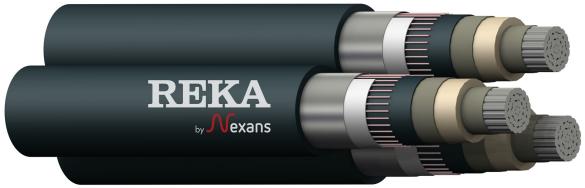
2026-07-10 12:34:30

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

MADE IN FINLAND

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

)

2026-07-10 12:34:30

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 thicness 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 mm²	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

MADE IN FINLAND

)

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

MADE IN FINLAND

)

2026-07-10 12:34:30

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