

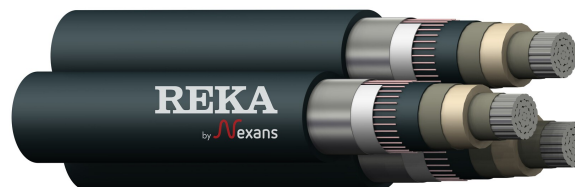
AXLJ-F TT 12/20 (24) kV 3x1-core CAS

Medium voltage cable

12/20 (24) kV

Application

Medium-voltage cable for fixed installations outdoors. May be buried directly in soil, also by ploughing. Cable is longitudinally and radially watertight and therefore it is suitable where wet soil and / or fresh water permanently occurs. Installations must be in accordance with national regulations and rules of installations. The cable is halogen-free, but without fire protection. The cable is not CPR-classified.



Design

| | |
|----------------------------|---|
| Standards | HD 620 10 M, SS 424 14 16 |
| Conductor | Watertight, circular, stranded aluminium, EN/IEC 60228 class 2 |
| Conductor screen | Semiconducting cross-linked polyethylene XLPE |
| Insulation | Cross-linked polyethylene XLPE |
| Insulation screen | Semiconducting cross-linked polyethylene XLPE |
| Core Identification | White phase numbering: L1, L2, L3 |
| Inner covering | Water swellable tape under and over screen |
| Inner covering | Water swellable tape under and over screen |
| Metal screen | Copper wires and aluminium foil (CAS). Polyethylene laminated aluminium foil acts as a part of the metallic screen and needs to be connected in cable joints and terminations |

Temperature limits

| | |
|---|-----|
| Max. conductor temperature °C | 90 |
| Max. cond. temp. short circuit max. 5 s °C | 250 |
| Min. cable temperature during operation °C | -50 |
| Min. cable temperature during handling °C | -20 |
| Min. cable temperature during transport °C | -40 |

REKA

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ISO 45001, ISO 14001 and ISO 9001 certified
company REACH and RoHS compliant products

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Oversheath UV-protected PE-plastic PELLD , Black

Longitudinal watertightness Water swellable tape applied under and over metal screen

Transverse watertightness Polyethylene laminated aluminium foil bonded to the sheath

| Technical information | 3x1x50/16 CAS | 3x1x95/16 CAS | 3x1x150/25 CAS | 3x1x240/25 CAS |
|---|----------------|----------------|----------------|----------------|
| Product code | 1181302 | 1181304 | 1181306 | 1181308 |
| Nominal diameter of a sheathed phase conductor mm | 27 | 31 | 34 | 38 |
| Nominal cable diameter mm | 59 | 66 | 72 | 82 |
| Nominal cable weight kg/km | 2050 | 2670 | 3504 | 4671 |
| Nominal weight of copper kg/km | 274 | 274 | 421 | 420 |
| Nominal weight of Aluminium kg/km | 383 | 734 | 1148 | 1899 |
| Nominal diameter of conductor mm | 8,0 | 11,1 | 13,9 | 17,8 |
| Nominal thickness of conductor screen mm | 0,5 | 0,5 | 0,5 | 0,5 |
| Nominal Insulation thickness mm | 5,5 | 5,5 | 5,5 | 5,5 |
| Nominal diameter over the insulation without insulation screen mm | 19,2 | 22,3 | 25,1 | 29,0 |
| Nominal thickness of insulation screen mm | 0,5 | 0,5 | 0,5 | 0,5 |
| Nominal size of metal screen mm ² | 16 | 16 | 25 | 25 |
| Nominal thickness of PE-laminated aluminium foil mm | 0,2 | 0,2 | 0,2 | 0,2 |
| Nominal thickness of oversheath mm | 1,8 | 1,9 | 2,0 | 2,2 |
| Maximum forces during installation when pulling by | | | | |
| Max. pulling force by pulling-eye kN | 4,5 | 8,6 | 13,5 | 20,0 |
| Max. pulling force by pulling-stocking kN | 2,3 | 4,3 | 6,8 | 8,5 |
| Minimum bending radii | | | | |
| Minimum bending radius, handling mm | 705 | 789 | 867 | 979 |
| Minimum bending radius, final bending mm | 494 | 552 | 607 | 685 |
| Minimum bending radii | | | | |
| During handling and installation, phase conductor cm | 41 | 45 | 50 | 57 |
| During handling and installation, cable cm | 71 | 79 | 87 | 98 |
| In final installation, phase conductor cm | 28 | 32 | 35 | 40 |
| In final installation, cable cm | 49 | 55 | 61 | 69 |
| Minimum bending radii | | | | |
| During handling and installation, phase conductor m | 0,41 | 0,45 | 0,50 | 0,57 |
| During handling and installation, cable m | 0,70 | 0,79 | 0,87 | 0,98 |
| In final installation, phase conductor m | 0,28 | 0,32 | 0,35 | 0,40 |
| In final installation, cable m | 0,49 | 0,55 | 0,61 | 0,69 |
| DC resistance | | | | |
| Max. DC resistance of conductor at 20 °C Ω/km | 0,641 | 0,320 | 0,206 | 0,125 |
| Maximum DC resistance at 20 °C, metal screen Ω/km | 1,2 | 1,2 | 0,8 | 0,8 |



