



## Caledonian

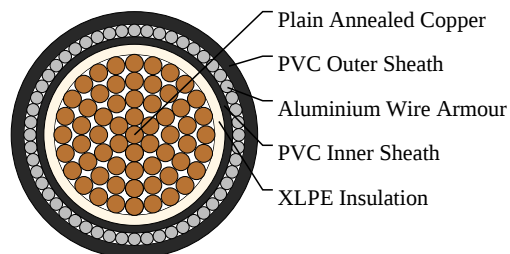
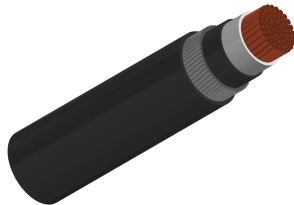
Airport Flame Retardant And Fire Resistant Cables

[www.caledonian-cables.com](http://www.caledonian-cables.com)

[marketing@caledonian-cables.com](mailto:marketing@caledonian-cables.com)

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

FGD300 1RVMV-R 1G400 (CU/XLPE/PVC/AWA/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 BS BS 5467

### 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.

Inner sheath : PVC Compound.

Armouring : Aluminium Wire.

Outer Sheath : Thermoplastic PVC compound.

### COLOUR CODE

Insulation Colour: Natural

Sheath Colour: Black (other colors upon request)

### PHYSICAL AND THERMAL PROPERTIES



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

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

Minimum Bending Radius: 8 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<br>× Cross-sectional Area | No./Nominal Diameter of Strands | Nominal Armour Wire Diameter | Diameter under Armour | Nom. Overall Diameter | Approx. Weight |
|------------------------------|----------------------------------------|---------------------------------|------------------------------|-----------------------|-----------------------|----------------|
|                              | No. × mm <sup>2</sup>                  | no./mm                          | mm                           | mm                    | mm                    | kg/km          |
| FFGD300<br>1RVMV-<br>R 1G400 | 1x400                                  | 61/2.85                         | 2                            | 32.7                  | 40.9                  | 4790           |

## Current-Carrying Capacities (Amp)

| Conductor Cross-sectional Area | 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 1 1 2 cables, 1-phase a.c. or d.c. flat and touching | Ref. Method 1 1 3/4 cables, 3-phase a.c. flat and touching or trefoil | Ref. Method 1 2 3 cables trefoil, 3-phase a.c. | In single-way ducts 2 cables, 1-phase a.c. or d.c. | In single-way ducts 3/4 cables, 3-phase a.c. | Laid direct in ground 2 cables, 1-phase a.c. or d.c. | Laid direct in ground 3/4 cables, 3-phase a.c. |
|--------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------|----------------------------------------------------|----------------------------------------------|------------------------------------------------------|------------------------------------------------|
| mm <sup>2</sup>                | A                                                              | A                                                                   | A                                                                | A                                                                     | A                                              | A                                                  | A                                            | A                                                    | A                                              |
| 400                            | 853                                                            | 717                                                                 | 899                                                              | 767                                                                   | 815                                            | 640                                                | 580                                          | 830                                                  | 700                                            |

## Voltage Drop (Per Amp Per Meter)

| Nominal Cross sectional Area | 2 cables d.c. | Ref. Methods 1, 1 1 2 cables, 1-phase a.c. | Ref. Methods 1, 1 1, 1 2 3 or 4 cables, 3-phase a.c. (in trefoil) | Ref. Methods 1, 1 1 3 or 4 cables, 3-phase a.c. (Flat and touching) | 2 cables, 1-phase a.c. (In ducts) | 2 cables, 1-phase a.c. (In ground) | 3 or 4 cables, 3-phase a.c. touching (In ducts) | 3 or 4 cables, 3-phase a.c. touching (In ground) |
|------------------------------|---------------|--------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------|------------------------------------|-------------------------------------------------|--------------------------------------------------|
| mm <sup>2</sup>              | mV/A/m        | mV/A/m                                     | mV/A/m                                                            | mV/A/m                                                              | mV/A/m                            | mV/A/m                             | mV/A/m                                          | mV/A/m                                           |
| 400                          | 0.115         | r:0.145<br>x:0.17 z:0.22                   | r:0.125 x:0.15<br>z:0.195                                         | r:0.16 x:0.21<br>z:0.27                                             | 0.35                              | 0.21                               | 0.3                                             | 0.19                                             |



# Caledonian

## Airport Flame Retardant And Fire Resistant Cables

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Rated voltage



BS 5467



Flame Retardant  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



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