



Caledonian

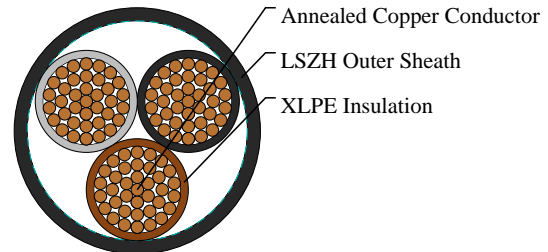
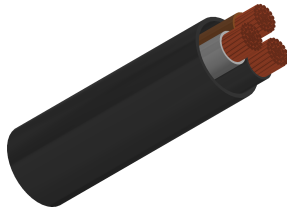
FIRETOX LSZH Flame Retardant Power & Control Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

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

FTX400 1RZ1-R 3C120 (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-termite properties can be offered as option.

COLOUR CODE

Insulation Colour



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2-core: Brown and blue.

3-core: Brown, black and grey.

4-core: Blue, brown, black and grey.

5-core: Green and yellow, blue, brown, black, grey.

Above 5 Cores: Black cores with white numerals.

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

circular copper conductors $OD \leq 25\text{mm}$: $4 \times$ Overall Diameter

circular copper conductors $OD > 25\text{mm}$: $6 \times$ Overall Diameter

shaped copper conductors: $8 \times$ 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 Sheath Thickness	Approx. Overall Diameter	Approx. Weight
No. × mm ²		mm	mm	mm	kg/km
3x120	2	1.2	2.1	36.1	4307

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 C 3/4 cables, 3-phase a.c. flat and touching or trefoil	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 ²	A	A	A	A	A	A	A	A
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.
mm ²	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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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