



Caledonian

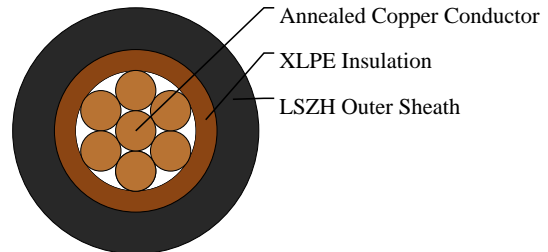
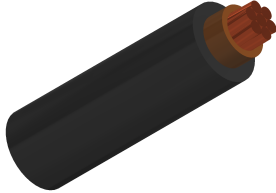
FIRETOX LSZH Flame Retardant Power & Control Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

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

FTX300 1RZ1-R 1C10 (CU/XLPE/LSZH 600/1000V Class 2)



APPLICATIONS

These XLPE insulated and LSZH sheathed cables are generally used for fixed installation. Suitable for building wiring, especially in areas where smoke and fume emissions may cause a potential threat to life but not for burial in the ground, either directly or in ducts.

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 compound 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



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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

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 Sheath Thickness | Approx. Overall Diameter | Approx. Weight |
|--|-----------------|------------------------------|--------------------------|--------------------------|----------------|
| No.×mm ² | | mm | mm | mm | kg/km |
| 1x10 | 2 | 0.7 | 1.4 | 8.3 | 163 |

Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4E1A

| Conductor Cross-sectional Area | Ref. Method A 2 cables, 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 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 G 2 cables, 1-phase a.c. or d.c. or 3 cables 3-phase a.c. Horizontal | Ref. Method G 2 cables, 1-phase a.c. or d.c. or 3 cables 3-phase a.c. Vertical |
|--------------------------------|---|---|---|---|---|--|--|--|---|---|---|
| mm ² | A | A | A | A | A | A | A | A | A | A | A |
| 10 | 61 | 54 | 75 | 66 | 84 | 74 | — | — | — | — | — |

Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4E1B

| Conductor Cross-sectional Area | 2 cables d.c. | Ref. Methods A,B 2 cables, 1-phase a.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 A,B 3 or 4 cables, 3-phase a.c. | 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) |
|--------------------------------|---------------|---|---|---|--|---|--|--|
| mm ² | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m |
| 10 | 4.7 | 4.7 | 4.7 | 4.7 | 4.0 | 4.0 | 4.0 | 4.0 |



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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