



# Caledonian

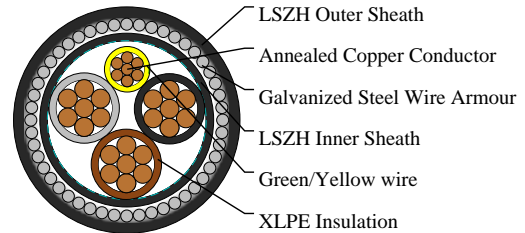
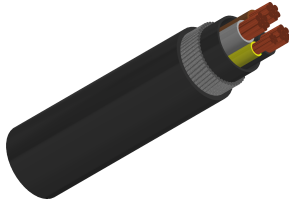
FIRETOX LSZH Flame Retardant Power & Control Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

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

FTX400 1RZ1MZ1-R 3C35+1G16 (CU/XLPE/LSZH/SWA/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 CE 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 as per IEC 60502-1.

Inner Covering: Thermoplastic halogen free compound ST8 as per IEC 60502-1.

Armouring: Steel wire armour.

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-termite properties can be offered as option.



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## COLOUR CODE

Insulation Colour

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: 6 × Overall Diameter

shaped copper conductors: 8 × Overall Diameter

## Electrical Properties

Conductor operating temperature: 90°C

Air ambient temperature: 30°C

Ground ambient temperature: 20°C

## DIMENSION AND PARAMETERS

No. of Cores × Cross-sectional Area	Conductor Class	Nominal Insulation Thickness	Nominal Insulation Thickness (Earth)	Nominal Bedding Thickness	Nominal Sheath Thickness	Nominal Steel Wire Armour Diameter	Approx. Overall Diameter	Approx. Weight
No. × mm <sup>2</sup>		mm	mm	mm	mm	mm	mm	kg/km
3×35/16	2	0.9	0.7	1	1.9	1.6	30.1	2480

## Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4E4A

Conductor Cross-sectional Area	Ref. Method C One 1C cable, 1-phase a.c. or d.c.	Ref. Method C One 3C or 4C cable, 3-phase a.c.	Ref. Method D One 2C cable, 1-phase a.c. or d.c.	Ref. Method D One 3C or 4C cable, 3-phase a.c.	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.
mm <sup>2</sup>	A	A	A	A	A	A
35	180	154	139	115	188	162

## Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4E4B

Conductor Cross-sectional Area	2C cable, d.c.	2C cable, 1-phase a.c.	3C or 4C cable, 3-phase a.c.
mm <sup>2</sup>	mV/A/m	mV/A/m	mV/A/m
35	1.35	r:1.35 x:0.155 z:1.35	r:1.15 x:0.135 z:1.15



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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  
IEC 61034-2



Reduced Fire Propagation  
IEC 60332-3-24