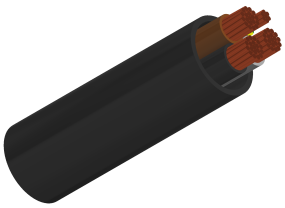
# Caledonian

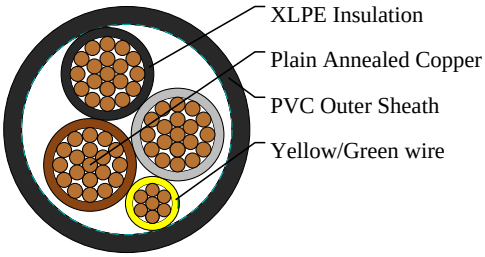
Airport Flame Retardant And Fire Resistant Cables

www.caledonian-cables.com marketing@caledonian-cables.com

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

FGD400 1RV-R 3G35/10 (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.×mm² | no./mm | mm | mm | kg/km |
| FGD400 1RV-R 3G35/10 | 3x35/10 | 19/1.53 | 0.9 | 22.9 | 1263 |

## 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. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| mm² | A | A | A | A | A | A | A | A | A | A | A |
| 35 | 125 | 111 | 156 | 138 | 176 | 161 | 195 | 176 | 226 | 203 | 171 |

## 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) |
|---|---|---|---|---|---|---|
| mm² | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m |
| 35 | 1.35 | r:1.35 x:0.29 z:1.35 | r:1.35 x:0.18 z:1.35 | r:1.15 x:0.25 z:1.15 | r:1.15 x:0.115 z:1.5 | r:1.15 x:0.18 z:1.15 |

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