



Caledonian

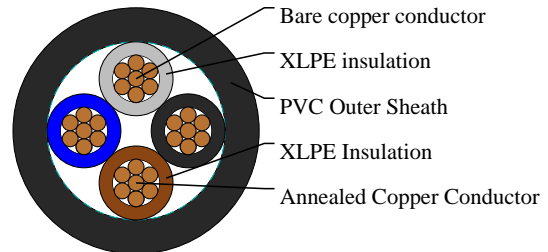
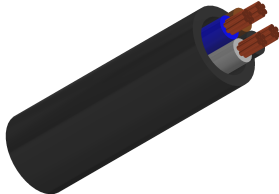
FIREGUARD Flame Retardant Power & Control Cables

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600/1000V XLPE Insulated, PVC Sheathed, Unarmoured Power Cables to BS 7889 (4 Cores)

FGD400 1RV-R 4C4 (CU/XLPE/PVC 600/1000V Class 2)



APPLICATIONS

The cables are mainly use in fixed installations in industrial areas, buildings and similar applications but not for burial in the ground, either directly or in ducts.

STANDARDS

Basic design to BS 7889:2012

APPROVALS

TUV Certification (Z1 17 08 98200 008)

FIRE PERFORMANCE

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

VOLTAGE RATING

600/1000V

CABLE CONSTRUCTION

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

Insulation: XLPE type GP8 according to BS 7655-1.3.

Filling: If necessary, the formation of a compact and reasonably circular cable shall be achieved by one of the following methods.

- The application of synthetic fillers or binder tape(s).
- The optional inner covering.
- The sheath provided it effectively fills the interstices.
- Any combination of the above.

Inner Covering Option: The optional inner covering, where used, shall consist of an extruded layer of synthetic polymeric material. It shall surround the single core and the laid-up two, three, four or five cores, giving the assembly a practically circular shape.

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



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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

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: 90°C

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

Minimum bending radius

circular copper conductors OD ≤ 25mm : 4 × Overall Diameter

circular copper conductors OD > 25mm: 6 × Overall Diameter

shaped copper conductors: 8 × 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 |
| 4×4 | 2 | 0.7 | 1.8 | 13.1 | 298 |

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

| Conductor Cross-sectional Area | Ref. Method A 2 cables, 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 |
| 4 | 33 | 30 | 40 | 35 | 45 | 40 | 49 | 42 |

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 |
| 4 | 12 | 12 | 10 |



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Rated voltage



BS 7889



Flame Retardancy
BS/EN/IEC 60332-1-2