

## MKEM-HF C / H07Z1-K

### Installationwire-HF

### 450/750 V

### Application

Installation wire for fixed installations indoors. Can also be used in medical facilities where higher fire class is required. 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 Cca-s1,d1,a1.



### Design

|                            |  |
|----------------------------|--|
| <b>Standards</b>           | EN 50525-3-31  |
| <b>Reaction to fire</b>    | Cca-s1,d1,a1; EN 13501-6, EN 50575:2014+A1:2016  |
| <b>Conductor</b>           | Circular flexible copper, EN/IEC 60228 class 5   |
| <b>Insulation</b>          | Polyolefine compound   |
| <b>Core Identification</b> | GNYE Yellow-green, BU Blue<br>BN Brown, BK Black<br>GY Grey, OG Orange<br>RD Red, WH White<br>VT Violet, PK Pink |

### Temperature limits

|   |     |
|---|-----|
| <b>Max. conductor temperature °C</b>              | 70  |
| <b>Max. cond. temp. short circuit max. 5 s °C</b> | 160 |
| <b>Min. cable temperature during operation °C</b> | -40 |
| <b>Min. cable temperature during handling °C</b>  | -15 |
| <b>Min. cable temperature during transport °C</b> | -40 |

2024-12-22 05:57:59

| Technical information                                     | 10 BK H07Z1-K  | 10 GNYE H07Z1-K | 10 BU H07Z1-K  | 16 BK H07Z1-K  | 16 BU H07Z1-K  | 16 GNYE H07Z1-K | 25 BK H07Z1-K  | 25 BU H07Z1-K  | 25 GNYE H07Z1-K | 35 BK H07Z1-K  |
|---|----------------|-----------------|----------------|----------------|----------------|-----------------|----------------|----------------|-----------------|----------------|
| <b>Product code</b>                                       | <b>1140113</b> | <b>1140118</b>  | <b>1140117</b> | <b>1140123</b> | <b>1140127</b> | <b>1140128</b>  | <b>1140133</b> | <b>1140137</b> | <b>1140138</b>  | <b>1140143</b> |
| Nominal cross-sectional area of conductor mm <sup>2</sup> | 10             | 10              | 10             | 16             | 16             | 16              | 25             | 25             | 25              | 35             |
| Nominal thickness of insulation mm                        | 1,0            | 1,0             | 1,0            | 1,0            | 1,0            | 1,0             | 1,2            | 1,2            | 1,2             | 1,2            |
| Fire load MJ/m  | 0,414          | 0,414           | 0,414          | 0,495          | 0,495          | 0,495           | 0,733          | 0,733          | 0,733           | 0,915          |
| Fire load kWh/m   | 0,115          | 0,115           | 0,115          | 0,138          | 0,138          | 0,138           | 0,204          | 0,204          | 0,204           | 0,254          |
| Nominal cable diameter mm                                 | 6,200          | 6,200           | 6,200          | 7,100          | 7,100          | 7,100           | 8,700          | 8,700          | 8,700           | 10,300         |
| Nominal cable weight kg/km                                | 115,392        | 115,392         | 115,392        | 170,003        | 170,003        | 170,003         | 258,849        | 258,849        | 258,849         | 354,973        |
| Nominal weight of copper kg/m                             | 0,088          | 0,088           | 0,088          | 0,137          | 0,137          | 0,137           | 0,210          | 0,210          | 0,210           | 0,294          |
| <b>Maximum forces during installation when pulling by</b> |                |                 |                |                |                |                 |                |                |                 |                |
| Max. pulling force by pulling-eye kN                      | 0,5            | 0,5             | 0,5            | 0,8            | 0,8            | 0,8             | 1,2            | 1,2            | 1,2             | 1,7            |
| Max. pulling force by pulling-stocking kN                 |                |                 |                |                |                |                 |                |                |                 |                |
| <b>Minimum bending radii</b>                              |                |                 |                |                |                |                 |                |                |                 |                |
| Minimum bending radius, handling mm                       | 50             | 50              | 50             | 57             | 57             | 57              | 70             | 70             | 70              | 82             |
| Minimum bending radius, final bending mm                  | 19             | 19              | 19             | 21             | 21             | 21              | 26             | 26             | 26              | 31             |
| <b>Minimum bending radii</b>                              |                |                 |                |                |                |                 |                |                |                 |                |
| During handling and installation, cable cm                | 5              | 5               | 5              | 6              | 6              | 6               | 7              | 7              | 7               | 8              |
| In final installation, cable cm                           | 2              | 2               | 2              | 2              | 2              | 2               | 3              | 3              | 3               | 3              |
| <b>DC resistance</b>                                      |                |                 |                |                |                |                 |                |                |                 |                |
| Max. DC resistance of conductor at 20 °C Ω/km             | 1,91           | 1,91            | 1,91           | 1,21           | 1,21           | 1,21            | 0,780          | 0,780          | 0,780           | 0,554          |

