



Caledonian

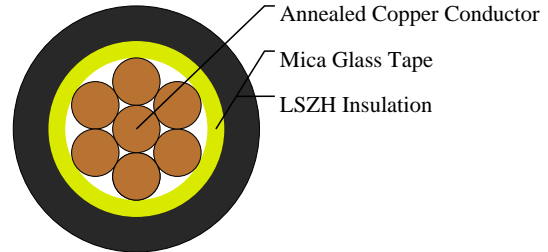
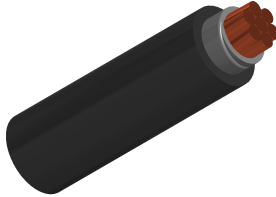
FIREFLIX Fire Resistant Power & Control Cables

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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.

FFX100 07mZ1-R: 1.5-630mm² Class 2 stranded copper conductor to BS EN 60228.

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



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Maximum temperature range during operation: 70°C

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

Minimum bending radius: 4 x 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. x mm ²		mm	mm	mm	kg/km
1×10	2	1.0	6.6	7.7	133

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
mm ²	A	A	A	A	A	A
10	46	42	57	50	65	59

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
10	4.4	4.4	4.4	4.4	3.8	3.8	3.8	3.8



Rated voltage



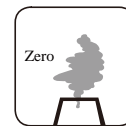
BS EN 50525-3-31



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