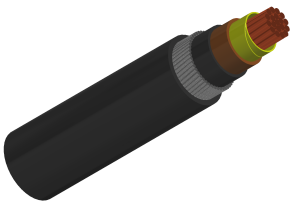
Caledonian

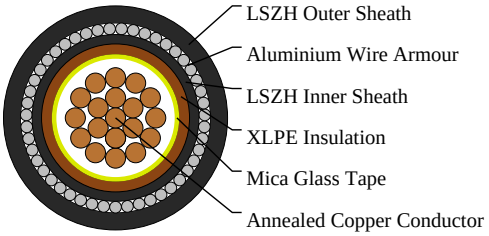
FIREFLIX Fire Resistant Power & Control Cables

www.caledonian-cables.com marketing@caledonian-cables.com

600/1000V Mica+XLPE Insulated, LSZH Sheathed,Armoured Power Cables to IEC 60502-1 (1C70)

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 IEC 60502-1

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:The conductors shall be class 2 plain or metal-coated annealed copper in accordance with IEC60228. Class 1 and class 5 conductor can be offered as option.
Fire Barrier:Mica glass tape.
Insulation:Thermosetting XLPE compound as per IEC 60502-1.
Inner Covering Option:Thermoplastic halogen free compound ST8 as per IEC 60502-1.
Armouring:Aluminium wire.
Outer Sheath:Thermoplastic halogen free compound ST8 as per IEC 60502-1.
Outer Sheath Option:UV resistance, hydrocarbon resistance, oil resistance, anti-rodent and anti-termiteproperties can be offered as option.

COLOUR CODE

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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 × Overall Diameter

DIMENSION AND PARAMETERS

No. of Cores × Cross-sectional Area	Conductor Class	Nominal Insulation Thickness	Nominal Thickness of Inner Covering	Nominal Sheath Thickness	Nominal Aluminum Wire Armour Diameter	Approx. Overall Diameter	Approx. Weight
No.×mm²		mm	mm	mm	mm	mm	kg/km
1x70	2	1.1	1.0	1.8	1.25	22.0	1132

Current-Carrying Capacities (Amp) according to 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
mm²	A	A	A	A	A	A	A	A	A	A	A
70	303	277	322	293	285	356	349	357	337	358	331

Voltage Drop (Per Amp Per Meter) according to 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)
mm²	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m
70	0.67	r:0.68 x:0.20 z:0.71	r:0.69 x:0.29 z:0.75	r:0.59 x:0.170 z:0.62	r:0.60 x:0.25 z:0.65	r:0.62 x:0.32 z:0.70

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Rated voltage

Circuit Integrity
IEC 60331-21/BS6387/BS 8491

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

Flame Retardancy
BS/EN/IEC 60332-3-24

Halogen Free
IEC 60754-1

IEC60502-1

Low Corrosivity
IEC 60754-2

Low Smoke Emission
IEC 61034-2