

MK-HF C / H07Z1-R

Installation wire-HF

450/750 V

Application

Installation wire for fixed installations indoors and outdoors. Not to be laid in soil nor directly in cast concrete. Can also be used in medical facilities where higher fire class is required. Installations must be in accordance with national regulations and rules of installations. The cable is halogen-free and flame-retardant according to CPR-class Cca-s1,d1,a1.



Design

Standards	EN 50525-3-31
Reaction to fire	Cca-s1,d1,a1; EN 13501-6, EN 50575:2014+A1:2016
Conductor	Circular stranded copper, EN/IEC 60228 class 2
Insulation	UV-protected polyolefin compound
Core Identification	GNYE Yellow-green, BU Blue, BK 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	-40

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Technical information	4 BK H07Z1-R	4 BU H07Z1-R	4 GNYE H07Z1-R	6 BK H07Z1-R	6 BU H07Z1-R	6 GNYE H07Z1-R	10 BK H07Z1-R	10 BU H07Z1-R	10 GNYE H07Z1-R	16 BK H07Z1-R
Product code	1140833	1140837	1140838	1140843	1140847	1140848	1140853	1140857	1140858	1140863
Nominal cable diameter mm	4	4	4	5	5	5	6	6	6	7
Nominal cable weight kg/km	52	52	52	72	72	72	116	116	116	183
Nominal weight of copper kg/km	37	37	37	53	53	53	86	86	86	147
Nominal Insulation thickness mm	0,8	0,8	0,8	0,8	0,8	0,8	1,0	1,0	1,0	1,0
Fire load										
Fire load MJ/m	0,233	0,233	0,233	0,283	0,283	0,283	0,455	0,455	0,455	0,537
Fire load kWh/m	0,065	0,065	0,065	0,079	0,079	0,079	0,126	0,126	0,126	0,149
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	0,2	0,2	0,2	0,3	0,3	0,3	0,5	0,5	0,5	0,8
Max. pulling force by pulling-stocking kN										
Minimum bending radii										
Minimum bending radius, handling mm	33	33	33	38	38	38	48	48	48	58
Minimum bending radius, final bending mm	13	13	13	14	14	14	18	18	18	22
Minimum bending radii										
During handling and installation, cable cm	3	3	3	4	4	4	5	5	5	6
In final installation, cable cm	1	1	1	1	1	1	2	2	2	2
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	4,61	4,61	4,61	3,08	3,08	3,08	1,83	1,83	1,83	1,15

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STANDARD PACKAGES	4 BK H07Z1-R	4 BU H07Z1-R	4 GNYE H07Z1-R	6 BK H07Z1-R	6 BU H07Z1-R	6 GNYE H07Z1-R	10 BK H07Z1-R	10 BU H07Z1-R	10 GNYE H07Z1-R	16 BK H07Z1-R
Product code	1140833	1140837	1140838	1140843	1140847	1140848	1140853	1140857	1140858	1140863
GTIN code	6438176308646	6438176308653	6438176308660	6438176308707	6438176308714	6438176308721	6438176308769	6438176308745	6438176308783	6438176308806
Package	500 K6	500 K6	500 K6	500 K6	500 K6	500 K6	500 K6	100 nippu	500 K6	500 K6
Product code	1140833	1140837	1140838	1140843	1140847	1140848	1140853	1140857	1140858	1140863
GTIN code	6438176308615	6438176308622	6438176308639	6438176308677	6438176308684	6438176308691	6438176308738	6438176308776	6438176308752	6438176308813
Package	100 nippu	100 nippu	100 nippu	100 nippu	100 nippu	100 nippu	100 nippu	500 K6	100 nippu	1000 K6
Product code										1140863
GTIN code										6438176308790
Package										100 nippu

