



Caledonian

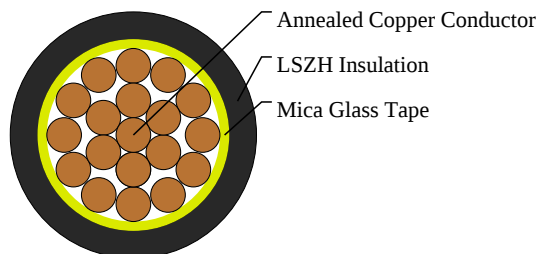
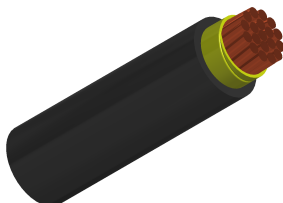
FIREFLIX Fire Resistant Power & Control Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

600/1000V Mica+LSZH Insulated, Non-sheathed Power Cables to BS EN 50525-3-31 (Single Core)

FFX100 1mZ1-R(CU/MGT+LSZH 600/1000V Class 2)



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; BS 8491
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; EN61034-2

VOLTAGE RATING

600/1000V

CABLE CONSTRUCTION

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

Fire Barrier: Mica glass tape.

Insulation: Thermoplastic compound of type TI 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

OD>12mm: 6 × Overall Diameter

Electrical Properties

Conductor operating temperature: 70°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.×mm ²		mm	mm	mm	kg/km
1×50	2	1.4	11.6	13.8	558

Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4D1A

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	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 ²	A	A	A	A	A	A	A	A	A	A	A
50	119	108	151	134	182	167	196	174	167	219	197

Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4D1B

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 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
50	0.93	r:0.95;x:0.3;z:1.0	0.93;x:0.19;z:0.9	0.93;x:0.28;z:0.97	0.81;x:0.26;z:0.85	0.8;x:0.165;z:0.82	0.8;x:0.24;z:0.84	0.8;x:0.32;z:0.86



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Rated voltage



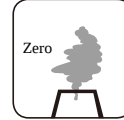
BS EN 50525-3-41



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