



# Caledonian

FIREGUARD Flame Retardant Power & Control Cables

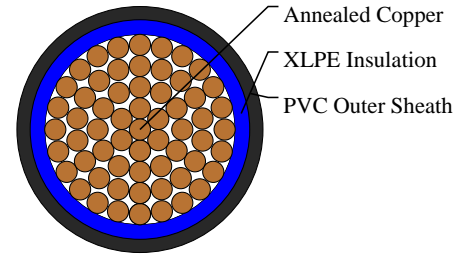
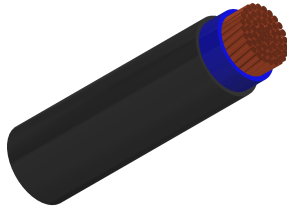
www.caledonian-cables.com

marketing@caledonian-cables.com

## 600/1000V XLPE Insulated, PVC Sheathed, Unarmoured Power Cables to BS 7889 (Single Core)

FGD300 1RV-R 1C500 (CU/XLPE/PVC 600/1000V Class 2)

BS Code: 6181X



### 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. This product type is TUV approved.

### STANDARDS

Basic design to BS 7889:2012

### APPROVALS

TUV Certification (Z1 17 08 98200 008)

### FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire 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.

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 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 or blue



# Caledonian

FIREGUARD Flame Retardant Power & Control Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

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 conductor (OD ≤ 25mm): 4 x Overall Diameter

Circular copper conductor (OD > 25mm): 6 x Overall Diameter

Shaped copper conductor: 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 Sheath Thickness	Nom. Overall Diameter	Approx. Weight
No.×mm <sup>2</sup>		mm	mm	mm	kg/km
1X500	2	2.2	2	38	5063

## 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 <sup>2</sup>	A	A	A	A	A	A	A	A	A	A	A
500	--	--	783	666	990	904	1083	998	946	1253	1169

## 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 <sup>2</sup>	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m
500	0.093	r:0.12 x:0.25 z:0.28	r:0.105 x:0.155 z:0.185	r:0.095 x:0.24 z:0.26	r:0.1 x:0.22 z:0.24	r:0.09 x:0.135 z:0.16	r:0.088 x:0.16 z:0.18	r:0.085 x:0.24 z:0.25



**Caledonian**

**FIREGUARD Flame Retardant Power & Control Cables**

[www.caledonian-cables.com](http://www.caledonian-cables.com)

[marketing@caledonian-cables.com](mailto:marketing@caledonian-cables.com)



Rated voltage



BS 7889



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