

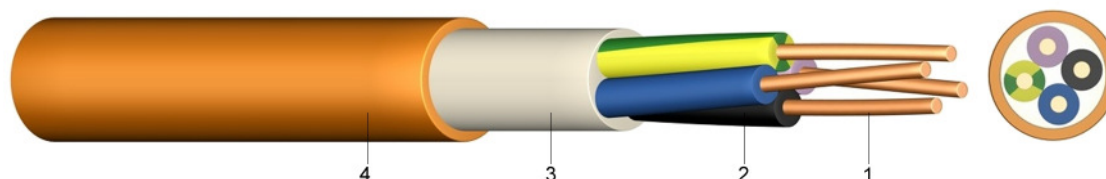
## Datasheet (N)HXH FE180/E30 KERAM

Version 1/2009

## Halogen-Free Cable with Circuit Integrity of 30 Minutes

### Application:

Safety cables are used in all locations where a high degree of protection against fire and fire-damage has to be provided for human life and equipment and are, therefore, subject to high security requirements. These cables may be used indoors and outdoors. They may not be installed directly into the ground and into the water. This cable conforms with Safety Class II standards. Circuit integrity of 30 minutes and insulation integrity of 180 minutes.



### Construction:

- 1 ..... solid or stranded bare copper
- 2 ..... core insulation of halogen-free, similar ceramic polymer compound (HXI 1)
- 3 ..... halogen-free inner sheath
- 4 ..... outer sheath of halogen-free polymere (HM4), orange

### Information:

These cables comply the conditions of the tests to insulation integrity according to DIN VDE 0472-814/ 8.83 about 180 min. and IEC Public. 331 first edition 1970 to circuit integrity about 30 min. to DIN 4102-12 according to VDE 0100-710 and 0100-718.

### According to:

adapted to DIN VDE 0266  
DIN VDE 0276-604  
DIN VDE 0472-814  
DIN EN 60228 class 1 and 2 (construction)  
HD 308 S2 (core identification)

### Technical data:

|                                   |                   |                   |                                   |
|-----------------------------------|-------------------|-------------------|-----------------------------------|
| Nominal voltage U <sub>0</sub> /U |                   | [V]               | 600 / 1000 Volt                   |
| Test voltage                      |                   | [V] <sub>AC</sub> | 4000                              |
| Temperature range                 | in motion         |                   | -5°C till +90°C                   |
| Operating temperature             | short circuit     | °C                | 250                               |
| Short circuit time                | max.              | [sec]             | 5                                 |
| Bending radius                    | single core style | x diameter        | 15                                |
|                                   | multi core style  | x diameter        | 12                                |
| Flammability                      | standard          |                   | EN 50266-2-4<br>IEC 60332-3 Kat.C |

| Number of cores and nominal cross section mm <sup>2</sup> | Copper figure kg/km | Overall diameter appr.mm | Calorific potential kWh/m | Weight appr. kg/km |
|-----------------------------------------------------------|---------------------|--------------------------|---------------------------|--------------------|
| 1 x 16 RM                                                 | 160                 | 9,0                      | 0,30                      | 207                |
| 1 x 25 RM                                                 | 250                 | 10,6                     | 0,40                      | 307                |
| 1 x 35 RM                                                 | 350                 | 11,8                     | 0,46                      | 407                |
| 1 x 50 RM                                                 | 500                 | 13,1                     | 0,54                      | 535                |
| 1 x 70 RM                                                 | 700                 | 15,0                     | 0,66                      | 744                |
| 1 x 95 RM                                                 | 950                 | 17,0                     | 0,80                      | 1.009              |

