



Caledonian

FIREGUARD Flame Retardant Power & Control Cables

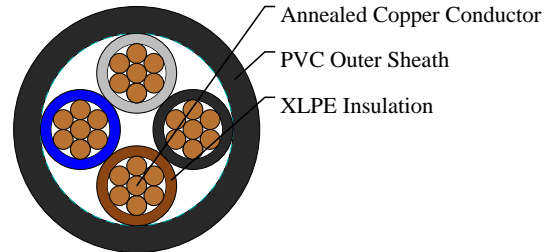
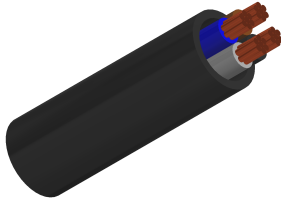
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600/1000V XLPE Insulated, PVC Sheathed, Unarmoured Power Cables to IEC 60502 (4 Cores)

FGD400 1RV-R 4C10 (CU/XLPE/PVC 600/1000V Class 2)

VDE Code: N2XY



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 or cable test) | IEC 60332-1 |
|-------------------------------------------------------|-------------|

VOLTAGE RATING

600/1000V

CABLE CONSTRUCTION

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

Insulation: XLPE according to IEC 60502-1.

Inner Covering Option: Extruded PVC or polymeric compound.

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:

Four-core: Blue, brown, black, grey. Alternatively, green-and-yellow, brown, black, grey



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Note: Depending on their intended use, the cables might be subject to the core colour requirements specified in BS 7671 or other standards, or in statutory requirements.

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

PHYSICAL AND THERMAL PROPERTIES

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 × Cross-sectional Area | Conductor Class | Nominal Insulation Thickness | Nominal Sheath Thickness | Nom. Overall Diameter | Approx. Weight |
|----------------------------------------|-----------------|------------------------------|--------------------------|-----------------------|----------------|
| No.×mm ² | | mm | mm | mm | kg/km |
| 4x10 | 2 | 0.7 | 1.8 | 15.7 | 585 |

Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4E2A

| Conductor Cross-sectional Area | Ref. Method A 2cables, 1-phase a.c. or d.c. | Ref. Method A 3/4 cables, 3-phase a.c. | Ref. Method B 2 cables, 1-phase a.c. or d.c | Ref. Method B 3/4 cables, 3-phase a.c. | Ref. Method C 2 cables, 1-phase a.c. or d.c. flat and touching | Ref. Method C 3/4 cables, 3-phase a.c. flat and touching or trefoil | 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 | A | A |
| 10 | 57 | 51 | 69 | 60 | 80 | 71 | 86 | 75 |

Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4E2B

| 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 |
| 10 | 4.7 | 4.7 | 4.0 |



Rated voltage



Flame Retardancy
IEC 60332-1



IEC60502-1