



# Caledonian

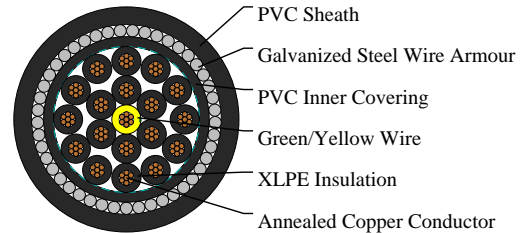
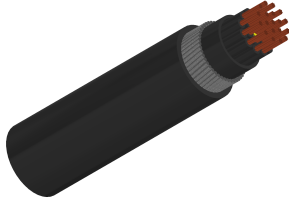
FIREGUARD Flame Retardant Power & Control Cables

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## 600/1000V XLPE Insulated, PVC Sheathed, Armoured Power Cables to IEC 60502 (19 Cores)

FGD400 1RVMV-R 19C1.5 (CU/XLPE/PVC/SWA/PVC 600/1000V Class 2)



### 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 adapted 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: Galvanized steel 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: Black, green-and-yellow

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

### PHYSICAL AND THERMAL PROPERTIES



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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: 12 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 Bedding Thickness	Nominal Sheath Thickness	Nominal Steel Wire Armour Diameter	Nom. Overall Diameter	Approx. Weight
No. × mm <sup>2</sup>		mm	mm	mm	mm	mm	kg/km
19×1.5	2	0.7	1.0	1.8	1.25	23.1	1137

### Current-Carrying Capacities (Amp) according to BS7671:2008 table 4E4A

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
1.5	27	23	25	21	29	25

### Voltage Drop (Per Amp Per Meter) according to BS7671:2008 table 4E4B

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
1.5	31	31	27



Rated voltage



Flame Retardancy  
IEC 60332-1



IEC60502-1