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Technical information	16 BU H07Z1-R	16 GNYE H07Z1-R	25 BK H07Z1-R	25 BU H07Z1-R	25 GNYE H07Z1-R	35 BK H07Z1-R	35 BU H07Z1-R	35 GNYE H07Z1-R	50 BK H07Z1-R	50 BU H07Z1-R
Product code	1140867	1140868	1140873	1140877	1140878	1140883	1140887	1140888	1140893	1140897
Nominal cable diameter mm	7	7	9	9	9	10	10	10	12	12
Nominal cable weight kg/km	183	183	279	279	279	374	374	374	508	508
Nominal weight of copper kg/km	147	147	227	227	227	311	311	311	422	422
Nominal Insulation thickness mm	1,0	1,0	1,2	1,2	1,2	1,2	1,2	1,2	1,4	1,4
Fire load										
Fire load MJ/m	0,537	0,537	0,785	0,785	0,785	0,946	0,946	0,946	1,284	1,284
Fire load kWh/m	0,149	0,149	0,218	0,218	0,218	0,263	0,263	0,263	0,357	0,357
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	0,8	0,8	1,2	1,2	1,2	1,7	1,7	1,7	2,5	2,5
Max. pulling force by pulling-stocking kN										
Minimum bending radii										
Minimum bending radius, handling mm	58	58	70	70	70	80	80	80	94	94
Minimum bending radius, final bending mm	22	22	26	26	26	30	30	30	35	35
Minimum bending radii										
During handling and installation, cable cm	6	6	7	7	7	8	8	8	9	9
In final installation, cable cm	2	2	3	3	3	3	3	3	4	4
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	1,15	1,15	0,727	0,727	0,727	0,524	0,524	0,524	0,387	0,387

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STANDARD PACKAGES	16 BU H07Z1-R	16 GNYE H07Z1-R	25 BK H07Z1-R	25 BU H07Z1-R	25 GNYE H07Z1-R	35 BK H07Z1-R	35 BU H07Z1-R	35 GNYE H07Z1-R	50 BK H07Z1-R	50 BU H07Z1-R
Product code	1140867	1140868	1140873	1140877	1140878	1140883	1140887	1140888	1140893	1140897
GTIN code	6438176308820	6438176308875	6438176308905	6438176308929	6438176308943	6438176308974	6438176308981	6438176308998	6438176309018	6438176309032
Package	100 nippu	1000 K6	1000 K7	500 K6	100 nippu	500 K6	500 K6	500 K6	500 K7	500 K7
Product code	1140867	1140868	1140873	1140877	1140878				1140893	1140897
GTIN code	6438176308837	6438176308868	6438176308899	6438176308936	6438176308950				6438176309001	6438176309025
Package	500 K6	500 K6	500 K6	1000 K7	500 K6				50 nippu	50 nippu
Product code	1140867	1140868	1140873	1140877	1140878					
GTIN code	6438176308844	6438176308851	6438176308882	6438176308912	6438176308967					
Package	1000 K6	100 nippu	100 nippu	100 nippu	1000 K7					

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Technical information	50 GNYE H07Z1-R	70 BK H07Z1-R	70 BU H07Z1-R	70 GNYE H07Z1-R	95 BK H07Z1-R	95 BU H07Z1-R	95 GNYE H07Z1-R	120 BK H07Z1-R	120 BU H07Z1-R	120 GNYE H07Z1-R
Product code	1140898	1140903	1140907	1140908	1140913	1140917	1140918	1140923	1140927	1140928
Nominal cable diameter mm	12	14	14	14	16	16	16	17	17	17
Nominal cable weight kg/km	508	712	712	712	992	992	992	1229	1229	1229
Nominal weight of copper kg/km	422	607	607	607	851	851	851	1076	1076	1076
Nominal Insulation thickness mm	1,4	1,4	1,4	1,4	1,6	1,6	1,6	1,6	1,6	1,6
Fire load										
Fire load MJ/m	1,284	1,569	1,569	1,569	2,118	2,118	2,118	2,290	2,290	2,290
Fire load kWh/m	0,357	0,436	0,436	0,436	0,588	0,588	0,588	0,636	0,636	0,636
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	2,5	3,5	3,5	3,5	4,7	4,7	4,7	6,0	6,0	6,0
Max. pulling force by pulling-stocking kN										
Minimum bending radii										
Minimum bending radius, handling mm	94	108	108	108	126	126	126	139	139	139
Minimum bending radius, final bending mm	35	41	41	41	47	47	47	52	52	52
Minimum bending radii										
During handling and installation, cable cm	9	11	11	11	13	13	13	14	14	14
In final installation, cable cm	4	4	4	4	5	5	5	5	5	5
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	0,387	0,268	0,268	0,268	0,193	0,193	0,193	0,153	0,153	0,153

