

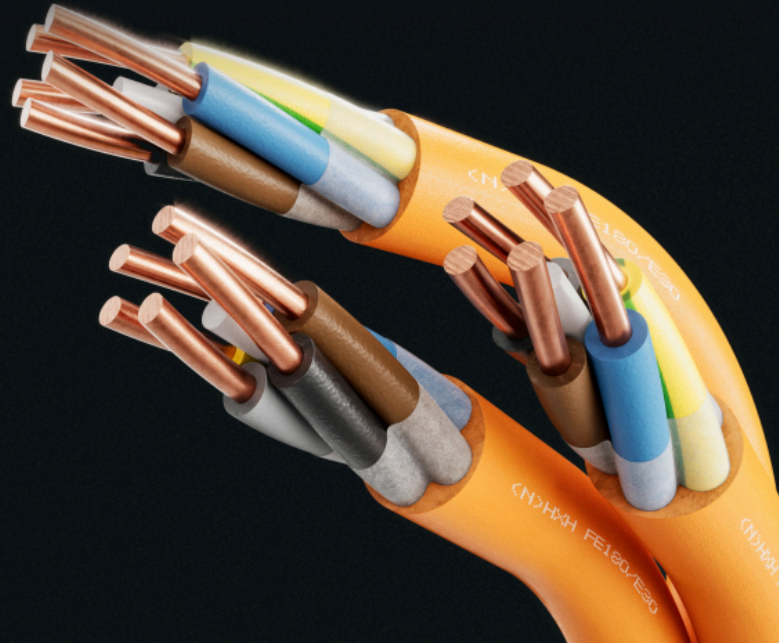


# (N)HXH FE180/E30 (VDE)

SiR/FRNC halogen-free energy cable with insulation integrity and circuit integrity

SAFETY CABLES WITH CIRCUIT INTEGRITY

These cables are intended for the stationary distribution of electrical energy in dry or damp premises and for fixed installations in air or concrete. Suitable for hotels, hospitals, underground railways, airports etc. to protect people and technical building equipment in the event of fire.. Not allowed for installations underground or in water. These cables are not UV-protected.



## TECHNICAL DATA



**Standard**  
adapted to DIN VDE 0266



**Certificate**  
VDE Germany



**Test Voltage**  
core/core 4 kV / 50 Hz



**Rated Voltage**  
0,6/1 kV



**Bending radius (min.)**  
12 x Ø of cable (multicore)  
15 x Ø of cable (singlecore)



**Fire properties**  
EN 60332-1-2: flame retardant  
EN 60754-2: halogen-free, non-corrosive combustion gases  
EN IEC 60332-3-24: reduced flame propagation  
EN 61034-2: low smoke emission  
IEC 60331-21, DIN VDE 0472-814: insulation integrity FE 180  
DIN 4102-12: circuit integrity



**Core identification**  
HD 308 S2



**Temperature range**  
Laying temperature: min. -5°C  
Operating temperature: -50°C up to 90°C  
Conductor temperature: max. 90°C  
Short circuit temperature: max. 250°C

## DESIGN



- 1 Copper conductor, round solid (RE) resp. round stranded (RM)
- 2 Core insulation (silicone rubber)
- 3 Inner covering (halogen-free fixation tape)
- 4 Sheath (halogen-free polymer compound, orange)

