



Images not to scale. Follow table for dimensions

APPLICATION

POLY CAB halogen free, reduced fire hazard, two single cores twisted cable with cross linked insulation is designed to use for Photovoltaic installation at the Direct current side. These cables are suitable for permanent outdoor use under variable climatic condition.

CHARACTERISTICS

Voltage Rating

Nominal Voltage: 1500 V DC between conductors as well as conductor and earth. Max permitted voltage: 1800 V

Operation Temperature

Fixed: -20°C to +90°C

Maximum conductor temperature: +90°C

CONSTRUCTION

- Conductor: Aluminium conductor as per IEC 60228, class 2 / AS-NZS 5000.1
- Insulation: cross linked halogen free flame retardant material, Colour: Black
- Sheath: Reduced Fire Hazard Material

Core Identification

Black & Black with red Strip

Bending Radius

For fixed installation - > 15D

For occasional moved - > 25D

Test Voltage

6.5kV AC 50Hz

OUTSTANDING FEATURES

- Halogen free
- Cross-linked
- High life
- UV, Ozone resistant
- Hydrolysis resistant

STANDARD FOLLOWS

IEC 60228
AS/NZS 5000.1
AS/NZS 3808
EN 50618

COMPLIANCE

| | |
|---|-------------|
| Surface Resistance of Sheath : | EN 50618 |
| Long term resistance of insulation : | EN 50618 |
| Environmental stress crack resistance : | AS/NZS 3808 |
| Carbon black content & dispersion : | AS/NZS 3808 |

OUR ACCREDITATIONS



POLY CAB SOLAR AS NZS 5000 RFH – TWISTED

Photovoltaic Power Cable, Halogen Free, Reduced Fire Hazard

POLY CAB
IDEAS. CONNECTED.

DIMENSIONS AND WEIGHTS:

| No. of Cores | Core Cross sectional Area | Nominal insulation thickness | Nominal Sheath thickness | Approx. Overall Diameter | Weight (Approx.) |
|--------------|---------------------------|------------------------------|--------------------------|--------------------------|------------------|
| No. | mm ² | mm | mm | mm | Kg/Km |
| 2 | 120 | 1.2 | 1.5 | 18.7 x 37.4 | 910 |
| 2 | 150 | 1.4 | 1.6 | 20.8 x 41.6 | 1140 |
| 2 | 185 | 1.6 | 1.6 | 22.8 x 45.6 | 1380 |
| 2 | 240 | 1.7 | 1.7 | 25.7 x 51.4 | 1770 |
| 2 | 300 | 1.8 | 1.8 | 28.3 x 56.6 | 2170 |
| 2 | 400 | 2.0 | 1.9 | 32.1 x 64.2 | 2835 |
| 2 | 500 | 2.2 | 2.0 | 35.6 x 71.2 | 3515 |
| 2 | 630 | 2.4 | 2.2 | 40.7 x 81.4 | 4540 |

ELECTRICAL CHARACTERISTICS:

| No. of Cores | Core Cross sectional Area | Max. DC Resistance at 20°C | Max. AC Resistance at 90°C | Approx. Cable Capacitance | Approx. Cable Reactance | Impedance of Cable at 90°C | Current Rating capacity | | |
|--------------|---------------------------|----------------------------|----------------------------|---------------------------|-------------------------|----------------------------|---|--------------------------------------|---------------------------------|
| | | | | | | | Two cables touching in air unenclosed spaced from surface | Two cable touching in air on surface | Two cable touching in enclosure |
| No. | mm ² | Ω/km | Ω/km | mfd/km | Ohm/km | Ohm/km | Amp. | Amp. | Amp. |
| 2 | 120 | 0.253 | 0.325 | 0.81 | 0.0982 | 0.339 | 305 | 253 | 252 |
| 2 | 150 | 0.206 | 0.265 | 0.77 | 0.0965 | 0.282 | 350 | 291 | 283 |
| 2 | 185 | 0.164 | 0.212 | 0.75 | 0.0945 | 0.231 | 406 | 340 | 329 |
| 2 | 240 | 0.125 | 0.162 | 0.81 | 0.0918 | 0.186 | 485 | 408 | 388 |
| 2 | 300 | 0.100 | 0.130 | 0.85 | 0.089 | 0.158 | 562 | 473 | 440 |
| 2 | 400 | 0.0778 | 0.103 | 0.87 | 0.089 | 0.135 | 660 | 559 | 516 |
| 2 | 500 | 0.0605 | 0.0813 | 0.9 | 0.0869 | 0.118 | 772 | 656 | 590 |
| 2 | 630 | 0.0469 | 0.0649 | 0.92 | 0.0853 | 0.107 | 904 | 772 | 695 |

*: Current Ratings are based on AS/NZS 3008 std, Continuous Conductor Temperature at 90°C & Ambient temperature at 40°C in Air.

De-Rating Factor

Current rating de-rating factors for other than 40°C ambient temperature.

| | | | | | | | | | | | | | | |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Ambient Temperature | 15 | 20 | 25 | 30 | 35 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
| De-rating Factors | 1.26 | 1.20 | 1.15 | 1.10 | 1.05 | 0.94 | 0.88 | 0.81 | 0.73 | 0.65 | 0.57 | 0.47 | 0.34 | 0.19 |