

Power & Control Cable

IEC 60502-1

(Multicores)

U₀/U 0.6 / 1 kV

PVC-Insulation, Armour

YYRY-fl

Application

For electricity supply and control in public networks and industrial plants; suitable for use in zone 1 and zone 2 group II classified areas (IEC 60079-14).

Recommended for direct burial. For indoor and outdoor installation in dry and wet locations, on racks, in conduits

Construction

Conductor plain annealed copper, class 1 or class 2 resp., acc. to IEC 60228
 class 1: circular solid (RE)
 class 2: circular stranded (RM)

Insulation polyvinylchlorid PVC

Colour code black, continuously numbered

Laying up cores twisted in layers (if necessary with filling element(s))

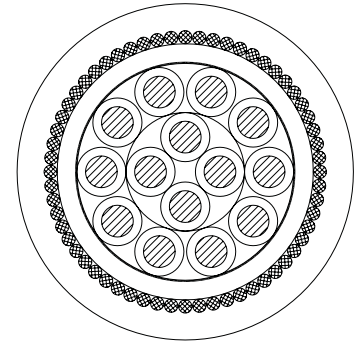
Wrapping at least 1 layer of plastic tape

Bedding extruded polyvinyl chloride PVC, black

Armour galvanized round steel wires

Outer Sheath extruded polyvinyl chloride PVC, black

Cable marking ELECTRIC CABLE 0.6/1 kV IEC 60502-1
 KERPEN, YEAR, LENGTH MARKING



Technical Data

Abbreviations

Flame retardancy: IEC 60332-1

Flame propagation: IEC 60332-3 cat. A

Outer Sheath:

Amount of halogen acid gas: max. 17 %
 (IEC 60754-1)

Limiting Oxygen Index(LOI): min. 30 %
 (IEC 60332-3 ann.B)

Temperature Index (TI): min. 300 °C
 (ASTM-D-2863)

Temperature range:
 - 30 °C up to + 70 °C
 (during operation)
 - 5 °C up to + 50 °C
 (during installation)
 max. + 160 °C
 (under short circuit)

Min. bending radius:
 8 x cable-Ø

Y insulation, bedding & outer sheath of PVC

R round steel wire armour

-fl reduced flame propagation

Electrical Data at 20 °C

| | Character | Unit | Values |
|--|------------------|-------------|--------------------------------|
| Conductor resistance | max. | Ω/km | acc. to IEC 60228 |
| Test voltage U _{rms} core: core | | V | 3500 |
| Test voltage U _{rms} core: armour | | V | 3500 |
| Nominal voltage U ₀ /U | | V | 600/1000 |
| Highest system voltage U _m | max. | V | 1200 (for three phase systems) |

