

# Caledonian

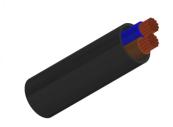
## **FIRETOX LSZH Flame Retardant Power & Control Cables**

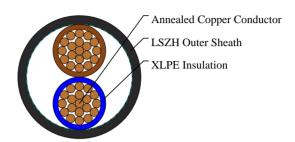
www.caledonian-cables.com

marketing@caledonian-cables.com

## 600/1000V XLPE Insulated, LSZH Sheathed Power Cables to BS 8573 (2Cores)

FTX400 1RZ1-R (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 BS 8573:2012

#### **APPROVALS**

TUV Certification (Z1 17 09 98200 010)

#### 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: Annealed copper conductor, stranded according to BS EN 60228 class 2.

Insulation: Thermosetting insulation XLPE Type GP8 according to BS 7655-1.3. HEPR Type GP6 according to BS 7655-1.2 or crosslinked polyolefin material type EI 5 according to BS EN 50363-5 can be offered as option. Inner Covering Option: The optional inner covering, where used, shall consist of an extruded layer of synthetic polymeric material. It shall surround the single core and the laid-up two, three, four or five cores, giving the assembly a practically circular shape.

Outer Sheath: Extruded layer of polymeric material LTS 4 according to BS 7655-6.1.



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Outer Sheath Option: UV resistance, hydrocarbon resistance, oil resistance, anti-rodent and anti-termite properties can be offered as option.

#### **COLOUR CODE**

Insulation Colour

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<=25mm :  $4 \times \text{Overall Diameter}$  circular copper conductors OD>25mm:  $6 \times \text{Overall Diameter}$ 

shaped copper conductors: 8 x 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<br>Insulation<br>Thickness | Nominal Sheath<br>Thickness | Approx. Overall<br>Diameter | Nominal<br>Copper Weight |
|---------------------------------------|-----------------|------------------------------------|-----------------------------|-----------------------------|--------------------------|
| No.×mm²                               |                 | mm                                 | mm                          | mm                          | kg/km                    |
| 2x50                                  | 2               | 1.0                                | 1.8                         | 25.4                        | 1261                     |

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

| Conductor<br>Cross-<br>sectional Area | Ref. Method<br>A 2cables,<br>1-phase<br>a.c. or d.c. | Ref. Method<br>A 3/4 cables,<br>3-phase a.c. | Ref. Method B 2<br>cables, 1-phase<br>a.c. or d.c | Ref. Method<br>B 3/4 cables,<br>3-phase a.c. | Ref. Method C 2<br>cables, 1-phase<br>a.c. or d.c. flat<br>and touching |     | Ref. Method<br>E One 2C<br>cable, 1-phase<br>a.c. or d.c. | Ref. Method<br>E One 3C or<br>4C cable, 3-<br>phase a.c. |
|---------------------------------------|--|--|---|--|---|-----|---|--|
| mm²                                   | А  | Α  | Α   | Α  | Α   | А   | А   | A  |
| 50                                    | 145  | 130  | 175   | 154  | 209   | 179 | 225   | 192  |

## 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. |
|--------------------------------|----------------|------------------------|------------------------------|
|                                |                |                        |                              |



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| mm² | mV/A/m | mV/A/m                | mV/A/m                |
|-----|--------|-----------------------|-----------------------|
| 50  | 0.98   | r:0.99 x:0.155 z:1.00 | r:0.86 x:0.135 z:0.87 |







BS 8573



IEC 60332-1-2



Halogen Free IEC 60754-1



Low Corrosivi IEC 60754-2



Low Smoke Emissi IEC 61034-2



IEC 60332-3-24