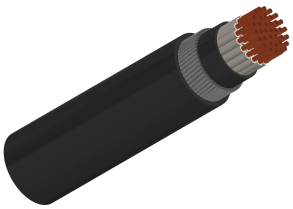
# Caledonian

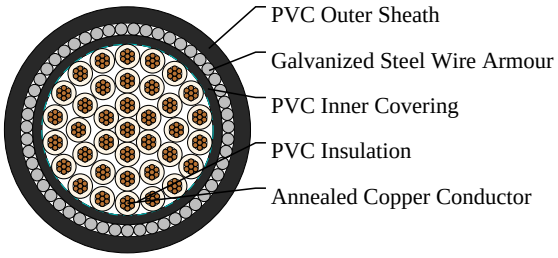
FIREGUARD Flame Retardant Power & Control Cables

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

## 600/1000V PVC Insulated, PVC Sheathed, Armoured Power Cables to IEC 60502 (Multicore)

FGD400 1VVMV-R 37C1.5(CU/PVC/PVC/SWA/PVC 600/1000V Class 2)






## APPLICATIONS

The 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

## APPROVALS

TUV Certification

## FIRE PERFORMANCE

| | |
|---|---|
| Flame Retardance (Single vertical wire or cable test) | IEC 60332-1-2 |

## VOLTAGE RATING

600/1000V

## CABLE CONSTRUCTION

Conductor: Annealed copper wire, stranded according to IEC 60228 class 2.
Insulation: PVC/A according to IEC 60502-1.
Inner Covering: Extruded PVC or polymeric compound.
Armouring: Galvanized steel wire
Outer Sheath: Extruded PVC Type ST1/ST2 according to IEC 60502-1.
Outer Sheath Option: UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option. Compliance to fire performance standard (IEC 60332-1, IEC 60332-3, UL 1581, UL 1666 etc) depends on the oxygen index of the PVC compound and the overall cable design.LSPVC can also be provided upon request.

## COLOUR CODE

Core identification: White insulation with black printed numerals. (Other colors available upon request)
Sheath Colour: Black; other colours can be offered upon request.

## PHYSICAL AND THERMAL PROPERTIES

# Caledonian

FIREGUARD Flame Retardant Power & Control Cables

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

Maximum temperature range during operation (PVC): 70°C
Maximum short circuit temperature (5 Seconds): 160°C(<=300 mm²); 140°C(>300 mm²)
Minimum bending radius:
Circular copper conductors: 6 x Overall Diameter
Shaped copper conductors: 8 x Overall Diameter

## Electrical Properties

Conductor Operating Temperature: 70°C
Ambient Temperature: 30°C

## DIMENSION AND PARAMETERS

| No. of Cores × Cross-sectional Area | Conductor Class | Nominal Insulation Thickness | Nominal Bedding Thickness | Nominal Sheath Thickness | Nominal Steel Wire Armour Diameter | Nom. Overall Diameter | Approx. Weight |
|---|---|---|---|---|---|---|---|
| No.×mm² | | mm | mm | mm | mm | mm | kg/km |
| 37×1.5 | 2 | 0.8 | 1.0 | 2.0 | 1.6 | 32.5 | 2089 |

## Current-Carrying Capacities (Amp) according to Current-Carrying Capacities (Amp) according to BS 7671: 2008 table 4D4A

| Conductor Cross-sectional Area | Ref. Method C One 1C cable, 1-phase a.c. or d.c. | Ref. Method C One 3C or 4C cable, 3-phase a.c. | Ref. Method D One 2C cable, 1-phase a.c. or d.c. | Ref. Method D One 3C or 4C cable, 3-phase a.c. | Ref. Method E One 2C cable, 1-phase a.c. or d.c. | Ref. Method E One 3C or 4C cable, 3-phase a.c. |
|---|---|---|---|---|---|---|
| mm² | A | A | A | A | A | A |
| 1.5 | 21 | 18 | 22 | 18 | 22 | 19 |

## Voltage Drop (Per Amp Per Meter) according to Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4E4B

| Nominal Cross sectional Area | 2C cable, d.c. | 2C cable, 1-phase a.c. | 3C or 4C cable, 3-phase a.c. |
|---|---|---|---|
| mm² | mV/A/m | mV/A/m | mV/A/m |
| 1.5 | 31 | 31 | 27 |



Rated voltage


Flame Retardancy
IEC 60332-1



IEC60502-1