



Caledonian

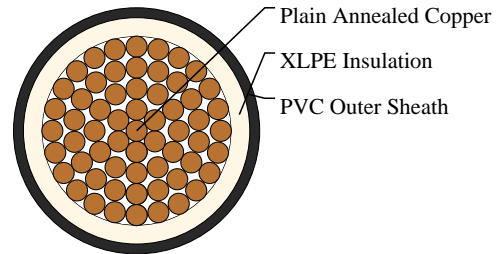
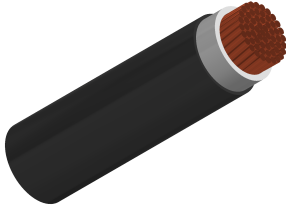
Airport Flame Retardant And Fire Resistant Cables

www.caledonian-cables.com

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600/1000V XLPE Insulated, PVC Sheathed Power Cables (Single Core)

FGD300 1RV-R 1G500 (CU/XLPE/PVC 600/1000V Class 2)



APPLICATIONS

This 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 IEC 60502-1

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test) (Optional)	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1 ; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
Reduced Fire Propagation (Vertically-mounted bundled wires& cable test) (Optional)	EN 60332-3-24 (cat. C); IEC 60332-3-24; BS EN 60332-3-24; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4

VOLTAGE RATING

600/1000V

CABLE CONSTRUCTION

Conductor: Plain annealed copper wire, stranded according to IEC 60228 class 2.

Insulation: Extruded cross-linked XLPE compound.

Outer Sheath: Thermoplastic PVC compound.

COLOUR CODE

Insulation Colour: Natural

Sheath Colour: Black (other colors upon request)

PHYSICAL AND THERMAL PROPERTIES

Temperature Range During Operation: -40°C ~ 70°C

Temperature Range during Installation : -5°C ~ 50°C



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Minimum Bending Radius : 6 x OD

Electrical Properties

Dielectric Test: 3500 V r.m.s. x 5' (core / core)

Insulation Resistance: 500 MΩ x km (at 20°C)

Short circuit Temperature : 250°C (up to 5 secs)

Conductor Operating Temperature : 90°C

Ambient Temperature : 30°C

DIMENSION AND PARAMETERS

Caledonian Cable Code	No. of Cores × Cross-sectional Area	No./Nominal Diameter of Strands	Nominal Insulation Thickness	Nom. Overall Diameter	Approx. Weight
	No. × mm ²	no./mm	mm	mm	kg/km
FGD300 1RV-R 1G500	1x500	61/3.20	2.2	37.6	5175

Current-Carrying Capacities (Amp)

Conductor Cross-sectional Area	Ref. Method 3 2cables, 1-phase a.c. or d.c.	Ref. Method 3 3/4 cables, 3-phase a.c.	Ref. Method 1 2 cables, 1-phase a.c. or d.c. flat and touching	Ref. Method 1 3/4 cables, 3-phase a.c. flat and touching or trefoil	Ref. Method 1 1 2 cables, 1-phase a.c. or d.c. flat and touching	Ref. Method 1 1 3/4 cables, 3-phase a.c. flat and touching or trefoil	Ref. Method 1 2 2 cables, 1-phase a.c. or d.c. or 3 cables 3-phase Horizontal	Ref. Method 1 2 2 cables, 1-phase a.c. or d.c. or 3 cables 3-phase Vertical	Ref. Method 1 2 3 cables trefoil, 3-phase a.c.
mm ²	A	A	A	A	A	A	A	A	A
500	783	666	990	904	1044	973	1128	1150	936

Voltage Drop (Per Amp Per Meter)

Nominal Cross sectional Area	2 cables d.c.	Ref. Methods 3,4 2 cables, 1-phase a.c.	Ref. Methods 1,11 2 cables, 1-phase a.c.	Ref. Methods 3,4 3 or 4 cables, 3-phase a.c.	Ref. Methods 1,11,12 3 or 4 cables, 3-phase a.c. (in trefoil)	Ref. Methods 1,11 3 or 4 cables, 3-phase a.c. (Flat and touching)
mm ²	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m
500	0.093	r:0.12 x:0.25 z:0.28	r:0.105 x:0.155 z:0.185	r:0.1 x:0.22 z:0.24	r:0.09 x:0.135 z:0.16	r:0.088 x:0.16 z:0.18



Rated voltage



Flame Retardant
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2.1



IEC60502-1



Reduced Fire Propagation
NF C32-070-2.2(C1)
IEC60332-3-24/EN50266-2.4