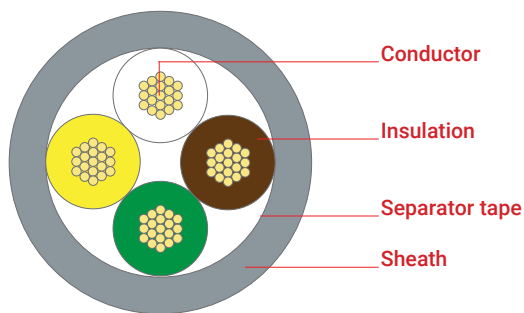




Cable structure



Stranded copper wire
Class 5, IEC 60228

HFFR, in compliance with DIN 47100 insulation colour coding
70°C EN 50290-2-26, HJ2 DIN VDE 0207-23

Pet tape min. 100% coverage

HFFR, RAL 7001 Grey
70°C EN 50290-2-27, HM2 DIN VDE 0207-24

Application

Halogen-free insulated and sheathed range is used for signal transmission in interior installations. Flexible and slim design provides installation advantages in confined spaces. Used in industrial electronics, computers and office equipment, indoor communication, audio and security systems. Cables are composed of halogen-free materials (flame retardant materials that do not emit toxic gas or black dense smoke that lowers visibility). They are primarily used in highly populated areas that should have fire resistance.

Upon demand, following customized types with numeric codes can be manufactured.

LIHH-OZ: black core with white number codes

LIHH-JZ: ground protection conductor (yellow/green), black & white number coded cores

Standards

TSE K 353, DIN VDE 0812

Fire performance

Vertical flame propagation EN 60332-1-2

Corrosive gas EN 60754-1/2

Smoke density EN 61034-2

EU Declaration of conformity

| | | |
|------|-------------------------------------|------------|
| LVD | Low Voltage Directive | 2014/35/EU |
| RoHS | Restriction of Hazardous Substances | 2011/65/EU |

Specifications

| | | | |
|------------------------------|------|------|----------------|
| Temperature range | | | |
| fixed | | | -30°C ...+70°C |
| flexing | | | 0°C ...+50°C |
| Bending radius | | | |
| fixed min. | | | 7.5 x D |
| flexing | min. | | 15 x D |
| Conductor resistance | | | |
| 0.22 mm ² | max. | | 96.0 Ω/km |
| 0.50 mm ² | max. | | 39.0 Ω/km |
| 0.75 mm ² | max. | | 26.0 Ω/km |
| 1.0 mm ² | max. | | 19.5 Ω/km |
| 1.5 mm ² | max. | | 13.3 Ω/km |
| 2.5 mm ² | max. | | 7.98 Ω/km |
| Insulation resistance | | min. | 200 MΩ x km |
| Test voltage | | | |
| 0.22 mm ² | | | 1200 V |
| 0.50 mm ² | | | 1200 V |
| 0.75 mm ² | | | 1200 V |
| 1.0 mm ² | | | 1200 V |
| 1.5 mm ² | | | 2500 V |
| 2.5 mm ² | | | 2500 V |
| Operating voltage | | max. | 300 V |

Specifications may vary depending on technical modifications.

| Product code | Cable structure | Diameter [mm] | Copper weight [kg/km] | Cable weight [kg/km] |
|--------------|-------------------------|---------------|-----------------------|----------------------|
| 202050 | 2x0.22 mm ² | 3.6 | 4 | 16 |
| 202051 | 3x0.22 mm ² | 4.0 | 6 | 21 |
| 202052 | 4x0.22 mm ² | 4.3 | 8 | 26 |
| 202053 | 5x0.22 mm ² | 4.7 | 10 | 31 |
| 202054 | 6x0.22 mm ² | 5.0 | 12 | 36 |
| 202055 | 7x0.22 mm ² | 5.0 | 14 | 38 |
| 202056 | 8x0.22 mm ² | 5.4 | 16 | 44 |
| 202057 | 9x0.22 mm ² | 5.8 | 18 | 51 |
| 202058 | 10x0.22 mm ² | 6.2 | 20 | 52 |
| 202060 | 12x0.22 mm ² | 6.6 | 24 | 63 |
| 202062 | 14x0.22 mm ² | 7.0 | 28 | 71 |
| 202064 | 16x0.22 mm ² | 7.4 | 32 | 81 |
| 202067 | 19x0.22 mm ² | 7.6 | 38 | 90 |

| Product code | Cable structure | Diameter [mm] | Copper weight [kg/km] | Cable weight [kg/km] |
|--------------|-------------------------|---------------|-----------------------|----------------------|
| 202086 | 2x0.50 mm ² | 4.8 | 8 | 29 |
| 202087 | 3x0.50 mm ² | 5.1 | 12 | 35 |
| 202088 | 4x0.50 mm ² | 5.5 | 17 | 43 |
| 202089 | 5x0.50 mm ² | 6.0 | 21 | 54 |
| 202090 | 6x0.50 mm ² | 6.7 | 25 | 67 |
| 202091 | 7x0.50 mm ² | 6.7 | 29 | 70 |
| 202092 | 8x0.50 mm ² | 7.2 | 33 | 82 |
| 202093 | 9x0.50 mm ² | 7.8 | 37 | 94 |
| 202094 | 10x0.50 mm ² | 8.4 | 42 | 98 |
| 202096 | 12x0.50 mm ² | 8.7 | 50 | 113 |
| 202098 | 14x0.50 mm ² | 9.7 | 58 | 139 |
| 202100 | 16x0.50 mm ² | 10.2 | 67 | 156 |
| 202103 | 19x0.50 mm ² | 10.5 | 79 | 176 |

