

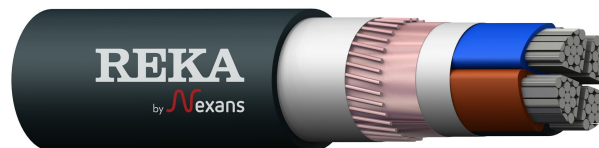
## AEMCMK-HF D / AXQJ-EMC D / IFSI-EMC-AI D

### Aluminium power cable EMC

### 0,6/1 (1,2) kV

#### Application

Aluminium power cable for fixed installations indoors and outdoors. May be buried directly in soil. EMC shielded cable gives an excellent protection against electromagnetic disturbances. The conductor insulation must be protected against UV-radiation. Installations must be in accordance with national regulations and rules of installations. The cable is halogen-free and flame-retardant according to CPR-class Dca-s2,d2,a2.



#### Design

<b>Standards</b>	SFS 5546, SEK TS 424 14 18-1, HD 604 5 I & D, IEC 60502-1
<b>Reaction to fire</b>	Dca-s2,d2,a2; EN 13501-6, EN 50575:2014+A1:2016
<b>Conductor</b>	35-300 mm <sup>2</sup> sector shaped stranded aluminium, EN/IEC 60228 class 2
<b>Insulation</b>	Cross-linked polyethylene XLPE
<b>Core</b>	Brown, black, grey
<b>Identification</b>	Blue, brown, black, grey
<b>Inner covering</b>	Plastic tape
<b>Metal screen</b>	EMC-copper foil and copper wires
<b>Oversheath</b>	UV-protected polyolefin compound, Black
<b>EMC-Shield</b>	Copper foil with 100 % coverage

#### Temperature limits

<b>Max. conductor temperature °C</b>	90
<b>Max. cond. temp. short circuit max. 5 s °C</b>	250
<b>Min. cable temperature during operation °C</b>	-50
<b>Min. cable temperature during handling °C</b>	-15
<b>Min. cable temperature during transport °C</b>	-25

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Technical information	3x35/16	3x50/16	3x70/21	3x95/29	3x95/35	3x120/41	3x150/41	3x150/50	3x185/57	3x240/70
<b>Product code</b>	<b>1149202</b>	<b>1149203</b>	<b>1149204</b>	<b>1149205</b>	<b>1320555</b>	<b>1149206</b>	<b>1149207</b>	<b>1320557</b>	<b>1149208</b>	<b>1320559</b>
Nominal cross-sectional area of conductor mm <sup>2</sup>	35	50	70	95	95	120	150	150	185	240
Nominal thickness of insulation mm	0,9	1,0	1,1	1,1	1,1	1,2	1,4	1,4	1,6	1,7
Nominal size of metal screen mm <sup>2</sup>	16	16	21	29	35	41	41	50	57	70
Nominal thickness of oversheath mm	1,8	1,8	2,0	2,1	2,1	2,3	2,3	2,3	2,5	2,7
Fire load MJ/m	6,158	7,255	9,301	11,271	11,271	14,642	18,004	18,004	22,907	26,540
Fire load kWh/m	1,710	2,015	2,584	3,131	3,131	4,067	5,001	5,001	6,363	7,372
Nominal cable diameter mm	22,080	23,540	27,030	31,450	31,450	35,830	39,190	39,190	44,360	47,970
Nominal cable weight kg/km	679,801	815,963	1115,470	1468,784	1524,192	1905,734	2224,261	2288,904	2790,882	3524,201
Nominal weight of copper kg/m	0,139	0,139	0,187	0,249	0,305	0,360	0,360	0,425	0,501	0,599
Nominal weight of aluminium kg/m	0,273	0,375	0,544	0,751	0,751	0,949	1,165	1,165	1,414	1,910
<b>Maximum forces during installation when pulling by</b>										
Max. pulling force by pulling-eye kN	1,6	2,3	3,2	4,3	4,3	5,4	6,8	6,8	8,3	10,8
Max. pulling force by pulling-stocking kN	1,6	2,3	3,2	4,3	4,3	5,4	6,8	6,8	8,3	8,5
<b>Minimum bending radii</b>										
During handling and installation, phase conductor cm	17	20	24	27	27	31	35	35	38	43
During handling and installation, cable cm	26	28	32	38	38	43	47	47	53	58
In final installation, phase conductor cm	12	14	17	19	19	22	24	24	27	30
In final installation, cable cm	19	20	23	26	26	30	33	33	37	40
<b>Minimum bending radii</b>										
During handling and installation, cable m	0,27	0,28	0,32	0,38	0,38	0,43	0,47	0,47	0,53	0,58
In final installation, cable m	0,18	0,20	0,23	0,26	0,26	0,30	0,33	0,33	0,37	0,40
<b>DC resistance</b>										
Max. DC resistance of conductor at 20 °C Ω/km	0,868	0,641	0,443	0,320	0,320	0,253	0,206	0,206	0,164	0,125
Maximum DC resistance at 20 °C, metal screen Ω/km	1,15	1,15	0,868	0,641	0,524	0,443	0,443	0,443	0,320	0,253

