



# Caledonian

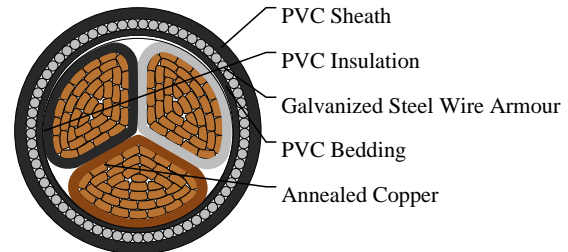
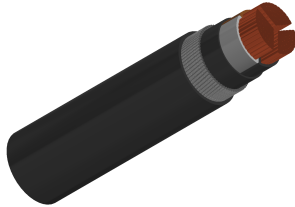
FIREGUARD Flame Retardant Power & Control Cables

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600/1000V PVC Insulated, PVC Sheathed, Armoured Power Cables to BS 6346 (3 Cores)

FGD400 1VVMV-R 3C120 (CU/PVC/PVC/SWA/PVC 600/1000V Class 2)



## APPLICATIONS

The cables are intended for use in fixed installations in industrial areas, buildings and similar applications.

## STANDARDS

Basic design to BS 6346

## FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)	BS EN 50265-2-1
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## VOLTAGE RATING

600/1000V

## CABLE CONSTRUCTION

Conductor: Annealed copper wire,shaped stranded according to BS 6360 class 2.

Insulation: PVC TI 1 according to BS 7655-3.1.

Bedding: Extruded PVC or taped bedding comprising two or more layers of PVC tape or other synthetic tape (for cables having a nominal conductor area of 16mm<sup>2</sup> and above).

Armouring: Galvanized steel wire.

Outer Sheath: PVC TM 1 according to BS 7655-4.1.

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:Brown,greyscale,black

Sheath Colour: Black (other colours upon request)

## PHYSICAL AND THERMAL PROPERTIES

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

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



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Minimum bending radius:

Circular copper conductors: 6 x Overall Diameter

Shaped copper conductors: 8 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 Bedding Thickness	Nominal Sheath Thickness	Nominal Steel Wire Armour Diameter	Approx. Overall Diameter (Extruded Bedding)	Approx. Overall Diameter (Taped Bedding)	Approx. Weight
No. × mm <sup>2</sup>		mm	mm	mm	mm	mm	mm	kg/km
3x120S	2	1.6	1.2	2.2	2	42.2	41.4	4068

### Current-Carrying Capacities (Amp) according to BS 7671: 2008 table 4D4A

Conductor Cross-sectional Area	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 D One 2C cable, 1-phase a.c. or d.c.	Ref. Method D One 3C or 4C cable, 3-phase a.c.	Ref. Method E One 2C cable, 1-phase a.c. or d.c.	Ref. Method E One 3C or 4C cable, 3-phase a.c.
mm <sup>2</sup>	A	A	A	A	A	A
120	310	267	231	192	336	290

### Voltage Drop (Per Amp Per Meter) according to BS 7671: 2008 table 4D4B

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
120	0.36	r:0.38 x:0.155 z:0.41	r:0.33 x:0.135 z:0.35



Rated voltage



BS 6346



Flame Retardancy  
BS EN 50265-2-1