



# Caledonian

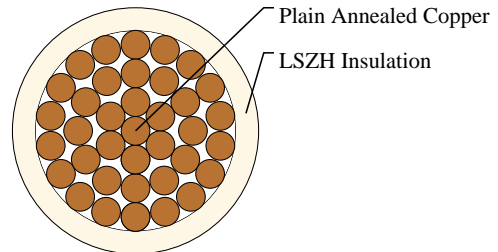
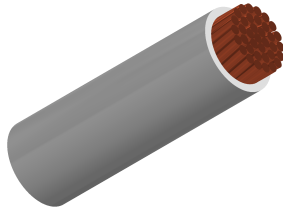
Airport Flame Retardant And Fire Resistant Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

## 450/750V LSZH Insulated, Non-sheathed Power Cables (Single Core)

FTX100 07Z1-R 1G120 (CU/LSZH 450/750V Class 2)



### 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 BS 7211

### 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

450/750V

### CABLE CONSTRUCTION

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

Insulation: LSZH compound

### COLOUR CODE



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Insulation Colour: Natural

## 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:2500 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          |
| FTX100 07Z1-R 1G120   | 1x120                               | 37/2.03                         | 1.6                          | 18                    | 1230           |

## Current-Carrying Capacities (Amp)

| Conductor Cross-sectional Area | Ref. Method 4 2cables, 1-phase a.c. or d.c. | Ref. Method 4 3/4 cables, 3-phase a.c. | Ref. Method 3 2cables, 1-phase a.c. or d.c. | Ref. Method 3 3/4 cables, 3-phase a.c. | Ref. Method 1 2 cables, 1-phase a.c. or d.c. flat and touching | Ref. Method 1 3/4 cables, 3-phase a.c. flat and touching or trefoil | Ref. Method 11 2 cables, 1-phase a.c. or d.c. flat and touching | Ref. Method 11 3/4 cables, 3-phase a.c. flat and touching or trefoil | Ref. Method 12 2 cables, 1-phase a.c. or d.c. or 3 cables 3-phase Horizontal | Ref. Method 12 2 cables, 1-phase a.c. or d.c. or 3 cables 3-phase Vertical | Ref. Method 12 3 cables trefoil, 3-phase a.c. |
|--------------------------------|---|--|---|--|--|---|---|--|--|--|---|
| mm <sup>2</sup>                | A   | A                                      | A   | A                                      | A  | A   | A   | A  | A  | A  | A   |
| 120                            | 263   | 235                                    | 336   | 299                                    | 413  | 379   | 436   | 398  | 495  | 453  | 385   |

## Voltage Drop (Per Amp Per Meter)

| Nominal Cross sectional Area | 2 cables d.c. | Ref. Methods 3,4 2 cables, 1-phase a.c. | Ref. Methods 1,11 2 cables, 1-phase a.c. | Ref. Methods 3,4 3 or 4 cables, 3-phase a.c. | Ref. Methods 1,11,12 3 or 4 cables, 3-phase a.c. (in trefoil) | Ref. Methods 1,11 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  |
| 120                          | 0.39          | r:0.41 x:0.26 z:0.48                    | r:0.39 x:0.165 z:0.43                    | r:0.35 x:0.23 z:0.42                         | r:0.34 x:0.14 z:0.37  | r:0.34 x:0.165 z:0.38   |



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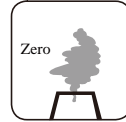
Rated voltage



BS 7211



Flame Retardant  
NF C32-070-2, IEC2  
IEC60332-1-2/EN50266-2-1



Halogen Free  
IEC 60754-1



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