| Technical information | 3x1x50/16 CAS | 3x1x95/16 CAS | 3x1x150/25 CAS | 3x1x240/25 CAS |
|--|---------------|---------------|----------------|----------------|
| AC resistance of phase conductor, screen circuit closed | | | | |
| Conductor temperature 40 °C Ω/km | 0,6927 | 0,3460 | 0,2229 | 0,1356 |
| Conductor temperature 65 °C Ω/km | 0,7573 | 0,3782 | 0,2436 | 0,1482 |
| Conductor temperature 70 °C Ω/km | 0,7702 | 0,3846 | 0,2478 | 0,1507 |
| Conductor temperature 90 °C Ω/km | 0,8219 | 0,4104 | 0,2644 | 0,1607 |
| Inductance per phase | | | | |
| In flat formation, free space between cables equal to one cable diameter mH/km | 0,61 | 0,57 | 0,55 | 0,52 |
| In trefoil formation, cables touching each other mH/km | 0,43 | 0,39 | 0,36 | 0,34 |
| Electrical values | | | | |
| Calculated operation capacitance μF/km | 0,16 | 0,20 | 0,24 | 0,29 |
| Calculated charging current with main voltage A/km | 0,6 | 0,7 | 0,9 | 1,0 |
| Calculated earth fault current with main voltage A/km | 1,8 | 2,2 | 2,6 | 3,1 |
| Current ratings | | | | |
| Cables in air (25 °C) | | | | |
| Flat, conductor 90 °C, open screen A | 210 | 320 | 425 | 570 |
| Flat, conductor 90 °C, closed screen A | 205 | 310 | 395 | 515 |
| Trefoil, conductor 90 °C, open screen A | 195 | 285 | 380 | 505 |
| Trefoil, conductor 90 °C, closed screen A | 195 | 280 | 370 | 490 |
| Cables in the ground (15 °C and 1,0 K.m/W), Installation depth 0,7 m | | | | |
| Trefoil, conductor 65 °C, open screen A | 155 | 240 | 305 | 395 |
| Trefoil, conductor 65 °C, closed screen A | 155 | 235 | 300 | 385 |
| Trefoil, conductor 90 °C, open screen A | 185 | 280 | 360 | 465 |
| Trefoil, conductor 90 °C, closed screen A | 185 | 275 | 355 | 455 |
| Maximum thermal short circuit current during 1 s | | | | |
| Phase (initial 90 °C, final 250 °C) kA | 4,7 | 8,9 | 14,1 | 22,6 |
| Metal screen (initial 80 °C, final 250 °C) kA | 2,3 | 2,3 | 3,4 | 3,4 |

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| STANDARD PACKAGES | 3x1x50/16 CAS | 3x1x95/16 CAS | 3x1x150/25 CAS | 3x1x240/25 CAS |
|-------------------|---------------|---------------|----------------|----------------|
| Product code | 1181302 | 1181304 | 1181306 | 1181308 |
| GTIN code | 6410006275052 | 6410006275069 | 6410006275076 | 6410006275083 |
| Package | 500 K26 | 500 K26 | 500 K26 | 500 K28 |