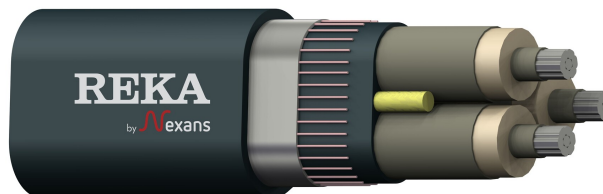


AXLJ-F TT 12/20 (24) kV 3-core

Medium voltage cable

12/20 (24) kV



DryRex

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
Inner covering	Semiconducting waterswellable tape against longitudinal water penetration
Inner covering	Semiconducting waterswellable tape against longitudinal water penetration
Metal screen	Layer of helically wound copper wires with a counter helix copper tape
Oversheath	UV-protected 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



ISO 45001, ISO 14001 and ISO 9001 certified
company REACH and RoHS compliant products

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Rip cord

Two aramid cords

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Technical information	3x50/16	3x95/16	3x95/25	3x120/16	3x150/25	3x240/25	3x240/35	3x300/35
Product code	1187913	1187915	1187905	1187916	1187917	1187919	1187909	1187910
Nominal cross-sectional area of conductor mm ²	50	95	95	120	150	240	240	300
Nominal diameter of conductor mm	8,0	11,1	11,1	12,6	13,9	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
Nominal thickness of insulation mm	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	19,2	22,3	22,3	23,8	25,1	29,2	29,2	31,0
Nominal thickness of insulation screen mm	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5
Nominal size of metal screen mm ²	16	16	25	16	25	25	35	35
Nominal thickness of PE-laminated aluminium foil mm	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1
Nominal thickness of oversheath mm	2,8	3,0	3,0	3,1	3,2	3,5	3,5	3,6
Nominal cable diameter mm	53,080	59,860	60,240	63,400	66,290	75,830	76,210	80,180
Nominal cable weight kg/km	1782,860	2429,245	2481,268	2788,167	3175,605	4366,699	4446,910	5134,417
Nominal weight of copper kg/m	0,143	0,143	0,213	0,143	0,215	0,214	0,283	0,277
Nominal weight of aluminium kg/m	0,383	0,733	0,733	0,950	1,145	1,897	1,901	2,423
Maximum forces during installation when pulling by								
Max. pulling force by pulling-eye kN	7,5	14,3	14,3	18,0	20,0	20,0	20,0	20,0
Max. pulling force by pulling-stocking kN	2,3	4,3	4,3	5,4	6,8	8,5	8,5	8,5
Minimum bending radii								
During handling and installation, phase conductor cm	30	35	35	37	39	45	45	48
During handling and installation, cable cm	64	72	72	76	80	91	91	96
In final installation, phase conductor cm	21	24	24	26	27	32	32	34
In final installation, cable cm	45	50	51	53	56	64	64	67
Minimum bending radii								
During handling and installation, cable m	0,64	0,72	0,72	0,76	0,80	0,91	0,92	0,96
In final installation, cable m	0,45	0,50	0,51	0,53	0,56	0,64	0,64	0,67
DC resistance								
Max. DC resistance of conductor at 20 °C Ω/km	0,641	0,320	0,320	0,253	0,206	0,125	0,125	0,100
Maximum DC resistance at 20 °C, metal screen Ω/km	1,2	1,2	0,8	1,2	0,8	0,8	0,6	0,6
AC resistance of phase conductor, screen circuit closed								
Conductor temperature 40 °C Ω/km	0,6927	0,3460	0,3460	0,2736	0,2229	0,1356	0,1356	0,1088
Conductor temperature 65 °C Ω/km	0,7573	0,3782	0,3782	0,2991	0,2436	0,1482	0,1482	0,1188
Conductor temperature 70 °C Ω/km	0,7702	0,3846	0,3846	0,3042	0,2478	0,1507	0,1507	0,1208
Conductor temperature 90 °C Ω/km	0,8219	0,4104	0,4104	0,3246	0,2644	0,1607	0,1607	0,1288

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Technical information	3x50/16	3x95/16	3x95/25	3x120/16	3x150/25	3x240/25	3x240/35	3x300/35
Inductance per phase								
In trefoil formation, cables touching each other mH/km	0,37	0,33	0,33	0,32	0,31	0,29	0,29	0,28
Electrical values								
Calculated operation capacitance $\mu\text{F}/\text{km}$	0,16	0,20	0,20	0,22	0,24	0,29	0,29	0,31
Calculated charging current with main voltage A/km	0,6	0,7	0,7	0,8	0,9	1,1	1,1	1,1
Calculated earth fault current with main voltage A/km	1,8	2,2	2,2	2,4	2,6	3,2	3,2	3,4
Current ratings								
Cables in air (25 °C)								
Trefoil, conductor 90 °C, closed screen A	160	230	230	265	305	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	205	205	230	260	340	340	380
Trefoil, conductor 90 °C, closed screen A	170	240	240	270	310	400	400	450
Maximum thermal short circuit current during 1 s								
Phase (initial 90 °C, final 250 °C) kA	4,7	8,9	8,9	11,3	14,1	22,6	22,6	28,3
Metal screen (initial 80 °C, final 250 °C) kA	2,3	2,3	3,4	2,3	3,4	3,4	4,7	4,7