

HELUTHERM® FIRE RES 120

high temperature, halogen-free, fire resistant



HELUKABEL® HELUTHERM® FIRE RES 120

Technical data

- LSOH fire resistant cable acc. to BS 7629-1 / BS 6387 CWZ / BS EN 50200 PH30 / PH120
- **Temperature range**
flexing -5°C to +50°C
fixed installation -30°C to +80°C
- **Permissible operating temperature of the conductor** -40°C to +180°C
- **Nominal voltage**
U₀/U 300/500 V
- **Test voltage**
2000 V
- **Breakdown voltage**
4000 V
- **Insulation resistance**
> 200 MΩxkm @ +20°C
- **Minimum bending radius**
8x Outer-Ø

Cable structure

- Copper wire bare, acc. to BS EN 60228
class 1: single-wire
class 2: multi-wire
- Core insulation: silicon rubber mix
- Core identification acc. to DIN VDE 0293-308
2 cores: bn, bu
3 cores: bn, bk, gy
4 cores: bu, bn, bk, gy
- Class 1 conductor: Tinned copper drain wire (solid)
Class 2 conductor: Tinned copper drain wire (stranded)
- Overall screen: AL/PET tape
- Outer sheath: LSOH type LTS3
- Outer sheath colour: red
- Length marking: in metres

Properties

- BS 7629-1
BS 6387 (CWZ)
BS 5839-1 (Clause 26.2d Standard)
EN 50200 (cl. PH30 / PH120)
EN 50200 Annex E (30 min.)
- halogen-free
- extremely fire resistant
- screen earthing through drain wire positioning
- UV-resistant
- oil-resistant

Tests

- Only fire
acc. to BS 6387 cat.C
(3 h @ +950°C)
- Fire and water
acc. to BS 6387 cat.W
(15 min. @ +650°C)
- Fire and mech. shock
acc. to BS 6387 cat.Z
(30 min. @ +950°C)
- Fire and mech. shock
acc. to EN 50200 cl. PH120
(60 min. @ +830°C)
- Fire, mech. shock and short water
acc. to EN 50200 cl. PH120 Annex E
(30 min. @ +830°C + 15 min. with water)
- Fire resistant acc. to IEC 60331-21
- Flame-retardant acc. to IEC 60332-1-2
- Flame test on bunched wires acc. to IEC 60332-3-24 (cat.C, 20 min.)
- Acid gas emission acc. to BS EN 50267-2-1 + 2
- Smoke density acc. to BS EN 61034-2

Application

Fire alarm cable for fire detection systems or emergency lighting systems in public buildings and offices where human safety is of primary concern or where expensive or sensitive equipment may be damaged by exposure to acid forming gases.

CE = Product conforms with Low-Voltage Directive 2014/35/EU.

class 1: single-wire

| Part no. | No. cores x cross-sec. mm ² | Outer Ø app. mm | Copper weight kg / km | Weight app. kg / km | Conductor type |
|----------|--|-----------------|-----------------------|---------------------|----------------|
| 11007300 | 2 x 1 | 7,8 | 28,0 | 67 | class 1 |
| 11007301 | 3 x 1 | 8,1 | 37,0 | 84 | class 1 |
| 11007302 | 4 x 1 | 8,7 | 46,0 | 101 | class 1 |
| 11007310 | 2 x 1,5 | 8,7 | 39,0 | 87 | class 1 |
| 11007311 | 3 x 1,5 | 9,1 | 52,0 | 114 | class 1 |
| 11007312 | 4 x 1,5 | 9,8 | 66,0 | 139 | class 1 |
| 11007320 | 2 x 2,5 | 9,8 | 65,0 | 131 | class 1 |
| 11007321 | 3 x 2,5 | 10,3 | 87,0 | 168 | class 1 |
| 11007322 | 4 x 2,5 | 11,2 | 109,0 | 211 | class 1 |

class 2: multi-wire

| Part no. | No. cores x cross-sec. mm ² | Outer Ø app. mm | Copper weight kg / km | Weight app. kg / km | Conductor type |
|----------|--|-----------------|-----------------------|---------------------|----------------|
| 11007358 | 2 x 1 | 8,0 | 28,0 | 69 | class 2 |
| 11007359 | 3 x 1 | 8,4 | 37,0 | 87 | class 2 |
| 11007360 | 4 x 1 | 9,1 | 47,0 | 109 | class 2 |
| 11007368 | 2 x 1,5 | 9,0 | 41,0 | 96 | class 2 |
| 11007369 | 3 x 1,5 | 9,5 | 55,0 | 121 | class 2 |
| 11007370 | 4 x 1,5 | 10,2 | 69,0 | 147 | class 2 |
| 11007378 | 2 x 2,5 | 10,3 | 68,0 | 138 | class 2 |
| 11007379 | 3 x 2,5 | 10,8 | 90,0 | 176 | class 2 |
| 11007380 | 4 x 2,5 | 11,8 | 113,0 | 222 | class 2 |
| 11007388 | 2 x 4 | 11,3 | 108,0 | 192 | class 2 |
| 11007389 | 3 x 4 | 11,9 | 145,0 | 247 | class 2 |
| 11007390 | 4 x 4 | 13,0 | 181,0 | 304 | class 2 |

Dimensions and specifications may be changed without prior notice.