

## Caledonian

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

### 6.35/11kV Single Core Screened & PVC Sheathed (Cu Conductor) Heavy Duty 1C630





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 copper 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

6.35/11kV

#### CABLE CONSTRUCTION

CONDUCTOR: Plain circular compacted copper 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 | lesistanB | 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        | apacitano |            | 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<br>touching) |            |            |            |             |         |            |            |      |     |     |
|-----|------------|----------------------|------------|------------|------------|-------------|---------|------------|------------|------|-----|-----|
| mm² | Ohm/<br>km | Ohm/<br>km           | Ohm/<br>km | Ohm/<br>km | Ohm/<br>km | Ohm/M<br>km | egOhm.k | μF ×<br>km | kV ×<br>mm | A    | A   | A   |
| 630 | 0.0283     | 0.0412               | 0.0389     | 0.0953     | 0.111      | 0.156       | 3500    | 0.694      | 2.02       | 1072 | 777 | 681 |

### DIMENSION AND PARAMETERS

| Nominal<br>Cross-<br>sectional<br>Area | Conductor<br>Diameter | Nominal<br>Insulation<br>Thickness | Nominal<br>Diameter<br>over<br>Insulation | Screen<br>Area on<br>Each core | No.<br>Diamter of<br>Screened<br>Wires | Nom.<br>Diameter<br>Over<br>Screened<br>Wires | Nom.<br>Overall<br>Diameter | Approx.<br>Weight |
|--|-----------------------|------------------------------------|---|--------------------------------|--|---|-----------------------------|-------------------|
| mm²                                    | mm                    | mm                                 | mm  | mm²                            | no x mm                                | mm  | mm                          | kg/km             |
| 630                                    | 29.9                  | 3.4                                | 38.4                                      | 69                             | 48x1.35                                | 42.9  | 48.7                        | 730               |