XCMK-HF / EXQJ / IFSI-Cu

Copper power cable HF

0,6/1 (1,2) kV

Application

Copper power cable for fixed installations indoors and outdoors. May be buried directly in soil. 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
Product Environmental Profile (PEP/EPD)	PEP NXNS-00665-V01.01-EN
Conductor	Circular solid copper, EN/IEC 60228 class 1
Insulation	Cross-linked polyethylene XLPE
Core Identification	Blue, brown Brown, black, grey Blue, brown, black, grey
Inner covering	Extruded filling compound
Metal screen	Copper wires and copper tape
Oversheath	UV-protected polyolefin 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	-50
Min. cable temperature during handling °C	-15
Min. cable temperature during transport °C	-25

Technical information	2x1,5/1,5	2x2,5/2,5	2x4/4	2x6/6	3x1,5/1,5	3x2,5/2,5	3x4/4	3x6/6	4x1,5/1,5	4x2,5/2,5
Product code	**1146105**	**1146106**	**1146107**	**1146108**	**1146225**	**1146226**	**1146227**	**1146228**	**1146305**	**1146306**
Nominal cable diameter mm	12	13	14	15	12	13	14	15	13	14
Nominal cable weight kg/km	190	232	302	386	203	254	338	437	231	292
Nominal weight of copper kg/km	41	66	110	164	53	87	144	217	66	108
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	1,5	2,5	4	6	1,5	2,5
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	2,073	2,303	2,665	3,016	2,273	2,545	2,941	3,330	2,582	2,909
Fire load kWh/m	0,576	0,640	0,740	0,838	0,631	0,707	0,817	0,925	0,717	0,808
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	0,2	0,3	0,4	0,6	0,2	0,4	0,6	0,9	0,3	0,5
Max. pulling force by pulling-stocking kN	0,1	0,1	0,1	0,2	0,1	0,1	0,2	0,3	0,1	0,2
Minimum bending radii										
Minimum bending radius, handling mm	142	151	165	178	147	156	172	185	155	166
Minimum bending radius, final bending mm	99	105	116	124	103	109	120	130	109	116
Minimum bending radii										
During handling and installation, cable cm	14	15	17	18	15	16	17	19	16	17
In final installation, cable cm	10	11	12	12	10	11	12	13	11	12
Minimum bending radii										
During handling and installation, cable m	0,14	0,15	0,17	0,18	0,15	0,16	0,17	0,18	0,15	0,17
In final installation, cable m	0,10	0,10	0,12	0,12	0,10	0,11	0,12	0,13	0,11	0,12
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	12,1	7,41	4,61	3,08	12,1	7,41	4,61	3,08	12,1	7,41
Maximum DC resistance at 20 °C, metal screen Ω/km	12,1	7,41	4,61	3,08	12,1	7,41	4,61	3,08	12,1	7,41

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Technical information	2x1,5/1,5	2x2,5/2,5	2x4/4	2x6/6	3x1,5/1,5	3x2,5/2,5	3x4/4	3x6/6	4x1,5/1,5	4x2,5/2,5
Current ratings										
Cables in air (25 °C)										
two loaded conductor, conductor 70 °C A	23	31	42	53	23	31	42	53	23	31
three loaded conductor, conductor 70 °C A					19	26	35	45	19	26
two loaded conductor, conductor 90 °C A	27	37	51	66	27	37	51	66	27	37
three loaded conductor, conductor 90 °C A					24	33	44	56	24	33
Cables in air (30 °C)										
two loaded conductor, conductor 70 °C A	22	30	40	51	22	30	40	51	22	30
three loaded conductor, conductor 70 °C A					18,5	25	34	43	18,5	25
two loaded conductor, conductor 90 °C A	26	36	49	63	26	36	49	63	26	36
three loaded conductor, conductor 90 °C A					23	32	42	54	23	32
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	26	35	46	57	26	35
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	23	30	39	49	23	30
Maximum thermal short circuit current during 1 s										
Phase (initial 65 °C, final 250 °C) kA	0,2	0,3	0,6	0,9	0,2	0,3	0,6	0,9	0,2	0,3
Phase (initial 90 °C, final 250 °C) kA	0,2	0,3	0,5	0,8	0,2	0,3	0,5	0,8	0,2	0,3
Metal screen (initial 80 °C, final 250 °C) kA	0,2	0,4	0,6	0,9	0,2	0,4	0,6	0,9	0,2	0,4
Environmental information										
(A1-A3) GWP emission kgCO2e/km	525	717	983	1329	577	788	1131	1538	695	942
GWP emissions calculation standard	EN15804:2012 + A2:2019	EN15804:2012 + A2:2019	EN15804:2012 + A2:2019	EN15804:2012 + A2:2019	EN15804:2012 + A2:2019	EN15804:2012 + A2:2019	EN15804:2012 + A2:2019	EN15804:2012 + A2:2019	EN15804:2012 + A2:2019	EN15804:2012 + A2:2019

