



Caledonian

Airport Flame Retardant And Fire Resistant Cables

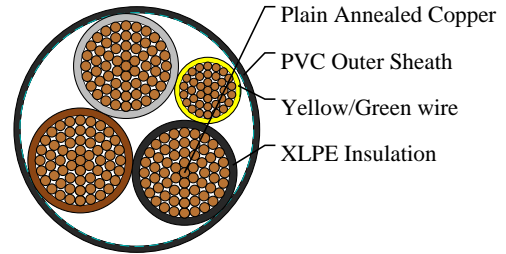
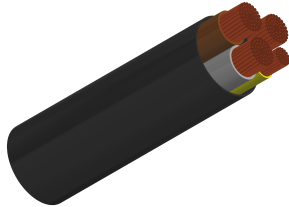
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600/1000V XLPE Insulated, PVC Sheathed, Power Cables (3+1 Cores)

FGD400 1RV-R 3G300/120 (CU/XLPE/PVC 600/1000V Class 2)

Outdoor Cabling



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: as per BS7671.

3+1 Cores: Yellow/Green, Brown, Gray, Black

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 : 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 ² | no./mm | mm | mm | kg/km |
| FGD400 1RV-R 3G300/120 | 3x300/120 | 61/2.52 | 1.8 | 58.1 | 10480 |

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 ² | A | A | A | A | A | A | A | A | A | A | A |
| 300 | 459 | 410 | 573 | 493 | 743 | 681 | 794 | 730 | 886 | 824 | 701 |

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 ² | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m |
| 300 | 0.155 | r:0.175 x:0.25 z:0.31 | r:0.16 x:0.16 z:0.22 | r:0.15 x:0.22 z:0.27 | r:0.14 x:0.14 z:0.195 | r:0.135 x:0.16 z:0.21 |



Rated voltage



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



IEC60502-1



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