



CONTACT

Markets and Products Information
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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 form 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

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)
 1.8 / 3 (3.6) 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	35 mm ²
Number of wires per conductor	-
Wire size	- mm
Conductor diameter	8.1 mm
Nominal outer diameter	13.5 mm
Minimum outer diameter	12.5 mm
Maximum outer diameter	14.1 mm
Approximate weight	428 kg/km
Average sheath thickness	- mm

Electrical characteristics

Rated Voltage U _o /U (U _m)	1.8 / 3 (3.6) 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