

Caledonian

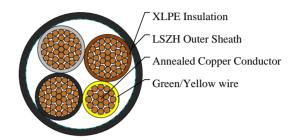
FIRETOX LSZH Flame Retardant Power & Control Cables

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

600/1000V XLPE Insulated, LSZH Sheathed Power Cables to IEC 60502-1 (3+1 Cores)

FTX400 1RZ1-R 3C120+1G70 (CU/XLPE/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. This product type is TUV approved.

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 IEC 60228. Class 1 and class 5 conductor can be offered as option.

Insulation: Thermosetting XLPE material and thickness shall be as per IEC 60502-1.

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

Insulation Colour



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3 Cores + 1 Core Earth Conductor: Brown, black, grey,green-yellow 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

circular copper conductors OD<=25mm : 4 × Overall Diameter circular copper conductors OD>25mm: 6 × Overall Diameter

shaped copper conductors: 8 × 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 Insulation Thickness (Earth)	Nominal Sheath Thickness	Approx. Overall Diameter	Approx. Weight
No.×mm²		mm	mm	mm	mm	kg/km
3x120/70	2	1.2	1.1	2.3	42	5036

Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4E2A

Conductor Cross- sectional Area	Ref. Method A 2cables, 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 E One 2C cable, 1-phase a.c. or d.c.	Ref. Method E One 3C or 4C cable, 3- phase a.c.
mm²	А	Α	А	Α	Α	А	A	Α
120	253	227	305	268	382	322	410	346

Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4E2B

Conductor Cross-sectional Area	2C cable, d.c.	2C cable, 1-phase a.c.	3C or 4C cable, 3-phase a.c.	
mm²	mV/A/m	mV/A/m	mV/A/m	
120	0.39	r:0.40 x:0.145 z:0.42	r:0.34 x:0.130 z:0.37	



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IEC60502-1





