



Reference: 79471441

CONTACT

Markets and Products Information
rollingstock.business@lynxgroup.com

FIRE RESISTANT POWER CABLES

FLAMEX® EN50264-3-1 FR flexible power cables maintain circuit integrity in case of fire (according to EN 50200 for 90 minutes) and are fire retardant, low smoke and halogen-free satisfying performance requirements of EN 45545-2-HL3. On top of that, FLAMEX® cables withstand tough working conditions (oil, ozone, temperature variations, etc.).

STANDARDS

Product EN 50264-3-1; EN 45545 - HL3; IEC 60228

Test EN 50200; IEC 60331-1 or 2

DESIGN

1. Conductor

Flexible stranded tinned copper, class 5 acc. to IEC 60228
Mineral tape

2. Insulation

Cross-linked compound type EI 109 acc. to EN 50264-1
Oil, diesel, ozone and UV resistant
Colour: black

Examples of marking:

FLAMEX HXAFOE FR 1,8/3 kV EN 50264-3-1 1800 V (mm²) OM | LYNXEO | WW-YYYY
or FLAMEX 4GKW-EN FR 1,8/3 kV EN 50264-3-1 1800 V (mm²) OM | LYNXEO | WW-YYYY

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: 3 x outer cable diameter if $D \leq 10\text{mm}$ / 5 x outer cable diameter if $D > 10\text{mm}$
 - For installation and occasional movements: 10 x outer cable diameter



Conductor flexibility
Flexible class 5



Halogen free
EN 60754-1 & EN 60684-2



Rated Voltage U₀/U
(Um)
1.8 / 3 (3.6) kV



Fire resistant
IEC 60331-1 or -2



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	Tin plated copper
Conductor flexibility	Flexible class 5
Halogen free	EN 60754-1 & EN 60684-2
Insulation	Cross-linked compound
Insulation colour	Black

Dimensional characteristics

Conductor cross-section	120 mm ²
Minimum outer diameter	19.9 mm
Maximum outer diameter	20.5 mm
Approximate weight	1250 kg/km
Number of cores	1

Electrical characteristics

Rated Voltage U ₀ /U (Um)	1.8 / 3 (3.6) kV
Maximum operating voltage	2.7 kV

Usage characteristics

Fire resistant	IEC 60331-1 or -2
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	-40 ... 90 °C
Max. conductor temperature in service	90 °C
Overload maximum core temperature	120 °C
Chemical resistance	Good
Ozone resistance	Yes
U.V resistance	Yes
Fire load	1.1 kWh/m