



Caledonian

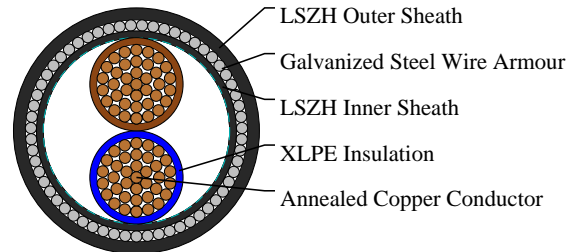
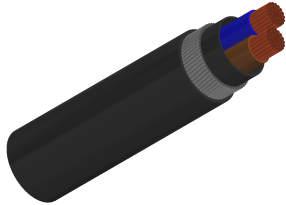
FIRETOX LSZH Flame Retardant Power & Control Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

600/1000V XLPE Insulated, LSZH Sheathed, Armoured Power Cables to IEC 60502-1 (2 cores)

FTX400 1RZ1MZ1-R 2C120 (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: Brown and blue.

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 Bedding Thickness | Nominal Sheath Thickness | Nominal Steel Wire Armour Diameter | Approx. Overall Diameter | Approx. Weight |
|---|--------------------|------------------------------------|---------------------------------|--------------------------------|---|--------------------------------|-------------------|
| No. × mm ² | | mm | mm | mm | mm | mm | kg/km |
| 2 × 120 | 2 | 1.2 | 1.2 | 2.3 | 2.0 | 44.2 | 4810 |

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 ² | A | A | A | A | A | A |
| 120 | 392 | 335 | 271 | 223 | 410 | 353 |

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 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:0.45 |



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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