2024-12-22 05:57:59

| Technical information                                     | 35 GNYE H07Z1-K | 35 BU H07Z1-K  | 50 BK H07Z1-K  | 50 GNYE H07Z1-K | 50 BU H07Z1-K  | 70 BK H07Z1-K  | 70 BU H07Z1-K  | 70 GNYE H07Z1-K | 95 BK H07Z1-K  | 95 BU H07Z1-K  |
|---|-----------------|----------------|----------------|-----------------|----------------|----------------|----------------|-----------------|----------------|----------------|
| <b>Product code</b>                                       | <b>1140148</b>  | <b>1140147</b> | <b>1140153</b> | <b>1140158</b>  | <b>1140157</b> | <b>1140163</b> | <b>1140167</b> | <b>1140168</b>  | <b>1140173</b> | <b>1140177</b> |
| Nominal cross-sectional area of conductor mm <sup>2</sup> | 35              | 35             | 50             | 50              | 50             | 70             | 70             | 70              | 95             | 95             |
| Nominal thickness of insulation mm                        | 1,2             | 1,2            | 1,4            | 1,4             | 1,4            | 1,4            | 1,4            | 1,4             | 1,6            | 1,6            |
| Fire load MJ/m  | 0,915           | 0,915          | 1,175          | 1,175           | 1,175          | 1,370          | 1,370          | 1,370           | 1,901          | 1,901          |
| Fire load kWh/m   | 0,254           | 0,254          | 0,326          | 0,326           | 0,326          | 0,381          | 0,381          | 0,381           | 0,528          | 0,528          |
| Nominal cable diameter mm                                 | 10,300          | 10,300         | 11,500         | 11,500          | 11,500         | 13,500         | 13,500         | 13,500          | 16,200         | 16,200         |
| Nominal cable weight kg/km                                | 354,973         | 354,973        | 498,340        | 498,340         | 498,340        | 674,311        | 674,311        | 674,311         | 951,722        | 951,722        |
| Nominal weight of copper kg/m                             | 0,294           | 0,294          | 0,420          | 0,420           | 0,420          | 0,583          | 0,583          | 0,583           | 0,825          | 0,825          |
| <b>Maximum forces during installation when pulling by</b> |                 |                |                |                 |                |                |                |                 |                |                |
| Max. pulling force by pulling-eye kN                      | 1,7             | 1,7            | 2,5            | 2,5             | 2,5            | 3,5            | 3,5            | 3,5             | 4,7            | 4,7            |
| Max. pulling force by pulling-stocking kN                 |                 |                |                |                 |                |                |                |                 |                |                |
| <b>Minimum bending radii</b>                              |                 |                |                |                 |                |                |                |                 |                |                |
| Minimum bending radius, handling mm                       | 82              | 82             | 92             | 92              | 92             | 108            | 108            | 108             | 130            | 130            |
| Minimum bending radius, final bending mm                  | 31              | 31             | 35             | 35              | 35             | 41             | 41             | 41              | 49             | 49             |
| <b>Minimum bending radii</b>                              |                 |                |                |                 |                |                |                |                 |                |                |
| During handling and installation, cable cm                | 8               | 8              | 9              | 9               | 9              | 11             | 11             | 11              | 13             | 13             |
| In final installation, cable cm                           | 3               | 3              | 3              | 3               | 3              | 4              | 4              | 4               | 5              | 5              |
| <b>DC resistance</b>                                      |                 |                |                |                 |                |                |                |                 |                |                |
| Max. DC resistance of conductor at 20 °C Ω/km             | 0,554           | 0,554          | 0,386          | 0,386           | 0,386          | 0,272          | 0,272          | 0,272           | 0,206          | 0,206          |

2024-12-22 05:57:59

| Technical information                                     | 95 GNYE H07Z1-K | 120 GNYE H07Z1-K | 120 BK H07Z1-K | 120 BU H07Z1-K | 150 BU H07Z1-K | 150 BK H07Z1-K | 150 GNYE H07Z1-K |
|---|-----------------|------------------|----------------|----------------|----------------|----------------|------------------|
| <b>Product code</b>                                       | <b>1140178</b>  | <b>1140188</b>   | <b>1140183</b> | <b>1140187</b> | <b>1140197</b> | <b>1140193</b> | <b>1140198</b>   |
| Nominal cross-sectional area of conductor mm <sup>2</sup> | 95              | 120              | 120            | 120            | 150            | 150            | 150              |
| Nominal thickness of insulation mm                        | 1,6             | 1,6              | 1,6            | 1,6            | 1,8            | 1,8            | 1,8              |
| Fire load MJ/m  | 1,901           | 2,227            | 2,227          | 2,227          | 2,819          | 2,819          | 2,819            |
| Fire load kWh/m   | 0,528           | 0,619            | 0,619          | 0,619          | 0,783          | 0,783          | 0,783            |
| Nominal cable diameter mm                                 | 16,200          | 18,400           | 18,400         | 18,400         | 20,700         | 20,700         | 20,700           |
| Nominal cable weight kg/km                                | 951,722         | 1180,466         | 1180,466       | 1180,466       | 1475,602       | 1475,602       | 1475,602         |
| Nominal weight of copper kg/m                             | 0,825           | 1,032            | 1,032          | 1,032          | 1,288          | 1,288          | 1,288            |
| <b>Maximum forces during installation when pulling by</b> |                 |                  |                |                |                |                |                  |
| Max. pulling force by pulling-eye kN                      | 4,7             | 6,0              | 6,0            | 6,0            | 7,5            | 7,5            | 7,5              |
| Max. pulling force by pulling-stocking kN                 |                 |                  |                |                |                |                |                  |
| <b>Minimum bending radii</b>                              |                 |                  |                |                |                |                |                  |
| Minimum bending radius, handling mm                       | 130             | 147              | 147            | 147            | 166            | 166            | 166              |
| Minimum bending radius, final bending mm                  | 49              | 55               | 55             | 55             | 62             | 62             | 62               |
| <b>Minimum bending radii</b>                              |                 |                  |                |                |                |                |                  |
| During handling and installation, cable cm                | 13              | 15               | 15             | 15             | 17             | 17             | 17               |
| In final installation, cable cm                           | 5               | 6                | 6              | 6              | 6              | 6              | 6                |
| <b>DC resistance</b>                                      |                 |                  |                |                |                |                |                  |
| Max. DC resistance of conductor at 20 °C Ω/km             | 0,206           | 0,161            | 0,161          | 0,161          | 0,129          | 0,129          | 0,129            |