

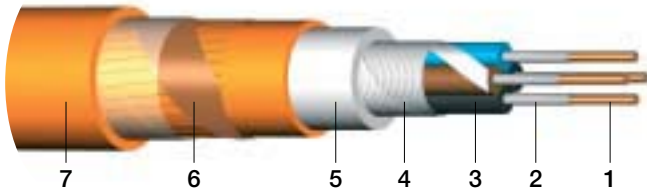
# NHXCH FE180/E30, (N)HXCH FE180/E30

Power cables, with insulation integrity FE180 and functional integrity E30, screened

Standard: DIN VDE 0266 (NHXCH),  
resp. adapted to DIN VDE 0266 ((N)HXCH)

### 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, only for NHXCH) or by a ceramising halogen-free polymer compound
- 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: fixed -40 °C to +80 °C  
in motion -5 °C to +50 °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 (DIN VDE 0293)



**Fire properties:**

halogen-free, no corrosive combustion gases (EN 50267-2-2, IEC 60754-2)  
reduced fire propagation (EN 50266-2-2, IEC 60332-3 Cat. A)  
minimum smoke emission (EN 50268-2, IEC 61034)  
insulation integrity FE180 (IEC 60331, DIN VDE 0472-814)  
functional integrity E30 (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/E30, (N)HXCH FE180/E30</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                |

# NHXCH FE180/E30, (N)HXCH FE180/E30

| 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/E30, (N)HXCH FE180/E30</b>  |                                  |                         |                      |                          |                              |
| 4 x 10 RE/10   | 1.8300                           | 23.0                    | 525                  | 900                      | 500 T, 1000 T                |
| 3 x 16 RE/16   | 1.1500                           | 23.0                    | 670                  | 1,100                    | 500 T, 1000 T                |
| 4 x 16 RE/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                | 5,300                    | 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/70  | 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                           | 60.0                    | 6,813                | 8,700                    | 500 T                        |
| 3 x 185 RM/95  | 0.0991                           | 55.0                    | 6,649                | 7,900                    | 500 T                        |
| 4 x 185 RM/95  | 0.0991                           | 63.0                    | 8,499                | 8,900                    | 500 T                        |
| 3 x 240 RM/120   | 0.0754                           | 62.0                    | 8,585                | 9,000                    | 500 T                        |
| 4 x 240 RM/120   | 0.0754                           | 66.0                    | 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/6  | 7.4100                           | 27.0                    | 470                  | 1,100                    | 500 T, 1000 T                |
| 19 x 2.5 RE/6  | 7.4100                           | 30.0                    | 595                  | 1,350                    | 500 T, 1000 T                |
| 24 x 2.5 RE/10   | 7.4100                           | 35.0                    | 725                  | 1,500                    | 500 T, 1000 T                |
| 30 x 2.5 RE/10   | 7.4100                           | 37.0                    | 875                  | 1,800                    | 500 T, 1000 T                |

Subject to technical changes.