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STANDARD PACKAGES	50 GNYE H07Z1-R	70 BK H07Z1-R	70 BU H07Z1-R	70 GNYE H07Z1-R	95 BK H07Z1-R	95 BU H07Z1-R	95 GNYE H07Z1-R	120 BK H07Z1-R	120 BU H07Z1-R	120 GNYE H07Z1-R
Product code	1140898	1140903	1140907	1140908	1140913	1140917	1140918	1140923	1140927	1140928
GTIN code	6438176309056	6438176309063	6438176309070	6438176309087	6438176309094	6438176309100	6438176309117	6438176309131	6438176309155	6438176309179
Package	500 K7	400 K7	400 K7	400 K7	300 K7	300 K7	300 K7	500 K9	500 K9	500 K9
Product code	1140898							1140923	1140927	1140928
GTIN code	6438176309049							6438176309124	6438176309148	6438176309162
Package	50 nippu							250 K7	250 K7	250 K7

Technical information	150 BK H07Z1-R	150 BU H07Z1-R	150 GNYE H07Z1-R	185 BK H07Z1-R	185 BU H07Z1-R	185 GNYE H07Z1-R	240 BK H07Z1-R	240 BU H07Z1-R	240 GNYE H07Z1-R	300 BK H07Z1-R
Product code	1140933	1140937	1140938	1140943	1140947	1140948	1140953	1140957	1140958	1140963
Nominal cable diameter mm	18	18	18	20	20	20	23	23	23	25
Nominal cable weight kg/km	1442	1442	1442	1808	1808	1808	2376	2376	2376	2947
Nominal weight of copper kg/km	1282	1282	1282	1607	1607	1607	2121	2121	2121	2636
Nominal Insulation thickness mm	1,8	1,8	1,8	2,0	2,0	2,0	2,2	2,2	2,2	2,4
Fire load										
Fire load MJ/m	2,408	2,408	2,408	3,015	3,015	3,015	3,819	3,819	3,819	4,669
Fire load kWh/m	0,669	0,669	0,669	0,838	0,838	0,838	1,061	1,061	1,061	1,297
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	7,5	7,5	7,5	9,2	9,2	9,2	12,0	12,0	12,0	15,0
Max. pulling force by pulling-stocking kN										
Minimum bending radii										
Minimum bending radius, handling mm	142	142	142	160	160	160	182	182	182	203
Minimum bending radius, final bending mm	53	53	53	60	60	60	68	68	68	76
Minimum bending radii										
During handling and installation, cable cm	14	14	14	16	16	16	18	18	18	20
In final installation, cable cm	5	5	5	6	6	6	7	7	7	8
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	0,124	0,124	0,124	0,0991	0,0991	0,0991	0,0754	0,0754	0,0754	0,0601

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STANDARD PACKAGES	150 BK H07Z1-R	150 BU H07Z1-R	150 GNYE H07Z1-R	185 BK H07Z1-R	185 BU H07Z1-R	185 GNYE H07Z1-R	240 BK H07Z1-R	240 BU H07Z1-R	240 GNYE H07Z1-R	300 BK H07Z1-R
Product code	1140933	1140937	1140938	1140943	1140947	1140948	1140953	1140957	1140958	1140963
GTIN code	6438176309186	6438176309193	6438176309209	6438176309216	6438176309223	6438176309230	6438176309247	6438176309254	6438176309261	6438176309278
Package	250 K7	250 K7	250 K7	250 K7	250 K7	250 K7	250 K9	250 K9	250 K9	250 K10

