

SOLAR DC CABLE · SINGLE CORE · ALUMINIUM · EB XLPO INSULATED & SHEATHED · POLYAMIDE ANTI-TERMITE JACKET · HALOGEN FREE

INDOCABLES SOLAR AS/NZS 5000 XLPO — ANTI TERMITE

PHOTOVOLTAIC POWER CABLE, HALOGEN FREE, FLAME RETARDANT — AS/NZS 5000.1

INDO CABLES ITEM CODE

IC-S0-01-«SIZE»-AL-E2X-A2XH-1500-ASNZS5000P1-ATR-UV-ZHFR

Size field = sq.mm × 100

Per-size item codes in the ordering table

DERIVED — NOT YET IN REGISTER

The Product Code Master holds the solar line only as tinned copper XLPO to EN 50618, in sizes up to 240 sq.mm. These codes are derived from the register's own code structure using conductor AL, insulation E2X, designation A2XH, voltage 1500 and options ATR, UV and ZHFR — all registered values. Standard ASNZS5000P1 is not yet in tab 5 and must be typed there. Item IDs and ACTIVE status must be issued by the code steward before quoting or sale.

APPLICATION

INDOCABLES low smoke, halogen free, single core cable with electron beam cross linked insulation and sheath is designed to use for Photovoltaic installation at the Direct current side. These cables are suitable for permanent outdoor use under variable climatic condition.



Figure 2 — Single core cable stripped back through sheath, nylon jacket and insulation. Core identification black and black with red strip.

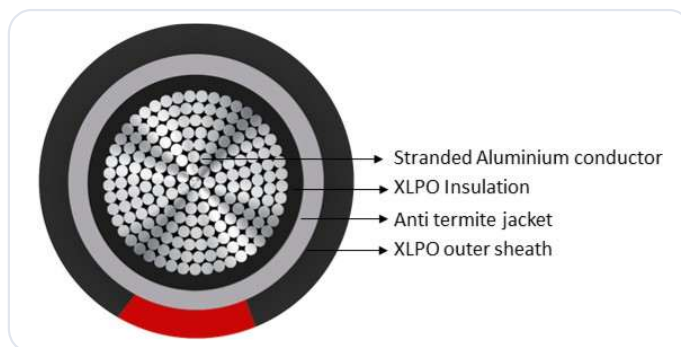


Figure 1 — Cross section: stranded aluminium conductor, XLPO insulation, anti termite jacket, XLPO outer sheath.

Images not to scale. Follow table for dimensions

CHARACTERISTICS

CONSTRUCTION

INDO CABLES

91807833289

91808810785

91701105815

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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 +120 °C

Maximum conductor temperature: +120 °C

BENDING RADIUS

For fixed installation: > 15 D

For occasional moved: > 25 D

TEST VOLTAGE

6.5 kV AC 50 Hz

CONDUCTOR

Aluminium conductor as per IEC 60228, class 2 / AS-NZS 5000.1

INSULATION

E-Beam cross linked halogen free and flame-retardant compound (XLPO). Colour: Black

ANTI TERMITE JACKET

Polyamide (Nylon). Colour: Black

SHEATH

E-Beam cross linked halogen free and flame-retardant compound (XLPO)