For further electrical details see appendix

| Power & Control Cable | | | | | | | IEC 60502-1 |
|---|--|--|--------------------------------------|--|------------------------------------|---|------------------------------|
| (Multicores) | | | | | | | U ₀ /U 0.6 / 1 kV |
| PVC-Insulation, Armour YYRY-fl | | | | | | | |
| Geometrical Data | | | | | | | |
| No. of cores and cross-section (nom.) n / mm ² | Radial thickness of insulation (nom.) mm | Diameter over bedding (approx.) mm | Armour wire diameter (nom.) mm | Radial thickness of outer sheath (nom.) mm | Overall diameter (approx.) m | Weight of cable (approx.) kg / km | Part number |
| 5 x 1.5 RE | 0.8 | 9.8 | 0.8 | 1.8 | 15.2 | 450 | 20300084 |
| 7 x 1.5 RE | 0.8 | 10.7 | 0.8 | 1.8 | 16.1 | 520 | 20300085 |
| 10 x 1.5 RE | 0.8 | 13.7 | 1.25 | 1.8 | 19.8 | 790 | 20300086 |
| 12 x 1.5 RE | 0.8 | 14.1 | 1.25 | 1.8 | 20.2 | 850 | 20300087 |
| 19 x 1.5 RE | 0.8 | 17.1 | 1.6 | 1.8 | 23.9 | 1260 | 20300090 |
| 27 x 1.5 RE | 0.8 | 20.6 | 1.6 | 1.8 | 27.4 | 1610 | 20300093 |
| 37 x 1.5 RE | 0.8 | 23.1 | 1.6 | 1.9 | 30.1 | 1950 | 20300096 |
| 48 x 1.5 RE | 0.8 | 26.5 | 1.6 | 2.0 | 33.7 | 2380 | 20300100 |
| 5 x 1.5 RM | 0.8 | 10.4 | 0.8 | 1.8 | 15.8 | 480 | 20300101 |
| 7 x 1.5 RM | 0.8 | 11.4 | 0.8 | 1.8 | 16.8 | 560 | 20300102 |
| 10 x 1.5 RM | 0.8 | 14.5 | 1.25 | 1.8 | 20.6 | 850 | 20300103 |
| 12 x 1.5 RM | 0.8 | 15.1 | 1.25 | 1.8 | 21.2 | 910 | 20300104 |
| 19 x 1.5 RM | 0.8 | 18.3 | 1.6 | 1.8 | 25.1 | 1360 | 20300107 |
| 27 x 1.5 RM | 0.8 | 21.9 | 1.6 | 1.8 | 28.7 | 1730 | 20300110 |
| 37 x 1.5 RM | 0.8 | 24.6 | 1.6 | 1.9 | 31.6 | 2040 | 20300113 |
| 48 x 1.5 RM | 0.8 | 28.7 | 2.0 | 2.0 | 36.7 | 2810 | 20300117 |
| 5 x 2.5 RE | 0.8 | 10.9 | 0.8 | 1.8 | 16.3 | 540 | 20300152 |
| 7 x 2.5 RE | 0.8 | 11.9 | 1.25 | 1.8 | 18.0 | 690 | 20300118 |
| 10 x 2.5 RE | 0.8 | 15.2 | 1.25 | 1.8 | 21.3 | 950 | 20300119 |
| 12 x 2.5 RE | 0.8 | 15.7 | 1.25 | 1.8 | 21.8 | 1030 | 20300120 |
| 19 x 2.5 RE | 0.8 | 19.1 | 1.6 | 1.8 | 25.9 | 1560 | 20300123 |
| 27 x 2.5 RE | 0.8 | 23.0 | 1.6 | 1.9 | 30.0 | 2010 | 20300125 |
| 37 x 2.5 RE | 0.8 | 25.8 | 1.6 | 2.0 | 33.0 | 2450 | 20300128 |
| 48 x 2.5 RE | 0.8 | 30.1 | 2.0 | 2.1 | 38.3 | 3330 | 20300132 |
| 5 x 2.5 RM | 0.8 | 11.6 | 0.8 | 1.8 | 17.0 | 570 | 20300133 |
| 7 x 2.5 RM | 0.8 | 12.6 | 1.25 | 1.8 | 18.7 | 770 | 20300134 |
| 10 x 2.5 RM | 0.8 | 16.2 | 1.25 | 1.8 | 22.3 | 1010 | 20300135 |
| 12 x 2.5 RM | 0.8 | 16.8 | 1.25 | 1.8 | 22.9 | 1110 | 20300136 |
| 19 x 2.5 RM | 0.8 | 20.4 | 1.6 | 1.8 | 27.2 | 1650 | 20300139 |
| 27 x 2.5 RM | 0.8 | 24.5 | 1.6 | 1.9 | 31.5 | 2130 | 20300142 |
| 37 x 2.5 RM | 0.8 | 27.6 | 1.6 | 2.0 | 34.8 | 2630 | 20300145 |
| 48 x 2.5 RM | 0.8 | 32.1 | 2.0 | 2.1 | 40.3 | 3550 | 20300149 |
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RE: circular solid • RM: circular stranded • SM: sector shaped stranded