



# Caledonian

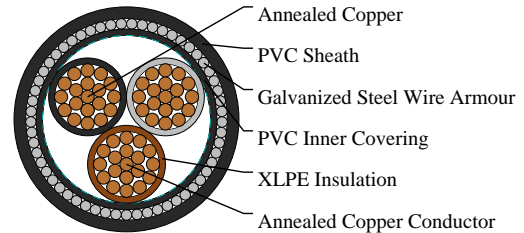
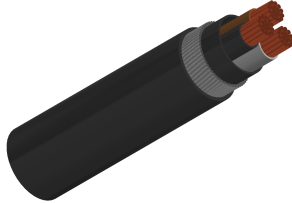
FIREGUARD Flame Retardant Power & Control Cables

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## 600/1000V XLPE Insulated, PVC Sheathed, Armoured Power Cables to IEC 60502 (3 Cores)

FGD400 1RVMV-R 3C95 (CU/XLPE/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. This product type is TUV approved.

### STANDARDS

Basic design adapted to IEC 60502-1

### APPROVALS

TUV Certification (Z1 17 01 98200 004)

### FIRE PERFORMANCE

|  |             |
|--|-------------|
| Flame Retardance (Single Vertical Wire Test) | IEC 60332-1 |
|--|-------------|

### VOLTAGE RATING

600/1000V

### CABLE CONSTRUCTION

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

Insulation: XLPE 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

Insulation Colour: Brown, black, grey.

Sheath Colour: Black, other colours can be offered upon request.

### PHYSICAL AND THERMAL PROPERTIES



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Maximum temperature range during operation: 80°C (For ST1 Sheath); 90°C (For ST2 Sheath)

Maximum short circuit temperature (5 Seconds): 250°C

Minimum bending radius: 12 x Overall Diameter

### Electrical Properties

Conductor Operating Temperature: 90°C

Ambient Temperature: 30°C

### DIMENSION AND PARAMETERS

| No. of Cores<br>× 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. × mm <sup>2</sup>                  |                 | mm                           | mm                        | mm                       | mm                                 | mm                    | kg/km          |
| 3x95                                   | 2               | 1.1                          | 1.2                       | 2.2                      | 2.0                                | 42.7                  | 5196           |

### Current-Carrying Capacities (Amp) according to BS7671:2008 table 4E4A

| Conductor Cross-sectional Area | Ref. Method C<br>One 1C cable, 1-phase a.c. or d.c. | Ref. Method C<br>One 3C or 4C cable, 3-phase a.c. | Ref. Method D<br>One 2C cable, 1-phase a.c. or d.c. | Ref. Method D<br>One 3C or 4C cable, 3-phase a.c. | Ref. Method E<br>One 2C cable, 1-phase a.c. or d.c. | Ref. Method E<br>One 3C or 4C cable, 3-phase a.c. |
|--------------------------------|---|---|---|---|---|---|
| mm <sup>2</sup>                | A   | A   | A   | A   | A   | A   |
| 95                             | 338   | 289   | 239   | 197   | 354   | 304   |

### Voltage Drop (Per Amp Per Meter) according to BS7671:2008 table 4E4B

| Conductor Cross-sectional Area | 2C cable, d.c. | 2C cable, 1-phase a.c. | 3C or 4C cable, 3-phase a.c. |
|--------------------------------|----------------|------------------------|------------------------------|
| mm <sup>2</sup>                | mV/A/m         | mV/A/m                 | mV/A/m                       |
| 95                             | 0.49           | r:0.5 x:0.15 z:0.52    | r:0.43 x:0.13 z:0.45         |



Rated voltage



Flame Retardancy  
IEC 60332-1



IEC60502-1