| Number of cores x nominal cross-section (mm <sup>2</sup> ) | Max. conductor resistance (Ω/km) | Current rating in the air (A) | Outer diameter appr. (mm) | Total weight appr. (kg/km) | Standard lengths/packing (m) |
|------------------------------------------------------------|----------------------------------|-------------------------------|---------------------------|----------------------------|------------------------------|
| 2 x 1.5 RE                                                 | 12.1                             | 28                            | 10.9                      | 161                        | 1000 D                       |
| 3 x 1.5 RE                                                 | 12.1                             | 24                            | 11.4                      | 182                        | 1000 D                       |
| 4 x 1.5 RE                                                 | 12.1                             | 24                            | 12.3                      | 214                        | 1000 D                       |
| 5 x 1.5 RE                                                 | 12.1                             | 16                            | 13.3                      | 247                        | 1000 D                       |
| 7 x 1.5 RE                                                 | 12.1                             | 15.5                          | 14.3                      | 306                        | 1000 D                       |
| 8 x 1.5 RE                                                 | 12.1                             | 15                            | 15.9                      | 357                        | 1000 D                       |
| 10 x 1.5 RE                                                | 12.1                             | 13                            | 17.8                      | 440                        | 500 D                        |
| 12 x 1.5 RE                                                | 12.1                             | 12.5                          | 18.3                      | 483                        | 500 D                        |
| 14 x 1.5 RE                                                | 12.1                             | 12                            | 19.2                      | 536                        | 500 D                        |
| 16 x 1.5 RE                                                | 12.1                             | 11                            | 20.2                      | 595                        | 500 D                        |
| 19 x 1.5 RE                                                | 12.1                             | 10.5                          | 21.2                      | 675                        | 500 D                        |
| 24 x 1.5 RE                                                | 12.1                             | 9.5                           | 24.7                      | 868                        | 500 D                        |
| 27 x 1.5 RE                                                | 12.1                             | 9                             | 25.2                      | 929                        | 500 D                        |
| 37 x 1.5 RE                                                | 12.1                             | 8                             | 28.3                      | 1204                       | 500 D                        |
| 48 x 1.5 RE                                                | 12.1                             | 7.5                           | 32.5                      | 1553                       | 500 D                        |
| 2 x 2.5 RE                                                 | 7.41                             | 37                            | 11.7                      | 195                        | 1000 D                       |
| 3 x 2.5 RE                                                 | 7.41                             | 32                            | 12.2                      | 226                        | 1000 D                       |
| 4 x 2.5 RE                                                 | 7.41                             | 32                            | 13.2                      | 268                        | 1000 D                       |
| 5 x 2.5 RE                                                 | 7.41                             | 22                            | 14.3                      | 312                        | 1000 D                       |
| 7 x 2.5 RE                                                 | 7.41                             | 20.5                          | 15.5                      | 393                        | 1000 D                       |
| 10 x 2.5 RE                                                | 7.41                             | 17.5                          | 19.3                      | 568                        | 500 D                        |
| 12 x 2.5 RE                                                | 7.41                             | 16.5                          | 19.9                      | 630                        | 500 D                        |
| 14 x 2.5 RE                                                | 7.41                             | 16                            | 20.9                      | 704                        | 500 D                        |
| 19 x 2.5 RE                                                | 7.41                             | 14                            | 23.2                      | 896                        | 500 D                        |
| 24 x 2.5 RE                                                | 7.41                             | 12.5                          | 27.1                      | 1158                       | 500 D                        |
| 30 x 2.5 RE                                                | 7.41                             | 12                            | 28.8                      | 1361                       | 500 D                        |
| 37 x 2.5 RE                                                | 7.41                             | 11                            | 31.2                      | 1636                       | 500 D                        |
| 48 x 2.5 RE                                                | 7.41                             | 10                            | 35.9                      | 2120                       | 500 D                        |
| 1 x 4 RE                                                   | 4.61                             | 57                            | 7.4                       | 91                         | 1000 D                       |
| 2 x 4 RE                                                   | 4.61                             | 49                            | 12.5                      | 239                        | 1000 D                       |
| 3 x 4 RE                                                   | 4.61                             | 42                            | 13.2                      | 282                        | 1000 D                       |
| 4 x 4 RE                                                   | 4.61                             | 42                            | 14.3                      | 338                        | 1000 D                       |
| 5 x 4 RE                                                   | 4.61                             | 28                            | 15.5                      | 398                        | 1000 D                       |
| 7 x 4 RE                                                   | 4.61                             | 27                            | 16.8                      | 506                        | 500 D                        |
| 12 x 4 RE                                                  | 4.61                             | 22                            | 21.7                      | 823                        | 500 D                        |
| 19 x 4 RE                                                  | 4.61                             | 18.5                          | 25.3                      | 1186                       | 500 D                        |
| 1 x 6 RE                                                   | 3.08                             | 73                            | 7.9                       | 113                        | 1000 D                       |
| 2 x 6 RE                                                   | 3.08                             | 62                            | 13.5                      | 296                        | 1000 D                       |
| 3 x 6 RE                                                   | 3.08                             | 53                            | 14.2                      | 357                        | 1000 D                       |
| 4 x 6 RE                                                   | 3.08                             | 53                            | 15.4                      | 432                        | 1000 D                       |
| 5 x 6 RE                                                   | 3.08                             | 36                            | 16.8                      | 512                        | 1000 D                       |
| 7 x 6 RE                                                   | 3.08                             | 32                            | 18.2                      | 660                        | 500 D                        |
| 1 x 10 RE                                                  | 1.83                             | 99                            | 8.7                       | 156                        | 1000 D                       |
| 2 x 10 RE                                                  | 1.83                             | 85                            | 15.1                      | 406                        | 1000 D                       |
| 3 x 10 RE                                                  | 1.83                             | 74                            | 15.9                      | 503                        | 1000 D                       |
| 4 x 10 RE                                                  | 1.83                             | 74                            | 17.3                      | 618                        | 1000 D                       |
| 4 x 10 RM                                                  | 1.83                             | 74                            | 17.8                      | 635                        | 1000 D                       |
| 5 x 10 RE                                                  | 1.83                             | 49                            | 18.9                      | 745                        | 1000 D                       |
| 5 x 10 RM                                                  | 1.83                             | 49                            | 19.5                      | 766                        | 1000 D                       |
| 7 x 10 RE                                                  | 1.83                             | 45                            | 20.6                      | 965                        | 500 D                        |
| 1 x 16 RE                                                  | 1.15                             | 131                           | 9.6                       | 216                        | 500 D                        |
| 2 x 16 RE                                                  | 1.15                             | 113                           | 16.9                      | 557                        | 500 D                        |



