# RFOU 8.7/15 (17.5)kV P4 P11

## EPR/EPR/TCWB/EVA

Halogen-free, mud resistant, flame retardant, MV power cable


## Application

Fixed installation for medium voltage (MV) power in both EX-and safe areas, general purposes. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the MUD resistance requirement in NEK TS 606:2009.

## Construction

| | |
|---|---|
| **Conductor** | : Tinned stranded and compressed copper (STCC), IEC 60228 class 2 |
| **Conductor screen semi-conductive** | : Semi-conductive layer (EP-rubber) |
| **Insulation** | : EP-rubber, IEC 60092-360 (EPR) |
| **Insulation screen semi-conductive** | : Semi-conductive layer (EP-rubber) |
| **Lay up / Shielding** | : Cores are laid up together. Cores are identified by Brown, Black or Grey threads under and over the metallic screen on each conductor. |
| **Inner covering** | : Flame retardant and halogen-free thermoset compound |
| **Tape over inner covering** | : PET tape |
| **Armour/screen** | : Tinned annealed copper wire braid |
| **Tape over armour/screen** | : PET tape |
| **Outer sheath** | : Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360) |
| **Marking text** | : E.g. "meter" "year" manufacturer RFOU 8,7/15(17,5)KV P4/P11 1 x 300/29 mm2 IEC 60332-3-22 |

## Outer Sheath Colours

**Available colours** : Red

## Installation recommendations

| | |
|---|---|
| **Min. Bending Radius during Installation** | : 15xD |
| **Min. Bending Radius Fix Installed** | : 9xD |
| **Max. Conductor Operating Temperature** | : 90°C |

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## Standards applied

| | |
|---|---|
| IEC 60092-353 | Design |
| IEC 60228 class 2 | Conductor |
| IEC 60092-360 | Insulation |
| IEC 60092-360 | Sheath |
| IEC 60332-1-2 | Flame Retardant |
| IEC 60332-3-22 | Flame Retardant |
| IEC 60754-1,2 | Halogen Free |
| IEC 61034-1,2 | Low Smoke |

## Range and Dimensions

| Article Code | Number of elements | Size Cross-Section in mm² | Nominal diameter inner covering, mm | Diameter braid wire, mm | Mechanical cross-section of the braid, mm² | Nominal diameter outer sheath, mm | Weight of Cable Approx. (Kg/Km) |
|---|---|---|---|---|---|---|---|
| N02F01C025BAKRD8 | 1 | 25 | 22 | 0.4 | 35 | 28.0 | 1370 |
| N02F01C035BAKRD8 | 1 | 35 | 23.0 | 0.4 | 27.1 | 29.0 | 1500 |
| N02F01C050BAKRD8 | 1 | 50 | 24.0 | 0.4 | 27.1 | 30.5 | 1700 |
| N02F01C070BAKRD8 | 1 | 70 | 26.0 | 0.4 | 27.1 | 32.0 | 2000 |
| N02F01C095BAKRD8 | 1 | 95 | 28.0 | 0.4 | 31.7 | 34.5 | 2450 |
| N02F01C120BAKRD8 | 1 | 120 | 29.5 | 0.4 | 31.7 | 36.0 | 2700 |
| N02F01C150BAKRD8 | 1 | 150 | 31.0 | 0.4 | 31.7 | 38.0 | 3000 |
| N02F01C185BAKRD8 | 1 | 185 | 33.0 | 0.4 | 31.7 | 39.5 | 3500 |
| N02F01C240BAKRD8 | 1 | 240 | 35.0 | 0.4 | 36.2 | 42.0 | 4300 |
| N02F01C300BAKRD8 | 1 | 300 | 37.5 | 0.4 | 40.7 | 44.5 | 5000 |
| N02F01C400BAKRD8 | 1 | 400 | 42 | 0.4 | 49.8 | 49.5 | 6250 |
| N02F03C025BCCRD8 | 3 | 25 | 46.5 | 0.5 | 35 | 55 | 4800 |
| N02F03C035BCCRD8 | 3 | 35 | 49.0 | 0.5 | 49.5 | 57.5 | 5400 |
| N02F03C050BCCRD8 | 3 | 50 | 52.0 | 0.5 | 56.5 | 61.0 | 6100 |
| N02F03C070BCCRD8 | 3 | 70 | 55.5 | 0.5 | 56.5 | 64.5 | 7250 |
| N02F03C095BCCRD8 | 3 | 95 | 59 | 0.5 | 70.7 | 68.5 | 8500 |
| N02F03C120BCCRD8 | 3 | 120 | 62.5 | 0.5 | 84.8 | 72 | 9750 |
| N02F03C150BCCRD8 | 3 | 150 | 66.0 | 0.6 | 112 | 76.0 | 11150 |
| N02F03C185BCCRD8 | 3 | 185 | 69.5 | 0.6 | 122.1 | 80.0 | 13200 |
| N02F03C240BCCRD8 | 3 | 240 | 74.5 | 0.6 | 122.1 | 85.5 | 15650 |
| N02F03C300BCCRD8 | 3 | 300 | 80.0 | 0.6 | 122.1 | 91.0 | 17800 |

