



# Caledonian

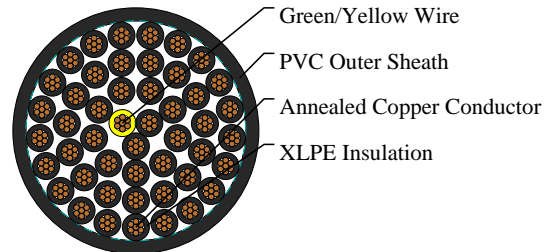
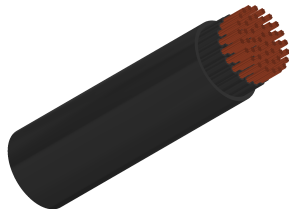
FIREGUARD Flame Retardant Power & Control Cables

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## 600/1000V XLPE Insulated, PVC Sheathed, Unarmoured Power Cables to IEC 60502 (48 Cores)

FGD400 1RV-R 48C4 (CU/XLPE/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 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: XLPE 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.



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

### 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: 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 Sheath Thickness	Nom. Overall Diameter	Approx. Weight
No. × mm <sup>2</sup>		mm	mm	mm	kg/km
48x4	2	0.7	1.9	37.3	2479

### Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4E2A

Conductor Cross-sectional Area	Ref. Method A 2cables, 1-phase a.c. or d.c.	Ref. Method A 3/4 cables, 3-phase a.c.	Ref. Method B 2 cables, 1-phase a.c. or d.c	Ref. Method B 3/4 cables, 3-phase a.c.	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 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	A	A
4	33	30	40	35	45	40	49	42

### Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4E2B

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
4	12	12	10



Rated voltage



Flame Retardancy  
IEC 60332-1



IEC60502-1