

# 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 (3Cores)

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 × 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<br>× Cross-<br>sectional Area | Conductor Class | Nominal<br>Insulation<br>Thickness | Nominal Sheath<br>Thickness | Approx. Overall<br>Diameter | Nominal<br>Copper Weight |
|--|-----------------|------------------------------------|-----------------------------|-----------------------------|--------------------------|
| No.×mm <sup>2</sup>                        |                 | mm                                 | mm                          | mm                          | kg/km                    |
| 3x25                                       | 2               | 0.9                                | 1.8                         | 18.5                        | 993                      |

# 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 C<br>3/4 cables, 3-<br>phase a.c. flat<br>and touching<br>or trefoil | 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  | A  | А   | А  | A   | А  | A   | A  |
| 25                                    | 99   | 89   | 119   | 105  | 138   | 119  | 149   | 127  |

### 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                |
|-----|--------|-----------------------|-----------------------|
| 25  | 1.85   | r:1.85 x:0.160 z:1.90 | r:1.60 x:0.140 z:1.65 |













Rated voltage

Flame Retardancy IEC 60332-1-2

Halogen Free IEC 60754-1

Low Corrosivity IEC 60754-2





ICed Fire Propaga IEC 60332-3-24