2024-03-28 18:05:45

AXLJ-F / AHXCMK-WTC/PE 12/20 (24) kV 3-core

Medium voltage cable



DryRex

12/20 (24) kV

Application

Medium-voltage cable for fixed installations outdoors. May be buried directly in soil. 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 & F, SS 424 14 16, SFS 5636
Certificates	SGS Fimko FI 40519
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	Semiconducting tape
Inner covering	Semiconducting tape
Metal screen	Layer of helically wound copper wires with a counter helix copper tape
Oversheath	PE-plastic PELLD, Black

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** rights for changes reserved • **www.rekacables.com** •

2024-03-28 18:05:45

Technical information	3x50/16	3x70/16	3x95/16	3x95/25	3x120/25	3x150/25	3x185/35	3x240/25	3x240/35	3x300/35
Product code	**1187773**	**1187774**	**1187585**	**1187775**	**1187776**	**1187777**	**1187778**	**1187589**	**1187779**	**1187780**
Nominal cross-sectional area of conductor mm²	50	70	95	95	120	150	185	240	240	300
Nominal diameter of conductor mm	8,0	9,5	11,1	11,1	12,6	13,9	15,6	17,8	17,8	19,8
Nominal thickness of conductor screen mm	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5
Nominal thickness of insulation mm	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5
Nominal diameter over the insulation without insulation screen mm	19,3	20,7	22,4	22,4	23,8	25,3	27,0	29,2	29,2	31,5
Nominal thickness of insulation screen mm	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5
Nominal size of metal screen mm²	16	16	16	25	25	25	35	25	35	35
Nominal thickness of oversheath mm	2,8	2,8	3,0	3,0	3,1	3,2	3,3	3,5	3,5	3,6
Nominal cable diameter mm	51,480	54,500	58,540	58,920	62,160	65,210	69,320	74,190	74,570	79,640
Nominal cable weight kg/km	1725,237	1994,715	2344,683	2418,341	2763,329	3107,456	3651,626	4244,852	4330,974	5065,869
Metall weight Cu kg/m	0,146	0,146	0,143	0,213	0,213	0,215	0,288	0,215	0,288	0,288
Metall weight Al kg/m	0,383	0,544	0,733	0,733	0,950	1,145	1,456	1,897	1,897	2,423
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	7,5	10,5	14,3	14,3	18,0	20,0	16,7	20,0	20,0	20,0
Max. pulling force by pulling-stocking kN	2,3	3,2	4,3	4,3	5,4	6,8	8,3	8,5	8,5	8,5
Minimum bending radii										
During handling and installation, phase conductor cm	30	33	35	35	37	39	42	45	45	49
During handling and installation, cable cm	62	65	70	71	75	78	83	89	89	96
In final installation, phase conductor cm	21	23	25	25	26	28	29	32	32	34
In final installation, cable cm	43	46	49	49	52	55	58	62	63	67
Minimum bending radii										
During handling and installation, cable m	0,62	0,65	0,70	0,71	0,75	0,78	0,83	0,89	0,90	0,96
In final installation, cable m	0,43	0,46	0,49	0,49	0,52	0,55	0,58	0,62	0,63	0,67
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	0,641	0,443	0,320	0,320	0,253	0,206	0,164	0,125	0,125	0,100
Maximum DC resistance at 20 °C, metal screen Ω/km	1,2	1,2	1,2	0,8	0,8	0,8	0,6	0,8	0,6	0,6
AC resistance of phase conductor, screen circuit closed										
Conductor temperature 40 °C Ω/km	0,6927	0,4788	0,3460	0,3460	0,2736	0,2229	0,1776	0,1356	0,1356	0,1088
Conductor temperature 65 °C Ω/km	0,7573	0,5234	0,3782	0,3782	0,2991	0,2436	0,1941	0,1482	0,1482	0,1188
Conductor temperature 70 °C Ω/km	0,7702	0,5324	0,3846	0,3846	0,3042	0,2478	0,1974	0,1507	0,1507	0,1208
Conductor temperature 90 °C Ω/km	0,8219	0,5681	0,4104	0,4104	0,3246	0,2644	0,2106	0,1607	0,1607	0,1288

© **Reka** rights for changes reserved • **www.rekacables.com** •

2024-03-28 18:05:45

Technical information	3x50/16	3x70/16	3x95/16	3x95/25	3x120/25	3x150/25	3x185/35	3x240/25	3x240/35	3x300/35
Inductance per phase										
In trefoil formation, cables touching each other mH/km	0,37	0,35	0,33	0,33	0,32	0,31	0,30	0,29	0,29	0,28
Electrical values										
Calculated operation capacitance µF/km	0,17	0,18	0,20	0,20	0,22	0,24	0,26	0,29	0,29	0,32
Calculated charging current with main voltage A/km	0,6	0,7	0,7	0,7	0,8	0,9	1,0	1,1	1,1	1,2
Calculated earth fault current with main voltage A/km	1,8	2,0	2,2	2,2	2,4	2,6	2,9	3,2	3,2	3,5
Current ratings										
Cables in air (25 °C)										
Trefoil, conductor 90 °C, closed screen A	160	190	230	230	265	305	340	400	400	460
Cables in the ground (15 °C and 1,0 K.m/W), Installation depth 0,7 m										
Trefoil, conductor 65 °C, closed screen A	145	175	205	205	230	260	290	340	340	380
Trefoil, conductor 90 °C, closed screen A	170	205	240	240	270	310	345	400	400	450
Maximum thermal short circuit current during 1 s										
Phase (initial 90 °C, final 250 °C) kA	4,7	6,6	8,9	8,9	11,3	14,1	17,4	22,6	22,6	28,3
Metal screen (initial 80 °C, final 250 °C) kA	2,3	2,3	2,3	3,4	3,4	3,4	4,7	3,4	4,7	4,7

© **Reka** rights for changes reserved • **www.rekacables.com** •