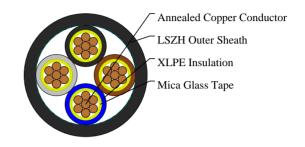


### Caledonian FIREFLIX Fire Resistant Power & Control Cables www.caledonian-cables.com marketing@caledonian-cables.com

### 600/1000V Mica+XLPE Insulated, LSZH Sheathed Power Cables to BS 8573 (4 Cores)

FFX400 1mRZ1-R (CU/MGT+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.

### **STANDARDS**

Basic design adapted from BS 8573:2012

#### **APPROVALS**

TUV Certification(B 098200 0027 Rev.00)

### FIRE PERFORMANCE

| Circuit Integrity   | EC 60331-21; BS 6387; BS 8491 |
|---|-------------------------------|
| 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.

Fire Barrier: Mica glass tape.

Insulation: Thermosetting insulation XLPE Type GP 8 according to BS 7655-1.3. HEPR Type GP 6 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.



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Outer Sheath: Extruded layer of polymeric material LTS 4 according to BS 7655-6.1. Outer Sheath Option: UV resistance, hydrocarbon resistance, oil resistance, anti-rodent and anti-termite properties can be offered as option.

### **COLOUR CODE**

Insulation Colour 4-core: Blue, brown black and grey. Alternatively, green-and-yellow, brown, black, grey 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 shaped copper conductors: 8 × Overall Diameter

### **DIMENSION AND PARAMETERS**

| No. of Cores<br>× Cross-<br>sectional Area | Conductor<br>Class | Nominal<br>Insulation<br>Thickness | Nominal<br>Thickness of<br>Inner Covering | Nominal<br>Sheath<br>Thickness | Approx.<br>Overall<br>Diameter | Approx.<br>Weight |
|--|--------------------|------------------------------------|---|--------------------------------|--------------------------------|-------------------|
| No.×mm <sup>2</sup>                        |                    | mm                                 | mm  | mm                             | mm                             | kg/km             |
| 4x10                                       | 2                  | 0.7                                | 0.6                                       | 1.8                            | 19.2                           | 608               |

### 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  | А  | A   | А  | А   | А  | A   | А  |
| 10                                    | 57   | 51   | 69  | 60   | 80  | 71 | 86  | 75   |

### Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4E2B

| Conductor Cross-sectional Area | Conductor Cross-sectional Area 2C cable, d.c. |        | 3C or 4C cable, 3-phase a.c. |  |
|--------------------------------|---|--------|------------------------------|--|
| mm² mV/A/m                     |   | mV/A/m | mV/A/m                       |  |
| 10                             | 4.7   | 4.7    | 4.0                          |  |



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Rated voltage





Circuit Integrity IEC 60331-21/BS6387/BS 8491



Flame Retardancy BS/EN/IEC 60332-3-24





