



# Caledonian

FIREGUARD Flame Retardant Power & Control Cables

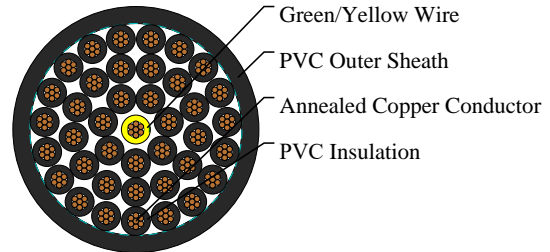
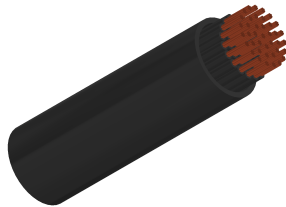
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## 600/1000V PVC Insulated, PVC Sheathed, Unarmoured Power Cables (40 Cores)

FGD400 1VV-R 40C2.5 (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:

Multicores: Black, green-and-yellow

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
40x2.5	2	0.8	2	31.1	1720

### 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
2.5	18.5	17.5	23	20	27	24	30	25

### 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
2.5	18	18	15



Rated voltage



Flame Retardancy  
IEC 60332-1



IEC60502-1