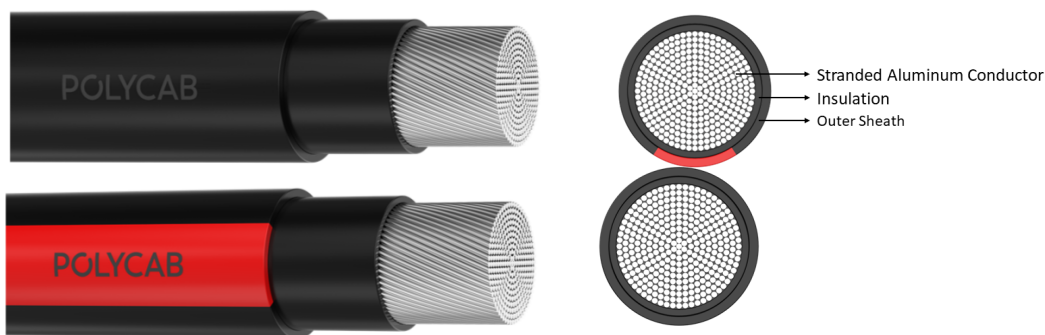


# POLYCAB SOLAR AS NZS 5000 PVC

## Photovoltaic Power Cable, Flame Retardant



Images not to scale. Follow table for dimensions

### APPLICATION

POLYCAB low smoke, flame retardant, single core 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: Polyvinyl Chloride

#### Core Identification

Black & Black with red Strip

#### Bending Radius

For fixed installation - > 15D

For occasional moved - > 18D

#### Test Voltage

6.5kV AC 50Hz

### OUTSTANDING FEATURES

- Flame Retardant
- High life
- UV, Ozone resistant
- Hydrolysis resistant

### STANDARD FOLLOWS

IEC 60228

AS/NZS 5000.1

AS/NZS 3808

EN 50618

### COMPLIANCE

Flame Retardant : EN 60332-1

UV resistance : ASTM G-154

### OUR ACCREDITATIONS



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### DIMENSIONS AND WEIGHTS:

No. of Cores	Core Cross sectional Area	Nominal insulation thickness	Nominal Sheath thickness	Approx. Overall Diameter	Weight (Approx.)
No.	mm <sup>2</sup>	mm	mm	Mm	Kg/Km
1	120	1.2	1.5	18.7	505
1	150	1.4	1.6	20.8	620
1	185	1.6	1.6	22.8	750
1	240	1.7	1.7	25.7	960
1	300	1.8	1.8	28.3	1170
1	400	2.0	1.9	32.0	1520
1	500	2.2	2.0	35.6	1870
1	630	2.4	2.2	40.7	2420

### 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		
No.	mm <sup>2</sup>	Ω/km	Ω/km	mfd/km	Ohm/km	Ohm/km	Two cables touching in air unenclosed spaced from surface Amp.	Two cable touching in air on surface Amp.	Two cable touching in enclosure Underground Amp.
1	120	0.253	0.325	0.81	0.0982	0.339	305	253	252
1	150	0.206	0.265	0.77	0.0965	0.282	350	291	283
1	185	0.164	0.212	0.75	0.0945	0.231	406	340	329
1	240	0.125	0.162	0.81	0.0918	0.186	485	408	388
1	300	0.100	0.130	0.85	0.089	0.158	562	473	440
1	400	0.0778	0.103	0.87	0.089	0.135	660	559	516
1	500	0.0605	0.0813	0.9	0.0869	0.118	772	656	590
1	630	0.0469	0.0649	0.92	0.0853	0.107	904	772	695

\*: Current Ratings are based on AS/NZS 3008 std, Max. 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