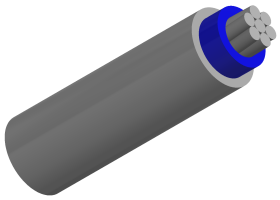
Caledonian

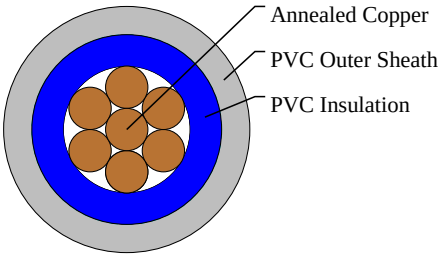
FIREGUARD Flame Retardant Power & Control Cables

www.caledonian-cables.com marketing@caledonian-cables.com

300/500V PVC Insulated,PVC Sheathed Power Cables to BS 6004 (Single Core)

FGD300 05VV-R 1C10(CU/PVC/PVC 300/500V Class 2)
BS Code: 6181Y (CU/PVC/PVC)





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 BS 6004: 2012

APPROVALS

TUV Certification (B 098200 0028 Rev.00)

FIRE PERFORMANCE

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

VOLTAGE RATING

300/500V

CABLE CONSTRUCTION

Conductor: Annealed copper conductor, class 2 according to BS EN 60228.
Insulation: PVC Type TI 1 according to BS EN 50363-3.
Outer Sheath: PVC Type 6 according to BS 7655-4.2.
Outer Sheath Option: UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termiteproperties 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.
Sheath Colour: Grey, other colours can be offered upon request.

PHYSICAL AND THERMAL PROPERTIES

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Maximum temperature range during operation (PVC): 70°C
Maximum short circuit temperature (5 Seconds): 160°C
Minimum bending radius:
Up to 10mm² - Fixed: 3 x overall diameter
10mm² to 25mm² - Fixed: 4 x overall diameter

Electrical Properties

Conductor Operating Temperature: 70°C
Ambient Temperature: 30°Crature

DIMENSION AND PARAMETERS

No. of Cores × Cross-sectional Area	Conductor Class	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Diameter (max.)	Approx. Weight
No.×mm²		mm	mm	mm	kg/km
1x10	2	1	0.9	8.8	160

Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4D1A

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 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, 1-phase a.c. Horizontal	Ref. Method F Spaced by on cable diameter 2 cables, 1-phase a.c. Vertical
mm²	A	A	A	A	A	A	A	A	A	A	A
10	46	42	57	50	65	59	—	—	—	—	—

Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4D1B

Conductor Cross-sectional Area	2 cables d.c.	Ref. Methods A,B 2 cables, 1-phase a.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 A,B 3 or 4 cables, 3-phase a.c.	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)
mm²	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m
10	4.4	4.4	4.4	4.4	3.8	3.8	3.8	3.8

Rated voltage

BS 6004


Flame Retardancy
BS/EN/IEC 60332-1-2