



# Caledonian

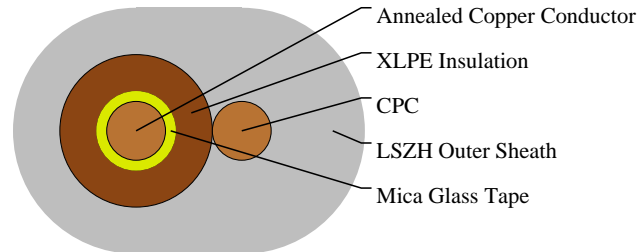
## FIREFLIX Fire Resistant Power & Control Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

### 300/500V Mica+XLPE Insulated, LSZH Sheathed Power Cables to BS 7211 ( 1C1.0 )

FFX300 05mRZ1-U (CU/MGT+XLPE/LSZH 300/500V Class 1)



### 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 7211:2012

### FIRE PERFORMANCE

Circuit Integrity	IEC 60331-21; BS 6387
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

300/500V

### CABLE CONSTRUCTION

Conductor: Annealed copper conductor, solid according to BS EN 60228 class 1.

Fire Barrier: Mica glass tape.

Insulation: XLPE type GP 8 according to BS 7655-1.3. Crosslinked polyolefin material type EI 5 according to EN 50363-5 can be offered as option.

CPC (Circuit Protective Conductor): Uninsulated copper conductor.

Outer Sheath: Extruded LSZH type LTS 2 according to BS 7655-6.1.

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

### COLOUR CODE



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Insulation Colour: Brown or blue.

Sheath Colour: White; other colours can be offered upon request.

## PHYSICAL AND THERMAL PROPERTIES

Maximum temperature range during operation: 90°C

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

Minimum bending radius: 4 × 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	Cross-sectional Area of CPC	Class of CPC	Nominal Sheath Thickness	Overall Diameter (min.)	Overall Diameter (max.)	Approx. Weight
No. × mm <sup>2</sup>		mm	mm <sup>2</sup>		mm	mm	mm	kg/km
1 × 1.0	1	0.7	1.0	1	0.9	5.1x 6.6	6.0x7.3	66

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 <sup>2</sup>	A	A	A	A	A	A
1.0	14	13	17	15	19	17.5

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 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
1.0	46	46	46	46	40	40	40	40



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Rated voltage



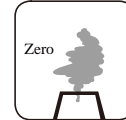
BS 7211



Circuit Integrity  
IEC 60331-21/BS 6387



Flame Retardancy  
BS/EN/IEC 60332-1-2



Halogen Free  
IEC 60754-1



Low Corrosivity  
IEC 60754-2



Low Smoke Emission  
EN 61034-2



Reduced Fire Propagation  
IEC 60332-3-24