



Caledonian

FIREGUARD Flame Retardant Power & Control Cables

www.caledonian-cables.com

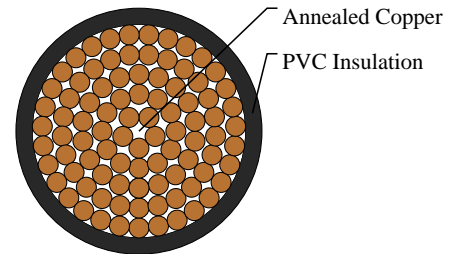
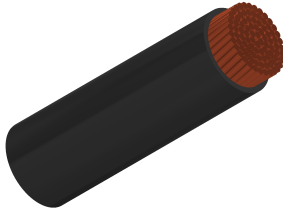
marketing@caledonian-cables.com

450/750V PVC Insulated, Non-sheathed Power Cables (Single Core 90°C)

FGD100 07V2-R 1C800 (CU/PVC 450/750V Class 2)

BS Code:6491XHR

HAR Code:H07V2-R



APPLICATIONS

This 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 CE and TUV approved.

STANDARDS

Basic design to BS EN 50525-2-31(formerly BS 6004:2000)

APPROVALS

CE Certification (N8A 17 07 98200 006)

TUV Certification (B 17 07 98200 007)

FIRE PERFORMANCE

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

VOLTAGE RATING

450/750V

CABLE CONSTRUCTION

Conductor: Class 2 stranded copper conductor to BS EN 60228.

Insulation: PVC Type TI 3 according to BS EN 50363-3.

COLOUR CODE

Black, Blue, Brown, Grey, Orange, Pink, Red, Turquoise, Violet, White, Green and Yellow.

PHYSICAL AND THERMAL PROPERTIES

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

Maximum short circuit temperature (5 Seconds): 160°C

Minimum bending radius:

Up to 8mm²: 4 x overall diameter



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8mm² to 12mm²: 5 x overall diameter

Above 12mm²: 6 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 | Overall Diameter (max.) | Approx. Weight |
|-------------------------------------|-----------------|------------------------------|-------------------------|----------------|
| No. × mm ² | | mm | mm | kg/km |
| 1X800 | 2 | 2.8 | 45.7 | 8610 |

Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4E1A

| 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 F 2 cables, 1-phase a.c. or d.c. flat | Ref. Method F 3 cables, 3-phase a.c. flat | Ref. Method F 3 cables, 3-phase a.c. trefoil | Ref. Method G 2 cables, 1-phase a.c. or d.c. or 3 cables 3-phase a.c. Horizontal | Ref. Method G 2 cables, 1-phase a.c. or d.c. or 3 cables 3-phase a.c. Vertical |
|--------------------------------|--|--|--|--|--|---|---|---|--|--|--|
| mm ² | A | A | A | A | A | A | A | A | A | A | A |
| 800 | -- | -- | -- | -- | 1288 | 1179 | 1358 | 1275 | 1214 | 1581 | 1485 |

Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4E1B

| Conductor Cross-sectional Area | 2 cables d.c. | Ref. Methods A,B 2 cables, 1-phase a.c. | Ref. Methods C,F,G 2 cables, 1-phase a.c. (Cables touching) | Ref. Methods C,F,G 2 cables, 1-phase a.c. (Cables spaced) | Ref. Methods A,B 3 or 4 cables, 3-phase a.c. | Ref. Methods C,F,G 3 or 4 cables, 3-phase a.c. (Cables touching, Trefoil) | Ref. Methods C,F,G 3 or 4 cables, 3-phase a.c. (Cables touching, Flat) | Ref. Methods C,F,G 3 or 4 cables, 3-phase a.c. (Cables spaced, Flat) |
|--------------------------------|---------------|---|---|---|--|---|--|--|
| mm ² | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m |
| 800 | 0.056 | -- | r:0.072 x:0.15 z:0.17 | r:0.064 x:0.24 z:0.25 | -- | r:0.062 x:0.13 z:0.145 | r:0.059 x:0.155 z:0.165 | r:0.055 x:0.23z:0.24 |



Rated voltage



BS EN 50525-3-31



Flame Retardancy
EN 60332-1-2