

AMCMK / AKKJ

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 or cast concrete. 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 4880, SEK TS 424 14 18-1, HD 603 3 F & L
Reaction to fire	Eca; EN 13501-6, EN 50575:2014+A1:2016
Conductor	16 mm ² circular solid aluminium, EN/IEC 60228 class 1 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	PVC-compound
Core	Brown, black, grey
Identification	Blue, brown, black, grey
Inner covering	Plastic tape
Metal screen	Copper wires and copper tape
Oversheath	UV-protected PVC-compound, Black

Temperature limits

Max. conductor temperature °C	70
Max. cond. temp. short circuit max. 5 s °C	160
Min. cable temperature during operation °C	-40
Min. cable temperature during handling °C	-15
Min. cable temperature during transport °C	-25

2024-12-05 04:36:29

Technical information	3x16/10	3x25/16	3x35/16	3x50/16	3x70/21	3x95/29	3x120/41	3x150/41	3x185/57	3x240/72
Product code	1111210	1111231	1111312	1111313	1111314	1111315	1111316	1111317	1111318	1111319
Nominal cross-sectional area of conductor mm ²	16	25	35	50	70	95	120	150	185	240
Nominal thickness of insulation mm	1,0	1,2	1,2	1,4	1,4	1,6	1,6	1,8	2,0	2,2
Nominal size of metal screen mm ²	10	16	16	16	21	29	41	41	57	72
Nominal thickness of oversheath mm	1,8	1,8	1,8	1,9	2,0	2,2	2,3	2,4	2,6	2,8
Fire load MJ/m	4,566	6,641	7,042	8,961	10,439	13,974	16,213	19,166	23,318	28,497
Fire load kWh/m	1,268	1,845	1,956	2,489	2,900	3,882	4,504	5,324	6,477	7,916
Nominal cable diameter mm	19,140	23,890	23,630	25,980	28,840	34,280	37,680	40,960	45,370	50,660
Nominal cable weight kg/km	438,654	668,762	762,972	953,048	1240,995	1682,982	2090,161	2450,244	3047,930	3932,957
Nominal weight of copper kg/m	0,092	0,149	0,149	0,148	0,196	0,258	0,369	0,369	0,515	0,649
Nominal weight of aluminium kg/m	0,125	0,199	0,273	0,376	0,544	0,752	0,949	1,165	1,414	1,912
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	1,4	1,1	1,6	2,3	3,2	4,3	5,4	6,8	8,3	10,8
Max. pulling force by pulling-stocking kN	0,7	1,1	1,6	2,3	3,2	4,3	5,4	6,8	8,3	8,5
Minimum bending radii										
During handling and installation, phase conductor cm	10	13	18	21	25	29	32	36	39	45
During handling and installation, cable cm	23	29	28	31	35	41	45	49	54	61
In final installation, phase conductor cm	7	9	13	15	17	21	23	25	28	31
In final installation, cable cm	16	20	20	22	24	29	32	34	38	43
Minimum bending radii										
During handling and installation, cable m	0,23	0,29	0,28	0,31	0,35	0,41	0,45	0,49	0,54	0,61
In final installation, cable m	0,16	0,20	0,20	0,22	0,24	0,29	0,32	0,34	0,38	0,43
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
Maximum DC resistance at 20 °C, metal screen Ω/km	1,83	1,15	1,15	1,15	0,868	0,641	0,443	0,443	0,320	0,253

2024-12-05 04:36:29

Technical information	3x16/10	3x25/16	3x35/16	3x50/16	3x70/21	3x95/29	3x120/41	3x150/41	3x185/57	3x240/72
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
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
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 70 °C A	53	69	83	99	122	148	169	189	214	250
Cables in the ground in a tube, conductor 70 °C A	50	64	77	91	112	132	150	169	190	218
Maximum thermal short circuit current during 1 s										
Phase (initial 70 °C, final 160 °C) kA	1,2	1,8	2,6	3,6	5,1	6,9	8,7	10,8	13,3	17,3
Metal screen (initial 60 °C, final 250 °C) kA	1,6	2,5	2,5	2,5	3,3	4,6	6,5	6,5	9,1	11,5

