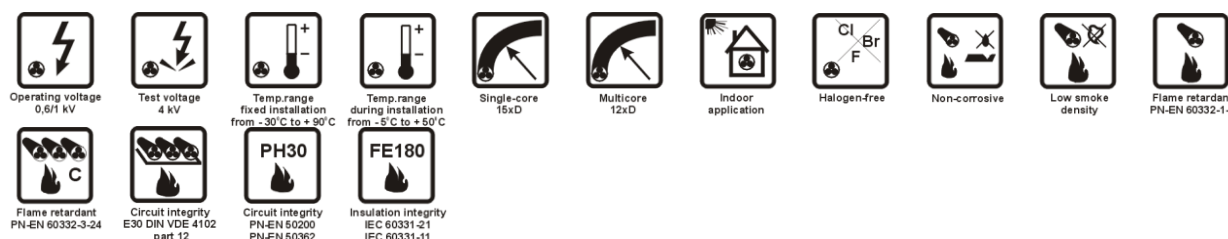


(N)HXH FE180 PH30/E30 0,6/1 kV; (N)HXH-J FE180 PH30/E30 0,6/1 kV

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FIRE RESISTANT HALOGEN FREE POWER CABLES**APPLICATIONS**

(N)HXH FE180 PH30/E30 0,6/1 kV and **(N)HXH-J 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 Przeciwpożarowej - 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 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,
- double special cross-linked silicone rubber 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 **(N)HXH-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%).

(N)HXH FE180 PH30/E30 0,6/1 kV; (N)HXH-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 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
(N)HXH FE180 PH30/E30 0,6/1 kV					
1192 073	1 x 16 RE	8.8	154.0	210	0.32
1192 074	1 x 25 RM	10.8	240.0	315	0.44
1192 075	1 x 35 RM	11.8	336.0	410	0.49
1192 076	1 x 50 RM	13.4	480.0	550	0.61
1192 077	1 x 70 RM	15.2	672.0	760	0.73
1192 078	1 x 95 RM	17.3	912.0	1070	0.91
1192 079	1 x 120 RM	18.8	1152.0	1270	1.00
1192 081	2 x 1,5 RE	9.7	28.8	145	0.55
1192 080	2 x 2,5 RE	10.5	48.0	179	0.64
1192 082	2 x 4 RE	11.4	77.0	230	0.74
1192 083	2 x 6 RE	12.4	115.0	290	0.86
1192 084	2 x 10 RE	14.0	192.0	405	1.07
1192 085	2 x 16 RE	16.0	307.0	575	1.37
1192 086	2 x 25 RM	19.9	480.0	880	2.07
(N)HXH-J FE180 PH30/E30 0,6/1 kV					
1192 062	3 x 1,5 RE	10.2	43.0	167	0.59
1192 001	3 x 2,5 RE	11.0	72.0	210	0.67
1192 087	3 x 4 RE	12.0	115.0	275	0.78
1192 007	3 x 6 RE	13.1	173.0	350	0.90
1192 008	3 x 10 RE	14.8	288.0	500	1.11

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
1192 088	3 x 16 RM	17.6	461.0	770	1.48
1192 089	3 x 25 RM	21.4	720.0	1110	2.14
1192 004	4 x 1,5 RE	11.1	58.0	199	0.68
1192 090	4 x 2,5 RE	12.0	96.0	255	0.77
1192 091	4 x 4 RE	13.1	154.0	335	0.90
1192 092	4 x 6 RE	14.3	230.0	430	1.04
1192 093	4 x 10 RE	16.5	384.0	630	1.31
1192 096	4 x 16 RM	19.4	614.0	970	1.70
1192 094	4 x 25 RM	23.6	960.0	1400	2.45
1192 095	4 x 35 RM	26.3	1344.0	1840	2.95
1192 003	4 x 50 RM	30.1	1920.0	2480	3.79
1192 098	5 x 1,5 RE	12.1	72.0	240	0.79
1192 097	5 x 2,5 RE	13.1	120.0	305	0.90
1192 099	5 x 4 RE	14.3	192.0	400	1.05
1192 100	5 x 6 RE	15.9	288.0	530	1.24
1192 057	5 x 10 RE	18.0	480.0	765	1.53
1192 101	5 x 16 RM	21.5	768.0	1200	2.04
1192 105	5 x 25 RM	26.2	1200.0	1720	2.94
1192 102	5 x 35 RM	29.0	1680.0	2260	3.47
1192 103	5 x 50 RM	33.4	2400.0	3100	4.54
1192 104	7 x 1,5 RE	13.1	101.0	290	0.90

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.