



Reference: 13137636

## 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 mm<sup>2</sup> - FFS - temperature class (120°C or 150°C) - Manufacturing n° - LYNXEO 279 - week/year

DTREN 150056 - EN 50382-2 - 1800V - cross-section mm<sup>2</sup> - 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:
  - o Static use: 10 x outer cable diameter
  - o For installation and occasional movements: 12 x outer cable diameter
- Pulling tensible force (dynamic) during installation: 50 N/mm<sup>2</sup> of copper size
- Mechanical static tensible force: 15N/mm<sup>2</sup> of copper size



Conductor flexibility  
Flexible class 5



Halogen free  
EN 60754-1 & EN 60684-2



Rated Voltage Uo/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 | 35 mm <sup>2</sup>  |
| Conductor diameter      | 7.7 mm              |
| Braid section           | 6.5 mm <sup>2</sup> |
| Nominal outer diameter  | 15.7 mm             |
| Minimum outer diameter  | 14.6 mm             |
| Maximum outer diameter  | 16.7 mm             |
| Approximate weight      | 508 kg/km           |

**Electrical characteristics**

|   |                  |
|---|------------------|
| Rated Voltage U <sub>o</sub> /U (U <sub>m</sub> ) | 1.8 / 3 (3.6) kV |
|---|------------------|

**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                      |