

C2XNMR-WBY 0,6/1KV

Low voltage signalling power distribution cables



Enhanced unarmoured cables with nonmetallic reinforcement (NMR) and water blocking (WB) for signalling power distribution systems in accordance with NR/L2/SIGELP/27408. Product range consists of copper stranded conductors. Low voltage signalling power distribution cables according to NR/L2/SIGELP/27408 – Product Acceptance Certificate No. PA05/05441

GENERAL INFORMATION

| | |
|-------------|------------|
| Brand | Prysmian |
| Application | Rail Infra |

STANDARDS AND CERTIFICATIONS

| | |
|---------------------------|---|
| EN 60228 | Conductors of insulated cables |
| BS 7889 | Electric cables – Thermosetting insulated, non-armored cables with a voltage of 600/1000 V, for fixed installations |
| NR/L2/SIGELP/27408 | Product Specification for Signaling Power Distribution Cables |

CABLE DESIGN

| | |
|--|--|
| Conductor material | Copper |
| Core identification (acc. HD 308 S2) | Yes |
| Core insulation material | XLPE |
| Longitudinal water blocking cable | Yes |
| Longitudinal water blocking construction | Water swellable tape(s) |
| Cable shape | Round |
| Cable marking example | PRYSMIAN S ELECTRIC CABLE 600/1000 V [N]x[S] [CU] PVC [year] H NMR WB NR/L2/SIGELP/27408 PROPERTY OF NETWORK RAIL PAD No XXX/XXXXXX [M]m |

ELECTRICAL & THERMAL PARAMETERS

| | |
|---|----------------|
| Nominal voltage U ₀ [V] | 600 |
| Nominal voltage U [V] | 1,000 |
| Test voltage [kV] | 3.5 |
| Rated voltage U ₀ /U (U _m) | 0.6/1 (1.2) kV |
| Max. conductor temperature [°C] | 90 |
| Max. conductor temperature at short circuit [°C] | 250 |
| Laying temperature (min) [°C] | -5 |
| Laying temperature (max) [°C] | 50 |

CHEMICAL PROPERTIES

| | |
|-----------------|------------------------------------|
| Flame retardant | In accordance with BS EN 60332-1-2 |
| UV resistant | Yes |
| Lead free | Yes |

CHARACTERISTICS

| | |
|--------------------------------|---|
| Outdoor installation | Yes |
| Underground installation | Yes |
| Suitable as installation cable | Yes |
| Bending radius (rule) | During installing: 6 x D RM cables; 8 x D SM cables |

CABLE PROPERTIES

| Basic construction | SAP code | External article code | Variant | Nominal thickness insulation [mm] | Nominal outer diameter [mm] | Cable weight [kg/km] | Bending radius, during laying (min) [mm] | Conductor resistance at 20° C [Ohm/km] | Short circuit current conductor (1sec) [kA] |
|--------------------|-------------|-----------------------|---------|-----------------------------------|-----------------------------|----------------------|--|--|---|
| 2x10RM | 18050000050 | PADS No 006/186019 | Tape | 2 | 25.2 | 952 | 151 | 1.83 | 1.5 |
| 2x16RM | 18050000012 | PADS No 006/186020 | Tape | 2 | 27.1 | 1,162 | 163 | 1.15 | 2.4 |
| 2x25SM | 18050000013 | PADS No 006/186021 | Tape | 2 | 27.5 | 961 | 220 | 0.727 | 3.7 |
| 2X35SM | 18050000008 | PADS No 006/186022 | Tape | 2 | 29 | 1,184 | 232 | 0.524 | 5.2 |
| 2x50SM | 18050000002 | PADS No 006/186023 | Tape | 2 | 30.8 | 1,471 | 246 | 0.387 | 7.4 |
| 2X70SM | 18050000003 | PADS No 006/186024 | Tape | 2 | 33.1 | 1,932 | 265 | 0.268 | 10.3 |
| 2x95SM | 20337773 | PADS No 006/186025 | Tape | 2 | 34.4 | 2,471 | 275 | 0.193 | 13.9 |
| 2x120SM | 18050000009 | PADS No 006/186026 | Tape | 2 | 37.6 | 3,024 | 301 | 0.153 | 17.5 |
| 2X150SM | 18050000014 | PADS No 006/186103 | Tape | 2 | 39.1 | 3,366 | 313 | 0.124 | 21.8 |
| 2x185SM | 18050000015 | PADS No 006/186104 | Tape | 2 | 41.3 | 4,329 | 330 | 0.0991 | 26.9 |
| 3x25RM | 18050000042 | PADS No 006/186113 | Tape | 2 | 31.4 | 1,732 | 188 | 0.727 | 3.7 |
| 3X35SM | 18050000018 | PADS No 006/186114 | Tape | 2 | 31.3 | 1,585 | 250 | 0.524 | 5.2 |
| 3x50SM | 18050000019 | PADS No 006/186115 | Tape | 2 | 33.4 | 1,984 | 267 | 0.387 | 7.4 |
| 3X70SM | 18050000020 | PADS No 006/186116 | Tape | 2 | 37.2 | 2,699 | 298 | 0.268 | 10.3 |
| 3x95SM | 18050000021 | PADS No 006/186117 | Tape | 2 | 38.3 | 3,456 | 306 | 0.193 | 13.9 |
| 3x120SM | 18050000022 | PADS No 006/186118 | Tape | 2 | 43 | 4,258 | 344 | 0.153 | 17.5 |
| 3X150SM | 18050000023 | PADS No 006/186106 | Tape | 2 | 43.3 | 5,020 | 346 | 0.124 | 21.8 |
| 3x185SM | 18050000024 | PADS No 006/186107 | Tape | 2 | 46.6 | 6,108 | 373 | 0.0991 | 26.9 |
| 3x16RM | 18050000043 | PADS No 006/186112 | Tape | 2 | 28.4 | 1,315 | 170 | 1.15 | 2.4 |
| 4x16RM | 18050000044 | PADS No 006/186148 | Tape | 2 | 30.6 | 1,541 | 184 | 1.15 | 2.4 |

