



# Caledonian

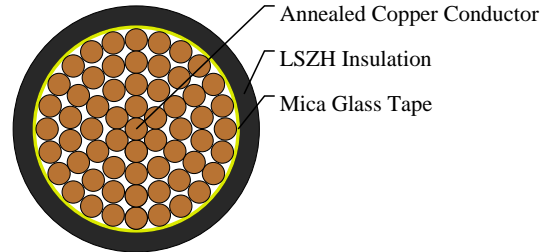
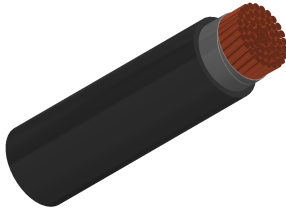
## FIREFLIX Fire Resistant Power & Control Cables

www.caledonian-cables.com

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### 450/750V Mica+LSZH Insulated, Non-sheathed Power Cables to BS EN 50525-3-31 (Single Core)

FFX100 07mZ1-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 50525-3-31

### 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
Reduced Fire Propagation (Vertically-mounted bundled wires & cables test)	IEC 60332-3-24; EN 60332-3-24
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: Thermoplastic compound of type T1 7 to EN 50363-7.

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: 70°C



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Maximum short circuit temperature (5 Seconds): 160°C

Minimum bending radius: 6 x Overall Diameter

**DIMENSION AND PARAMETERS**

No. of Cores x Cross-sectional Area	Conductor Class	Nominal Insulation Thickness	Overall Diameter (min.)	Overall Diameter (max.)	Approx. Weight
No.xmm <sup>2</sup>		mm	mm	mm	kg/km
1x500	2	2.8	31.5	37.9	5359

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

Conductor Cross-sectional Area	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	Ref. Method F 2 cables, 1-phase a.c. or d.c. flat	Ref. Method F 3 cables, 3-phase a.c. flat	Ref. Method F 3 cables, 3-phase a.c. trefoil	Ref. Method F 2 cables 1-phase 3 cables 3-phase flat Horizontal	Ref. Method F 2 cables 1-phase 3 cables 3-phase flat Vertical
mm <sup>2</sup>	A	A	A	A	A	A	A	A	A
500	626	533	792	723	868	789	749	982	920

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

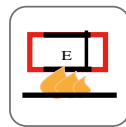
Conductor Cross-sectional Area	2 cables d.c.	Ref. Methods A,B 2 cables, 1-phase a.c.	Ref. Methods C,F 2 cables, 1-phase a.c. (Cables touching)	Ref. Methods C,F 2 cables, 1-phase a.c. (Cables spaced)	Ref. Methods A,B 3 or 4 cables, 3-phase a.c.	Ref. Methods C,F 3 or 4 cables, 3-phase a.c. (Cables touching, Trefoil)	Ref. Methods C,F 3 or 4 cables, 3-phase a.c. (Cables touching, Flat)	Ref. Methods C,F 3 or 4 cables, 3-phase a.c. (Cables spaced, Flat)
mm <sup>2</sup>	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m
500	0.086	r:0.11 x:0.26 z:0.28	r:0.098 x:0.155 z:0.185	r:0.093 x:0.24 z:0.26	r:0.1 x:0.22 z:0.25	r:0.086 x:0.135 z:0.16	r:0.086 x:0.21 z:0.23	r:0.081 x:0.29 z:0.30



Rated voltage



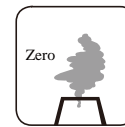
BS EN 50525-3-31



Circuit Integrity IEC 60331-21/BS6387/BS 8491



Flame Retardancy IEC 60332-1-2



Halogen Free IEC 60754-1



Low Corrosivity IEC 60754-2



Low Smoke Emission IEC 61034-2



Reduced Fire Propagation IEC 60332-3-24