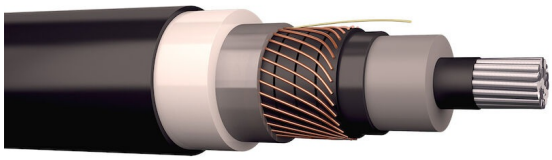
AXLJ-TTCL TSLF 12/20(24) KV

1-core cable for outdoor usage



DESCRIPTION

Single-core, distribution cable for outdoor use in 3-phase formation. Installation in pipes and ground/water. Both radial and longitudinal water sealed. Can be ploughed down. The outer sheath has a conductive layer that greatly extends the possibilities to do a sheath testing before, during and after installation. Ripcords for easier and safer stripping of the outer sheath.

STANDARDS, CERTIFICATIONS AND APPROVALS

SS 424 14 16	Construction standard 12-36 kV
CENELEC HD 620 Part 10 Section K	Harmonized construction standard
CENELEC HD 620 Part 10 Section M	Harmonized construction and testing standard

Conductor design	Stranded, round, compacted aluminium acc. to IEC 60228 class 2, longitudinal water sealed
Conductor material	Aluminium
Core insulation material	XLPE
Screen construction	Aluminium tape and copper wire
Material outer sheath	MDPE
Laminated sheath	Yes
Longitudinal water blocking screen	Yes
Rip cord	Yes
UV resistant	Yes
Rated voltage U0/U (Um)	12/20 (24) kV
Test voltage [kV]	50
Halogen free	acc. IEC/EN 60754-1/2
Max. conductor temperature	90
Min. outer temperature during installation [°C]	-20
Permitted cable outer temperature after assembling without vibration (min) [°C]	-60
Cable marking example	AXLJ-TTCL TSLF 24kV 1x95 AFR/25 Prysmian "Datum och tid", metermärkning
Bending radius (rule)	Fixed installation: 10 x D During handling: 15 x D During plowing: 8 x D

PRODUCT DATA

Product name	External article code	SAP code	Cable weight [kg/km]	Delivery length [m]	Packaging
AXLJ-TTCL 1X50/16 24KV	0071545	20102178	700	500	K12
AXLJ-TTCL TSLF 1x95/16 24kV		1x951624	960	500	K12
AXLJ-TTCL 1X95/25 24KV	0071555	20102179	970	500	K12
AXLJ-TTCL 1X150/25 24KV	0071565	20102180	1,200	500	K14
AXLJ-TTCL TSLF 1x185/35 24kV		20113277	1,430	500	K16
AXLJ-TTCL TSLF 1x240/25 24kV		1x2402524	1,615	500	K16
AXLJ-TTCL 1X240/35 24KV	0071585	20102181	1,630	500	K16
AXLJ-TTCL TSLF 1x300/35 24kV	20113278	20113278	1,900	500	K18
AXLJ-TTCL 1X400/35 24KV	0071595	20102182	2,200	500	K18
AXLJ-TTCL TSLF 1x500/35 24kV		20113279	2,600	500	K20
AXLJ-TTCL TSLF 1x630/35 24kV		80240222	3,150	500	K22
AXLJ-TTCL 1X630/50 24KV	0072055	20102183	3,215	500	K22
AXLJ-TTCL TSLF 1x800/50 24kV		20113280	4,850	500	K22

CABLE DIMENSIONS

Product name	Conductor diameter [mm]	Nominal thickness insulation [mm]	Diameter over insulation [mm]	Outer diameter [mm]	Pulling force pulling head [N]	Pulling force with pulling hose [N]
AXLJ-TTCL 1X50/16 24KV	8	5.5	19.5	28	1,500	1,500
AXLJ-TTCL TSLF 1x95/16 24kV	11.3	5.5	22.8	31	2,850	2,850
AXLJ-TTCL 1X95/25 24KV	11.3	5.5	22.8	31	2,850	2,850
AXLJ-TTCL 1X150/25 24KV	14.2	5.5	25.7	32	4,500	4,500
AXLJ-TTCL TSLF 1x185/35 24kV	15.9	5.5	27.4	36	5,550	5,550
AXLJ-TTCL TSLF 1x240/25 24kV	18	5.5	29.5	39	7,200	7,200
AXLJ-TTCL 1X240/35 24KV	18	5.5	29.5	39	7,200	7,200
AXLJ-TTCL TSLF 1x300/35 24kV	20.5	5.5	32.1	41	9,000	8,400
AXLJ-TTCL 1X400/35 24KV	23.7	5.5	35.3	45	12,000	9,700
AXLJ-TTCL TSLF 1x500/35 24kV	26.6	5.5	38.2	48	15,000	11,500
AXLJ-TTCL TSLF 1x630/35 24kV	30.3	5.5	42.3	52	18,900	13,500
AXLJ-TTCL 1X630/50 24KV	30.3	5.5	42.3	52	18,900	13,500
AXLJ-TTCL TSLF 1x800/50 24kV	34.6	5.5	47.2	54	24,000	16,200

