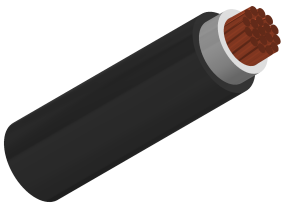
Caledonian

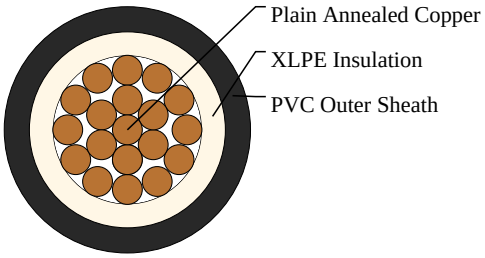
Airport Flame Retardant And Fire Resistant Cables

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

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

FGD300 1RV-R 1G50 (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.×mm²	no./mm	mm	mm	kg/km
FGD300 1RV-R 1G50	1x50	19/1.78	1	14	569

Current-Carrying Capacities (Amp)

Conductor Cross-sectional Area	Ref. Method 4 2cables, 1-phase a.c. or d.c.	Ref. Method 4 3/4 cables, 3-phase a.c.	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 11 2 cables, 1-phase a.c. or d.c. flat and touching	Ref. Method 11 3/4 cables, 3-phase a.c. flat and touching or trefoil	Ref. Method 12 2 cables, 1-phase a.c. or d.c. or 3 cables 3-phase Horizontal	Ref. Method 12 2 cables, 1-phase a.c. or d.c. or 3 cables 3-phase Vertical	Ref. Method 12 3 cables trefoil, 3-phase a.c.
mm²	A	A	A	A	A	A	A	A	A	A	A
50	149	135	189	168	228	209	293	215	274	246	209

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)
mm²	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:0.87 x:0.25 z:0.9	r:0.86 x:0.155 z:0.87	r:0.86 x:0.18 z:0.87

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