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STANDARD PACKAGES	2x1,5/1,5	2x2,5/2,5	2x4/4	2x6/6	3x1,5/1,5	3x2,5/2,5	3x4/4	3x6/6	4x1,5/1,5	4x2,5/2,5
Product code	1146105	1146106	1146107	1146108	1146225	1146226	1146227	1146228	1146305	1146306
GTIN code	6438176011607	6438176011614	6438176011621	6438176011638	6410006023172	6410006023202	6438176011706	6410006023257	6410006023615	6410006023639
Package	1000 K9	1000 K9	1000 K10	1000 K10	500 K8	1000 K10	1000 K10	500 K8	500 K8	500 K7
Product code		1146106		1146108	1146225	1146226		1146228	1146305	1146306
GTIN code		6438176219393		6410006029907	6410006023189	6410006023196		6410006023301	6410006023622	6410006023646
Package		500 K7		500 K9	1000 K9	500 K7		1000 K11	1000 K9	1000 K10

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Technical information	4x4/4	4x6/6
Product code	**1146307**	**1146308**
Nominal cable diameter mm	15	17
Nominal cable weight kg/km	393	521
Nominal weight of copper kg/km	180	272
Nominal Insulation thicness mm	0,7	0,7
Nominal size of metal screen mm²	4	6
Nominal thickness of oversheath mm	1,8	1,8
Fire load		
Fire load MJ/m	3,380	3,883
Fire load kWh/m	0,939	1,079
Maximum forces during installation when pulling by		
Max. pulling force by pulling-eye kN	0,8	1,2
Max. pulling force by pulling-stocking kN	0,2	0,4
Minimum bending radii		
Minimum bending radius, handling mm	183	198
Minimum bending radius, final bending mm	128	139
Minimum bending radii		
During handling and installation, cable cm	18	20
In final installation, cable cm	13	14
Minimum bending radii		
During handling and installation, cable m	0,18	0,20
In final installation, cable m	0,13	0,14
DC resistance		
Max. DC resistance of conductor at 20 °C Ω/km	4,61	3,08
Maximum DC resistance at 20 °C, metal screen Ω/km	4,61	3,08

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Technical information	4x4/4	4x6/6
Current ratings		
Cables in air (25 °C)		
two loaded conductor, conductor 70 °C A	42	53
three loaded conductor, conductor 70 °C A	35	45
two loaded conductor, conductor 90 °C A	51	66
three loaded conductor, conductor 90 °C A	44	56
Cables in air (30 °C)		
two loaded conductor, conductor 70 °C A	40	51
three loaded conductor, conductor 70 °C A	34	43
two loaded conductor, conductor 90 °C A	49	63
three loaded conductor, conductor 90 °C A	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	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	39	49
Maximum thermal short circuit current during 1 s		
Phase (initial 65 °C, final 250 °C) kA	0,6	0,9
Phase (initial 90 °C, final 250 °C) kA	0,5	0,8
Metal screen (initial 80 °C, final 250 °C) kA	0,6	0,9
Environmental information		
(A1-A3) GWP emission kgCO2e/km	1358	1882
GWP emissions calculation standard	EN15804:2012 + A2:2019	EN15804:2012 + A2:2019

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STANDARD PACKAGES	4x4/4	4x6/6
Product code	1146307	1146308
GTIN code	6438176011850	6410006023004
Package	1000 K11	500 K9
Product code		1146308
GTIN code		6410006023219
Package		1000 K12