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Technical information	3x35/16	3x50/16	3x70/21	3x95/29	3x95/35	3x120/41	3x150/41	3x150/50	3x185/57	3x240/70
<b>Current ratings</b>										
<b>Cables in air (25 °C)</b>										
two loaded conductor, conductor 70 °C A	115	140	180	218	218	254	293	293	335	395
three loaded conductor, conductor 70 °C A	100	122	156	190	190	220	255	255	291	343
two loaded conductor, conductor 90 °C A	140	171	219	267	267	312	360	360	413	489
three loaded conductor, conductor 90 °C A	125	152	194	236	236	274	316	316	361	425
<b>Cables in air (30 °C)</b>										
two loaded conductor, conductor 70 °C A	111	135	173	210	210	244	282	282	322	380
three loaded conductor, conductor 70 °C A	96	117	150	183	183	212	245	245	280	330
two loaded conductor, conductor 90 °C A	135	164	211	257	257	300	346	346	397	470
three loaded conductor, conductor 90 °C A	120	146	187	227	227	263	304	304	347	409
<b>Cables in the ground (15 °C and 1,0 K.m/W), Installation depth 0,7 m</b>										
Cables in the ground, conductor 65 °C A	125	150	185	220	220	255	280	280	330	375
<b>Cables in the ground (20 °C and 2,5 K.m/W), Installation depth 0,7 m</b>										
Cables in the ground, conductor 90 °C A	98	117	144	172	172	197	220	220	250	290
<b>Maximum thermal short circuit current during 1 s</b>										
Phase (initial 65 °C, final 250 °C) kA	3,6	5,2	7,3	9,8	9,8	12,4	15,5	15,5	19,2	24,9
Phase (initial 90 °C, final 250 °C) kA	3,4	4,8	6,7	9,0	9,0	11,4	14,2	14,2	17,5	22,6
Metal screen (initial 80 °C, final 250 °C) kA	2,4	2,4	3,1	4,3	5,2	6,1	6,1	7,4	8,5	10,4