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CABLE PROPERTIES

| Basic construction | SAP code | External article code | Variant | Nominal thickness insulation [mm] | Nominal outer diameter [mm] | Cable weight [kg/km] | Bending radius, during laying (min) [mm] | Conductor resistance at 20° C [Ohm/km] | Short circuit current conductor (1sec) [kA] |
|--------------------|-------------|-----------------------|---------|-----------------------------------|-----------------------------|----------------------|--|--|---|
| 4X25RM | 18050000045 | PADS No 006/186149 | Tape | 2 | 33.9 | 2,056 | 203 | 0.727 | 3.7 |
| 4X35SM | 18050000032 | PADS No 006/186150 | Tape | 2 | 34.1 | 1,981 | 273 | 0.524 | 5.2 |
| 4x50SM | 18050000033 | PADS No 006/186151 | Tape | 2 | 36.5 | 2,501 | 292 | 0.387 | 7.4 |
| 4x70SM | 18050000034 | PADS No 006/186152 | Tape | 2 | 39.3 | 3,386 | 314 | 0.268 | 10.3 |
| 4x95SM | 18050000006 | PADS No 006/186153 | Tape | 2 | 41.8 | 4,437 | 334 | 0.193 | 13.9 |
| 4x120SM | 18050000007 | PADS No 006/186154 | Tape | 2 | 44.6 | 5,392 | 357 | 0.153 | 17.5 |
| 4x150SM | 18050000035 | PADS No 006/186108 | Tape | 2 | 47.1 | 6,462 | 377 | 0.124 | 21.8 |
| 4x185SM | 18050000036 | PADS No 006/186109 | Tape | 2 | 51.4 | 7,919 | 411 | 0.0991 | 26.9 |

CURRENT CARRYING CAPACITY

| Cross-section (mm ²) | Direct in ground single-core DC (A) | Direct in ground multi-cores (A) | Direct in ground single-core trefoil (A) | Air single-core DC (A) | Air multi-cores (A) | Air single-core trefoil (A) |
|----------------------------------|-------------------------------------|----------------------------------|--|------------------------|---------------------|-----------------------------|
| 16 | 94 | 78 | 78 | 115 | 100 | 100 |
| 25 | 123 | 102 | 102 | 149 | 127 | 127 |
| 35 | 148 | 122 | 122 | 185 | 158 | 158 |
| 50 | 175 | 144 | 144 | 225 | 192 | 192 |
| 70 | 215 | 177 | 177 | 289 | 246 | 246 |
| 95 | 254 | 209 | 209 | 359 | 298 | 298 |
| 120 | 289 | 237 | 237 | 410 | 346 | 346 |
| 150 | 326 | 267 | 267 | 473 | 399 | 399 |
| 185 | 365 | 299 | 299 | 542 | 456 | 456 |

Ground temperature: 20°C; Air temperature: 30°C
 Depth of laying: 0,7 m; Soil resistivity, moist: 2,5 K.m/W

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