



Caledonian

FIREGUARD Flame Retardant Power & Control Cables

www.caledonian-cables.com

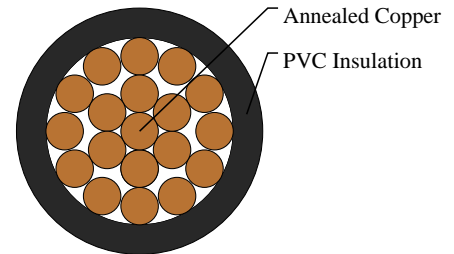
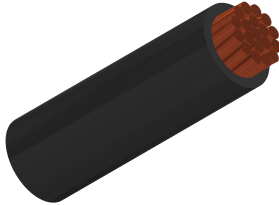
marketing@caledonian-cables.com

450/750V PVC Insulated, Non-sheathed Power Cables (Single Core 90°C)

FGD100 07V2-R 1C50 (CU/PVC 450/750V Class 2)

BS Code:6491XHR

HAR Code:H07V2-R



APPLICATIONS

This 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 CE and TUV approved.

STANDARDS

Basic design to BS EN 50525-2-31(formerly BS 6004:2000)

APPROVALS

CE Certification (N8A 17 07 98200 006)

TUV Certification (B 17 07 98200 007)

FIRE PERFORMANCE

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

VOLTAGE RATING

450/750V

CABLE CONSTRUCTION

Conductor: Class 2 stranded copper conductor to BS EN 60228.

Insulation: PVC Type TI 3 according to BS EN 50363-3.

COLOUR CODE

Black, Blue, Brown, Grey, Orange, Pink, Red, Turquoise, Violet, White, Green and Yellow.

PHYSICAL AND THERMAL PROPERTIES

Maximum temperature range during operation (PVC): 90°C

Maximum short circuit temperature (5 Seconds): 160°C

Minimum bending radius:

Up to 8mm²: 4 x overall diameter



Caledonian

FIREGUARD Flame Retardant Power & Control Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

8mm² to 12mm²: 5 x overall diameter

Above 12mm²: 6 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	Overall Diameter (max.)	Approx. Weight
No. × mm ²		mm	mm	kg/km
1X50	2	1.4	12.8	480

Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4E1A

Conductor Cross-sectional Area	Ref. Method A 2 cables, 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 G 2 cables, 1-phase a.c. or d.c. or 3 cables 3-phase a.c. Horizontal	Ref. Method G 2 cables, 1-phase a.c. or d.c. or 3 cables 3-phase a.c. Vertical
mm ²	A	A	A	A	A	A	A	A	A	A	A
50	158	141	198	175	228	209	242	216	207	275	246

Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4E1B

Conductor Cross-sectional Area	2 cables d.c.	Ref. Methods A, B 2 cables, 1-phase a.c.	Ref. Methods C, F, G 2 cables, 1-phase a.c. (Cables touching)	Ref. Methods C, F, G 2 cables, 1-phase a.c. (Cables spaced)	Ref. Methods A, B 3 or 4 cables, 3-phase a.c.	Ref. Methods C, F, G 3 or 4 cables, 3-phase a.c. (Cables touching, Trefoil)	Ref. Methods C, F, G 3 or 4 cables, 3-phase a.c. (Cables touching, Flat)	Ref. Methods C, F, G 3 or 4 cables, 3-phase a.c. (Cables spaced, Flat)
mm ²	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m
50	0.99	r:1 x:0.29 z:1.05	r:0.99 x:0.18 z:1	r:0.99 x:0.27 z:1	r:0.87 x:0.25 z:0.9	r:0.86 x:0.155 z:0.87	r:0.86 x:0.18 z:0.87	r:0.86 x:0.26 z:0.89



Rated voltage



BS EN 50525-3-31



Flame Retardancy
EN 60332-1-2