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Technical information	3x240/72	3x300/88	4x35/16	4x50/16	4x70/21	4x95/29	4x95/35	4x120/41	4x150/41	4x150/50
<b>Product code</b>	<b>1149209</b>	<b>1149210</b>	<b>1149216</b>	<b>1149217</b>	<b>1149218</b>	<b>1149219</b>	<b>1320575</b>	<b>1149220</b>	<b>1149221</b>	<b>1320577</b>
Nominal cross-sectional area of conductor mm <sup>2</sup>	240	300	35	50	70	95	95	120	150	150
Nominal thickness of insulation mm	1,7	1,8	0,9	1,0	1,1	1,1	1,1	1,2	1,4	1,4
Nominal size of metal screen mm <sup>2</sup>	72	88	16	16	21	29	35	41	41	50
Nominal thickness of oversheath mm	2,7	3,0	1,8	1,9	2,1	2,2	2,2	2,3	2,5	2,5
Fire load MJ/m	26,540	32,076	7,462	9,535	12,208	14,320	14,320	18,382	22,952	22,952
Fire load kWh/m	7,372	8,910	2,073	2,649	3,391	3,978	3,978	5,106	6,375	6,375
Nominal cable diameter mm	47,970	55,790	23,990	27,820	31,220	35,220	35,220	40,370	44,600	44,600
Nominal cable weight kg/km	3560,868	4412,620	812,539	1027,611	1400,220	1825,132	1880,540	2342,403	2792,396	2857,038
Nominal weight of copper kg/m	0,636	0,794	0,139	0,139	0,187	0,249	0,305	0,360	0,360	0,425
Nominal weight of aluminium kg/m	1,910	2,357	0,364	0,501	0,725	1,001	1,001	1,265	1,554	1,554
<b>Maximum forces during installation when pulling by</b>										
Max. pulling force by pulling-eye kN	10,8	13,5	2,1	3,0	4,2	5,7	5,7	7,2	9,0	9,0
Max. pulling force by pulling-stocking kN	8,5	8,5	2,1	3,0	4,2	5,7	5,7	7,2	8,5	8,5
<b>Minimum bending radii</b>										
During handling and installation, phase conductor cm	43	50	16	19	23	26	26	29	32	32
During handling and installation, cable cm	58	67	29	33	37	42	42	48	54	54
In final installation, phase conductor cm	30	35	11	13	16	18	18	20	23	23
In final installation, cable cm	40	47	20	23	26	30	30	34	37	37
<b>Minimum bending radii</b>										
During handling and installation, cable m	0,58	0,67	0,29	0,33	0,38	0,42	0,42	0,48	0,54	0,54
In final installation, cable m	0,40	0,47	0,20	0,23	0,26	0,30	0,30	0,34	0,38	0,38
<b>DC resistance</b>										
Max. DC resistance of conductor at 20 °C Ω/km	0,125	0,100	0,868	0,641	0,443	0,320	0,320	0,253	0,206	0,206
Maximum DC resistance at 20 °C, metal screen Ω/km	0,253	0,206	1,15	1,15	0,868	0,641	0,524	0,443	0,443	0,443

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Technical information	3x240/72	3x300/88	4x35/16	4x50/16	4x70/21	4x95/29	4x95/35	4x120/41	4x150/41	4x150/50
<b>Current ratings</b>										
<b>Cables in air (25 °C)</b>										
two loaded conductor, conductor 70 °C A	395	457	115	140	180	218	218	254	293	293
three loaded conductor, conductor 70 °C A	343	396	100	122	156	190	190	220	255	255
two loaded conductor, conductor 90 °C A	489	565	140	171	219	267	267	312	360	360
three loaded conductor, conductor 90 °C A	425	490	125	152	194	236	236	274	316	316
<b>Cables in air (30 °C)</b>										
two loaded conductor, conductor 70 °C A	380	439	111	135	173	210	210	244	282	282
three loaded conductor, conductor 70 °C A	330	381	96	117	150	183	183	212	245	245
two loaded conductor, conductor 90 °C A	470	543	135	164	211	257	257	300	346	346
three loaded conductor, conductor 90 °C A	409	471	120	146	187	227	227	263	304	304
<b>Cables in the ground (15 °C and 1,0 K.m/W), Installation depth 0,7 m</b>										
Cables in the ground, conductor 65 °C A	375	430	125	150	185	220	220	255	280	280
<b>Cables in the ground (20 °C and 2,5 K.m/W), Installation depth 0,7 m</b>										
Cables in the ground, conductor 90 °C A	290	326	98	117	144	172	172	197	220	220
<b>Maximum thermal short circuit current during 1 s</b>										
Phase (initial 65 °C, final 250 °C) kA	24,9	31,1	3,6	5,2	7,3	9,8	9,8	12,4	15,5	15,5
Phase (initial 90 °C, final 250 °C) kA	22,6	28,2	3,4	4,8	6,7	9,0	9,0	11,4	14,2	14,2
Metal screen (initial 80 °C, final 250 °C) kA	10,7	13,0	2,4	2,4	3,1	4,3	5,2	6,1	6,1	7,4

