300 RM	27.5	2880.0	3150	1.77
0699 158	1 x 400 RM	30.8	3840.0	4300	2.17
0699 089	2 x 1.5 RE	9.3	28.8.0	137	0.50
0699 095	2 x 2.5 RE	10.1	48.0	171	0.57
0699 154	2 x 4 RE	11.0	77.0	220	0.67
0699 121	2 x 6 RE	12.0	115.0	280	0.78
0699 122	2 x 10 RE	13.6	192.0	395	0.98
0699 155	2 x 16 RE	15.6	307.0	565	1.26
0699 156	2 x 25 RM	19.5	480.0	870	1.93
NHXX-J FE180 PH30/E30 0,6/1 kV					
0699 010	3 x 1.5 RE	9.8	43.2	157	0.52
0699 011	3 x 2.5 RE	10.6	72.0	199	0.60
0699 031	3 x 4 RE	11.6	115.0	265	0.69
0699 105	3 x 6 RE	12.7	173.0	340	0.80
0699 136	3 x 10 RE	14.4	288.0	490	0.99
0699 032	3 x 16 RM	17.3	461.0	735	1.35
0699 078	3 x 25 RM	21.0	720.0	1110	1.97
0699 159	3 x 35 RM	23.3	1008.0	1450	2.34
0699 160	3 x 50 RM	26.4	1440.0	1930	2.96
0699 161	3 x 70 RM	30.3	2016.0	2680	3.79
0699 162	3 x 95 RM	34.3	2736.0	3750	4.69
0699 163	3 x 120 RM	38.0	3456.0	4500	5.70

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
0699 066	4 x 1.5 RE	10.6	58.0	185	0.59
0699 033	4 x 2.5 RE	11.5	96.0	245	0.68
0699 034	4 x 4 RE	12.7	154.0	325	0.79
0699 035	4 x 6 RE	13.8	230.0	420	0.92
0699 036	4 x 10 RE	16.0	384.0	620	1.17
0699 022	4 x 16 RM	19.0	614.0	920	1.54
0699 164	4 x 25 RM	23.1	960.0	1400	2.24
0699 019	4 x 35 RM	25.9	1344.0	1850	2.71
0699 067	4 x 50 RM	29.1	1920.0	2450	3.36
0699 165	4 x 70 RM	33.7	2688.0	3450	4.38
0699 112	4 x 95 RM	38.1	3648.0	4800	5.39
0699 037	5 x 1.5 RE	11.5	72.0	225	0.69
0699 038	5 x 2.5 RE	12.5	120.0	290	0.79
0699 039	5 x 4 RE	13.8	192.0	390	0.92
0699 040	5 x 6 RE	15.3	288.0	515	1.10
0699 009	5 x 10 RE	17.5	480.0	755	1.35
0699 041	5 x 16 RM	21.1	768.0	1140	1.84
0699 042	5 x 25 RM	25.6	1200.0	1720	2.68
0699 043	5 x 35 RM	28.5	1680.0	2260	3.18
0699 044	5 x 50 RM	32.4	2400.0	3050	4.02
0699 113	5 x 70 RM	37.5	3360.0	4250	5.23
0699 166	5 x 95 RM	42.4	4560.0	5900	6.43
0699 111	7 x 1.5 RE	12.5	101.0	275	0.77
0699 087	7 x 2.5 RE	13.6	168.0	360	0.89
0699 062	7 x 4 RE	15.2	269.0	465	1.06
0699 094	12 x 1.5 RE	16.3	173.0	440	1.20
0699 167	12 x 2.5 RE	17.9	288.0	585	1.37
0699 168	19 x 1.5 RE	19.0	274.0	625	1.57
0699 169	19 x 2.5 RE	21.1	456.0	855	1.85
0699 170	24 x 1.5 RE	22.3	346.0	800	2.02
0699 171	24 x 2.5 RE	24.6	576.0	1080	2.32
0699 172	30 x 1.5 RE	23.6	432.0	945	2.29
0699 173	30 x 2.5 RE	26.3	720.0	1300	2.68

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