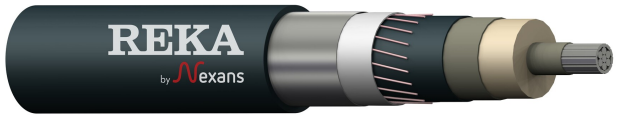
AXLJ-F TT 18/30 (36) kV 1-core CAS

Medium voltage cable



18/30 (36) 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
Product Environmental Profile (PEP/EPD)	PEP NXNS-00664-V01.01-EN
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
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

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

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Technical information	1x500/35 CAS
Product code	**1186699**
Nominal cable diameter mm	51
Nominal cable weight kg/km	2864
Nominal weight of copper kg/km	195
Nominal weight of Aluminium kg/km	1298
Nominal diameter of conductor mm	25,7
Nominal thickness of conductor screen mm	0,5
Nominal Insulation thicness mm	8,0
Nominal diameter over the insulation without insulation screen mm	41,3
Nominal thickness of insulation screen mm	0,5
Nominal size of metal screen mm²	35
Nominal thickness of PE-laminated aluminium foil mm	0,2
Nominal thickness of oversheath mm	2,6
Maximum forces during installation when pulling by	
Max. pulling force by pulling-eye kN	15,0
Max. pulling force by pulling-stocking kN	7,5
Minimum bending radii	
Minimum bending radius, handling mm	766
Minimum bending radius, final bending mm	536
Minimum bending radii	
During handling and installation, cable cm	77
In final installation, cable cm	54
Minimum bending radii	
During handling and installation, cable m	0,77
In final installation, cable m	0,54
DC resistance	
Max. DC resistance of conductor at 20 °C Ω/km	0,0605
Maximum DC resistance at 20 °C, metal screen Ω/km	0,6
AC resistance of phase conductor, screen circuit closed	
Conductor temperature 40 °C Ω/km	0,0666
Conductor temperature 65 °C Ω/km	0,0726
Conductor temperature 70 °C Ω/km	0,0738
Conductor temperature 90 °C Ω/km	0,0786

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Technical information	1x500/35 CAS
Inductance per phase	
In flat formation, free space between cables equal to one cable diameter mH/km	0,51
In trefoil formation, cables touching each other mH/km	0,32
Electrical values	
Calculated operation capacitance µF/km	0,29
Calculated charging current with main voltage A/km	1,6
Calculated earth fault current with main voltage A/km	4,7
Current ratings	
Cables in air (25 °C)	
Flat, conductor 90 °C, open screen A	920
Flat, conductor 90 °C, closed screen A	755
Trefoil, conductor 90 °C, open screen A	800
Trefoil, conductor 90 °C, closed screen A	775
Cables in the ground (15 °C and 1,0 K.m/W), Installation depth 0,7 m	
Flat, conductor 65 °C, open screen A	645
Flat, conductor 65 °C, closed screen A	550
Flat, conductor 90 °C, open screen A	760
Flat, conductor 90 °C, closed screen A	650
Trefoil, conductor 65 °C, open screen A	590
Trefoil, conductor 65 °C, closed screen A	570
Trefoil, conductor 90 °C, open screen A	695
Trefoil, conductor 90 °C, closed screen A	670
Maximum thermal short circuit current during 1 s	
Phase (initial 90 °C, final 250 °C) kA	47,2
Metal screen (initial 80 °C, final 250 °C) kA	4,7
Environmental information	
(A1-A3) GWP emission kgCO2e/km	20217
GWP emissions calculation standard	EN15804:2012 + A2:2019

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STANDARD PACKAGES	1x500/35 CAS
Product code	1186699
GTIN code	6438176217672
Package	500 K22