

SOLAR DC CABLE · TWO SINGLE CORES TWISTED · ALUMINIUM · CROSS-LINKED FR INSULATED · PVC SHEATHED

INDOCABLES SOLAR AS/NZS 5000 PVC — TWISTED

PHOTOVOLTAIC POWER CABLE, FLAME RETARDANT — AS/NZS 5000.1

INDO CABLES ITEM CODE

IC-S0-02-«SIZE»-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV

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, and follow sheet RC-03 for the PVC construction. Insulation HFI, designation A2XY and standard ASNZS5000P1 are not yet in tab 5 and must be typed there; the register also carries no reference value for a twisted construction. Item IDs and ACTIVE status must be issued by the code steward before quoting or sale.

APPLICATION

INDOCABLES low smoke, halogen free, 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.



Figure 1 — Two single cores twisted, cut back to the stranded aluminium conductors. Core identification black and black with red strip.



Figure 2 — Cross section of both cores, reproduced as supplied. Callouts read stranded aluminium conductor, XLPO insulation, anti termite jacket, outer sheath.

Images not to scale. Follow table for dimensions

CHARACTERISTICS

CONSTRUCTION

INDO CABLES

91807833289

91808810785

917011005815

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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: -20 °C to +90 °C

Maximum conductor temperature: +90 °C

BENDING RADIUS

For fixed installation: > 15 D

For occasional moved: > 18 D

TEST VOLTAGE

6.5 kV AC 50 Hz

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

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

DIMENSIONS AND WEIGHTS

SOLAR DC CABLE • TWO SINGLE CORES TWISTED • ALUMINIUM • CROSS-LINKED FR INSULATED • PVC SHEATHED

NO. OF CORES × CORE CROSS SECTIONAL AREA No. × mm ²	NOMINAL INSULATION THICKNESS mm	NOMINAL SHEATH THICKNESS mm	APPROX. OVERALL DIAMETER mm	WEIGHT (APPROX.) kg/km
2 × 120	1.2	1.5	18.7 × 37.4	1010
2 × 150	1.4	1.6	20.8 × 41.6	1240
2 × 185	1.6	1.6	22.8 × 45.6	1500
2 × 240	1.7	1.7	25.7 × 51.4	1920
2 × 300	1.8	1.8	28.3 × 56.6	2340
2 × 400	2.0	1.9	32.1 × 64.2	3040
2 × 500	2.2	2.0	35.6 × 71.2	3740
2 × 630	2.4	2.2	40.7 × 81.4	4830

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 Ohm/km	IMPEDANCE OF CABLE AT 90 °C Ohm/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
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

DE-RATING FACTOR

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

AMBIENT TEMPERATURE OTHER THAN 40 °C

INDO CABLES

91207333289

91208810725

912011005815

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AMBIENT TEMPERATURE °C	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

ORDERING — INDO CABLES PRODUCT CODES

Two single cores twisted, aluminium, cross-linked halogen free flame retardant insulated, PVC sheathed, unarmoured, 1.5 kV DC, to AS/NZS 5000.1. Codes below are derived from the register's code structure — line S0, cores 02, conductor AL, insulation HFI, designation A2XY, option 1 FR, option 2 UV.

SIZE MM ²	DERIVED ITEM CODE	NEAREST REGISTERED ITEM
2 × 120	IC-S0-02-12000-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	IC1006362 · TC / XLPO / EN 50618
2 × 150	IC-S0-02-15000-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	IC1006363 · TC / XLPO / EN 50618
2 × 185	IC-S0-02-18500-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	IC1006364 · TC / XLPO / EN 50618
2 × 240	IC-S0-02-24000-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	IC1006365 · TC / XLPO / EN 50618
2 × 300	IC-S0-02-30000-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	none — size not on line S0
2 × 400	IC-S0-02-40000-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	none — size not on line S0
2 × 500	IC-S0-02-50000-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	none — size not on line S0
2 × 630	IC-S0-02-63000-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	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.

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

INDO CABLES

91807833289

91808810735

912011005815