EMCMK-HF / EXQJ-EMC / FXQJ-EMC / IFSI-EMC-Cu

Copper power cable EMC



0,6/1 (1,2) kV

Application

Copper power cable for fixed installations indoors and outdoors. May be buried directly in soil. EMC shielded cable gives an excellent protection against electromagnetic disturbancies. 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

Standards	SFS 5546, SEK TS 424 14 18-1, HD 604 5 I & D, IEC 60502-1
Reaction to fire	Dca-s2,d2,a2; EN 13501-6, EN 50575:2014+A1:2016
Conductor	1,5-6 mm² circular solid copper, EN/IEC 60228 class 1 (EXQJ-EMC) 10-25 mm² circular stranded copper, EN/IEC 60228 class 2 (FXQJ-EMC)
Insulation	Cross-linked polyethylene XLPE
Core Identification	Brown, black, grey Blue, brown, black, grey
Inner covering	Plastic tape
Metal screen	EMC-copper foil and copper wires
Oversheath	UV-protected polyolefin compound , Black
EMC-Shield	Copper foil with 100 % coverage

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	-15
Min. cable temperature during transport °C	-25

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Technical information	2x1,5/1,5	2x2,5/2,5	2x4/4	2x6/6	2x10/10	2x16/16	3x1,5/1,5	3x2,5/2,5	3x4/4	3x6/6
Product code	**1146739**	**1146740**	**1146741**	**1146743**	**1146744**	**1146745**	**1146690**	**1146691**	**1146692**	**1146693**
Nominal cable diameter mm	12	13	14	15	18	20	13	14	15	15
Nominal cable weight kg/km	199	255	324	405	595	831	229	285	363	461
Nominal weight of copper kg/km	51	75	119	170	277	438	65	100	155	230
Nominal Insulation thicness mm	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7
Nominal size of metal screen mm²	1,5	2,5	4	6	10	16	1,5	2,5	4	6
Nominal thickness of oversheath mm	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8
Fire load										
Fire load MJ/m	2,087	2,428	2,778	3,139	4,175	5,102	2,401	2,710	3,061	3,403
Fire load kWh/m	0,580	0,674	0,772	0,872	1,160	1,417	0,667	0,753	0,850	0,945
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	0,2	0,3	0,4	0,6	1,0	1,6	0,2	0,4	0,6	0,9
Max. pulling force by pulling-stocking kN	0,1	0,1	0,1	0,2	0,3	0,5	0,1	0,1	0,2	0,3
Minimum bending radii										
Minimum bending radius, handling mm	143	157	169	181	215	244	152	165	176	184
Minimum bending radius, final bending mm	100	110	118	127	150	171	107	115	123	129
Minimum bending radii										
During handling and installation, cable cm	14	16	17	18	21	24	15	16	18	18
In final installation, cable cm	10	11	12	13	15	17	11	12	12	13
Minimum bending radii										
During handling and installation, cable m	0,14	0,16	0,17	0,18	0,21	0,24	0,15	0,17	0,18	0,18
In final installation, cable m	0,10	0,11	0,12	0,13	0,15	0,17	0,11	0,12	0,12	0,13
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	12,1	7,41	4,61	3,08	1,83	1,15	12,1	7,41	4,61	3,08
Maximum DC resistance at 20 °C, metal screen Ω/km	12,1	7,41	4,61	3,08	1,83	1,15	12,1	7,41	4,61	3,08

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Technical information	2x1,5/1,5	2x2,5/2,5	2x4/4	2x6/6	2x10/10	2x16/16	3x1,5/1,5	3x2,5/2,5	3x4/4	3x6/6
Current ratings										
Cables in air (25 °C)										
two loaded conductor, conductor 70 °C A	23	31	42	53	73	98	23	31	42	53
three loaded conductor, conductor 70 °C A							19	26	35	45
two loaded conductor, conductor 90 °C A	27	37	51	66	89	120	27	37	51	66
three loaded conductor, conductor 90 °C A							24	33	44	56
Cables in air (30 °C)										
two loaded conductor, conductor 70 °C A	22	30	40	51	70	94	22	30	40	51
three loaded conductor, conductor 70 °C A							18,5	25	34	43
two loaded conductor, conductor 90 °C A	26	36	49	63	86	115	26	36	49	63
three loaded conductor, conductor 90 °C A							23	32	42	54
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	26	35	46	57	77	100	26	35	46	57
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	27	35	46	58	77	100	23	30	39	49
Maximum thermal short circuit current during 1 s										
Phase (initial 65 °C, final 250 °C) kA	0,2	0,3	0,6	0,9	1,6	2,5	0,2	0,3	0,6	0,9
Phase (initial 90 °C, final 250 °C) kA	0,2	0,3	0,5	0,8	1,4	2,3	0,2	0,3	0,5	0,8
Metal screen (initial 80 °C, final 250 °C) kA	0,2	0,4	0,6	0,9	1,5	2,4	0,2	0,4	0,6	0,9

