Caledonian

FIREGUARD Flame Retardant Power & Control Cables

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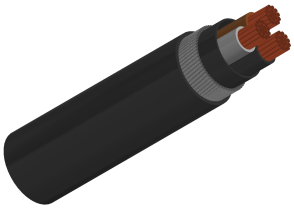
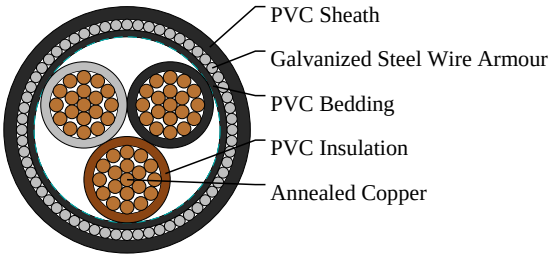
600/1000V PVC Insulated, PVC Sheathed, Armoured Power Cables to IEC 60502(3Cores)

FGD400 1VVMV-R 3C95(CU/PVC/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.

STANDARDS

Basic design to IEC60502

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)	IEC 60332-1-2

VOLTAGE RATING

600/1000V

CABLE CONSTRUCTION

Conductor: Annealed copper wire, stranded according to IEC 60228 class 2.
Insulation: PVC/A 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:Brown,black,grey
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(<=300 mm²); 140°C(>300 mm²)

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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 Thickness of Inner Covering	Nominal Sheath Thickness	Nominal Steel Wire Armour Diameter	Nom. Overall Diameter	Approx. Weight
No.×mm²		mm	mm	mm	mm	mm	kg/km
3x95	2	1.6	1.2	2.3	2	41.6	5245

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.
mm²	A	A	A	A	A	A
95	269	231	204	169	291	251

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.
mm²	mV/A/m	mV/A/m	mV/A/m
95	0.46	r:0.47 x:0.155 z:0.5	r:0.41 x:0.135 z:0.43

Rated voltage


Flame Retardancy
IEC 60332-1-2

IEC60502-1