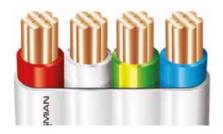




## FLAT POWER CABLES 450/750 V

## FLAT PVC 3C+E



## Cable description

PVC insulated laid flat and PVC sheathed cable to AS/NZS 5000.2.

### **Application**

For general wiring, unenclosed, enclosed in conduit, for domestic, commercial and industrial installations where not subject to mechanical damage.

#### **Approvals**

AS/NZS 5000.2

# Behaviour in flame and fire

Flame retardant

### Temperature range

Normal operating temperature: +90°C Minimum operating temperature: 0°C

## Flexibility

Semi-rigid

#### Resistance to

Chemical exposure: Occasional Mechanical impact: Light

Water exposure: Occasional condensation

Solar radiation and

weather exposure: Occasional

## Cable design

## Conductor:

Plain annealed copper conductor to AS/NZS 1125 Can also be operated at temperatures up to 90 °C when not exposed to mechanical deformation (see AS/NZS 3008.1)

## Insulation:

V-90 PVC

Colours: Red, White, Blue, Green/Yellow

#### Sheath:

3V-90 PVC Colour: White

#### Installation conditions

In free air In conduit

In ground with protection

In duct

External building with protection





## Physical & electrical characteristics

## 3C+E FLAT PVC

|                 | Conductor                |   |                           | Cable                                    |                     |               |               |               |                 | Mim                   |
|-----------------|--------------------------|---|---------------------------|--|---------------------|---------------|---------------|---------------|-----------------|-----------------------|
| Product<br>code | Nominal<br>C.S.A.<br>mm² | Number and<br>diameter<br>of wires<br>No/mm | Nominal<br>diameter<br>mm | Nominal<br>insulation<br>thickness<br>mm | Overall diameter mm |               |               |               |                 | Min.<br>installed     |
|                 |                          |   |                           |  | Minimum             |               | Maximum       |               | Approx.<br>mass | bending<br>radius (a) |
|                 |                          |   |                           |  | Major<br>axis       | Minor<br>axis | Major<br>axis | Minor<br>axis | kg/100 m        | mm                    |
| 1.0S3CEF        | 1.0*                     | 1/1.13                                      | 1.13                      | 0.6                                      | 11.4                | 4.5           | 11.7          | 4.6           | 10              | 20                    |
| 1.53CEF         | 1.5                      | 7/0.50                                      | 1.5                       | 0.6                                      | 12.4                | 4.5           | 12.8          | 4.6           | 12              | 20                    |
| 2.53CEF         | 2.5                      | 7/0.67                                      | 2.0                       | 0.7                                      | 15.4                | 5.4           | 15.8          | 5.5           | 19              | 20                    |
| 43CEF           | 4                        | 7/0.85                                      | 2.6                       | 0.8                                      | 17.9                | 6.3           | 18.3          | 6.5           | 26              | 25                    |
| 63CEF           | 6                        | 7/1.04                                      | 3.1                       | 0.8                                      | 19.5                | 6.9           | 20.1          | 7.1           | 33              | 30                    |
| 103CEF          | 10                       | 7/1.35                                      | 4.1                       | 1.0                                      | 24.9                | 8.4           | 25.8          | 8.8           | 52              | 35                    |
| 163CEF          | 16                       | 7/1.70                                      | 5.1                       | 1.0                                      | 28.8                | 9.7           | 29.7          | 10.0          | 75              | 40                    |
|                 |                          |   |                           |  |                     |               |               |               |                 |                       |

(a) Bent in the direction of the minor axis.

| Conductor              |                           | Current rating (b)    | Electrical characteristics  |  |                            |
|------------------------|---------------------------|-----------------------|-----------------------------|--|----------------------------|
| nominal<br>area<br>mm² | Unenclosed<br>spaced<br>A | Buried<br>direct<br>A | Underground<br>in duct<br>A | Maximum D.C.<br>resistance at 20°C<br>Ω/km | Reactance per core<br>Ω/km |
| 1.0*                   | 13                        | 14                    | 14                          | 18.1                                       | 0.184                      |
| 1.5                    | 17                        | 18                    | 18                          | 13.6                                       | 0.172                      |
| 2.5                    | 22                        | 25                    | 25                          | 7.41                                       | 0.159                      |
| 4                      | 30                        | 33                    | 33                          | 4.61                                       | 0.152                      |
| 6                      | 38                        | 42                    | 42                          | 3.08                                       | 0.143                      |
| 10                     | 54                        | 55                    | 55                          | 1.83                                       | 0.134                      |
| 16                     | 71                        | 96                    | 73                          | 1.15                                       | 0.126                      |
|                        |                           |                       |                             |  |                            |

(b) Based on 75 °C conductor temperature, 40 °C ambient air temperature and where applicable, burial depth of 0.5 m, soil temperature of 25 °C and soil thermal resistivity of 1.2 °C.m/W. Refer to AS/NZS 3008.1 for other installation conditions. \* Single wire conductor.

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