



Caledonian

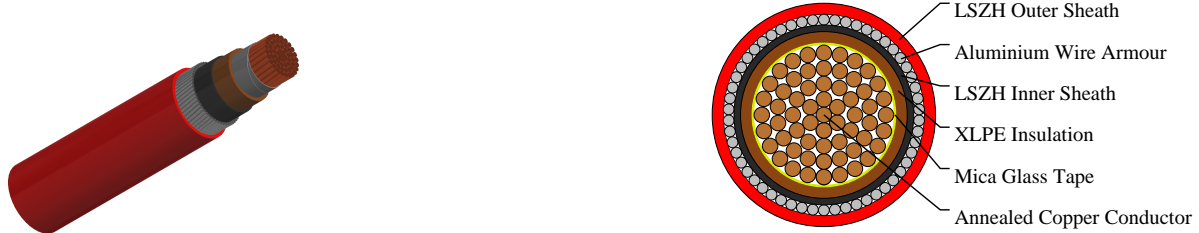
FIREFLIX Fire Resistant Power & Control Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

600/1000V Mica+XLPE Insulated, LSZH Sheathed, Armoured Power Cables to BS 6724 (Single Core)

FFX300 1mRZ1MAZ1-R (CU/MGT+XLPE/LSZH/AWA/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 6724

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; EN 61034-2

VOLTAGE RATING

600/1000V

CABLE CONSTRUCTION

Conductor: Annealed copper wire, stranded according to BS EN 60228 class 2.

Fire Barrier: Mica glass tape.

Insulation: XLPE type GP 8 according to BS 7655-1.3. HEPR type GP 6 according to BS 7655-1.2 or crosslinked polyolefin material type EI 5 according to BS EN 50363-5 can be offered as option.

Bedding: Extruded layer of polymeric material.

Armouring: Aluminium wire.

Outer Sheath: Extruded layer of polymeric material LTS 1 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.



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COLOUR CODE

Insulation Colour: Brown or blue; other colours can be offered upon request.

Sheath Colour: Black; 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: 6 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	Nominal Bedding Thickness	Nominal Sheath Thickness	Nominal Aluminum Wire Armour Diameter	Approx. Overall Diameter	Approx. Weight
No.xmm ²		mm	mm	mm	mm	mm	kg/km
1×400	2	2.0	1.2	2.0	2.0	41.5	4668

Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4E3A

Conductor Cross- sectional Area	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 Spaced by on cable diameter 2 cables, d.c. Horizontal	Ref. Method F Spaced by on cable diameter 2 cables, d.c. Vertical	Ref. Method F Spaced by on cable diameter 2 cables, 1- phase a.c. Horizontal	Ref. Method F Spaced by on cable diameter 2 cables, 1-phase a.c. Vertical	Ref. Method F Spaced by on cable diameter 3/4 cables, 3-phase a.c. Horizontal	Ref. Method F Spaced by on cable diameter 3/4 cables, 3-phase a.c. Vertical
mm ²	A	A	A	A	A	A	A	A	A	A	A
400	853	717	899	767	815	1137	1094	929	889	848	797

Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4E3B

Conductor Cross- sectional Area	2 cables d.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 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
400	0.115	r:0.145;x:0.170;z:0.22	r:0.180;x:0.24;z:0.30	r:0.125;x:0.150;z:0.195	r:0.160;x:0.21;z:0.27	r:0.20;x:0.27;z:0.33



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Rated voltage



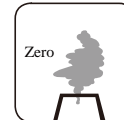
BS 6724



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