

MK-HF / H07Z1-R

Installation wire-HF

450/750 V

Application

Installation wire for fixed installations indoors. For internal wiring of electrical devices. The conductor insulation must be protected against UV-radiation. The cable is halogen-free and flame-retardant according to CPR-class Dca-s2,d2,a2.

Design

Standards	EN 50525-3-31
Reaction to fire	Dca-s2,d2,a2; EN 13501-6, EN 50575:2014+A1:2016
Conductor	Circular stranded copper, EN/IEC 60228 class 2
Insulation	Polyolefine compound
Core Identification	GNYE Yellow-green, BU Blue BN Brown, BK Black GY Grey, OG Orange RD Red, WH White VT Violet, PK Pink



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	-40

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Technical information	1,5 GY H07Z1-R	1,5 WH H07Z1-R	1,5 BN H07Z1-R	1,5 BK H07Z1-R	1,5 GN H07Z1-R	1,5 OG H07Z1-R	1,5 BU H07Z1-R	1,5 GNYE H07Z1-R	2,5 GY H07Z1-R	2,5 WH H07Z1-R
Product code	1145660	1145661	1145662	1145663	1145665	1145666	1145667	1145668	1145670	1145671
Nominal cross-sectional area of conductor mm ²	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	2,5	2,5
Nominal thickness of insulation mm	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,8	0,8
Fire load MJ/m	0,124	0,124	0,124	0,124	0,124	0,124	0,124	0,124	0,176	0,176
Fire load kWh/m	0,035	0,035	0,035	0,035	0,035	0,035	0,035	0,035	0,049	0,049
Nominal cable diameter mm	2,990	2,990	2,990	2,990	2,990	2,990	2,990	2,990	3,610	3,610
Nominal cable weight kg/km	22,059	22,059	22,059	22,059	22,059	22,059	22,059	22,059	33,955	33,955
Nominal weight of copper kg/m	0,014	0,014	0,014	0,014	0,014	0,014	0,014	0,014	0,022	0,022
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1
Max. pulling force by pulling-stocking kN										
Minimum bending radii										
Minimum bending radius, handling mm	24	24	24	24	24	24	24	24	29	29
Minimum bending radius, final bending mm	9	9	9	9	9	9	9	9	11	11
Minimum bending radii										
During handling and installation, cable cm	2	2	2	2	2	2	2	2	3	3
In final installation, cable cm	1	1	1	1	1	1	1	1	1	1
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	12,1	12,1	12,1	12,1	12,1	12,1	12,1	12,1	7,41	7,41

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Technical information	2,5 BN H07Z1-R	2,5 BK H07Z1-R	2,5 GN H07Z1-R	2,5 RD H07Z1-R	2,5 BU H07Z1-R	2,5 GNYE H07Z1-R	4 BK H07Z1-R	4 BU H07Z1-R	4 GNYE H07Z1-R	6 BK H07Z1-R
Product code	1145672	1145673	1145675	1145676	1145677	1145678	1145683	1145687	1145688	1145693
Nominal cross-sectional area of conductor mm ²	2,5	2,5	2,5	2,5	2,5	2,5	4	4	4	6
Nominal thickness of insulation mm	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8
Fire load MJ/m	0,176	0,176	0,176	0,176	0,176	0,176	0,221	0,221	0,221	0,268
Fire load kWh/m	0,049	0,049	0,049	0,049	0,049	0,049	0,061	0,061	0,061	0,075
Nominal cable diameter mm	3,610	3,610	3,610	3,610	3,610	3,610	4,180	4,180	4,180	4,750
Nominal cable weight kg/km	33,955	33,955	33,955	33,955	33,955	33,955	51,220	51,220	51,220	70,893
Nominal weight of copper kg/m	0,022	0,022	0,022	0,022	0,022	0,022	0,037	0,037	0,037	0,053
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	0,1	0,1	0,1	0,1	0,1	0,1	0,2	0,2	0,2	0,3
Max. pulling force by pulling-stocking kN										
Minimum bending radii										
Minimum bending radius, handling mm	29	29	29	29	29	29	33	33	33	38
Minimum bending radius, final bending mm	11	11	11	11	11	11	13	13	13	14
Minimum bending radii										
During handling and installation, cable cm	3	3	3	3	3	3	3	3	3	4
In final installation, cable cm	1	1	1	1	1	1	1	1	1	1
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	7,41	7,41	7,41	7,41	7,41	7,41	4,61	4,61	4,61	3,08

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Technical information	6 BU H07Z1-R	6 GNYE H07Z1-R	10 BK H07Z1-R	10 BU H07Z1-R	10 GNYE H07Z1-R	16 BK H07Z1-R	16 BU H07Z1-R	16 GNYE H07Z1-R	25 BK H07Z1-R	25 BU H07Z1-R
Product code	1145697	1145698	1145703	1145707	1145708	1145713	1145717	1145718	1145723	1145727
Nominal cross-sectional area of conductor mm ²	6	6	10	10	10	16	16	16	25	25
Nominal thickness of insulation mm	0,8	0,8	1,0	1,0	1,0	1,0	1,0	1,0	1,2	1,2
Fire load MJ/m	0,268	0,268	0,437	0,437	0,437	0,517	0,517	0,517	0,755	0,755
Fire load kWh/m	0,075	0,075	0,122	0,122	0,122	0,144	0,144	0,144	0,210	0,210
Nominal cable diameter mm	4,750	4,750	6,050	6,050	6,050	7,250	7,250	7,250	8,790	8,790
Nominal cable weight kg/km	70,893	70,893	115,160	115,160	115,160	181,440	181,440	181,440	277,309	277,309
Nominal weight of copper kg/m	0,053	0,053	0,086	0,086	0,086	0,147	0,147	0,147	0,227	0,227
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	0,3	0,3	0,5	0,5	0,5	0,8	0,8	0,8	1,2	1,2
Max. pulling force by pulling-stocking kN										
Minimum bending radii										
Minimum bending radius, handling mm	38	38	48	48	48	58	58	58	70	70
Minimum bending radius, final bending mm	14	14	18	18	18	22	22	22	26	26
Minimum bending radii										
During handling and installation, cable cm	4	4	5	5	5	6	6	6	7	7
In final installation, cable cm	1	1	2	2	2	2	2	2	3	3
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	3,08	3,08	1,83	1,83	1,83	1,15	1,15	1,15	0,727	0,727

