

**FLAT POWER CABLES 450/750 V**

**FLAT PVC TWIN ACTIVE**



**Cable description**

PVC insulated laid flat and 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

Sheath:

3V-90 PVC

Colour: White

**Installation conditions**

In free air

In conduit

In ground with protection

External building

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**Physical & electrical characteristics**

**TWIN ACTIVE FLAT PVC**

| Product code | Insulation Colours | Conductor                      |                                    |                     |                                 | Cable               |     |         |      |                       | Min. installed bending radius (a) mm |
|--------------|--------------------|--------------------------------|------------------------------------|---------------------|---------------------------------|---------------------|-----|---------|------|-----------------------|--------------------------------------|
|              |                    | Nominal C.S.A. mm <sup>2</sup> | Number and diameter of wires No/mm | Nominal diameter mm | Nominal insulation thickness mm | Overall diameter mm |     |         |      | Approx. mass kg/100 m |                                      |
|              |                    |                                |                                    |                     |                                 | Minimum             |     | Maximum |      |                       |                                      |
| Major axis   | Minor axis         | Major axis                     | Minor axis                         |                     |                                 |                     |     |         |      |                       |                                      |
| 1.0STAWH     | Red, White         | 1.0*                           | 1/1.13                             | 1.13                | 0.6                             | 6.4                 | 4.2 | 6.6     | 4.3  | 5.2                   | 15                                   |
| 1.5TAWH      | Red, White         | 1.5                            | 7/0.50                             | 1.5                 | 0.6                             | 7.1                 | 4.5 | 7.3     | 4.6  | 6.4                   | 20                                   |
| 2.5TAWH      | Red, White         | 2.5                            | 7/0.67                             | 2.0                 | 0.7                             | 8.7                 | 5.4 | 8.9     | 5.5  | 10                    | 20                                   |
| 4TAWH        | Red, White         | 4                              | 7/0.85                             | 2.6                 | 0.8                             | 10.4                | 6.3 | 10.7    | 6.5  | 15                    | 25                                   |
| 6TAWH        | Red, White         | 6                              | 7/1.04                             | 3.1                 | 0.8                             | 11.5                | 6.9 | 11.9    | 7.1  | 20                    | 30                                   |
| 10TAWH       | Red, White         | 10                             | 7/1.35                             | 4.1                 | 1                               | 14.2                | 8.4 | 15.0    | 8.8  | 31                    | 35                                   |
| 16TAWH       | Red, White         | 16                             | 7/1.70                             | 5.1                 | 1                               | 16.7                | 9.7 | 17.3    | 10.0 | 45                    | 40                                   |

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

| Conductor nominal C.S.A. mm <sup>2</sup> | Current rating (b)  |                 |                       | Electrical characteristics           |                         |
|--|---------------------|-----------------|-----------------------|--------------------------------------|-------------------------|
|  | Unenclosed spaced A | Buried direct A | Underground in duct A | Maximum D.C. resistance at 20°C Ω/km | Reactance per core Ω/km |
| 1.0*                                     | 16                  | 17              | 17                    | 18.1                                 | 0.119                   |
| 1.5                                      | 20                  | 21              | 21                    | 13.6                                 | 0.111                   |
| 2.5                                      | 26                  | 30              | 30                    | 7.41                                 | 0.102                   |
| 4  | 35                  | 39              | 39                    | 4.61                                 | 0.102                   |
| 6  | 45                  | 50              | 50                    | 3.08                                 | 0.0967                  |
| 10                                       | 63                  | 66              | 66                    | 1.83                                 | 0.0906                  |
| 16                                       | 83                  | 114             | 86                    | 1.15                                 | 0.0861                  |

(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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