| Number of cores x nominal cross-section (mm <sup>2</sup> ) | Max. conductor resistance (Ω/km) | Current rating in the air (A) | Outer diameter appr. (mm) | Total weight appr. (kg/km) | Standard lengths/packing (m) |
|------------------------------------------------------------|----------------------------------|-------------------------------|---------------------------|----------------------------|------------------------------|
| 2 x 16 RM                                                  | 1.15                             | 113                           | 17.4                      | 578                        | 500 D                        |
| 3 x 16 RE                                                  | 1.15                             | 98                            | 17.9                      | 703                        | 500 D                        |
| 3 x 16 RM                                                  | 1.15                             | 98                            | 18.4                      | 727                        | 500 D                        |
| 4 x 16 RE                                                  | 1.15                             | 98                            | 19.5                      | 873                        | 500 D                        |
| 4 x 16 RM                                                  | 1.15                             | 98                            | 20.1                      | 901                        | 500 D                        |
| 5 x 16 RE                                                  | 1.15                             | 65                            | 21.4                      | 1063                       | 500 D                        |
| 5 x 16 RM                                                  | 1.15                             | 65                            | 22                        | 1096                       | 500 D                        |
| 7 x 16 RM                                                  | 1.15                             | 58                            | 24                        | 1430                       | 500 D                        |
| 1 x 25 RM                                                  | 0.727                            | 177                           | 11.5                      | 326                        | 500 D                        |
| 2 x 25 RM                                                  | 0.727                            | 153                           | 21.1                      | 875                        | 500 D                        |
| 3 x 25 RM                                                  | 0.727                            | 133                           | 22.4                      | 1102                       | 500 D                        |
| 3 x 25 + 16 RM/RM                                          | 0.727                            | 133                           | 23.6                      | 1321                       | 500 D                        |
| 4 x 25 RM                                                  | 0.727                            | 133                           | 24.5                      | 1373                       | 500 D                        |
| 5 x 25 RM                                                  | 0.727                            | 90                            | 26.9                      | 1671                       | 500 D                        |
| 1 x 35 RM                                                  | 0.524                            | 217                           | 12.6                      | 423                        | 500 D                        |
| 2 x 35 RM                                                  | 0.524                            | 187                           | 23.2                      | 1121                       | 500 D                        |
| 3 x 35 RM                                                  | 0.524                            | 162                           | 24.7                      | 1428                       | 500 D                        |
| 3 x 35 + 16 RM/RM                                          | 0.524                            | 162                           | 25.4                      | 1683                       | 500 D                        |
| 3 x 35 + 25 RM/RM                                          | 0.524                            | 162                           | 26.5                      | 1732                       | 500 D                        |
| 4 x 35 RM                                                  | 0.524                            | 162                           | 27                        | 1790                       | 500 D                        |
| 5 x 35 RM                                                  | 0.524                            | 109                           | 29.9                      | 2204                       | 500 D                        |
| 1 x 50 RM                                                  | 0.387                            | 265                           | 14.4                      | 560                        | 500 D                        |
| 3 x 50 RM                                                  | 0.387                            | 197                           | 28.4                      | 1905                       | 500 D                        |
| 3 x 50 + 25 RM/RM                                          | 0.387                            | 197                           | 29.9                      | 2277                       | 500 D                        |
| 3 x 50 + 35 RM/RM                                          | 0.387                            | 197                           | 30.6                      | 2342                       | 500 D                        |
| 4 x 50 RM                                                  | 0.387                            | 197                           | 31.4                      | 2406                       | 500 D                        |
| 5 x 50 RM                                                  | 0.387                            | 133                           | 34.8                      | 2958                       | 500 D                        |
