



# Caledonian

Airport Flame Retardant And Fire Resistant Cables

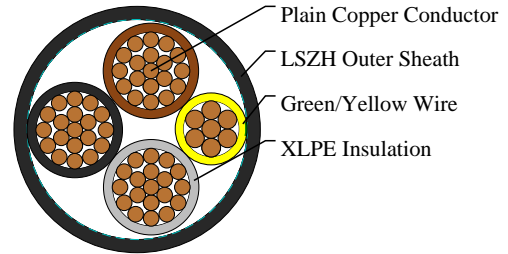
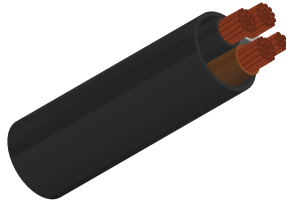
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## 600/1000V XLPE Insulated, LSZH Sheathed, Power Cables (3+1 Cores)

FTX400 1RZ1-R 3G50/35 (CU/XLPE/LSZH 600/1000V Class 2)

Indoor Lighting, Socket and UPS Outlet Power Cables



### APPLICATIONS

This cables are mainly used in power stations, mass transit underground passenger systems, airports, petrochemical plants, hotels, hospitals, and high-rise buildings.

### STANDARDS

Basic design to IEC 60502-1

### FIRE PERFORMANCE

|   |  |
|---|--|
| Flame Retardance (Single Vertical Wire Test)                            | EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1 ; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*           |
| Reduced Fire Propagation (Vertically-mounted bundled wires& cable test) | EN 60332-3-24 (cat. C); IEC 60332-3-24; BS EN 60332-3-24; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4 |
| Halogen Free  | IEC 60754-1; EN 50267-2-1; DIN VDE 0482-267-2-1; CEI 20-37/2-1 ; BS 6425-1*  |
| No Corrosive Gas Emission   | IEC 60754-2; EN 50267-2-2; DIN VDE 0482-267-2-2; CEI 20-37/2-2 ; BS 6425-2*  |
| Minimum Smoke Emission  | IEC 61034-1&2; EN 61034 -1&2; DIN VDE 0482-1034-1&2; CEI 20-37/3-1&2; EN 50268-1&2*; BS 7622-1&2*  |
| No Toxic Gases  | NES 02-713; NF C 20-454  |

### VOLTAGE RATING

600/1000V

### CABLE CONSTRUCTION

Conductor: Plain annealed copper wire, stranded according to IEC 60228 class 2.

Insulation: Extruded cross-linked XLPE compound.



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Outer Sheath: Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## COLOUR CODE

Insulation Colour: Yellow/Green, Brown, Gray, Black

Sheath Colour: Black (other colors upon request)

## PHYSICAL AND THERMAL PROPERTIES

Temperature Range During Operation: -30°C ~ 90°C

Temperature Range during Installation : -5°C ~ 50°C

Minimum Bending Radius : 6 x OD

## Electrical Properties

Dielectric Test: 3500 V r.m.s. x 5' ( core / core )

Insulation Resistance: 500 MΩ x km ( at 20°C )

Short circuit Temperature : 250°C ( up to 5 secs )

Conductor Operating Temperature : 90°C

Ambient Temperature : 30°C

## DIMENSION AND PARAMETERS

| Caledonian Cable Code | No. of Cores × Cross-sectional Area | No./Nominal Diameter of Strands | Nominal Insulation Thickness | Nom. Overall Diameter | Approx. Weight |
|-----------------------|-------------------------------------|---------------------------------|------------------------------|-----------------------|----------------|
|                       | No. × mm <sup>2</sup>               | no./mm                          | mm                           | mm                    | kg/km          |
| FTX400 1RZ1-R 3G50/35 | 3x50/35                             | 19/1.78                         | 1                            | 27.8                  | 1995           |

## Current-Carrying Capacities (Amp)

| Conductor Cross-sectional Area | Ref. Method 4<br>2 cables,<br>1-phase<br>a.c. or d.c. | Ref. Method 4<br>3/4 cables,<br>3-phase a.c. | Ref. Method 3<br>2 cables,<br>1-phase<br>a.c. or d.c. | Ref. Method 3<br>3/4 cables,<br>3-phase a.c. | Ref. Method 1<br>2 cables,<br>1-phase<br>a.c. or d.c.<br>flat and touching | Ref. Method 1<br>3/4 cables,<br>3-phase<br>a.c. flat and touching<br>or trefoil | Ref. Method 11<br>2 cables,<br>1-phase<br>a.c. or d.c.<br>flat and touching | Ref. Method 11<br>3/4 cables,<br>3-phase<br>a.c. flat and touching<br>or trefoil | Ref. Method 12<br>2 cables,<br>1-phase<br>a.c. or d.c.<br>or 3 cables<br>3-phase<br>Horizontal | Ref. Method 12<br>2 cables,<br>1-phase<br>a.c. or d.c.<br>or 3 cables<br>3-phase<br>Vertical | Ref. Method 12<br>3 cables<br>trefoil, 3-phase a.c. |
|--------------------------------|---|--|---|--|--|---|---|--|--|--|---|
| mm <sup>2</sup>                | A   | A  | A   | A  | A  | A   | A   | A  | A  | A  | A   |
| 50                             | 149   | 135  | 189   | 168  | 228  | 209   | 293   | 215  | 274  | 246  | 209   |

## Voltage Drop (Per Amp Per Meter)

| Nominal Cross sectional Area | 2 cables d.c. | Ref. Methods 3,4<br>2 cables, 1-phase a.c. | Ref. Methods 1,11<br>2 cables, 1-phase a.c. | Ref. Methods 3,4<br>3 or 4 cables,<br>3-phase a.c. | Ref. Methods 1,11,12<br>3 or 4 cables, 3-phase a.c. (in trefoil) | Ref. Methods 1,11<br>3 or 4 cables, 3-phase a.c. (Flat and touching) |
|------------------------------|---------------|--|---|--|--|--|
| mm <sup>2</sup>              | mV/A/m        | mV/A/m                                     | mV/A/m                                      | mV/A/m   | mV/A/m   | mV/A/m   |
| 50                           | 0.99          | r:1 x:0.29 z:1.05                          | r:0.99 x:0.18 z:1                           | r:0.87 x:0.25 z:0.9                                | r:0.86 x:0.155 z:0.87  | r:0.86 x:0.18 z:0.87   |



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Rated voltage



Flame Retardant  
NF C32-070-2.1(C2)  
IEC60332-1-3/EN50266-2-1



Halogen Free  
IEC 60754-1



IEC60502-1



Low Corrosivity  
IEC60754-2/EN50267-2-2/3  
NF C32-074/NF C20-453



Low Smoke Emission  
IEC 61034-2 / EN 50268-2  
NF C32-073/NF C 20-462



Low Toxicity  
NES 02-713/NF C 20-454



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24/EN50266-2-4