



FIRE RESISTANT HIGH TEMPERATURE EXTRA-FLEXIBLE POWER CABLES

FLAMEX® FR TYPE EN 50382-2 power cables maintain circuit integrity in case of fire (according to IEC 60331-4 for 90 minutes) and are fire retardant, low smoke and halogen-free satisfying performance requirements from EN 45545-2. Able to withstand higher operating temperatures, these silicone-based cables allow to save weight.

STANDARDS

Product EN 45545-2 (HL3); EN 50382-2; IEC 60228

DESIGN

1. Conductor

Extra flexible class 6 copper according to IEC 60228

* tinned copper for 120°C Class

* plain copper for 150°C Class

2. Insulation

Fire barrier

Cross-linked silicone compound type EI 111 according to EN 50382-1

Colour: black outer layer

Example of marking: FLAMEX SI-FR - Type EN 50382-2 - Voltage rate (1800V or 3600V) - cross-section mm² - FX - temperature class (150°C) - LYNXEO 279 - week/year

CONTACT

Markets and Products Information
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GUIDE TO USE

- Cabling rules are given in EN 50343 and EN 50355
- Permissible current carrying capacities: values and calculation method are given in EN 50343
- Bending radius:
 - Static use: 4 x outer cable diameter
 - For installation and occasional movements: 6 x outer cable diameter
- Pulling tensible force (dynamic) during installation: 50 N/mm² of copper size
- Mechanical static tensible force: 15N/mm² of copper size



Conductor flexibility
Extra-flexible
class 6



Halogen free
EN 60754-1 & EN
60684-2



Rated Voltage U_o/U
(Um)
3.6 / 6 (7.2) kV



Fire resistant
prIEC 60331-4



Flame retardant
EN 60332-1-2



Fire retardant
EN IEC 60332-3-24
(cat C); EN IEC
60332-3-25
(EN50305)



Smoke density
EN/IEC 61034-2



Gases toxicity
EN 50305-9.2

CHARACTERISTICS**Construction characteristics**

| | |
|-----------------------|---------------------------|
| Conductor material | Plain copper |
| Conductor flexibility | Extra-flexible class 6 |
| Insulation | High temperature silicone |
| Halogen free | EN 60754-1 & EN 60684-2 |

Dimensional characteristics

| | |
|-------------------------------|--------------------|
| Conductor cross-section | 70 mm ² |
| Number of wires per conductor | - |
| Wire size | - mm |
| Conductor diameter | 11.4 mm |
| Nominal outer diameter | 18.2 mm |
| Minimum outer diameter | 16.5 mm |
| Maximum outer diameter | 18.9 mm |
| Approximate weight | 794 kg/km |
| Average sheath thickness | - mm |

Electrical characteristics

| | |
|---|------------------|
| Rated Voltage U _o /U (U _m) | 3.6 / 6 (7.2) kV |
|---|------------------|

Usage characteristics

| | |
|---------------------------------------|--|
| Fire resistant | prIEC 60331-4 |
| Flame retardant | EN 60332-1-2 |
| Fire retardant | EN IEC 60332-3-24 (cat C); EN IEC 60332-3-25 (EN50305) |
| Smoke density | EN/IEC 61034-2 |
| Gases toxicity | EN 50305-9.2 |
| Operating temperature, range | -50 ... 150 °C |
| Max. conductor temperature in service | 170 °C |
| Chemical resistance | Good |