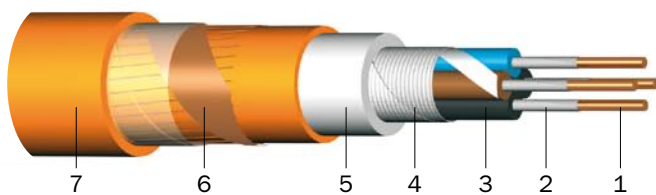


# NHXCH FE180/E90

**Power cables, with insulation integrity FE180 and functional integrity E90, screened**  
**Standard: DIN VDE 0266**

**Usage:**

For fixed installation in interior premises and in the open air and for direct burial in cable ducts and conduit. Since they are free from halogens and exhibit enhanced fire performance, these cables are used in those applications where in the event of fire, the negative effects on concentrations of people and valuable material goods must be minimised.



**Construction:**

- 1 Copper conductor, round solid (RE) or round stranded (RM)
- 2 Flame protection by conductor taping (mica tape)
- 3 Core insulation (halogen-free polymer compound, cross linked)
- 4 Taping (halogen-free glass fabric tape)
- 5 Inner covering (halogen-free polymer compound)
- 6 Concentric screen (bare copper wires) and counter helix (copper tape)
- 7 Sheath (halogen-free polyolefin compound, orange)

- Rated voltage:** 0.6/1 kV
- Test voltage:** 4000 Veff
- Temperature range:**
  - laying temperature: min. -5 °C
  - operating temperature: -40 °C to +80 °C
  - conductor temperature: max. +90 °C
  - short-circuit temperature: max. +250 °C/5 s
- Bending radius (min.):** 12 x Ø of cable
- Core identification:** coloured (HD 308 S2)
- Fire properties:**
  - flame retardant (EN 50265-2-1, IEC 60332-1)
  - halogen-free, no corrosive combustion gases (EN 50267-2-2, IEC 60754-2)
  - reduced fire propagation (IEC 60332-3 Cat. A, EN 50266-2-2, DIN VDE 0472-804)
  - minimum smoke emission (EN 50268-2, IEC 61034)
  - insulation integrity FE180 (IEC 60331, DIN VDE 0472-814)
  - functional integrity E90 (DIN VDE 4102-12)
- Test certificate:** VDE Germany

Number of cores x nominal cross section/cross section of screen (mm <sup>2</sup> )	Max. conductor resistance (Ω/km)	Outer diameter (mm) ca.	Metal weight (kg/km)	Total weight (kg/km) ca.	Standard lengths/packing (m)
<b>NHXCH FE180/E90</b>					
2 x 1.5 RE/1.5	12.1000	14.0	54	240	500 T, 1000 T
3 x 1.5 RE/1.5	12.1000	15.0	73	260	500 T, 1000 T
4 x 1.5 RE/1.5	12.1000	17.0	88	310	500 T, 1000 T
2 x 2.5 RE/2.5	7.4100	15.0	83	290	500 T, 1000 T
3 x 2.5 RE/2.5	7.4100	16.0	113	330	500 T, 1000 T
4 x 2.5 RE/2.5	7.4100	18.0	138	380	500 T, 1000 T
3 x 4 RE/4	4.6100	17.0	168	420	500 T, 1000 T
4 x 4 RE/4	4.6100	20.0	208	500	500 T, 1000 T
3 x 6 RE/6	3.0800	19.0	250	540	500 T, 1000 T
4 x 6 RE/6	3.0800	21.0	309	640	500 T, 1000 T
3 x 10 RE/10	1.8300	21.0	425	760	500 T, 1000 T

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Number of cores x nominal cross section/cross section of screen (mm <sup>2</sup> )	Max. conductor resistance (Ω/km)	Outer diameter (mm) ca.	Metal weight (kg/km)	Total weight (kg/km) ca.	Standard lengths/packing (m)
<b>NHXCH FE180/E90</b>					
4 x 10 RE/10	1.8300	23.0	525	900	500 T, 1000 T
3 x 16 RM/16	1.1500	23.0	670	1,100	500 T, 1000 T
4 x 16 RM/16	1.1500	26.0	829	1,300	500 T, 1000 T
3 x 25 RM/25	0.7270	28.0	1,045	1,650	500 T, 1000 T
4 x 25 RM/16	0.7270	31.0	1,190	1,900	500 T, 1000 T
3 x 35 RM/35	0.5240	30.0	1,460	2,200	500 T, 1000 T
4 x 35 RM/16	0.5240	33.0	1,590	2,400	500 T, 1000 T
3 x 50 RM/50	0.3870	34.0	2,083	2,900	500 T, 1000 T
4 x 50 RM/25	0.3870	38.0	2,295	3,400	500 T, 1000 T
3 x 70 RM/70	0.2680	39.0	2,913	4,000	500 T, 1000 T
4 x 70 RM/35	0.2680	42.0	3,210	4,500	500 T, 1000 T
3 x 95 RM/95	0.1930	44.0	3,949	4,800	500 T, 1000 T
4 x 95 RM/50	0.1930	49.0	4,383	6,100	500 T, 1000 T
3 x 120 RM/120	0.1530	47.0	4,985	6,000	500 T, 1000 T
4 x 120 RM/70	0.1530	53.0	5,613	7,600	500 T
3 x 150 RM/70	0.1240	52.0	5,313	7,300	500 T
4 x 150 RM/70	0.1240	55.0	6,813	8,500	500 T
3 x 185 RM/95	0.0991	55.0	6,649	7,900	500 T
4 x 185 RM/95	0.0991	59.0	8,499	8,900	500 T
3 x 240 RM/120	0.0754	59.0	8,585	9,000	500 T
4 x 240 RM/120	0.0754	64.0	10,985	11,500	500 T
7 x 1.5 RE/2.5	12.1000	19.0	139	420	500 T, 1000 T
10 x 1.5 RE/2.5	12.1000	23.0	183	560	500 T, 1000 T
12 x 1.5 RE/2.5	12.1000	24.0	214	620	500 T, 1000 T
14 x 1.5 RE/2.5	12.1000	25.0	248	700	500 T, 1000 T
19 x 1.5 RE/4	12.1000	28.0	338	950	500 T, 1000 T
24 x 1.5 RE/6	12.1000	32.0	430	1,150	500 T, 1000 T
30 x 1.5 RE/6	12.1000	34.0	520	1,350	500 T, 1000 T
7 x 2.5 RE/2.5	7.4100	21.0	208	540	500 T, 1000 T
10 x 2.5 RE/4	7.4100	24.0	298	760	500 T, 1000 T
12 x 2.5 RE/4	7.4100	25.0	348	850	500 T, 1000 T
14 x 2.5 RE/4	7.4100	27.0	398	950	500 T, 1000 T
19 x 2.5 RE/6	7.4100	30.0	550	1,200	500 T, 1000 T
24 x 2.5 RE/10	7.4100	35.0	725	1,550	500 T, 1000 T
30 x 2.5 RE/10	7.4100	39.0	875	1,900	500 T, 1000 T

Subject to technical changes.