

AXMK

Aluminium power cable

0,6/1 (1,2) kV

Application

Aluminium power cable for fixed installations indoors and outdoors. May be buried directly in soil. UV-protected oversheath and core insulation. Installations must be in accordance with national regulations and rules of installations. The cable is flame-retardant according to CPR-class Eca.



Design

Standards	SFS 4879, SEK TS 424 14 18-1, HD 603 5 D & O
Certificates	SGS Fimko FI 41548
Reaction to fire	Eca; EN 13501-6, EN 50575:2014+A1:2016
Conductor	16-25 mm ² circular stranded aluminium, EN/IEC 60228 class 2 35-300 mm ² sector shaped, stranded aluminium, EN/IEC 60228 class 2
Insulation	UV-protected cross-linked polyethylene XLPE
Core	Black
Identification	Yellow-green, brown, black, grey Yellow-green, blue, brown, black, grey
Inner covering	Plastic tape
Oversheath	UV-protected PVC-compound, Black

Temperature limits

Max. conductor temperature °C	90
Max. cond. temp. short circuit max. 5 s °C	250
Min. cable temperature during operation °C	-40
Min. cable temperature during handling °C	-20
Min. cable temperature during transport °C	-25

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Technical information	4x16 S	4x25 S	4x35 S	4x50 S	4x70 S	4x95 S	4x120 S	4x150 S	4x185 S	4x240 S
Product code	1116348	1701199	1116332	1116333	1116334	1116335	1116336	1116337	1116358	1116359
Nominal cross-sectional area of conductor mm ²	16	25	35	50	70	95	120	150	185	240
Nominal thickness of insulation mm	0,7	0,9	0,9	1,0	1,1	1,1	1,2	1,4	1,6	1,7
Nominal thickness of oversheath mm	1,8	1,8	1,8	1,9	2,0	2,1	2,3	2,4	2,6	2,8
Fire load MJ/m	5,251	7,125	7,956	10,200	12,813	14,800	18,321	22,689	28,165	35,024
Fire load kWh/m	1,459	1,979	2,210	2,833	3,559	4,111	5,089	6,302	7,824	9,729
Nominal cable diameter mm	18,810	22,200	22,330	26,160	29,360	32,760	37,700	41,740	46,060	52,750
Nominal cable weight kg/km	366,871	517,112	634,699	843,834	1147,960	1492,835	1878,442	2296,653	2797,768	3678,773
Nominal weight of aluminium kg/m	0,173	0,266	0,364	0,500	0,725	1,001	1,265	1,554	1,886	2,547
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	1,0	1,5	2,1	3,0	4,2	5,7	7,2	9,0	11,1	14,4
Max. pulling force by pulling-stocking kN	1,0	1,5	2,1	3,0	4,2	5,7	7,2	8,5	8,5	8,5
Minimum bending radii										
During handling and installation, phase conductor cm	10	13	16	19	23	26	29	32	37	43
During handling and installation, cable cm	23	27	27	31	35	39	45	50	55	63
In final installation, phase conductor cm	7	8	11	13	16	18	20	23	26	30
In final installation, cable cm	16	19	19	22	25	28	32	35	39	44
Minimum bending radii										
During handling and installation, cable m	0,23	0,27	0,27	0,31	0,35	0,39	0,45	0,50	0,55	0,63
In final installation, cable m	0,16	0,19	0,19	0,22	0,25	0,28	0,32	0,35	0,39	0,44
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	1,91	1,20	0,868	0,641	0,443	0,320	0,253	0,206	0,164	0,125
Electrical values										
Calculated inductance mH/km	0,29	0,28	0,28	0,28	0,27	0,27	0,26	0,26	0,26	0,25
Calculated operation capacitance µF/km	0,30	0,29	0,29	0,29	0,29	0,29	0,28	0,28	0,28	0,27

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Technical information	4x16 S	4x25 S	4x35 S	4x50 S	4x70 S	4x95 S	4x120 S	4x150 S	4x185 S	4x240 S
Current ratings										
Cables in air (25 °C)										
two loaded conductor, conductor 70 °C A	76	93	115	140	180	218	254	293	335	395
three loaded conductor, conductor 70 °C A	63	81	100	122	156	190	220	255	291	343
two loaded conductor, conductor 90 °C A	95	112	140	171	219	267	312	360	413	489
three loaded conductor, conductor 90 °C A	80	101	125	152	194	236	274	316	361	425
Cables in air (30 °C)										
two loaded conductor, conductor 70 °C A	73	89	111	135	173	210	244	282	322	380
three loaded conductor, conductor 70 °C A	61	78	96	117	150	183	212	245	280	330
two loaded conductor, conductor 90 °C A	91	108	135	164	211	257	300	346	397	470
three loaded conductor, conductor 90 °C A	77	97	120	146	187	227	263	304	347	409
Cables in the ground (15 °C and 1,0 K.m/W), Installation depth 0,7 m										
Cables in the ground, conductor 65 °C A	78	100	125	150	185	220	255	280	330	375
Cables in the ground (20 °C and 2,5 K.m/W), Installation depth 0,7 m										
Cables in the ground, conductor 90 °C A	64	82	98	117	144	172	197	220	250	290
Maximum thermal short circuit current during 1 s										
Phase (initial 65 °C, final 250 °C) kA	1,7	2,6	3,6	5,2	7,3	9,8	12,4	15,5	19,2	24,9
Phase (initial 90 °C, final 250 °C) kA	1,5	2,4	3,4	4,8	6,7	9,0	11,4	14,2	17,5	22,6

Technical information	4x300 S
Product code	1116360
Nominal cross-sectional area of conductor mm ²	300
Nominal thickness of insulation mm	1,8
Nominal thickness of oversheath mm	3,0
Fire load MJ/m	39,978
Fire load kWh/m	11,105
Nominal cable diameter mm	56,620
Nominal cable weight kg/km	4438,613
Nominal weight of aluminium kg/m	3,143
Maximum forces during installation when pulling by	
Max. pulling force by pulling-eye kN	18,0
Max. pulling force by pulling-stocking kN	8,5
Minimum bending radii	
During handling and installation, phase conductor cm	46
During handling and installation, cable cm	68
In final installation, phase conductor cm	32
In final installation, cable cm	48
Minimum bending radii	
During handling and installation, cable m	0,68
In final installation, cable m	0,48
DC resistance	
Max. DC resistance of conductor at 20 °C Ω/km	0,100
Electrical values	
Calculated inductance mH/km	0,25
Calculated operation capacitance μF/km	0,26

Technical information	4x300 S
Current ratings	
Cables in air (25 °C)	
two loaded conductor, conductor 70 °C A	457
three loaded conductor, conductor 70 °C A	396
two loaded conductor, conductor 90 °C A	565
three loaded conductor, conductor 90 °C A	490
Cables in air (30 °C)	
two loaded conductor, conductor 70 °C A	439
three loaded conductor, conductor 70 °C A	381
two loaded conductor, conductor 90 °C A	543
three loaded conductor, conductor 90 °C A	471
Cables in the ground (15 °C and 1,0 K.m/W), Installation depth 0,7 m	
Cables in the ground, conductor 65 °C A	430
Cables in the ground (20 °C and 2,5 K.m/W), Installation depth 0,7 m	
Cables in the ground, conductor 90 °C A	326
Maximum thermal short circuit current during 1 s	
Phase (initial 65 °C, final 250 °C) kA	31,1
Phase (initial 90 °C, final 250 °C) kA	28,2