Nominal values if not specified

SHORT CIRCUIT DATA

Product name	Conductor resistance at 20° C [Ohm/km]	Short circuit current conductor (1sec) [kA]	Short circuit current conductor (5sec) [kA]	Short circuit current screen (1sec) [kA]	Screen DC resistance [Ohm/km]
AXLJ-TTCL 1X50/16 24KV	0.641	5.2	2.3	2.56	1.15
AXLJ-TTCL TSLF 1x95/16 24kV	0.32	9.9	4.4	2.56	1.15
AXLJ-TTCL 1X95/25 24KV	0.32	9.9	4.4	4	0.727
AXLJ-TTCL 1X150/25 24KV	0.206	15.6	7	4	0.727
AXLJ-TTCL TSLF 1x185/35 24kV	0.164	17.5	7.8	5.6	0.524
AXLJ-TTCL TSLF 1x240/25 24kV	0.125	25	11.2	4	0.727
AXLJ-TTCL 1X240/35 24KV	0.125	25	11.2	5.6	0.524
AXLJ-TTCL TSLF 1x300/35 24kV	0.1	28.3	12.7	5.6	0.524
AXLJ-TTCL 1X400/35 24KV	0.0778	37.8	16.9	5.6	0.524
AXLJ-TTCL TSLF 1x500/35 24kV	0.0605	47.2	21.1	5.6	0.524
AXLJ-TTCL TSLF 1x630/35 24kV	0.0469	65.6	29.3	5.6	0.524
AXLJ-TTCL 1X630/50 24KV	0.0469	65.6	29.3	8	0.387
AXLJ-TTCL TSLF 1x800/50 24kV	0.0367	75.6	33.8	8	0.387

Screen resistance refers to combination of copper wires and aluminum tape. The copper wires makes at least 60% of nominal cable screen cross section. Short circuit values in screen assumes that the aluminum tape is connected.
Short circuit values are calculated using 90°C initial conductor temperature.

ELECTRICAL DATA

Product name	Nominal operation capacitance [nF/km]	Operating self inductance [mH/km]	Inductive Reactance (at 50Hz) [Ohm/km]	Capacitive charging current [A/km]	Zero sequence impedance [ohm/km]
AXLJ-TTCL 1X50/16 24KV	170	0.43	0.14	0.6	1,79+j0,59
AXLJ-TTCL TSLF 1x95/16 24kV	210	0.39	0.12	0.7	1,38+j0,58
AXLJ-TTCL 1X95/25 24KV	210	0.39	0.12	0.7	1,13+j0,32
AXLJ-TTCL 1X150/25 24KV	250	0.36	0.11	0.9	0,98+j0,31
AXLJ-TTCL TSLF 1x185/35 24kV	270	0.35	0.11	0.6	0,76+j0,19
AXLJ-TTCL TSLF 1x240/25 24kV	300	0.33	0.1	1	0,88+j0,30
AXLJ-TTCL 1X240/35 24KV	300	0.33	0.1	1	0,71+j0,19
AXLJ-TTCL TSLF 1x300/35 24kV	330	0.32	0.1	1.1	0,67+j0,19
AXLJ-TTCL 1X400/35 24KV	300	0.31	0.1	1.3	0,64+j0,19
AXLJ-TTCL TSLF 1x500/35 24kV	400	0.3	0.1	1.4	0,62+j0,18
AXLJ-TTCL TSLF 1x630/35 24kV	450	0.29	0.09	1.6	0,61+j0,18
AXLJ-TTCL 1X630/50 24KV	450	0.29	0.09	1.6	0,46+j0,11
AXLJ-TTCL TSLF 1x800/50 24kV	500	0.29	0.09	1.7	0,45+j0,11

Nominal values unless otherwise specified. Values for installatoin in threefoil formation in ground.