| Product code | Cable structure | Diameter [mm] | Copper weight [kg/km] | Cable weight [kg/km] |
|--------------|-------------------------|---------------|-----------------------|----------------------|
| 202104 | 2x0.75 mm ² | 5.2 | 12 | 36 |
| 202105 | 3x0.75 mm ² | 5.6 | 19 | 45 |
| 202106 | 4x0.75 mm ² | 6.0 | 25 | 55 |
| 202107 | 5x0.75 mm ² | 6.8 | 31 | 72 |
| 202108 | 6x0.75 mm ² | 7.3 | 37 | 86 |
| 202109 | 7x0.75 mm ² | 7.3 | 43 | 91 |
| 202110 | 8x0.75 mm ² | 7.9 | 50 | 106 |
| 202111 | 9x0.75 mm ² | 8.6 | 56 | 123 |
| 202112 | 10x0.75 mm ² | 9.6 | 62 | 135 |
| 202114 | 12x0.75 mm ² | 9.9 | 75 | 156 |
| 202116 | 14x0.75 mm ² | 10.6 | 87 | 179 |
| 202118 | 16x0.75 mm ² | 11.2 | 100 | 203 |
| 202121 | 19x0.75 mm ² | 11.5 | 119 | 229 |

| Product code | Cable structure | Diameter [mm] | Copper weight [kg/km] | Cable weight [kg/km] |
|--------------|----------------------|---------------|-----------------------|----------------------|
| 202122 | 2x1 mm ² | 5.5 | 17 | 42 |
| 202123 | 3x1 mm ² | 5.9 | 25 | 53 |
| 202124 | 4x1 mm ² | 6.4 | 33 | 67 |
| 202125 | 5x1 mm ² | 7.2 | 41 | 86 |
| 202126 | 6x1 mm ² | 7.8 | 50 | 104 |
| 202127 | 7x1 mm ² | 7.8 | 58 | 110 |
| 202128 | 8x1 mm ² | 8.4 | 66 | 128 |
| 202129 | 9x1 mm ² | 9.5 | 75 | 156 |
| 202130 | 10x1 mm ² | 10.2 | 83 | 162 |
| 202132 | 12x1 mm ² | 10.6 | 100 | 189 |
| 202134 | 14x1 mm ² | 11.3 | 116 | 217 |
| 202136 | 16x1 mm ² | 11.9 | 133 | 245 |
| 202139 | 19x1 mm ² | 12.5 | 158 | 286 |

| Product code | Cable structure | Diameter [mm] | Copper weight [kg/km] | Cable weight [kg/km] |
|--------------|------------------------|---------------|-----------------------|----------------------|
| 202140 | 2x1.5 mm ² | 6.6 | 25 | 61 |
| 202141 | 3x1.5 mm ² | 7.1 | 37 | 78 |
| 202142 | 4x1.5 mm ² | 7.7 | 49 | 97 |
| 202143 | 5x1.5 mm ² | 8.4 | 62 | 121 |
| 202144 | 6x1.5 mm ² | 9.5 | 74 | 154 |
| 202145 | 7x1.5 mm ² | 9.5 | 87 | 164 |
| 202146 | 8x1.5 mm ² | 10.3 | 99 | 191 |
| 202147 | 9x1.5 mm ² | 11.2 | 111 | 222 |
| 202148 | 10x1.5 mm ² | 12.2 | 124 | 235 |
| 202150 | 12x1.5 mm ² | 12.6 | 149 | 272 |
| 202152 | 14x1.5 mm ² | 13.5 | 174 | 314 |
| 202154 | 16x1.5 mm ² | 14.2 | 199 | 354 |
| 202157 | 19x1.5 mm ² | 14.7 | 236 | 407 |

| Product code | Cable structure | Diameter [mm] | Copper weight [kg/km] | Cable weight [kg/km] |
|--------------|------------------------|---------------|-----------------------|----------------------|
| 202158 | 2x2.5 mm ² | 7.5 | 41 | 86 |
| 202159 | 3x2.5 mm ² | 8.0 | 62 | 109 |
| 202160 | 4x2.5 mm ² | 8.8 | 82 | 140 |
| 202161 | 5x2.5 mm ² | 10.0 | 103 | 184 |
| 202162 | 6x2.5 mm ² | 10.9 | 124 | 222 |
| 202163 | 7x2.5 mm ² | 10.9 | 144 | 239 |
| 202164 | 8x2.5 mm ² | 11.8 | 165 | 278 |
| 202165 | 9x2.5 mm ² | 13.0 | 186 | 327 |
| 202166 | 10x2.5 mm ² | 14.0 | 207 | 341 |
| 202168 | 12x2.5 mm ² | 14.5 | 248 | 399 |
| 202170 | 14x2.5 mm ² | 15.5 | 290 | 460 |
| 202172 | 16x2.5 mm ² | 16.6 | 332 | 531 |
| 202175 | 19x2.5 mm ² | 17.2 | 394 | 613 |

Specifications may vary depending on technical modifications.