



# Caledonian

FIREGUARD Flame Retardant Power & Control Cables

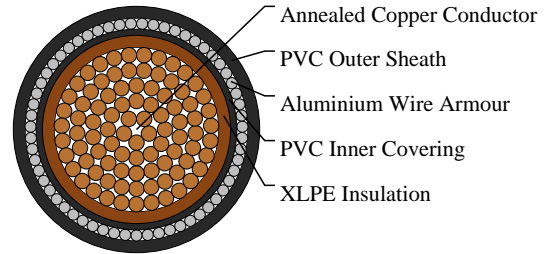
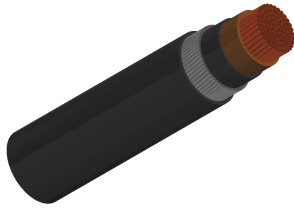
www.caledonian-cables.com

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## 600/1000V XLPE Insulated, PVC Sheathed, Armoured Power Cables to IEC 60502 (Single Core)

FGD300 1RVMAV-R 1C800 (CU/XLPE/PVC/AWA/PVC 600/1000V Class 2)

VDE Code: N2XRY



### 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 IEC 60502-1

### APPROVALS

TUV Certification (Z1 17 01 98200 004)

### FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)	IEC 60332-1
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### VOLTAGE RATING

600/1000V

### CABLE CONSTRUCTION

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

Insulation: XLPE according to IEC 60502-1.

Inner Covering: Extruded PVC or polymeric compound.

Armouring: Aluminium wire

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: Brown or blue, other colours can be offered upon request.

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



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### PHYSICAL AND THERMAL PROPERTIES

Maximum temperature range during operation: 80°C (For ST1 Sheath); 90°C (For ST2 Sheath)

Maximum short circuit temperature (5 Seconds): 250°C

Minimum bending radius:

Circular copper conductors: 6 x Overall Diameter

Shaped copper conductors: 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 Thickness of Inner Covering	Nominal Sheath Thickness	Nominal Aluminum Wire Armour Diameter	Approx. Overall Diameter	Approx. Weight
No. × mm <sup>2</sup>		mm	mm	mm	mm	mm	kg/km
1x800	2	2.6	1.4	2.6	2.5	55.3	11896

### Current-Carrying Capacities (Amp) according to BS 7671: 2008 table 4E3A

Conductor Cross-sectional Area	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, d.c. Horizontal	Ref. Method F Spaced by on cable diameter 2 cables, d.c. Vertical	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	Ref. Method F Spaced by on cable diameter 3/4 cables, 3-phase a.c. Horizontal	Ref. Method F Spaced by on cable diameter 3/4 cables, 3-phase a.c. Vertical
mm <sup>2</sup>	A	A	A	A	A	A	A	A	A	A	A
800	1170	904	1246	987	1119	1809	1744	1204	1155	1042	978

### Voltage Drop (Per Amp Per Meter) according to BS 7671: 2008 table 4E3B

Conductor Cross-sectional Area	2 cables d.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 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
800	0.056	r:0.09 x:0.16 z:0.19	r:0.145 x:0.23 z:0.27	r:0.086 x:0.14 z:0.165	r:0.13 x:0.18 z:0.23	r:0.175 x:0.195 z:0.26



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Rated voltage



Flame Retardant  
IEC 60332-1



IEC60502-1