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Technical information	300 BU H07Z1-R	300 GNYE H07Z1-R	400 BK H07Z1-R	400 BU H07Z1-R	400 GNYE H07Z1-R	500 BK H07Z1-R	500 BU H07Z1-R	500 GNYE H07Z1-R	630 BK H07Z1-R	630 BU H07Z1-R
Product code	1140967	1140968	1140973	1140977	1140978	1140983	1140987	1140988	1140993	1140997
Nominal cable diameter mm	25	25	28	28	28	32	32	32	36	36
Nominal cable weight kg/km	2947	2947	3926	3926	3926	4959	4959	4959	6253	6253
Nominal weight of copper kg/km	2636	2636	3534	3534	3534	4478	4478	4478	5716	5716
Nominal Insulation thickness mm	2,4	2,4	2,6	2,6	2,6	2,8	2,8	2,8	2,8	2,8
Fire load										
Fire load MJ/m	4,669	4,669	5,882	5,882	5,882	7,214	7,214	7,214	8,048	8,048
Fire load kWh/m	1,297	1,297	1,634	1,634	1,634	2,004	2,004	2,004	2,236	2,236
Maximum forces during installation when pulling by										
Max. pulling force by pulling-eye kN	15,0	15,0	20,0	20,0	20,0	25,0	25,0	25,0	31,5	31,5
Max. pulling force by pulling-stocking kN										
Minimum bending radii										
Minimum bending radius, handling mm	203 76	203 76	227 85	227 85	227 85	255 96	255 96	255 96	285 107	285 107
Minimum bending radius, final bending mm										
Minimum bending radii										
During handling and installation, cable cm	20 8	20 8	23 9	23 9	23 9	25 10	25 10	25 10	28 11	28 11
In final installation, cable cm										
DC resistance										
Max. DC resistance of conductor at 20 °C Ω/km	0,0601	0,0601	0,0470	0,0470	0,0470	0,0366	0,0366	0,0366	0,0283	0,0283

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STANDARD PACKAGES	300 BU H07Z1-R	300 GNYE H07Z1-R	400 BK H07Z1-R	400 BU H07Z1-R	400 GNYE H07Z1-R	500 BK H07Z1-R	500 BU H07Z1-R	500 GNYE H07Z1-R	630 BK H07Z1-R	630 BU H07Z1-R
Product code	1140967	1140968	1140973	1140977	1140978	1140983	1140987	1140988	1140993	1140997
GTIN code	6438176309285	6438176309292	6438176309308	6438176309315	6438176309322	6438176309339	6438176309346	6438176309353	6438176309360	6438176309377
Package	250 K10	250 K10	250 K16	250 K16	250 K16	250 K16	250 K16	250 K16	250 K16	250 K16

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Technical information	630 GNYE H07Z1-R
Product code	1140998
Nominal cable diameter mm	36
Nominal cable weight kg/km	6253
Nominal weight of copper kg/km	5716
Fire load	
Fire load MJ/m	8,048
Fire load kWh/m	2,236
Maximum forces during installation when pulling by	
Max. pulling force by pulling-eye kN	31,5
Max. pulling force by pulling-stocking kN	
Minimum bending radii	
Minimum bending radius, handling mm	285
Minimum bending radius, final bending mm	107
Minimum bending radii	
During handling and installation, cable cm	28
In final installation, cable cm	11
DC resistance	
Max. DC resistance of conductor at 20 °C Ω/km	0,0283

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STANDARD PACKAGES	630 GNYE H07Z1-R
Product code	1140998
GTIN code	6438176309384
Package	250 K16