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STANDARD PACKAGES	2x1,5/1,5	2x2,5/2,5	2x4/4	2x6/6	2x10/10	2x16/16	3x1,5/1,5	3x2,5/2,5	3x4/4	3x6/6
Product code	1146739	1146740	1146741	1146743	1146744	1146745	1146690	1146691	1146692	1146693
GTIN code	6438176008690	6438176008713	6438176008720	6438176008737	6438176008744	6438176008751	6410006023721	6410006023752	6438176114742	6410006023905
Package	1000 K9	1000 K10	500 K9	500 K10	500 K10	500 K11	500 K8	1000 K10	500 K9	1000 K11
Product code							1146690	1146691		1146693
GTIN code							6410006023738	6410006023745		6410006023875
Package							1000 K9	500 K8		500 K10

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Technical information	3x10/10	3x16/16	3x25/16	4x1,5/1,5	4x2,5/2,5	4x4/4	4x6/6	4x10/10	4x16/16	4x25/16
Product code	**1146694**	**1146695**	**1146696**	**1146710**	**1146711**	**1146712**	**1146713**	**1146714**	**1146715**	**1146716**
Nominal cable diameter mm	19	21	26	13	14	15	17	20	23	28
Nominal cable weight kg/km	690	969	1391	242	318	381	543	830	1149	1683
Nominal weight of copper kg/km	369	578	871	78	119	191	281	462	721	1101
Nominal Insulation thicness mm	0,7	0,7	0,9	0,7	0,7	0,7	0,7	0,7	0,7	0,9
Nominal size of metal screen mm²	10	16	16	1,5	2,5	4	6	10	16	16
Nominal thickness of oversheath mm	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8
Fire load										
Fire load MJ/m	4,964	6,079	8,001	2,568	3,022	3,111	3,990	5,950	6,631	9,408
Fire load kWh/m	1,379	1,688	2,223	0,714	0,839	0,864	1,108	1,653	1,842	2,613
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	1,5	2,4	3,8	0,3	0,5	0,8	1,2	2,0	3,2	5,0
Max. pulling force by pulling-stocking kN	0,5	0,7	1,1	0,1	0,2	0,2	0,4	0,6	1,0	1,5
Minimum bending radii										
Minimum bending radius, handling mm	226	256	310	154	170	175	202	243	276	336
Minimum bending radius, final bending mm	158	180	217	108	119	122	141	170	193	235
Minimum bending radii										
During handling and installation, cable cm	23	26	31	15	17	17	20	24	28	34
In final installation, cable cm	16	18	22	11	12	12	14	17	19	23
Minimum bending radii										
During handling and installation, cable m	0,23	0,26	0,31	0,15	0,17	0,17	0,20	0,24	0,28	0,34
In final installation, cable m	0,16	0,18	0,22	0,11	0,12	0,12	0,14	0,17	0,19	0,23
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	1,83	1,15	0,727	12,1	7,41	4,61	3,08	1,83	1,15	0,727
Maximum DC resistance at 20 °C, metal screen Ω/km	1,83	1,15	1,15	12,1	7,41	4,61	3,08	1,83	1,15	1,15

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Technical information	3x10/10	3x16/16	3x25/16	4x1,5/1,5	4x2,5/2,5	4x4/4	4x6/6	4x10/10	4x16/16	4x25/16
Current ratings										
Cables in air (25 °C)										
two loaded conductor, conductor 70 °C A	73	98	124	23	31	42	53	73	98	124
three loaded conductor, conductor 70 °C A	62	83	105	19	26	35	45	62	83	105
two loaded conductor, conductor 90 °C A	89	120	155	27	37	51	66	89	120	155
three loaded conductor, conductor 90 °C A	78	104	132	24	33	44	56	78	104	132
Cables in air (30 °C)										
two loaded conductor, conductor 70 °C A	70	94	119	22	30	40	51	70	94	119
three loaded conductor, conductor 70 °C A	60	80	101	18,5	25	34	43	60	80	101
two loaded conductor, conductor 90 °C A	86	115	149	26	36	49	63	86	115	149
three loaded conductor, conductor 90 °C A	75	100	127	23	32	42	54	75	100	127
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	77	100	130	26	35	46	57	77	100	130
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	65	84	107	23	30	39	49	65	84	107
Maximum thermal short circuit current during 1 s										
Phase (initial 65 °C, final 250 °C) kA	1,6	2,5	3,9	0,2	0,3	0,6	0,9	1,6	2,5	3,9
Phase (initial 90 °C, final 250 °C) kA	1,4	2,3	3,6	0,2	0,3	0,5	0,8	1,4	2,3	3,6
Metal screen (initial 80 °C, final 250 °C) kA	1,5	2,4	2,4	0,2	0,4	0,6	0,9	1,5	2,4	2,4

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STANDARD PACKAGES	3x10/10	3x16/16	3x25/16	4x1,5/1,5	4x2,5/2,5	4x4/4	4x6/6	4x10/10	4x16/16	4x25/16
Product code	1146694	1146695	1146696	1146710	1146711	1146712	1146713	1146714	1146715	1146716
GTIN code	6410006023912	6410006023936	6410006023950	6410006029143	6410006029150	6438176115145	6410006029181	6410006029198	6410006029433	6410006029457
Package	500 K11	500 K12	500 K12	1000 K9	500 K9	500 K9	1000 K12	500 K11	1000 K16	1000 K18
Product code	1146694	1146695	1146696	1146710			1146713	1146714	1146715	1146716
GTIN code	6410006023929	6410006023943	6410006023967	6410006029136			6410006029174	6410006029204	6410006029211	6410006029440
Package	1000 K12	1000 K14	1000 K16	500 K8			500 K10	1000 K14	500 K12	500 K14

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