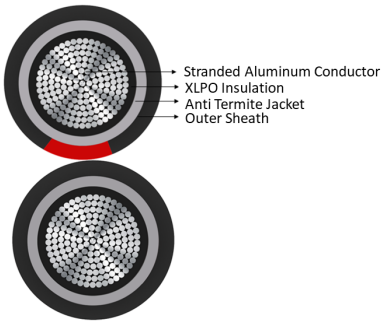
POLYCAB SOLAR AS NZS 5000 RFH – TWIST ANTI TERMITE

Photovoltaic Power Cable, Halogen Free, Reduced Fire Hazard



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB 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: -40°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
- Anti Termite Jacket: Polyamide (Nylon), 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
- Termite 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

NABL

NOTES

Optional: HDPE sheath is available on request.

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DIMENSIONS AND WEIGHTS:

No. of Cores	Core Cross sectional Area	Nominal insulation thickness	Min. Nylon Jacket thickness	Nominal Sheath thickness	Approx. Overall Diameter	Weight (Approx.)
No.	mm^2	mm	mm	mm	mm	Kg/Km
2	120	1.2	0.2	1.5	20.3 x 40.6	1010
2	150	1.4	0.2	1.6	22.4 x 44.8	1250
2	185	1.6	0.2	1.6	24.4 x 48.8	1510
2	240	1.7	0.2	1.7	27.3 x 54.6	1900
2	300	1.8	0.2	1.8	29.9 x 59.8	2315
2	400	2.0	0.2	1.9	33.7 x 67.4	3010
2	500	2.2	0.2	2.0	37.2 x 74.4	3695
2	630	2.4	0.2	2.2	42.3 x 84.6	4750

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 Underground
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, Max. Conductor Temperature at 90°C, Ambient temperature at 40°C in Air, Ambient temperature at 25°C in Ground, Soil thermal resistivity 1.2 k.m/W, Depth of Laying 0.5m.

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De-Rating Factor

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

Ambient air Temperature	15	20	25	30	35	45	50	55	60	65	70	75	80	85
De-rating Dactors	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

Current rating de-rating factors for other than 25°C ground temperature

Ambient air Temperature	10	15	20	30	35	40
Ambient air Temperature	1.11	1.07	1.03	0.97	0.93	0.89

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