

(N)HXH-FE 180/E 90

Security cable, halogen-free, 0.6/1 kV



Technical data

- Halogen free security cable adapted to DIN VDE 0266
- **Temperature range**
during installation -5°C to +50°C
fixed installation -30°C to +90°C
- Permissible **operating temperature** at conductor +90°C
- **Nominal voltage**
U₀/U 0.6/1 kV
- **Test voltage**
4000 V
- **Minimum bending radius**
single core 15x outer Ø
multi core 12x outer Ø
- **Caloric load values**
see "Technical Information"

Cable structure

- Bare copper conductor, single wire or multi wire acc. to DIN VDE 0295 cl.1 or cl.2 / IEC 60228 cl.1 or cl.2
- Core insulation of polymer
- Core identification acc. to DIN VDE 0293-308
1 core: black
≤ 5 cores: coloured
≥ 6 cores: black with continuous white numbering
- GN-YE conductor, 3 cores and above
- Cores stranded in layer
- Overall core covering
- Core wrapping with glass-fibre tape as flame-protection
- Outer sheath of polyolefin
- Sheath colour: orange

Tests

- Flame test acc. to
DIN VDE 0482-332-3-24 /
DIN EN 60332-3-24 / IEC 60332-3-24
- Corrosiveness of combustion gases acc. to DIN VDE 0482-754-2 /
DIN EN 60754-2 / IEC 60754-2
- Smoke density acc. to
DIN VDE 0482-1034-1+2 /
DIN EN 61034-1+2 / IEC 61034-1+2

Properties

- Halogen-free
- Flame retardant
- Self-extinguished
- No flame propagation
- Low smoke density
- **FE 180: Insulation integrity** for 180 minutes. Tests acc. to DIN VDE 0472-814 / IEC 60331
- **E 90: Functionality** of electrical cable systems for min. 90 minutes. This fulfils the demands of technical guide lines for fire protection
Test method acc. to DIN 4102-12
The **functionality** for 90 minutes assures the functional performance of water-pressure-rising stations for the supply to avoid smoke and heat in safety-stairs and inner rooms, ladder shafts and engine rooms for fire brigade lifts, emergency lifts for sickbeds in hospitals and the fire brigade lifts.

Note

- re = round conductor, single wire
rm = round conductor, multi wire
- The conductor is metrically constructed (mm²). The AWG designation is approximate and purely informative.

Application

Wherever damage to people and material must be prevented in the event of a fire due to a high concentration of material assets. Suitable for permanent installation in dry, damp and wet rooms above, on, in and under plaster, as well as in masonry and concrete. They are also suitable for laying outdoors and in the ground when laying in pipes. Laying in the pipe is permitted if precautions have been taken to prevent water from building up in the pipe.

CE = Product conforms with Low-Voltage Directive 2014/35/EU.

Part no.	No. cores x cross-sec. mm ²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.	Part no.	No. cores x cross-sec. mm ²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
53180	1 x 16 rm	11,0	154,0	255,0	6	53186	1 x 120 rm	20,5	1152,0	1410,0	4/0
53181	1 x 25 rm	12,5	240,0	375,0	4	53187	1 x 150 rm	22,5	1440,0	1730,0	300 kcmil
53182	1 x 35 rm	13,5	336,0	475,0	2	53188	1 x 185 rm	24,5	1776,0	2140,0	350 kcmil
53183	1 x 50 rm	15,0	480,0	625,0	1	53189	1 x 240 rm	27,0	2304,0	2700,0	500 kcmil
53184	1 x 70 rm	16,5	672,0	855,0	2/0	53190	1 x 300 rm	30,0	2880,0	3420,0	600 kcmil
53185	1 x 95 rm	18,0	912,0	1140,0	3/0	53191	1 x 400 rm	33,5	3840,0	4310,0	750 kcmil

Continuation ►

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Part no.	No. cores x cross-sec. mm ²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
59056	2 x 1,5 re	12,9	29,0	184,0	16
53000	3 x 1,5 re	14,0	43,0	280,0	16
53001	3 x 2,5 re	15,0	72,0	330,0	14
53002	3 x 4 re	16,0	115,0	400,0	12
53003	3 x 6 re	17,0	173,0	480,0	10
53004	3 x 10 re	19,0	288,0	650,0	8
53005	3 x 16 re	21,0	461,0	850,0	6
52990	3 x 25 rm	25,0	720,0	1300,0	4
52991	3 x 35 rm	28,0	1008,0	1700,0	2
52992	3 x 35 / 16 rm	28,0	1162,0	1850,0	2
52993	3 x 50 / 25 rm	32,0	1680,0	2500,0	1
52994	3 x 70 / 35 rm	36,0	2352,0	3350,0	2/0
52995	3 x 95 / 50 rm	42,0	3216,0	4500,0	3/0
52996	3 x 120 / 70 rm	45,0	4128,0	5600,0	4/0
52997	3 x 150 / 70 rm	49,0	4992,0	6700,0	300 kcmil
52998	3 x 185 / 95 rm	55,0	6240,0	8350,0	350 kcmil
52999	3 x 240 / 120 rm	63,0	8064,0	10000,0	500 kcmil
53006	4 x 1,5 re	15,0	58,0	325,0	16
53007	4 x 2,5 re	16,0	96,0	385,0	14
53008	4 x 4 re	17,0	154,0	470,0	12
53009	4 x 6 re	18,0	230,0	580,0	10
53010	4 x 10 re	20,0	384,0	790,0	8
53011	4 x 16 re	22,0	614,0	1100,0	6

Part no.	No. cores x cross-sec. mm ²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
53012	4 x 25 rm	27,0	960,0	1650,0	4
53013	4 x 35 rm	30,0	1344,0	2150,0	2
53014	4 x 50 rm	34,0	1920,0	2800,0	1
53030	4 x 70 rm	39,0	2688,0	3800,0	2/0
53031	4 x 95 rm	44,0	3648,0	5050,0	3/0
53070	4 x 120 rm	47,0	4608,0	6150,0	4/0
53390	4 x 150 rm	51,2	5760,0	7662,0	300 kcmil
53015	5 x 1,5 re	16,0	72,0	375,0	16
53016	5 x 2,5 re	17,0	120,0	445,0	14
53017	5 x 4 re	18,0	192,0	560,0	12
53018	5 x 6 re	20,0	288,0	690,0	10
53019	5 x 10 re	22,0	480,0	950,0	8
53020	5 x 16 rm	24,0	768,0	1300,0	6
53021	5 x 25 rm	29,0	1200,0	1980,0	4
53028	5 x 35 rm	33,0	1680,0	2350,0	2
53029	5 x 50 rm	38,0	2400,0	3100,0	1
11018801	5 x 95 rm	47,6	4560,0	6164,0	3/0
53022	7 x 1,5 re	19,0	101,0	560,0	16
53027	7 x 2,5 re	21,0	168,0	650,0	14
53025	10 x 1,5 re	23,0	144,0	750,0	16
53026	10 x 2,5 re	25,0	240,0	910,0	14
53023	12 x 1,5 re	25,0	173,0	850,0	16
53024	12 x 2,5 re	26,0	288,0	1000,0	14
59057	24 x 1,5 re	27,4	346,0	895,0	16

Dimensions and specifications may be changed without prior notice. (RQ02)