



(N)HXH FE180/E90

SiR/FRNC halogen-free energy cable with insulation integrity and circuit integrity VDE Reg. No. K054

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
HD 604.5H
DIN VDE 0276-604, part 0, 1 and 5G
DIN VDE 0276-627, part 1 and 7H



Certificate

VDE Germany
VDE Reg. No. K054



Test Voltage

core/core 4 kV / 50 Hz



Rated Voltage

0,6/1 kV



Bending radius (min.)

12 x Ø of cable



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: insulation integrity FE180
DIN 4102-12: circuit integrity E90



Core identification

HD 308 S2



Temperature range

Laying temperature: min. -5°C
Operating temperature: -30°C up to 90°C
Conductor temperature: max. 90°C
Short circuit temperature: max. 250°C

DESIGN



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

| Number of cores x nominal cross-section (mm ²) | Max. conductor resistance (Ω/km) | Current rating in the air (A) | Outer diameter appr. (mm) | Total weight appr. (kg/km) |
|--|----------------------------------|-------------------------------|---------------------------|----------------------------|
| 2 x 1.5 RE | 12.1 | 29 | 9.3 | 126 |
| 3 x 1.5 RE | 12.1 | 24 | 9.9 | 147 |
| 4 x 1.5 RE | 12.1 | 24 | 10.7 | 174 |
| 5 x 1.5 RE | 12.1 | 24 | 11.5 | 202 |
| 7 x 1.5 RE | 12.1 | 16 | 12.6 | 254 |
| 10 x 1.5 RE | 12.1 | 13 | 15.8 | 379 |
| 12 x 1.5 RE | 12.1 | 13 | 16.3 | 414 |
| 14 x 1.5 RE | 12.1 | 12 | 17.2 | 466 |
| 16 x 1.5 RE | 12.1 | 12 | 18.0 | 517 |
| 19 x 1.5 RE | 12.1 | 11 | 19.1 | 591 |
| 21 x 1.5 RE | 12.1 | 10 | 20.0 | 630 |
| 24 x 1.5 RE | 12.1 | 10 | 22.3 | 777 |
| 30 x 1.5 RE | 12.1 | 8 | 23.5 | 894 |
| 40 x 1.5 RE | 12.1 | 8 | 28.5 | 1298 |
| 52 x 1.5 RE | 12.1 | 8 | 31.8 | 1626 |
| 61 x 1.5 RE | 12.1 | 7 | 33.9 | 1865 |
| 2 x 2.5 RE | 7.41 | 38 | 10.2 | 161 |
| 3 x 2.5 RE | 7.41 | 32 | 10.8 | 190 |
| 4 x 2.5 RE | 7.41 | 32 | 11.6 | 225 |
| 5 x 2.5 RE | 7.41 | 32 | 12.8 | 269 |
| 7 x 2.5 RE | 7.41 | 20 | 13.9 | 343 |
| 10 x 2.5 RE | 7.41 | 17 | 17.6 | 510 |
| 12 x 2.5 RE | 7.41 | 16 | 18.1 | 562 |
| 14 x 2.5 RE | 7.41 | 16 | 19.1 | 635 |
| 16 x 2.5 RE | 7.41 | 15 | 20.0 | 707 |
| 19 x 2.5 RE | 7.41 | 14 | 21.2 | 811 |
| 21 x 2.5 RE | 7.41 | 13 | 22.5 | 878 |
| 24 x 2.5 RE | 7.41 | 12 | 24.8 | 1063 |
| 30 x 2.5 RE | 7.41 | 10 | 28.3 | 1396 |
| 40 x 2.5 RE | 7.41 | 10 | 31.5 | 1760 |
| 52 x 2.5 RE | 7.41 | 10 | 35.4 | 2235 |
| 61 x 2.5 RE | 7.41 | 9 | 37.7 | 2569 |
| 2 x 4 RE | 4.61 | 51 | 12.2 | 233 |
| 3 x 4 RE | 4.61 | 42 | 12.8 | 275 |
| 4 x 4 RE | 4.61 | 42 | 14.0 | 334 |
| 5 x 4 RE | 4.61 | 42 | 15.2 | 391 |
| 2 x 6 RE | 3.08 | 63 | 13.1 | 291 |
| 3 x 6 RE | 3.08 | 54 | 14.1 | 356 |
| 4 x 6 RE | 3.08 | 54 | 15.2 | 429 |
| 5 x 6 RE | 3.08 | 54 | 16.7 | 514 |
| 2 x 10 RE | 1.83 | 86 | 15.1 | 418 |
| 3 x 10 RE | 1.83 | 74 | 16.2 | 520 |
| 4 x 10 RE | 1.83 | 74 | 17.8 | 642 |
| 5 x 10 RE | 1.83 | 74 | 19.6 | 778 |
| 1 x 16 RM | 1.15 | 131 | 9.7 | 213 |
| 2 x 16 RE | 1.15 | 113 | 17.4 | 588 |
| 2 x 16 RM | 1.15 | 113 | 17.9 | 611 |
| 3 x 16 RE | 1.15 | 98 | 18.4 | 732 |
| 3 x 16 RM | 1.15 | 98 | 19.2 | 764 |
| 4 x 16 RE | 1.15 | 98 | 20.2 | 911 |
| 4 x 16 RM | 1.15 | 98 | 21.4 | 972 |
| 5 x 16 RE | 1.15 | 98 | 22.4 | 1118 |



