



### H07RN8-F

#### Application and Description

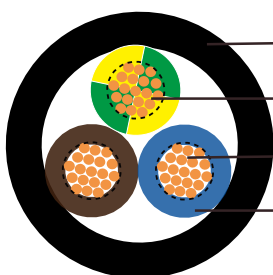
These cables particularly for use in fresh water up to 10 m depth with a maximum water temperature up to 40°C , such as the connection of submersible pumps or similar applications. Not suitable for underwater power transmission or installation in a watercourse, or where it is possible that mechanical damage might occur and cause a hazard. Indirect underground installation is allowed provided that there is mechanically protection of the cables. These cables are manufactured according to the Standard and Approval CEI 20-19/16 (CENELEC HD 22.16). It is the only cable that the installation Standard and Approval CEI 64-8 at section 702 allows for installation in swimming pools and fountains. For connections liable to moderate mechanical stresses, i.e. industrial or agricultural workshop apparatus, large boilers, heater plates, electric tools such as drills and disk saws, electric appliances, portable motors and generators on building sites; also for fixed installations along floors or shelving on temporary job sites, for connecting structural elements in lifting apparatus, machinery, etc. Suitable for applications up to 1000 V for adequately protected fixed installations ( i.e. inside pipes or equipment) as well as for rotor connections to lifting apparatus motors. They are Ozone, UV & weather resistant

#### Standard and Approval

CEI 20-19 p.16, CE low voltage directive 73/23/EEC & 93/68/EEC., ROHS compliant

#### Cable Construction

- Fine bare copper strands
- Strands to VDE-0295 Class-5, IEC 60228 Class-5
- Rubber core insulation EI4 to VDE-0282 Part-1
- Color code VDE-0293-308 and HD 186
- Polychloroprene rubber (neoprene) jacket EM2



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- Polychloroprene rubber outer jacket
- Green/Yellow wire
- Bare copper conductor
- Rubber insulation



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### Technical Characteristics

- Working voltage: 450/750 volts
- Test voltage: 2500 volts
- Flexing bending radius: 6.0 x Ø
- Fixed bending radius: 4.0 x Ø
- Flexing Temperature: -25° C to +60° C
- Fixed Temperature: -40° C to +60° C
- Max Water Temperature: +40° C
- Short circuit temperature: +250 ° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩ x km

