



Caledonian

FIREGUARD Flame Retardant Power & Control Cables

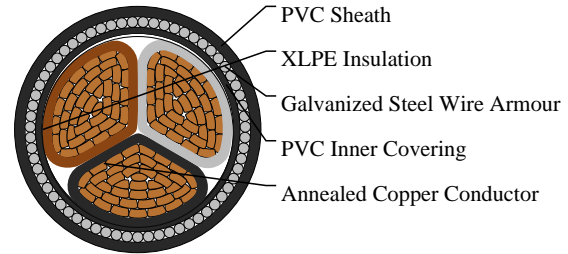
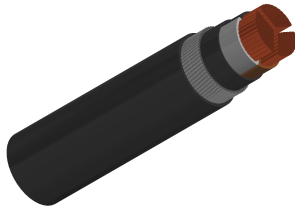
www.caledonian-cables.com

marketing@caledonian-cables.com

600/1000V XLPE Insulated, PVC Sheathed, Armoured Power Cables to BS 5467 (3 Cores)

FGD400 1RVMV-R 3C185 (CU/XLPE/PVC/SWA/PVC 600/1000V Class 2)

BS Code: 6943X



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 to BS 5467

APPROVALS

TUV Certification (Z1 17 01 98200 003)

FIRE PERFORMANCE

| | |
|--|-----------------|
| Flame Retardance (Single Vertical Wire Test) | BS EN 60332-1-2 |
|--|-----------------|

VOLTAGE RATING

600/1000V

CABLE CONSTRUCTION

Conductor: Annealed copper wire, shaped stranded according to BS EN 60228 class 2.

Insulation: Extruded XLPE GP 8 according to BS 7655-1.3.

Bedding: PVC.

Armouring: Galvanized steel wire

Outer Sheath: PVC Type 9 according to BS 7655-4.2.

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:

Two-core: Brown, blue



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Three-core: Brown, black, grey

Four-core: Blue, brown, black, grey

Five-core: Green-and-yellow, blue, brown, black, grey

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

PHYSICAL AND THERMAL PROPERTIES

Maximum temperature range during operation (XLPE): 90°C

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

Minimum bending radius:

Circular copper conductors: 6 x Overall Diameter

Shaped copper conductors: 8 x Overall Diameter

Electrical Properties

Conductor Operating Temperature: 90°C

Ambient Temperature: 30°C

DIMENSION AND PARAMETERS

| No. of Cores × Cross-sectional Area | Conductor Class | Nominal Insulation Thickness | Nominal Thickness of Inner Covering | Nominal Sheath Thickness | Nominal Steel Wire Armour Diameter | Approx. Overall Diameter | Approx. Weight |
|---|--------------------|------------------------------------|--|--------------------------------|---|--------------------------------|-------------------|
| No. × mm ² | | mm | mm | mm | mm | mm | kg/km |
| 3x185S | 2 | 1.6 | 1.4 | 2.4 | 2.5 | 49.8 | 8600 |

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

| 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. |
|--------------------------------|---|---|---|---|---|---|
| mm ² | A | A | A | A | A | A |
| 185 | 515 | 441 | 343 | 281 | 539 | 463 |

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 ² | mV/A/m | mV/A/m | mV/A/m |
| 185 | 0.25 | r:0.26 x:0.145 z:0.29 | r:0.22 x:0.125 z:0.26 |



Rated voltage



BS 5467



Flame Retardancy
BS EN 60332-1-2