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CONTACT

Markets and Products Information
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SHIELDED HIGH TEMPERATURE FLEXIBLE POWER CABLES

FLAMEX® EN 50382-2 FFS shielded power cables are used for installations where enhanced electrical screening (EMC) is required. Able to withstand higher operating temperatures, these silicone-based cables allow to save cable weight.

STANDARDS

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

DESIGN

1. Conductor

Flexible class 5 copper according to IEC 60228

- tinned copper for 120°C Class

- plain copper for 150°C Class

2. Insulation

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

Separator: Unweaved tape

3. Screen

Tinned copper wire braid

Separator: Unweaved tape

4. Outer sheath

Cross-linked silicone type EM 107 according to EN 50382-1

Colour: black outer layer

Examples of marking: FLAMEX SI - EN 50382-2 - Voltage rate (1800V or 3600V) - cross-section mm² - FFS - temperature class (120°C or 150°C) - Manufacturing n° - LYNXEO 279 - week/year

DTREN 150056 - EN 50382-2 - 1800V - cross-section mm² - FFS - temperature class (120°C) - Manufacturing N° - 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: 10 x outer cable diameter
 - For installation and occasional movements: 12 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
Flexible class 5



Halogen free
EN 60754-1 & EN 60684-2



Rated Voltage U_o/U
(Um)
1.8 / 3 (3.6) kV



Flame retardant
EN 60332-1-2



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



Smoke density
EN/IEC 61034-2



Gases toxicity
EN 50305-9.2



Operating temp.
-50 ... 120 °C

CHARACTERISTICS**Construction characteristics**

Conductor material	Tin plated copper
Conductor flexibility	Flexible class 5
Insulation	High temperature silicone
Screen	Tinned copper braid
Outer sheath	High temperature silicone
Halogen free	EN 60754-1 & EN 60684-2

Dimensional characteristics

Conductor cross-section	50 mm ²
Conductor diameter	9.2 mm
Braid section	7.7 mm ²
Nominal outer diameter	17.0 mm
Minimum outer diameter	16.5 mm
Maximum outer diameter	19.9 mm
Approximate weight	656 kg/km

Electrical characteristics

Rated Voltage U _o /U (U _m)	1.8 / 3 (3.6) kV
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Usage characteristics

Flame retardant	EN 60332-1-2
Fire retardant	EN IEC 60332-3-24 (cat C)
Smoke density	EN/IEC 61034-2
Gases toxicity	EN 50305-9.2
Operating temperature, range	-50 ... 120 °C
Electro magnetic interference resistance	Yes
Max. conductor temperature in service	120 °C
Overload maximum core temperature	140 °C
Chemical resistance	Good