



# Caledonian

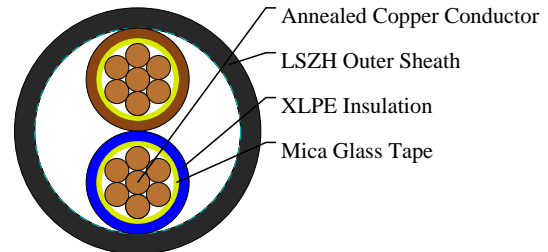
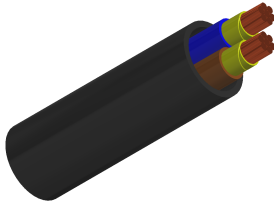
## FIREFLIX Fire Resistant Power & Control Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

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

2-core: Brown and blue.

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-sectional Area | Conductor Class | Nominal Insulation Thickness | Nominal Thickness of Inner Covering | Nominal Sheath Thickness | Approx. Overall Diameter | Approx. Weight |
|--|-----------------|------------------------------|-------------------------------------|--------------------------|--------------------------|----------------|
| No. x mm <sup>2</sup>                  |                 | mm                           | mm                                  | mm                       | mm                       | kg/km          |
| 2x25                                   | 2               | 0.9                          | 0.8                                 | 1.8                      | 22                       | 756            |

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

| Conductor Cross-sectional Area | Ref. Method A 2cables, 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 E One 2C cable, 1-phase a.c. or d.c. | Ref. Method E One 3C or 4C cable, 3-phase a.c. |
|--------------------------------|---|--|--|--|--|---|--|--|
| mm <sup>2</sup>                | A   | A                                      | A  | A                                      | A  | A   | 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. |
|--------------------------------|----------------|------------------------|------------------------------|
| mm <sup>2</sup>                | 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        |



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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