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Technical information	4x185/57	4x240/70	4x240/72	4x300/88
<b>Product code</b>	<b>1149222</b>	<b>1320579</b>	<b>1149223</b>	<b>1149224</b>
Nominal cross-sectional area of conductor mm <sup>2</sup>	185	240	240	300
Nominal thickness of insulation mm	1,6	1,7	1,7	1,8
Nominal size of metal screen mm <sup>2</sup>	57	70	72	88
Nominal thickness of oversheath mm	2,7	2,9	2,9	3,1
Fire load MJ/m	28,335	35,054	35,054	39,711
Fire load kWh/m	7,871	9,737	9,737	11,031
Nominal cable diameter mm	49,260	56,070	56,070	59,820
Nominal cable weight kg/km	3454,610	4459,436	4496,102	5427,619
Nominal weight of copper kg/m	0,501	0,599	0,636	0,794
Nominal weight of aluminium kg/m	1,886	2,547	2,547	3,143
<b>Maximum forces during installation when pulling by</b>				
Max. pulling force by pulling-eye kN	11,1	14,4	14,4	18,0
Max. pulling force by pulling-stocking kN	8,5	8,5	8,5	8,5
<b>Minimum bending radii</b>				
During handling and installation, phase conductor cm	37	43	43	46
During handling and installation, cable cm	59	67	67	72
In final installation, phase conductor cm	26	30	30	32
In final installation, cable cm	41	47	47	50
<b>Minimum bending radii</b>				
During handling and installation, cable m	0,59	0,67	0,67	0,72
In final installation, cable m	0,41	0,47	0,47	0,50
<b>DC resistance</b>				
Max. DC resistance of conductor at 20 °C Ω/km	0,164	0,125	0,125	0,100
Maximum DC resistance at 20 °C, metal screen Ω/km	0,320	0,253	0,253	0,206

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Technical information	4x185/57	4x240/70	4x240/72	4x300/88
<b>Current ratings</b>				
<b>Cables in air (25 °C)</b>				
two loaded conductor, conductor 70 °C A	335	395	395	457
three loaded conductor, conductor 70 °C A	291	343	343	396
two loaded conductor, conductor 90 °C A	413	489	489	565
three loaded conductor, conductor 90 °C A	361	425	425	490
<b>Cables in air (30 °C)</b>				
two loaded conductor, conductor 70 °C A	322	380	380	439
three loaded conductor, conductor 70 °C A	280	330	330	381
two loaded conductor, conductor 90 °C A	397	470	470	543
three loaded conductor, conductor 90 °C A	347	409	409	471
<b>Cables in the ground (15 °C and 1,0 K.m/W), Installation depth 0,7 m</b>				
Cables in the ground, conductor 65 °C A	330	375	375	430
<b>Cables in the ground (20 °C and 2,5 K.m/W), Installation depth 0,7 m</b>				
Cables in the ground, conductor 90 °C A	250	290	290	326
<b>Maximum thermal short circuit current during 1 s</b>				
Phase (initial 65 °C, final 250 °C) kA	19,2	24,9	24,9	31,1
Phase (initial 90 °C, final 250 °C) kA	17,5	22,6	22,6	28,2
Metal screen (initial 80 °C, final 250 °C) kA	8,5	10,4	10,7	13,0