



# Caledonian

FIREGUARD Flame Retardant Power & Control Cables

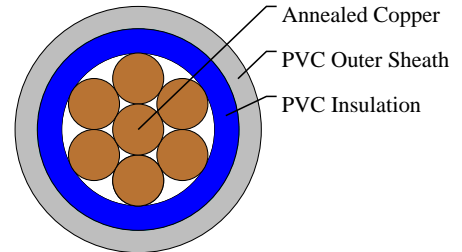
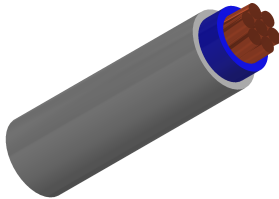
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## 300/500V PVC Insulated,PVC Sheathed Power Cables to BS 6004 (Single Core)

FGD300 05VV-R 1C35(CU/PVC/PVC 300/500V Class 2)

BS Code: 6181Y (CU/PVC/PVC)



### 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 6004: 2012

### APPROVALS

TUV Certification (B 098200 0028 Rev.00)

### FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)	BS EN 60332-1-2
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### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

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

Insulation: PVC Type TI 1 according to BS EN 50363-3.

Outer Sheath: PVC Type 6 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.

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

### PHYSICAL AND THERMAL PROPERTIES



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Maximum temperature range during operation (PVC): 70°C

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

Minimum bending radius:

Up to 10mm<sup>2</sup> - Fixed: 3 x overall diameter

10mm<sup>2</sup> to 25mm<sup>2</sup> - Fixed: 4 x overall diameter

### Electrical Properties

Conductor Operating Temperature: 70°C

Ambient Temperature: 30°C

### DIMENSION AND PARAMETERS

No. of Cores × Cross-sectional Area	Conductor Class	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Diameter (max.)	Approx. Weight
No.×mm <sup>2</sup>		mm	mm	mm	kg/km
1x35	2	1.2	1.1	13.5	440

### Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4D1A

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 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 F Spaced by on cable diameter 2 cables, 1-phase a.c. Horizontal	Ref. Method F Spaced by on cable diameter 2 cables, 1-phase a.c. Vertical
mm <sup>2</sup>	A	A	A	A	A	A	A	A	A	A	A
35	99	89	125	110	141	129	162	143	137	181	162

### Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4D1B

Conductor Cross-sectional Area	2 cables d.c.	Ref. Methods A,B 2 cables, 1-phase a.c.	Ref. Methods C,F 2 cables, 1-phase a.c. (Cables touching)	Ref. Methods C,F 2 cables, 1-phase a.c. (Cables spaced)	Ref. Methods A,B 3 or 4 cables, 3-phase a.c.	Ref. Methods C,F 3 or 4 cables, 3-phase a.c. (Cables touching, Trefoil)	Ref. Methods C,F 3 or 4 cables, 3-phase a.c. (Cables touching, Flat)	Ref. Methods C,F 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
35	1.25	r:1.3 x:0.31 z:1.3	r:1.25 x:0.195 z:1.25	r:1.25 x:0.28 z:1.3	r:1.1 x:0.27 z:1.1	r:1.1 x:0.17 z:1.1	r:1.1 x:0.24 z:1.1	r:1.1 x:0.32 z:1.15



Rated voltage



BS 6004



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