## Datasheet

Version 1/2009

| Number of cores and nominal cross section mm <sup>2</sup> |    |  | Copper figure kg/km | Overall diameter appr.mm | Calorific potential kWh/m | Weight appr. kg/km |
|-----------------------------------------------------------|----|--|---------------------|--------------------------|---------------------------|--------------------|
| 1 x 120                                                   | RM |  | 1.200               | 18,6                     | 0,91                      | 1.248              |
| 1 x 150                                                   | RM |  | 1.500               | 20,6                     | 1,14                      | 1.538              |
| 1 x 185                                                   | RM |  | 1.850               | 22,8                     | 1,35                      | 1.917              |
| 1 x 240                                                   | RM |  | 2.400               | 26,3                     | 1,56                      | 2.521              |
| 1 x 300                                                   | RM |  | 3.000               | 30,0                     | 2,50                      | 3.400              |
| 2 x 1,5                                                   | RE |  | 30                  | 10,2                     | 0,45                      | 145                |
| 2 x 2,5                                                   | RE |  | 50                  | 11,0                     | 0,52                      | 180                |
| 2 x 4                                                     | RE |  | 80                  | 11,8                     | 0,57                      | 224                |
| 2 x 6                                                     | RE |  | 120                 | 12,8                     | 0,65                      | 282                |
| 2 x 10                                                    | RE |  | 200                 | 14,4                     | 0,78                      | 393                |
| 2 x 16                                                    | RM |  | 320                 | 17,3                     | 1,04                      | 605                |
| 3 x 1,5                                                   | RE |  | 45                  | 10,6                     | 0,50                      | 165                |
| 3 x 2,5                                                   | RE |  | 75                  | 11,5                     | 0,57                      | 209                |
| 3 x 4                                                     | RE |  | 120                 | 12,4                     | 0,64                      | 268                |
| 3 x 6                                                     | RE |  | 180                 | 13,5                     | 0,72                      | 344                |
| 3 x 10                                                    | RE |  | 300                 | 15,6                     | 0,90                      | 506                |
| 3 x 16                                                    | RM |  | 480                 | 18,0                     | 1,14                      | 761                |
| 3 x 25                                                    | RM |  | 750                 | 22,3                     | 1,63                      | 1.160              |
| 3 x 35                                                    | RM |  | 1.050               | 24,9                     | 1,92                      | 1.522              |
| 3 x 50                                                    | RM |  | 1.500               | 27,7                     | 2,30                      | 1.980              |
| 3 x 70                                                    | RM |  | 2.100               | 32,0                     | 2,96                      | 2.746              |
| 3 x 95                                                    | RM |  | 2.850               | 36,5                     | 3,67                      | 3.712              |
| 3 x 25/16                                                 | RM |  | 910                 | 23,4                     | 1,76                      | 1.335              |
| 3 x 35/16                                                 | RM |  | 1.210               | 25,7                     | 2,02                      | 1.683              |
| 3 x 50/25                                                 | RM |  | 1.750               | 29,0                     | 2,50                      | 2.244              |
| 3 x 70/35                                                 | RM |  | 2.450               | 33,4                     | 3,18                      | 3.101              |
| 3 x 95/50                                                 | RM |  | 3.350               | 38,3                     | 4,04                      | 4.207              |
| 3 x 120/70                                                | RM |  | 4.300               | 42,6                     | 4,92                      | 5.315              |
| 4 x 1,5                                                   | RE |  | 60                  | 11,3                     | 0,56                      | 192                |
| 4 x 2,5                                                   | RE |  | 100                 | 12,3                     | 0,64                      | 249                |
| 4 x 4                                                     | RE |  | 160                 | 13,3                     | 0,72                      | 322                |
| 4 x 6                                                     | RE |  | 240                 | 14,5                     | 0,82                      | 418                |
| 4 x 10                                                    | RE |  | 400                 | 16,8                     | 1,01                      | 620                |
| 4 x 16                                                    | RM |  | 640                 | 19,8                     | 1,31                      | 944                |
| 4 x 25                                                    | RM |  | 1.000               | 24,3                     | 1,92                      | 1.452              |
| 4 x 35                                                    | RM |  | 1.400               | 27,1                     | 2,23                      | 1.906              |
| 4 x 50                                                    | RM |  | 2.000               | 30,5                     | 2,79                      | 2.514              |
| 4 x 70                                                    | RM |  | 2.800               | 35,3                     | 3,58                      | 3.497              |
| 4 x 95                                                    | RM |  | 3.800               | 40,2                     | 3,87                      | 4.728              |
| 4 x 120                                                   | RM |  | 4.800               | 44,5                     | 5,37                      | 5.882              |
| 4 x 150                                                   | RM |  | 6.000               | 49,0                     | 6,51                      | 7.199              |
| 5 x 1,5                                                   | RE |  | 75                  | 12,2                     | 0,66                      | 228                |
| 5 x 2,5                                                   | RE |  | 125                 | 13,3                     | 0,75                      | 295                |
| 5 x 4                                                     | RE |  | 200                 | 14,4                     | 0,84                      | 386                |
| 5 x 6                                                     | RE |  | 300                 | 16,1                     | 1,01                      | 518                |
| 5 x 10                                                    | RE |  | 500                 | 18,3                     | 1,22                      | 755                |
| 5 x 16                                                    | RM |  | 800                 | 22,2                     | 1,64                      | 1.187              |
| 5 x 25                                                    | RM |  | 1.250               | 26,6                     | 2,29                      | 1.773              |
| 5 x 35                                                    | RM |  | 1.750               | 29,8                     | 2,72                      | 2.341              |
| 5 x 50                                                    | RM |  | 2.500               | 33,7                     | 3,44                      | 3.100              |
| 7 x 1,5                                                   | RE |  | 105                 | 13,0                     | 0,73                      | 274                |
| 10 x 1,5                                                  | RE |  | 150                 | 16,4                     | 1,01                      | 397                |
| 12 x 1,5                                                  | RE |  | 180                 | 16,8                     | 1,08                      | 438                |
| 19 x 1,5                                                  | RE |  | 285                 | 19,2                     | 1,41                      | 606                |
| 24 x 1,5                                                  | RE |  | 360                 | 22,6                     | 1,78                      | 785                |
| 30 x 1,5                                                  | RE |  | 450                 | 23,7                     | 2,02                      | 917                |

## Datasheet

Version 1/2009

| Number of cores and nominal cross section mm <sup>2</sup> | Copper figure kg/km | Overall diameter appr.mm | Calorific potential kWh/m | Weight appr. kg/km |
|-----------------------------------------------------------|---------------------|--------------------------|---------------------------|--------------------|
| 7 x 2,5 RE                                                | 175                 | 14,2                     | 0,83                      | 358                |
| 12 x 2,5 RE                                               | 300                 | 18,0                     | 1,24                      | 580                |
| 19 x 2,5 RE                                               | 475                 | 21,8                     | 1,70                      | 852                |
| 24 x 2,5 RE                                               | 600                 | 25,0                     | 2,05                      | 1.054              |
| 30 x 2,5 RE                                               | 750                 | 26,3                     | 2,33                      | 1.245              |

More types on enquiry