

AXLJ-TTCL TSLF 12/20(24) KV

Single-core halogen-free and waterproof distribution cable



DESCRIPTION

Longitudinal and radial watertight 1-core distribution cable for outdoor installation in pipes, directly in soil or water, in 3-phase formation. Can also be ploughed under with caution. With concentric copper screen and full covering aluminium tape. The outer sheath has a conductive layer that allows for sheath testing before, during and after installation. Ripcords for easier and safer stripping of the outer sheath.

CERTIFICATION, APPROVAL & STANDARD

SS 424 14 16 Construction standard 12-36 kV

HD 620 part 10 section K Harmonized Construction and Testing Standard HD 620 part 10 section M Harmonized construction and testing standard

CONSTRUCTION

Aluminium Conductor material Bare Conductor surface Yes Longitudinal water blocking conductors XLPE Core insulation material Longitudinal water blocking cable Yes Radial water blocking cable

Screen construction Aluminium tape and copper wire

Screen material Copper, bare MDPE Material outer sheath Laminated sheath Yes Cable shape Round

ELECTRICAL PROPERTIES

Rated voltage U0/U (Um) 12/20 (24) kV 50

Test voltage [kV]



FIRE PROPERTIES

Halogen free acc. IEC/EN 60754-1/2

THERMAL PROPERTIES

Max. conductor temperature [°C] 90

Max. conductor temperature at short circuit [°C] 250

Permitted cable outer temperature during -20

assembling/handling (min) [°C]

Permitted cable outer temperature during 65

assembling/handling (max) [°C]

MECHANICAL PROPERTIES

Permanent tensile strength (rule) Fixed 10 x D, During installation 15 x D

Bending radius (rule) Fixed installation: 10 x D
During handling: 15 x D

During plowing: 8 x D

APPLICATION PROPERTIES

UV resistantYesOutdoor installationYesUnderground installationYesSuitable as medium voltage cableYes

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DELIVERY INFORMATION

Basic construction	Conductor category	Cable weight [kg/km]	Standard packaging quantity	SAP code	EAN-code (GTIN)
1x50/16 mm²	Class 2 = stranded	700	500	20102178	7330384707893
1x95/25 mm ²	Class 2 = stranded	970	500	20102179	7330384707299
1x150/25 mm²	Class 2 = stranded	1,200	500	20102180	7330384707879
1x240/35 mm²	Class 2 = stranded	1,630	500	20102181	7330384707701
1x300/35 mm²	Class 2 = stranded	1,900	500	20113278	7330384714037
1x400/35 mm²	Class 2 = stranded	2,808	500	20102182	7330384707022
1x630/50 mm²	Class 2 = stranded	3,215	500	20102183	7330384709392

MECHANICAL DATA

Basic construction	Diameter conductor [mm]	Nominal diameter over insulation [mm]	Nominal thickness outer sheath [mm]	Nominal outer diameter [mm]	Min. permitted bending radius, during cable laying [mm]	Pulling force with pulling hose [N]
1x50/16 mm²	8	19.6	1.8	28	420	2,500
1x95/25 mm ²	11.3	22.9	1.9	31	475	4,000
1x150/25 mm²	14.2	25.8	2	34.4	515	5,500
1x240/35 mm²	18	29.6	2.2	38.5	580	7,750
1x300/35 mm²	20.5	32.2	2.2	41.2	625	9,000
1x400/35 mm²	23.7	35.4	2.3	44.5	670	12,000
1x630/50 mm²	30.3	42.2	2.5	52	790	18,000

^{*} Nominal values

ELCTRICAL PARAMETERS

Basic construction	Capacitance per phase on [µF/km]	Reactance* [Ω/km]	Fault Current, Conductor [kA/1s]	Fault Current, Screen [kA/ls]
1x50/16 mm²	0,17	0,14	4,7	
1x95/25 mm²	0,21	0,13	8,9	4,0
1x150/25 mm²	0,25	0,12	14,2	4,0
1x240/35 mm²	0,30	0,11	22,7	5,6
1x300/35 mm²	0,33	0,10	28,3	5,6
1x400/35 mm²	0,37	0,10	37,8	5,6
1x630/50 mm²	0,45	0,09	59,0	8,0

^{*}Closed trefoil



AMPACITY

Basic construction	In air Closed screen [A]	In air Open screen [A]	Buried, 0,7 m Closed screen [A]	Buried, 0,7 m Open screen [A]
1x50/16 mm²	195	195	185	185
1x95/25 mm ²	280	285	275	280
1x150/25 mm²	370	380	355	360
1x240/35 mm²	490	505	455	465
1x300/35 mm²	565	580	510	525
1x400/35 mm²	680	695	600	615
1x630/50 mm²	880	915	745	780
1x800/50 mm²	995	1020	825	850

90 °C conductor temperature

In air: Closed trefoil, 25 $^{\circ}\text{C}$

Burred: Closed trefoil, 15°C, depth 0,7 m, resistivity 1 $K \cdot m/W$

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