



# Caledonian

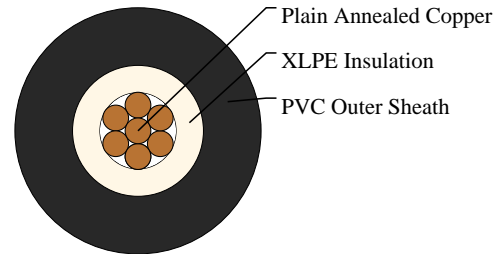
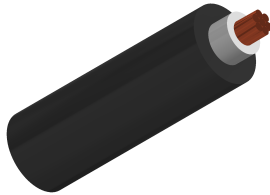
Airport Flame Retardant And Fire Resistant Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

## 600/1000V XLPE Insulated, PVC Sheathed Power Cables (Single Core)

FGD300 1RV-R 1G2.5 (CU/XLPE/PVC 600/1000V 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 IEC 60502-1

### FIRE PERFORMANCE

|  |  |
|--|--|
| Flame Retardance (Single Vertical Wire Test) (Optional)                            | 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) (Optional) | 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 |

### VOLTAGE RATING

600/1000V

### CABLE CONSTRUCTION

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

Insulation: Extruded cross-linked XLPE compound.

Outer Sheath: Thermoplastic PVC compound.

### COLOUR CODE

Insulation Colour: Natural

Sheath Colour: Black (other colors upon request)

### PHYSICAL AND THERMAL PROPERTIES

Temperature Range During Operation: -40°C ~ 70°C

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



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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          |
| FGD300<br>1RV-R 1G2.5 | 1x2.5                               | 7/0.67                          | 0.7                          | 6.4                   | 63             |

## 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 |
|--------------------------------|---|--|---|--|--|---|
| mm <sup>2</sup>                | A   | A                                      | A   | A                                      | A  | A   |
| 2.5                            | 24  | 23                                     | 30  | 26                                     | 34   | 31  |

## 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  |
| 2.5                          | 19            | 19                                      | 16                                       | 16   | 16  | 16  |



Rated voltage



Flame Retardant  
NF C32-070-2.1(C2)  
IEC60332-1-2-ENS0265-2-1



IEC60502-1



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24-ENS0266-2-4