



### 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 mm<sup>2</sup> - 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 tensile force (dynamic) during installation: 50 N/mm<sup>2</sup> of copper size
- Mechanical static tensile force: 15N/mm<sup>2</sup> of copper size



Conductor flexibility  
Extra-flexible  
class 6



Halogen free  
EN 60754-1 & EN  
60684-2



Rated Voltage U<sub>o</sub>/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	50 mm <sup>2</sup>
Number of wires per conductor	-
Wire size	- mm
Conductor diameter	9.4 mm
Nominal outer diameter	16.3 mm
Minimum outer diameter	14.8 mm
Maximum outer diameter	16.9 mm
Approximate weight	594 kg/km
Average sheath thickness	- mm

**Electrical characteristics**

Rated Voltage U <sub>o</sub> /U (U <sub>m</sub> )	3.6 / 6 (7.2) kV
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**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