



# Caledonian

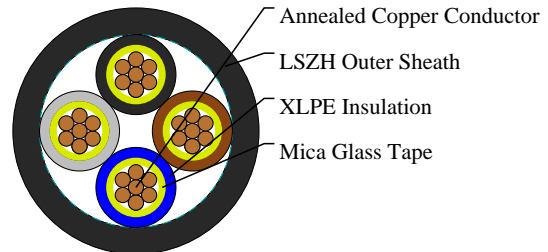
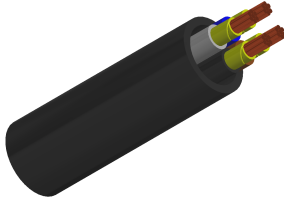
## FIREFLIX Fire Resistant Power & Control Cables

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  $OD \leq 25\text{mm}$ : 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             |
| 4 × 6                                      | 2                  | 0.7                                | 0.6                                       | 1.8                            | 16.9                           | 412               |

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

| Conductor<br>Cross-<br>sectional Area | Ref. Method<br>A 2 cables,<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. |
|---------------------------------------|---|--|--|--|---|--|---|--|
| mm <sup>2</sup>                       | A   | A  | A  | A  | A   | A  | A   | A  |
| 6                                     | 42  | 38   | 51   | 44   | 58  | 52   | 63  | 54   |

### 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. |
|--------------------------------|----------------|------------------------|------------------------------|
| mm <sup>2</sup>                | mV/A/m         | mV/A/m                 | mV/A/m                       |
| 6                              | 7.9            | 7.9                    | 6.8                          |



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Rated voltage



BS 8573



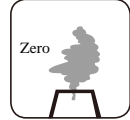
Circuit Integrity  
IEC 60331-21/BS6387/BS 8491



Flame Retardancy  
BS/EN/IEC 60332-1-2



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



Halogen Free  
IEC 60754-1



Low Corrosivity  
IEC 60754-2



Low Smoke Emission  
IEC 61034-2