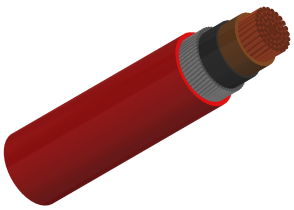
Caledonian

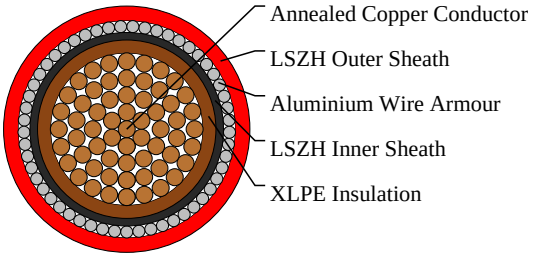
FIRETOX LSZH Flame Retardant Power & Control Cables

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

600/1000V XLPE Insulated, LSZH Sheathed, Armoured Power Cables to IEC 60502-1 (Single Core)

FTX300 1RZ1MAZ1-R (CU/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 to IEC 60502-1

APPROVALS

TUV Certification (B 098200 0033 Rev.00)

FIRE PERFORMANCE

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.
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.

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

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 × 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 Thickness of Inner Covering	Nominal Outer Sheath Thickness	Nominal Aluminum Wire Armour Diameter	Approx. Overall Diameter	Approx. Weight
No.×mm²		mm	mm	mm	mm	mm	kg/km
1×240	2	1.7	1.0	1.9	1.6	33.5	3367

Current-Carrying Capacities (Amp)

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
240	656	579	689	612	625	815	782	749	714	715	666

Voltage Drop (Per Amp Per Meter)

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
240	0.195	R:0.21 X:0.180 Z:0.28	R:0.24 X:0.26 Z:0.35	R:0.180 X:0.155 Z:0.24	R:0.21 X:0.22 Z:0.30	R:0.24 X:0.28 Z:0.37

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Rated voltage

Flame Retardancy
IEC 60332-1-2

Halogen Free
IEC 60754-1

IEC60502-1

Low Corrosivity
IEC 60754-2

Low Smoke Emission
EN 61034-2

Reduced Fire Propagation
IEC 60332-3-24