



# Caledonian

## FIREGUARD Flame Retardant Power & Control Cables

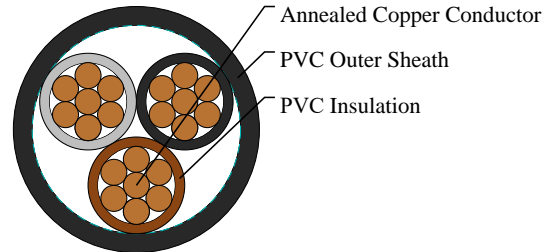
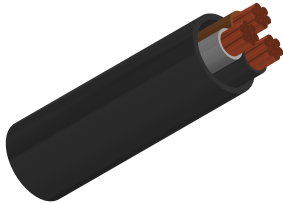
www.caledonian-cables.com

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### 600/1000V PVC Insulated, PVC Sheathed, Unarmoured Power Cables (3 Cores)

FGD400 1VV-R 3C35 (CU/PVC/PVC 600/1000V Class 2)

VDE Code: NYY



### 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 adapted to IEC 60502-1

### FIRE PERFORMANCE

Flame Retardance (Single vertical wire or cable test)	IEC 60332-1
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### VOLTAGE RATING

600/1000V

### CABLE CONSTRUCTION

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

Insulation: PVC/A 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:

Three-core: Brown, black, grey. Alternatively, green-and-yellow, blue, brown

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



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

Maximum short circuit temperature (5 Seconds):

Conductor cross-section ≤300 mm<sup>2</sup>:160°C

Conductor cross-section >300 mm<sup>2</sup>:140°C

Minimum bending radius: 12 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	Nom. Overall Diameter	Approx. Weight
No.×mm <sup>2</sup>		mm	mm	mm	kg/km
3×35	2	1.2	1.8	23.2	1401

### Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4D2A

Conductor Cross-sectional Area	Ref. Method A One 2C cable, 1-phase a.c. or d.c.	Ref. Method A One 3C or 4C cable, 3-phase a.c.	Ref. Method B One 2C cable, 1-phase a.c. or d.c.	Ref. Method B One 3C or 4C cable, 3-phase a.c.	Ref. Method C One 1C cable, 1-phase a.c. or d.c.	Ref. Method C One 3C or 4C cable, 3-phase a.c.	Ref. Method G One 2C cable, 1-phase a.c. or d.c.	Ref. Method G One 3C or 4C cable, 3-phase a.c.
mm <sup>2</sup>	A	A	A	A	A	A	A	A
35	92	83	111	99	138	119	178	126

### Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4D2B

Conductor Cross-sectional Area	2C cable, d.c.	2C cable, 1-phase a.c.	3C or 4C cable, 3-phase a.c.
mm <sup>2</sup>	mV/A/m	mV/A/m	mV/A/m
35	1.25	r:1.25 x:0.165 z:1.25	r:1.1 x:0.145 z:1.1



Rated voltage



Flame Retardancy  
IEC 60332-1



IEC60502-1