

# Caledonian

Industrial Cables (Australian Standard Medium Voltage) www.caledonian-cables.com marketing@caledonian-cables.com

## 12.7/22kV Single Core Screened & PVC Sheathed (Al Conductor) Heavy Duty 1C70



PVC/LSOH outer sheath Plain annealed copper metallic screen XLPE/EPR insulation Extruded semi-conducting insulation screen Extruded semi-conducting conductor screen Plain circular compacted aluminium conductor

#### **APPLICATIONS**

These cables are designed to be used for the supply of electrical energy in fixed applications up to the rated voltages at a nominal power frequency between 49Hz and 61Hz., they are suitable for use in distribution installation, electrical power station, they are applied for installation, outdoors, underground where subject to mechanical damage.

#### STANDARDS

AS/NZS 1429.1

#### VOLTAGE RATING

12.7/22kV

#### CABLE CONSTRUCTION

CONDUCTOR: Plain circular compacted aluminium to AS/NZS1125

Maximum Continuous Operating Temperature: 90°C

CONDUCTOR SCREEN: Extruded semi-conducting compound, bonded to the insulation and applied in the same operation as the insulation

INSULATION: Cross Linked Polyethylene (XLPE) - standard

Ethylene Propylene Rubber (EPR) – alternative

INSULATION SCREEN: Extruded semi-conducting compound

METALLIC SCREEN: Plain annealed copper wire: 10kA for nominal 1 second(HEAVY DUTY)

SHEATH: Black 5V-90 polyvinyl chloride (PVC) - standard

Orange 5V-90 PVC inner plus black high density polyethylene (HDPE) outer – alternative Low smoke zero halogen (LSOH) – alternative

#### **TECHNICAL CHARACTERISTICS**

NonMa	x.Conduc	Cond.	Cond.	Inductive	Inductive	Inductive	nsulatio	Conducto	Max.	Current	Current	Current
Cross-	DC	AC	AC I	eactance	eactance	eactand	Resistanc	to o	liaelectri	Ratings	Ratings	Ratings
SectiorR	lesistan <del>B</del>	lesistan <del>b</del>	Resistanc	@50Hz	@50Hz	@50Hz	@20°C	screen	stress(L	Inenclose	(Buried	(Buried
Area	@20°C	@50Hz	@50Hz	and	and	and	Ca	apacitanc		In Air)	Direct)	In
		and	and	90°C	90°C	90°C						Ducts)
		90°C	90°C	(Trefoil	(flat	(flat						
		(Trefoil	(flat	touching)	touching)	spaced)						
			spaced)									



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		or Flat touching)										
mm²	Ohm/ km	Ohm/ km	Ohm/ km	Ohm/ km	Ohm/ km	Ohm/M km	egOhm.k	μF × km	kV × mm	A	A	A
70	0.443	0.568	0.568	0.14	0.155	0.201	13000	0.192	3.3	235	204	177

## DIMENSION AND PARAMETERS

Nominal Cross- sectional Area	Conductor Diameter	Nominal Insulation Thickness	Nominal Diameter over Insulation	Screen Area on Each core	No. Diamter of Screened Wires	Nom. Diameter Over Screened Wires	Nom. Overall Diameter	Approx. Weight
mm²	mm	mm	mm	mm²	no x mm	mm	mm	kg/km
70	9.6	5.5	21.9	45.8	32x1.35	26.2	30.5	120