



Caledonian

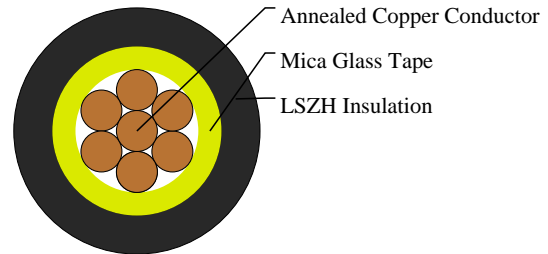
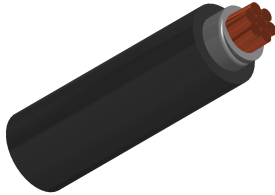
FIREFLIX Fire Resistant Power & Control Cables

www.caledonian-cables.com

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450/750V Mica+LSZH Insulated, Non-sheathed Power Cables to BS EN 50525-3-41 (Single Core)

FFX100 07mZ-R(CU/MGT+LSZH 450/750V Class2)



APPLICATIONS

The cables are mainly used in power stations, mass transit underground passenger systems, airports, petrochemical plants, hotels, hospitals and high-rise buildings.

STANDARDS

Basic design adapted from BS EN 50525-3-41(formerly BS 7211)

FIRE PERFORMANCE

| | |
|---|------------------------------|
| Circuit Integrity | IEC 60331-21; BS 6387;BS8491 |
| Flame Retardance (Single vertical wire or cable test) | IEC 60332-1-2; EN 60332-1-2 |
| Halogen Free | IEC 60754-1; EN 50267-2-1 |
| No Corrosive Gas Emission | IEC 60754-2; EN 50267-2-2 |
| Minimum Smoke Emission | IEC 61034-2; EN 61034-2 |

VOLTAGE RATING

450/750V

CABLE CONSTRUCTION

Conductor: Copper conductor according to BS EN 60228 class 2.

Fire Barrier: Mica glass tape.

Insulation: Crosslinked polyolefin material type EI 5 according to EN 50363-5.

Insulation Option: UV resistance, hydrocarbon resistance, oil resistance, anti-rodent and anti-termite properties can be offered as option.

COLOUR CODE

Black, Blue, Brown, Grey, Orange, Pink, Red, Turquoise, Violet, White, Green and Yellow.

PHYSICAL AND THERMAL PROPERTIES

Maximum temperature range during operation: 90°C

Maximum short circuit temperature (5 Seconds): 250°C



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Minimum bending radius: 4 x Overall Diameter

Electrical Properties

Conductor operating temperature: 90°C

Ambient temperature: 30°C

DIMENSION AND PARAMETERS

| No. of Cores × Cross-sectional Area | Conductor Class | Nominal Insulation Thickness | Overall Diameter (min.) | Overall Diameter (max.) | Approx. Weight |
|--|-----------------|------------------------------|-------------------------|-------------------------|----------------|
| No. x mm ² | | mm | mm | mm | kg/km |
| 1×4 | 2 | 0.8 | 4.8 | 5.7 | 54 |

Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4E1A

| Conductor Cross-sectional Area | Ref. Method A 2 cables, 1-phase a.c. or d.c. | Ref. Method A 3/4 cables, 3-phase a.c. | Ref. Method B 2 cables, 1-phase a.c. or d.c. | Ref. Method B 3/4 cables, 3-phase a.c. | Ref. Method C 2 cables, 1-phase a.c. or d.c. flat and touching | Ref. Method C 3/4 cables, 3-phase a.c. flat and touching or trefoil |
|--------------------------------|--|--|--|--|--|---|
| mm ² | A | A | A | A | A | A |
| 4 | 35 | 31 | 42 | 37 | 46 | 41 |

Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4E1B

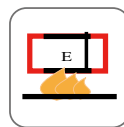
| Conductor Cross-sectional Area | 2 cables d.c. | Ref. Methods A,B 2 cables, 1-phase a.c. | Ref. Methods C,F,G 2 cables, 1-phase a.c. (Cables touching) | Ref. Methods C,F,G 2 cables, 1-phase a.c. (Cables spaced) | Ref. Methods A,B 3 or 4 cables, 3-phase a.c. | Ref. Methods C,F,G 3 or 4 cables, 3-phase a.c. (Cables touching, Trefoil) | Ref. Methods C,F,G 3 or 4 cables, 3-phase a.c. (Cables touching, Flat) | Ref. Methods C,F,G 3 or 4 cables, 3-phase a.c. (Cables spaced, Flat) |
|--------------------------------|---------------|---|---|---|--|---|--|--|
| mm ² | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m |
| 4 | 12 | 12 | 12 | 12 | 10 | 10 | 10 | 10 |



Rated voltage



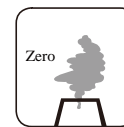
BS EN 50525-3-41



Circuit Integrity
IEC 60331-21, BS 6387 BS 8491



Flame Retardancy
IEC 60332-1-2



Halogen Free
IEC 60754-1



Low Corrosivity
IEC 60754-2



Low Smoke Emission
IEC 61034-2