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Technical information	25 GNYE H07Z1-R	35 BK H07Z1-R	35 BU H07Z1-R	35 GNYE H07Z1-R	50 BK H07Z1-R	50 BU H07Z1-R	50 GNYE H07Z1-R	70 BK H07Z1-R	70 BU H07Z1-R	70 GNYE H07Z1-R
Product code	1145728	1145733	1145737	1145738	1145743	1145747	1145748	1145753	1145757	1145758
Nominal cross-sectional area of conductor mm ²	25	35	35	35	50	50	50	70	70	70
Nominal thickness of insulation mm	1,2	1,2	1,2	1,2	1,4	1,4	1,4	1,4	1,4	1,4
Fire load MJ/m	0,755	0,910	0,910	0,910	1,234	1,234	1,234	1,508	1,508	1,508
Fire load kWh/m	0,210	0,253	0,253	0,253	0,343	0,343	0,343	0,419	0,419	0,419
Nominal cable diameter mm	8,790	10,050	10,050	10,050	11,700	11,700	11,700	13,500	13,500	13,500
Nominal cable weight kg/km	277,309	371,636	371,636	371,636	504,286	504,286	504,286	707,546	707,546	707,546
Nominal weight of copper kg/m	0,227	0,311	0,311	0,311	0,422	0,422	0,422	0,607	0,607	0,607
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	1,2	1,7	1,7	1,7	2,5	2,5	2,5	3,5	3,5	3,5
Max. pulling force by pulling-stocking kN										
Minimum bending radii										
Minimum bending radius, handling mm	70	80	80	80	94	94	94	108	108	108
Minimum bending radius, final bending mm	26	30	30	30	35	35	35	41	41	41
Minimum bending radii										
During handling and installation, cable cm	7	8	8	8	9	9	9	11	11	11
In final installation, cable cm	3	3	3	3	4	4	4	4	4	4
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	0,727	0,524	0,524	0,524	0,387	0,387	0,387	0,268	0,268	0,268

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Technical information	95 BK H07Z1- R	95 BU H07Z1- R	95 GNYE H07Z1- R	120 BK H07Z1- R	120 BU H07Z1- R	120 GNYE H07Z1- R	150 GNYE H07Z1- R	185 GNYE H07Z1- R	240 GNYE H07Z1- R	300 GNYE H07Z1- R
Product code	1145763	1145767	1145768	1145773	1145777	1145778	1145788	1145798	1145808	1145818
Nominal cross-sectional area of conductor mm ²	95	95	95	120	120	120	150	185	240	300
Nominal thickness of insulation mm	1,6	1,6	1,6	1,6	1,6	1,6	1,8	2,0	2,2	2,4
Fire load MJ/m	2,037	2,037	2,037	2,202	2,202	2,202	2,315	2,899	3,673	4,490
Fire load kWh/m	0,566	0,566	0,566	0,612	0,612	0,612	0,643	0,805	1,020	1,247
Nominal cable diameter mm	15,800	15,800	15,800	17,400	17,400	17,400	17,800	20,000	22,800	25,400
Nominal cable weight kg/km	986,794	986,794	986,794	1222,780	1222,780	1222,780	1435,891	1800,292	2366,036	2935,319
Nominal weight of copper kg/m	0,851	0,851	0,851	1,076	1,076	1,076	1,282	1,607	2,121	2,636
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	4,7	4,7	4,7	6,0	6,0	6,0	7,5	9,2	12,0	15,0
Max. pulling force by pulling-stocking kN										
Minimum bending radii										
Minimum bending radius, handling mm	126	126	126	139	139	139	142	160	182	203
Minimum bending radius, final bending mm	47	47	47	52	52	52	53	60	68	76
Minimum bending radii										
During handling and installation, cable cm	13	13	13	14	14	14	14	16	18	20
In final installation, cable cm	5	5	5	5	5	5	5	6	7	8
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	0,193	0,193	0,193	0,153	0,153	0,153	0,124	0,0991	0,0754	0,0601

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Technical information	400 GNYE H07Z1-R	500 GNYE H07Z1-R
Product code	1145828	1145838
Nominal cross-sectional area of conductor mm ²	400	500
Nominal thickness of insulation mm	2,6	2,8
Fire load MJ/m	5,656	6,937
Fire load kWh/m	1,571	1,927
Nominal cable diameter mm	28,350	31,850
Nominal cable weight kg/km	3910,754	4940,455
Nominal weight of copper kg/m	3,534	4,478
Maximum forces during installation when pulling by		
Max. pulling force by pulling-eye kN	20,0	25,0
Max. pulling force by pulling-stocking kN		
Minimum bending radii		
Minimum bending radius, handling mm	227	255
Minimum bending radius, final bending mm	85	96
Minimum bending radii		
During handling and installation, cable cm	23	25
In final installation, cable cm	9	10
DC resistance		
Max. DC resistance of conductor at 20 °C Ω/km	0,0470	0,0366