2024-12-05 04:36:29

Technical information	3x300/88	4x16/10	4x25/16	4x35/16	4x50/16	4x70/21	4x95/29	4x120/41	4x150/41	4x185/57
Product code	1111320	1111410	1111411	1111412	1111413	1111414	1111415	1111416	1111417	1111418
Nominal cross-sectional area of conductor mm ²	300	16	25	35	50	70	95	120	150	185
Nominal thickness of insulation mm	2,4	1,0	1,2	1,2	1,4	1,4	1,6	1,6	1,8	2,0
Nominal size of metal screen mm ²	88	10	16	16	16	21	29	41	41	57
Nominal thickness of oversheath mm	3,0	1,8	1,8	1,8	2,0	2,1	2,3	2,4	2,6	2,7
Fire load MJ/m	33,859	5,364	7,912	8,705	11,525	13,498	17,665	19,690	24,386	28,953
Fire load kWh/m	9,405	1,490	2,198	2,418	3,201	3,750	4,907	5,470	6,774	8,042
Nominal cable diameter mm	55,320	20,800	26,040	25,960	30,260	33,190	38,080	41,900	46,660	51,100
Nominal cable weight kg/km	4802,368	519,515	797,633	929,044	1203,249	1571,521	2105,485	2576,901	3093,145	3798,096
Nominal weight of copper kg/m	0,808	0,092	0,149	0,148	0,148	0,196	0,258	0,369	0,369	0,515
Nominal weight of aluminium kg/m	2,360	0,166	0,266	0,365	0,501	0,725	1,003	1,267	1,554	1,890
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	13,5	1,9	1,5	2,1	3,0	4,2	5,7	7,2	9,0	11,1
Max. pulling force by pulling-stocking kN	8,5	1,0	1,5	2,1	3,0	4,2	5,7	7,2	8,5	8,5
Minimum bending radii										
During handling and installation, phase conductor cm	51	10	13	17	20	24	28	30	34	38
During handling and installation, cable cm	66	25	31	31	36	40	46	50	56	61
In final installation, phase conductor cm	36	7	9	12	14	17	19	21	23	27
In final installation, cable cm	46	17	22	22	25	28	32	35	39	43
Minimum bending radii										
During handling and installation, cable m	0,66	0,25	0,31	0,31	0,36	0,40	0,46	0,50	0,56	0,61
In final installation, cable m	0,47	0,17	0,22	0,22	0,25	0,28	0,32	0,35	0,39	0,43
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	0,100	1,91	1,20	0,868	0,641	0,443	0,320	0,253	0,206	0,164
Maximum DC resistance at 20 °C, metal screen Ω/km	0,206	1,83	1,15	1,15	1,15	0,868	0,641	0,443	0,443	0,320

2024-12-05 04:36:29

Technical information	3x300/88	4x16/10	4x25/16	4x35/16	4x50/16	4x70/21	4x95/29	4x120/41	4x150/41	4x185/57
Current ratings										
Cables in air (25 °C)										
two loaded conductor, conductor 70 °C A	457	76	93	115	140	180	218	254	293	335
three loaded conductor, conductor 70 °C A	396	63	81	100	122	156	190	220	255	291
Cables in air (30 °C)										
two loaded conductor, conductor 70 °C A	439	73	89	111	135	173	210	244	282	322
three loaded conductor, conductor 70 °C A	381	61	78	96	117	150	183	212	245	280
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	78	100	125	150	185	220	255	280	330
Cables in the ground (20 °C and 2,5 K.m/W), Installation depth 0,7 m										
Cables in the ground, conductor 70 °C A	282	53	69	83	99	122	148	169	189	214
Cables in the ground in a tube, conductor 70 °C A	247	50	64	77	91	112	132	150	169	190
Maximum thermal short circuit current during 1 s										
Phase (initial 70 °C, final 160 °C) kA	21,6	1,2	1,8	2,6	3,6	5,1	6,9	8,7	10,8	13,3
Metal screen (initial 60 °C, final 250 °C) kA	14,0	1,6	2,5	2,5	2,5	3,3	4,6	6,5	6,5	9,1

2024-12-05 04:36:29

Technical information	4x240/72	4x300/88
Product code	1111419	1111420
Nominal cross-sectional area of conductor mm ²	240	300
Nominal thickness of insulation mm	2,2	2,4
Nominal size of metal screen mm ²	72	88
Nominal thickness of oversheath mm	3,0	3,2
Fire load MJ/m	36,365	43,448
Fire load kWh/m	10,102	12,069
Nominal cable diameter mm	57,810	63,550
Nominal cable weight kg/km	4957,894	6062,148
Nominal weight of copper kg/m	0,649	0,808
Nominal weight of aluminium kg/m	2,552	3,149
Maximum forces during installation when pulling by		
Max. pulling force by pulling-eye kN	14,4	18,0
Max. pulling force by pulling-stocking kN	8,5	8,5
Minimum bending radii		
During handling and installation, phase conductor cm	44	48
During handling and installation, cable cm	69	76
In final installation, phase conductor cm	31	33
In final installation, cable cm	49	53
Minimum bending radii		
During handling and installation, cable m	0,69	0,76
In final installation, cable m	0,49	0,53
DC resistance		
Max. DC resistance of conductor at 20 °C Ω/km	0,125	0,100
Maximum DC resistance at 20 °C, metal screen Ω/km	0,253	0,206

Technical information	4x240/72	4x300/88
Current ratings		
Cables in air (25 °C)		
two loaded conductor, conductor 70 °C A	395	457
three loaded conductor, conductor 70 °C A	343	396
Cables in air (30 °C)		
two loaded conductor, conductor 70 °C A	380	439
three loaded conductor, conductor 70 °C A	330	381
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	375	430
Cables in the ground (20 °C and 2,5 K.m/W), Installation depth 0,7 m		
Cables in the ground, conductor 70 °C A	250	282
Cables in the ground in a tube, conductor 70 °C A	218	247
Maximum thermal short circuit current during 1 s		
Phase (initial 70 °C, final 160 °C) kA	17,3	21,6
Metal screen (initial 60 °C, final 250 °C) kA	11,5	14,0