| Number of cores x nominal cross-section (mm ²) | Max. conductor resistance (Ω/km) | Current rating in the air (A) | Outer diameter appr. (mm) | Total weight appr. (kg/km) |
|--|----------------------------------|-------------------------------|---------------------------|----------------------------|
| 5 x 16 RM | 1.15 | 98 | 23.2 | 1154 |
| 1 x 25 RM | 0.727 | 177 | 11.3 | 313 |
| 2 x 25 RM | 0.727 | 133 | 21.6 | 924 |
| 3 x 25 RM | 0.727 | 133 | 23.2 | 1164 |
| 4 x 25 RM | 0.727 | 133 | 25.4 | 1447 |
| 5 x 25 RM | 0.727 | 133 | 30.3 | 1935 |
| 1 x 35 RM | 0.524 | 217 | 12.8 | 422 |
| 3 x 35 RM | 0.524 | 162 | 28.5 | 1713 |
| 4 x 35 RM | 0.524 | 162 | 31.1 | 2113 |
| 5 x 35 RM | 0.524 | 162 | 32.5 | 2454 |
| 1 x 50 RM | 0.387 | 265 | 14.5 | 557 |
| 3 x 50 RM | 0.387 | 197 | 31.9 | 2215 |
| 4 x 50 RM | 0.387 | 197 | 35.1 | 2755 |
| 5 x 50 RM | 0.387 | 197 | 38.1 | 3259 |
| 1 x 70 RM | 0.268 | 336 | 16.6 | 770 |
| 3 x 70 RM | 0.268 | 250 | 33.8 | 2510 |
| 4 x 70 RM | 0.268 | 250 | 40.4 | 3801 |
| 5 x 70 RM | 0.268 | 250 | 42.7 | 4298 |
| 1 x 95 RM | 0.193 | 415 | 18.9 | 1049 |
| 3 x 95 RM | 0.193 | 308 | 38.3 | 4275 |
| 4 x 95 RM | 0.193 | 308 | 45.6 | 5066 |
| 5 x 95 RM | 0.193 | 308 | 46.6 | 6127 |
| 1 x 120 RM | 0.153 | 485 | 20.6 | 1299 |
| 3 x 120 RM | 0.153 | 359 | 43.8 | 4796 |
| 4 x 120 RM | 0.153 | 359 | 50.0 | 6262 |
| 5 x 120 RM | 0.153 | 359 | 50.6 | 7740 |
| 1 x 150 RM | 0.124 | 557 | 22.5 | 1582 |
| 3 x 150 RM | 0.124 | 412 | 42.8 | 5805 |
| 4 x 150 RM | 0.124 | 412 | 55.3 | 7702 |
| 5 x 150 RM | 0.124 | 412 | 56.4 | 9675 |
| 1 x 185 RM | 0.099 | 646 | 24.6 | 1950 |
| 3 x 185 RM | 0.099 | 475 | 52.3 | 7159 |
| 4 x 185 RM | 0.099 | 475 | 56.3 | 8769 |
| 5 x 185 RM | 0.099 | 475 | 62.3 | 11932 |
| 1 x 240 RM | 0.075 | 774 | 27.8 | 2537 |
| 3 x 240 RM | 0.075 | 564 | 59.1 | 9288 |
| 4 x 240 RM | 0.075 | 564 | 68.0 | 11965 |



| System / System Manufacturer | System identification | Classification | Range | Distance (a) /Width (b) / Load (g) | AbP number | Laying type No. |
|------------------------------|-----------------------|----------------|---------------------|--|----------------|-----------------|
| OBO Bettermann | RKSM 630 + AW55/31 | E90 | $n \times \geq 1.5$ | a = 1500 mm b = 300 mm g = 20 kg/m | P-MPA-E-23-003 | 2.1 |
| OBO Bettermann | RKSM 640 + AW55/41 | E90 | $n \times \geq 1.5$ | a = 1500 mm b = 400 mm g = 20 kg/m | P-MPA-E-23-003 | 2.2 |
| OBO Bettermann | 2056/M | E90 | $n \times \geq 1.5$ | a = 800 mm | P-MPA-E-23-003 | 8.1 |
| OBO Bettermann | 732/733 | E90 | $n \times \geq 1.5$ | a = 800 mm | P-MPA-E-23-003 | 8.2 |
| Niedax | Bügelschellen B | E90 | $n \times = 1.5$ | a = 800 mm | P-MPA-E-23-003 | 9.1 |
| Niedax | Abstandschelle SAS | E90 | $n \times \geq 1.5$ | a = 800 mm | P-MPA-E-23-003 | 9.2 |



CONTACT PERSON

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