### Cable Parameter

| AWG       | No. of Cores x<br>Nominal Cross<br>Sectional Area<br># x mm <sup>2</sup> | Nominal<br>Thickness<br>of Insulation<br>mm | Nominal<br>Thickness<br>of Sheath<br>mm | Nominal<br>Overall<br>Diameter<br>mm min-max | Nominal<br>Copper<br>Weight<br>kg/km | Nominal<br>Weight<br>kg/km |
|-----------|--|---|---|--|--------------------------------------|----------------------------|
| 17(32/32) | 2 x 1  | 0.8   | 1.3                                     | 7.7-10                                       | 19                                   | 89                         |
| 17(32/32) | 3 x 1  | 0.8   | 1.4                                     | 8.3-10.7                                     | 29                                   | 111                        |
| 17(32/32) | 4 x 1  | 0.8   | 1.5                                     | 9.2-11.9                                     | 38                                   | 146                        |
| 16(30/30) | 1 x 1.5  | 0.8   | 1.4                                     | 5.7-7.1                                      | 14.4                                 | 59                         |
| 16(30/30) | 2 x 1.5  | 0.8   | 1.5                                     | 8.5-11.0                                     | 29                                   | 135                        |
| 16(30/30) | 3 x 1.5  | 0.8   | 1.6                                     | 9.2-11.9                                     | 43                                   | 165                        |
| 16(30/30) | 4 x 1.5  | 0.8   | 1.7                                     | 10.2-13.1                                    | 58                                   | 200                        |
| 16(30/30) | 5 x 1.5  | 0.8   | 1.8                                     | 11.2-14.4                                    | 72                                   | 240                        |
| 16(30/30) | 7 x 1.5  | 0.8   | 2.6                                     | 14.5-17.5                                    | 101                                  | 385                        |
| 16(30/30) | 12 x 1.5   | 0.8   | 2.9                                     | 17.6-22.4                                    | 173                                  | 516                        |
| 16(30/30) | 19 x 1.5   | 0.8   | 3.2                                     | 20.7-26.3                                    | 274                                  | 800                        |
| 16(30/30) | 24 x 1.5   | 0.8   | 3.5                                     | 24.3-30.7                                    | 346                                  | 882                        |
| 14(50/30) | 1 x 2.5  | 0.9   | 1.4                                     | 6.3-7.9                                      | 24                                   | 72                         |
| 14(50/30) | 2 x 2.5  | 0.9   | 1.7                                     | 10.2-13.1                                    | 48                                   | 195                        |
| 14(50/30) | 3 x 2.5  | 0.9   | 1.8                                     | 10.9-14.0                                    | 72                                   | 235                        |
| 14(50/30) | 4 x 2.5  | 0.9   | 1.9                                     | 12.1-15.5                                    | 96                                   | 290                        |
| 14(50/30) | 5 x 2.5  | 0.9   | 2                                       | 13.3-17.0                                    | 120                                  | 345                        |
| 14(50/30) | 7 x 2.5  | 0.9   | 2.8                                     | 16.5-20.0                                    | 168                                  | 520                        |
| 14(50/30) | 12 x 2.5   | 0.9   | 3.1                                     | 20.6-26.2                                    | 288                                  | 810                        |
| 14(50/30) | 19 x 2.5   | 0.9   | 3.5                                     | 25.5-31.0                                    | 456                                  | 1200                       |
| 14(50/30) | 24 x 2.5   | 0.9   | 3.9                                     | 28.8-36.4                                    | 576                                  | 1650                       |
| 12(56/28) | 1 x 4  | 1   | 1.5                                     | 7.2-9.0                                      | 38                                   | 99                         |
| 12(56/28) | 2 x 4  | 1   | 1.8                                     | 11.8-15.1                                    | 77                                   | 270                        |
| 12(56/28) | 3 x 4  | 1   | 1.9                                     | 12.7-16.2                                    | 115                                  | 320                        |
| 12(56/28) | 4 x 4  | 1   | 2                                       | 14.0-17.9                                    | 154                                  | 395                        |