*Note*: Subject to change without prior notice. Nominal diameter can have a tolerance of -5% or +5%.

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## Electrical value instrumentation cables, conductor type 2 STCC

| Number of elements | Size Cross-Section in mm² | Electrical Cross section braid, mm² | Max. conductor resistance at 20°C, Ohm/km | Max. conductor resistance at 90°C, Ohm/km | Reactance at 50Hz, Ohm/km | Reactance at 60Hz, Ohm/km | Capacitance per phase, nF/km | Current rating IEC 60092-352 Table B.4, Ampere | Short circuit rating 1 second, Ampere |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 25 | 20 | 0.734 | 0.936 | 0.151 | 0.181 | 210 | 127 | 3500 |
| 1 | 35 | 20 | 0.529 | 0.675 | 0.145 | 0.174 | 230 | 157 | 4900 |
| 1 | 50 | 20 | 0.391 | 0.499 | 0.137 | 0.165 | 250 | 196 | 7000 |
| 1 | 70 | 20 | 0.270 | 0.344 | 0.130 | 0.156 | 280 | 242 | 9800 |
| 1 | 95 | 20 | 0.195 | 0.249 | 0.125 | 0.150 | 310 | 293 | 13300 |
| 1 | 120 | 20 | 0.154 | 0.196 | 0.120 | 0.144 | 340 | 339 | 16800 |
| 1 | 150 | 20 | 0.126 | 0.161 | 0.116 | 0.140 | 370 | 389 | 21000 |
| 1 | 185 | 20 | 0.100 | 0.128 | 0.113 | 0.135 | 400 | 444 | 25900 |
| 1 | 240 | 25 | 0.0762 | 0.0972 | 0.109 | 0.130 | 440 | 522 | 33600 |
| 1 | 300 | 29 | 0.0607 | 0.0774 | 0.105 | 0.126 | 480 | 601 | 42000 |
| 1 | 400 | 30 | 0.047 | 0.059 | 0.101 | 0.121 | 550 | 690 dc / 670 ac | 56000 |
| 3 | 25 | 35 | 0.734 | 0.936 | 0.127 | 0.152 | 210 | 89 | 3500 |
| 3 | 35 | 35 | 0.529 | 0.675 | 0.122 | 0.146 | 230 | 110 | 4900 |
| 3 | 50 | 40 | 0.391 | 0.499 | 0.115 | 0.138 | 250 | 137 | 7000 |
| 3 | 70 | 40 | 0.270 | 0.344 | 0.109 | 0.131 | 280 | 169 | 9800 |
| 3 | 95 | 55 | 0.195 | 0.249 | 0.104 | 0.125 | 310 | 205 | 13300 |
| 3 | 120 | 60 | 0.154 | 0.196 | 0.100 | 0.121 | 340 | 237 | 16800 |
| 3 | 150 | 80 | 0.126 | 0.161 | 0.097 | 0.117 | 370 | 272 | 21000 |
| 3 | 185 | 95 | 0.100 | 0.128 | 0.097 | 0.117 | 400 | 311 | 25900 |
| 3 | 240 | 95 | 0.0762 | 0.0972 | 0.091 | 0.109 | 440 | 365 | 33600 |
| 3 | 300 | 95 | 0.0607 | 0.0774 | 0.088 | 0.106 | 480 | 421 | 42000 |



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