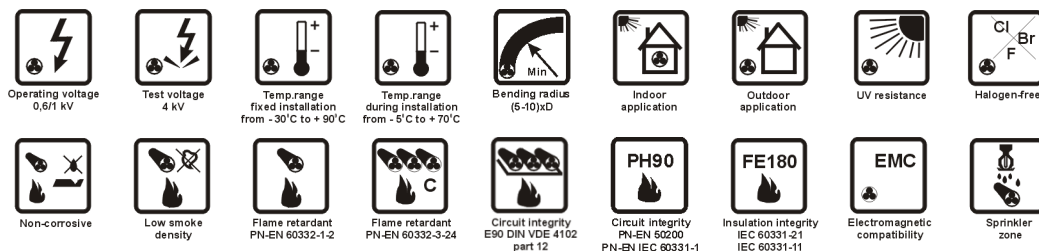


TECHNOFLAME (N)HXCH-J-SERVO FE180 PH90/E90 0,6/1 kV



APPLICATIONS

(N)HXCH-J-SERVO FE180 PH90/E90 0,6/1 kV fire resistant halogen free cables, are intended for connecting converters or inverters with motors in fire protection equipment which is to operate in fire conditions. The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required (subway tunnels, hospitals, shopping centres, supermarkets, cinemas, theatres, stadiums and other public buildings).

Functions of the cables are maintained for 90 minutes – 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 Przeciwpowarowej - PIB) at Józefów.

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**).

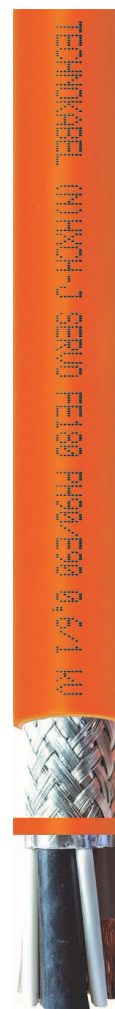
The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

Cables are protected by a specially designed and highly effective collective shield against emission of electromagnetic interferences to environment and against influence of external interferences.

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

CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- double special cross-linked silicone rubber insulation - colours of insulation: black, brown, grey, green-yellow,
- insulated conductors and fillers laid-up in a cable core,
- cable core wrapped in polyester tape,
- cable core wrapped in mica tape,
- double screen incorporating aluminium-polyester tape under a tinned copper wire braid shield of coverage bigger than 80%,
- orange cable sheath made of halogen free compound type HM4 according to HD 604 S1.



CHARACTERISTICS

Conductor cross-section	mm ²	1.5	2.5	4	6	10	16	25	35	50
DC conductor resistance at 20°C, maximum	Ω/km	13.3	7.98	4.59	3.3	1.91	1.21	0.780	0.554	0.386

Cable installation – should be carried out on a certified cable fastening system, in accordance with the National Technical Assessments (KOT) issued for fastening manufacturers. Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.

Operating voltage U ₀ /U	0,6/1 kV
Voltage test	4 kV rms
Insulation resistance at 90°C, minimum	10 ¹¹ Ω · cm
Inductance, approximate	0.7 mH/km
Shielding efficiency, approximate	75 dB
Conductor temperature limit	
in work conditions	+ 90°C
at short-circuit	+ 250°C
Operating temperature range	
during operation	from - 30 to + 90°C
during installation	from - 5 to + 70°C
Minimum bending radius	
Ø < 12 mm	5 x cable diameter
Ø = 12÷20 mm	7.5 x cable diameter
Ø > 20 mm	10 x cable diameter
Corrosivity of emitted gases per	very low, halogen free PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2
pH	> 4.3

conductivity	< 2.5 μS/mm
Smoke density	low smoke density PN-EN 61034-2, IEC 61034-2
Light transmittance, minimum	60%
Cable combustibility	fire resistant
Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2, PN-EN 60332-3-24, IEC 60332-3-24,
Circuit integrity:	
E90	DIN 4102-12
PH90	PN-EN 50200 or PN-EN IEC 60331-1
Insulation integrity FE180	IEC 60331-21, IEC 60331-11
Reference standards	CNBOP-PIB- KOT-2021/0311-3701 edition 3, WT-TK-44
Class reaction to fire (PN-EN 13501-6)	B2ca-s2,d1,a1
KDWU declarations are available at	technokabel.com.pl

The cable meets requirements of the low voltage direction 2014/35/EU

Product No.	Number of conductors x conductors cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)	Class reaction to fire
	mm ²	mm	kg/km	kg/km	kWh/m	
1669 001	4x1,5	13.4	90.6	255	0.9	B2ca-s2,d1,a1
1669 006	4x2,5	14.5	139.8	319	1.0	B2ca-s2,d1,a1
1669 007	4x4	15.9	201.9	403	1.2	B2ca-s2,d1,a1
1669 008	4x6	17.3	285.4	505	1.4	B2ca-s2,d1,a1
1669 009	4x10	20.1	469.5	750	1.7	B2ca-s2,d1,a1
1669 003	4x16	23.1	739.5	1085	2.8	B2ca-s2,d1,a1
1669 004	4x25	27.1	1113.8	1536	3.7	B2ca-s2,d1,a1
1669 005	4x35	30.1	1512.0	1982	4.4	B2ca-s2,d1,a1
1669 002	4x50	37.9	2147.9	2880	6.0	B2ca-s2,d1,a1

TECHNOKABEL SA reserves the right to change specifications without prior notice.