## Italian Standard

| AWG               | No. of Cores x<br>Nominal Cross<br>Sectional Area<br># x mm <sup>2</sup> | Nominal<br>Thickness<br>of Insulation<br>mm | Nominal<br>Thickness<br>of Sheath<br>mm | Nominal<br>Overall<br>Diameter<br>mm min-max | Nominal<br>Copper<br>Weight<br>kg/km | Nominal<br>Weight<br>kg/km |
|-------------------|--|---|---|--|--------------------------------------|----------------------------|
| 12(56/28)         | 5 x 4  | 1   | 2.2                                     | 15.6-19.9                                    | 192                                  | 485                        |
| 12(56/28)         | 7 x 4  | 1   | 3.1                                     | 18.2-21.8                                    | 269                                  | 681                        |
| 10(84/28)         | 1 x 6  | 1   | 1.6                                     | 7.9-9.8                                      | 58                                   | 130                        |
| 10(84/28)         | 3 x 6  | 1   | 2.1                                     | 14.1-18.0                                    | 173                                  | 495                        |
| 10(84/28)         | 4 x 6  | 1   | 2.3                                     | 15.7-20.0                                    | 230                                  | 610                        |
| 10(84/28)         | 5 x 6  | 1.2   | 3.6                                     | 17.5-22.2                                    | 288                                  | 760                        |
| 8(80/26)          | 1 x 10   | 1.2   | 1.8                                     | 9.5-11.9                                     | 96                                   | 230                        |
| 8(80/26)          | 3 x 10   | 1.2   | 3.3                                     | 19.1-24.2                                    | 288                                  | 880                        |
| 8(80/26)          | 4 x 10   | 1.2   | 3.4                                     | 20.9-26.5                                    | 384                                  | 1060                       |
| 8(80/26)          | 5 x 10   | 1.2   | 3.6                                     | 22.9-29.1                                    | 480                                  | 1300                       |
| 6(128/26)         | 1 x 16   | 1.2   | 1.9                                     | 10.8-13.4                                    | 154                                  | 320                        |
| 6(128/26)         | 3 x 16   | 1.2   | 3.5                                     | 21.8-27.6                                    | 461                                  | 1090                       |
| 6(128/26)         | 4 x 16   | 1.2   | 3.6                                     | 23.8-30.1                                    | 614                                  | 1345                       |
| 6(128/26)         | 5 x 16   | 1.2   | 3.9                                     | 26.4-33.3                                    | 768                                  | 1680                       |
| 4(200/26)         | 1 x 25   | 1.4   | 2                                       | 12.7-15.8                                    | 240                                  | 450                        |
| 4(200/26)         | 4 x 25   | 1.4   | 4.1                                     | 28.9-36.6                                    | 960                                  | 1995                       |
| 4(200/26)         | 5 x 25   | 1.4   | 4.4                                     | 32.0-40.4                                    | 1200                                 | 2470                       |
| 2 (280/26)        | 1 x 35   | 1.4   | 2.2                                     | 14.3-17.9                                    | 336                                  | 605                        |
| 2 (280/26)        | 3 x 35   | 1.4   | 4.1                                     | 29.3-37.1                                    | 1008                                 | 1900                       |
| 2 (280/26)        | 4 x 35   | 1.4   | 4.4                                     | 32.5-41.1                                    | 1344                                 | 2645                       |
| 2 (280/26)        | 5 x 35   | 1.4   | 4.7                                     | 37.0-45.0                                    | 1680                                 | 2810                       |
| 1(400/26)         | 1 x 50   | 1.6   | 2.4                                     | 16.5-20.6                                    | 480                                  | 825                        |
| 1(400/26)         | 4 x 50   | 1.6   | 4.8                                     | 37.7-47.5                                    | 1920                                 | 3635                       |
| 1(400/26)         | 5 x 50   | 1.6   | 5.1                                     | 40.0-50.8                                    | 2400                                 | 4050                       |
| 2/0(356/24)       | 1 x 70   | 1.6   | 2.6                                     | 18.6-23.3                                    | 672                                  | 1090                       |
| 2/0(356/24)       | 4 x 70   | 1.6   | 5.2                                     | 42.7-54.0                                    | 2688                                 | 4830                       |
| 3/0(485/24)       | 1 x 95   | 1.8   | 2.8                                     | 20.8-26.0                                    | 912                                  | 1405                       |
| 3/0(485/24)       | 4 x 95   | 1.8   | 5.9                                     | 48.4-61.0                                    | 3648                                 | 6320                       |
| 4/0(614/24)       | 1x 120   | 1.8   | 3                                       | 22.8-28.6                                    | 1152                                 | 1746                       |
| 4/0(614/24)       | 4 x 120  | 1.8   | 6                                       | 53.0-66.0                                    | 4608                                 | 6830                       |
| 300 MCM (765/24)  | 1 x 150  | 2   | 3.2                                     | 25.2-31.4                                    | 1440                                 | 1887                       |
| 300 MCM (765/24)  | 4 x 150  | 2   | 6.4                                     | 58.0-73.0                                    | 5760                                 | 8320                       |
| 350 MCM (944/24)  | 1 x 185  | 2.2   | 3.4                                     | 27.6-34.4                                    | 1776                                 | 2274                       |
| 350 MCM (944/24)  | 4 x 185  | 2.2   | 6.8                                     | 64.0-80.0                                    | 7104                                 | 9800                       |
| 500 MCM (1221/24) | 1x 240   | 2.4   | 3.5                                     | 30.6-38.3                                    | 23.4                                 | 2956                       |
| 500 MCM (1221/24) | 4x 240   | 2.4   | 7.2                                     | 72.0-90.0                                    | 9216                                 | 12100                      |
| -                 | 1 x 300  | 2.6   | 3.6                                     | 33.5-41.9                                    | 2880                                 | 3479                       |