| 1 x 70 RM                                                  | 0.268                            | 336                           | 16.2                      | 766                        | 500 D                        |
| 3 x 70 RM                                                  | 0.268                            | 250                           | 32.3                      | 2609                       | 500 D                        |
| 3 x 70 + 35 RM/RM                                          | 0.268                            | 250                           | 33.8                      | 3113                       | 500 D                        |
| 3 x 70 + 50 RM/RM                                          | 0.268                            | 250                           | 34.9                      | 3182                       | 500 D                        |
| 4 x 70 RM                                                  | 0.268                            | 250                           | 35.8                      | 3314                       | 500 D                        |
| 5 x 70 RM                                                  | 0.268                            | 180                           | 39.7                      | 4080                       | 500 D                        |
| 1 x 95 RM                                                  | 0.193                            | 415                           | 18.4                      | 1036                       | 500 D                        |
| 3 x 95 RM                                                  | 0.193                            | 308                           | 37.1                      | 3547                       | 500 D                        |
| 3 x 95 + 50 RM/RM                                          | 0.193                            | 308                           | 39.1                      | 4229                       | 500 D                        |
| 4 x 95 RM                                                  | 0.193                            | 308                           | 41.2                      | 4511                       | 500 D                        |
| 5 x 95 RM                                                  | 0.193                            | 215                           | 45.8                      | 5563                       | 500 D                        |
| 1 x 120 RM                                                 | 0.153                            | 485                           | 19.8                      | 1272                       | 500 D                        |
| 3 x 120 RM                                                 | 0.153                            | 359                           | 40.2                      | 4352                       | 500 D                        |
| 3 x 120 + 50 RM/RM                                         | 0.153                            | 359                           | 41.6                      | 5090                       | 500 D                        |
| 3 x 120 + 70 RM/RM                                         | 0.153                            | 359                           | 42.7                      | 5218                       | 500 D                        |
| 4 x 120 RM                                                 | 0.153                            | 359                           | 44.5                      | 5533                       | 500 D                        |
| 5 x 120 RM                                                 | 0.153                            | 247                           | 49.6                      | 6840                       | 500 D                        |
| 1 x 150 RM                                                 | 0.124                            | 557                           | 21.8                      | 1557                       | 500 D                        |
| 3 x 150 RM                                                 | 0.124                            | 412                           | 44.6                      | 5344                       | 500 D                        |
| 3 x 150 + 70 RM/RM                                         | 0.124                            | 412                           | 46.4                      | 6332                       | 500 D                        |
| 4 x 150 RM                                                 | 0.124                            | 412                           | 49.5                      | 6820                       | 500 D                        |
| 5 x 150 RM                                                 | 0.124                            | 279                           | 55                        | 8410                       | 500 D                        |
| 1 x 185 RM                                                 | 0.0991                           | 646                           | 24                        | 1927                       | 500 D                        |
| 4 x 185 RM                                                 | 0.0991                           | 480                           | 59.8                      | 9704                       | 500 D                        |
| 1 x 240 RM                                                 | 0.0754                           | 774                           | 27                        | 2500                       | 500 D                        |



| Number of cores x nominal cross-section (mm <sup>2</sup> ) | Max. conductor resistance (Ω/km) | Current rating in the air (A) | Outer diameter appr. (mm) | Total weight appr. (kg/km) | Standard lengths/packing (m) |
|------------------------------------------------------------|----------------------------------|-------------------------------|---------------------------|----------------------------|------------------------------|
| 3 x 240 + 120 RM/ RM                                       | 0.153                            | 565                           | 58.8                      | 11000                      | 500 D                        |
| 1 x 300 RM                                                 | 0.0601                           | 697                           | 30                        | 3300                       | 500 D, 1000D                 |

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