NESMAK-HF n x 2 x 0,5 mm²

Application

Instrumentation indoor cable for automation, process control and audio systems.

Standards and Directives

Testing EN 50289-x-x, EN 50290-x-x
Fire testing EN 50399, EN 60332-1-2, EN 60332-3-22, EN 61034-2, EN 60574-2
ROHS directive EU 2011/65/EC
LVD Directive 2014/35/EU
EN 50575 Cables for general applications in construction works subject to reaction to fire requirements

CE

Class of reaction to fire performance

2 - 4 pairs cables	Dca -s2,d2,a2
8 – 48 pairs cables	Eca

Construction

Conductor	Stranded annealed copper 7x0,29 mm
Insulation	Halogen-free material
Pair	Two conductors twisted together. Each pair is identified by a number printed on the surface of an insulated conductor. In all pairs a-conductors are orange and b-conductors are white coloured
Unit	Two or four pairs are stranded together to form a unit.
Common screen	Plastic-aluminium tape with an tinned earth- conductor 7x0,29 mm
Sheath	Grey (RAL 7035) halogen-free flame retardant material.

All values in this specification are nominal unless otherwise stated.

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Dimensions

Nestor-code	SSTL-code	Cable type	Diameter mm	Weight kg/km	Min. sheath thickness mm	Length / Drum
L10797	0217415	NESMAK-HF 2x2x0,5+0,5	7,5	59	0,9	1000/K6
L10798	0217416	NESMAK-HF 2x2x0,5+0,5 500 m	7,5	59	0,9	500/P5
L10799	0217417	NESMAK-HF 2x2x0,5+0,5 200 m	7,5	59	0,9	200/P4
L10800	0217418	NESMAK-HF 4x2x0,5+0,5	9,0	89	0,9	1000K7
L10801	0217419	NESMAK-HF 4x2x0,5+0,5 500 m	9,0	89	0,9	500/P5
L10802	0217420	NESMAK-HF 4x2x0,5+0,5 200 m	9,0	89	0,9	200/P4
L10803	0217421	NESMAK-HF 8x2x0,5+0,5	12,3	152	0,9	1000/K9
L10804	0217422	NESMAK-HF 8x2x0,5+0,5 200 m	12,3	152	0,9	200/P5
L10805	0217423	NESMAK-HF 12x2x0,5+0,5	13,7	210	0,9	1000/K10
L10806	0217424	NESMAK-HF 24x2x0,5+0,5	18,8	392	0,9	1000/K12
L10807	0217425	NESMAK-HF 48x2x0,5+0,5	25,0	723	1,4	1000/K16

Fire properties

The cables are tested according to following tests:

EN 50399
Test method for bunch of cables under fire conditions – Heat release and smoke production are measured on cables during flame spread test.

EN 60332-1-2
Test for vertical flame propagation for a single insulated wire or cable

EN 60332-3-22
Test for vertical flame spread of vertically-mounted bunched wires or cables-Calegory A

LF - electrical characteristics

Loop resistance, at 20°C	Individual max., ohm/km	
	76	
Mutual capacitance	nominal value, nF/km	
	85	
Insulation resistance, 500 V DC, minimum	2 Gohm x km	
Dielectric strength, 1 min.	Conductor/conductor, V DC	Conductor/Screen, V DC
	1500	1000

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Mechanical characteristics

Bending in accordance with EN 50289-3-6 and Tensile performance in accordance with EN 50289-3-16		
Temperature range	- Transport, storage, operation - Installation	-45 to +70 °C -5 to +60 °C
Bending radius	- During installation (min.) - Final installation (min.)	15 x Diameter 10 x Diameter

Testing and inspection

Testing and inspection will be carried in accordance with following characteristics and standards	
Electrical LF-characteristics IEC 60189-1	Loop resistance, mutual capacitance, Dielectric strength, Insulation resistance, short circuits, wire breaks
Mechanical characteristics IEC 60811-1-1	Thickness of sheath Diameter of cable
Visual inspection of cable	Cable design Sheath marking
The LF-electrical characteristics shall be measured as a routine test in accordance with our test program.	