CORE IDENTIFICATION

Black & Black with red Strip

OUTSTANDING FEATURES


Halogen free



Electron beam cross-linked



Flame retardant



High life



UV, ozone resistant



Hydrolysis resistant



High temperature resistant



Termite resistant

STANDARD FOLLOWS

IEC 60228

AS/NZS 5000.1

AS/NZS 3808

EN 50618

IEC 60332-1-2

UL 4703

IEC 62930

COMPLIANCE

Fire Performance

EN 60332-1

Smoke Emission

IEC 61034 / EN 50268-2

Halogen free material

EN 50267-2-1 / IEC 60754-2

Toxicity

EN 50305

Resistance to ozone

EN 50396

Weathering / UV

HD 605/A1 or DIN 53667

Life Expectancy

IEC 60216

DIMENSIONS AND WEIGHTS

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NO. OF CORES × CORE CROSS SECTIONAL AREA No. × mm ²	NOMINAL INSULATION THICKNESS mm	MIN. NYLON JACKET THICKNESS mm	NOMINAL SHEATH THICKNESS mm	APPROX. OVERALL DIAMETER mm	WEIGHT (APPROX.) kg/km
1 × 120	1.2	0.2	1.5	20.3	580
1 × 150	1.4	0.2	1.6	22.4	710
1 × 185	1.6	0.2	1.6	24.4	850
1 × 240	1.7	0.2	1.7	27.3	1080
1 × 300	1.8	0.2	1.8	29.9	1310
1 × 400	2.0	0.2	1.9	33.7	1690
1 × 500	2.2	0.2	2.0	37.2	2080
1 × 630	2.4	0.2	2.2	42.3	2720

ELECTRICAL CHARACTERISTICS

NO. OF CORES × SIZE No. × mm ²	MAX. DC RESISTANCE AT 20 °C Ω/km	MAX. AC RESISTANCE AT 90 °C Ω/km	APPROX. CABLE CAPACITANCE mfd/km	APPROX. CABLE REACTANCE Ωm/km	IMPEDANCE OF CABLE AT 90 °C Ωm/km	CURRENT RATING CAPACITY Amp.		
						Two cables touching in air unenclosed, spaced from surface	Two cable touching in air on surface	Two cable touching in enclosure, underground
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

DE-RATING FACTOR

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 0.5 m.

AMBIENT AIR TEMPERATURE OTHER THAN 40 °C

INDO CABLES

91807833289

91808810735

917011005815

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TEMPERATURE °C	15	20	25	30	35	45	50	55	60	65	70	75	80	85
FACTOR	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

GROUND TEMPERATURE OTHER THAN 25 °C

TEMPERATURE °C	10	15	20	30	35	40
FACTOR	1.11	1.07	1.03	0.97	0.93	0.89

ORDERING — INDO CABLES PRODUCT CODES

Single core, aluminium, electron beam cross-linked halogen free flame retardant XLPO insulated, polyamide anti-termite jacketed, XLPO sheathed, unarmoured, 1.5 kV DC, to AS/NZS 5000.1. Codes below are derived from the register's code structure — line S0, cores 01, conductor AL, insulation E2X, designation A2XH, voltage 1500, options ATR, UV and ZHFR in alphabetical order.

SIZE MM ²	DERIVED ITEM CODE	NEAREST REGISTERED ITEM
1 × 120	IC-S0-01-12000-AL-E2X-A2XH-1500-ASNZS5000P1-ATR-UV-ZHFR	IC1006347 · TC / XLPO / EN 50618
1 × 150	IC-S0-01-15000-AL-E2X-A2XH-1500-ASNZS5000P1-ATR-UV-ZHFR	IC1006348 · TC / XLPO / EN 50618
1 × 185	IC-S0-01-18500-AL-E2X-A2XH-1500-ASNZS5000P1-ATR-UV-ZHFR	IC1006349 · TC / XLPO / EN 50618
1 × 240	IC-S0-01-24000-AL-E2X-A2XH-1500-ASNZS5000P1-ATR-UV-ZHFR	IC1006350 · TC / XLPO / EN 50618
1 × 300	IC-S0-01-30000-AL-E2X-A2XH-1500-ASNZS5000P1-ATR-UV-ZHFR	none — size not on line S0
1 × 400	IC-S0-01-40000-AL-E2X-A2XH-1500-ASNZS5000P1-ATR-UV-ZHFR	none — size not on line S0
1 × 500	IC-S0-01-50000-AL-E2X-A2XH-1500-ASNZS5000P1-ATR-UV-ZHFR	none — size not on line S0
1 × 630	IC-S0-01-63000-AL-E2X-A2XH-1500-ASNZS5000P1-ATR-UV-ZHFR	none — size not on line S0

No item IDs are shown because none of these eight items exists in the Product Code Master yet. The register's next free ID for this item class is IC1006462. AS/NZS 5000.1 is not an IS standard, so no BIS CM/L number applies to these items.

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CERTIFICATIONS & COMPLIANCE



ISO 9001
Cert. 99 100 22646 (TÜV SÜD)



ISI
Bureau of Indian Standards



RoHS
Compliant



REACH
Compliant



Make in India
Manufactured in India