SOLAR PV DC CABLE · SINGLE CORE · ALUMINIUM CONDUCTOR · PVC SHEATHED · 1500 V DC

INDOCABLES SOLAR AS NZS 5000 PVC

PHOTOVOLTAIC POWER CABLE, FLAME RETARDANT — AS/NZS 5000.1

INDO CABLES ITEM CODE

`IC-SO-01-«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. These codes are derived from the register's own code structure. Three reference values do not yet exist in it: insulation HFI, standard ASNZS5000P1 and this size range on line SO. Item IDs and ACTIVE status must be issued by the code steward before quoting or sale.

APPLICATION

INDOCABLES 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.

Figure 2 — Core identification: black, and black with red strip.

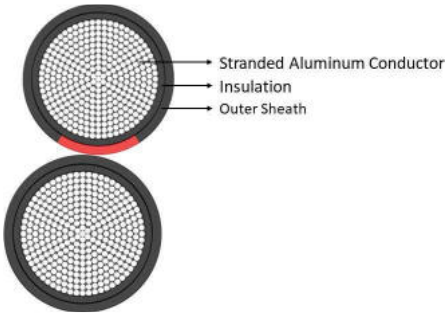

Figure 1 — Cross section: stranded aluminium conductor, insulation, outer sheath.

Images not to scale. Follow table for dimensions

CHARACTERISTICS

CONSTRUCTION

INDO CABLES
EVERY CONNECTION MATTERS

PRODUCT DATASHEET
AS/NZS 5000.1 · PVC

RC-03
SHEET NO.

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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

INDO CABLES
+91 8073533289
+91 8088107850
+91 7011005815

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NO. OF CORES × CORE CROSS SECTIONAL AREA no. × mm²	NOMINAL INSULATION THICKNESS mm	NOMINAL SHEATH THICKNESS mm	APPROX. OVERALL DIAMETER mm	WEIGHT (APPROX.) 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 no. × mm²	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
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.

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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

Single core, 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 SO, cores 01, conductor AL, insulation HFI, designation A2XY, option 1 FR, option 2 UV.

SIZE MM²	DERIVED ITEM CODE	NEAREST REGISTERED ITEM
1 × 120	IC-SO-01-12000-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	IC1006347 · TC / XLPO / EN 50618
1 × 150	IC-SO-01-15000-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	IC1006348 · TC / XLPO / EN 50618
1 × 185	IC-SO-01-18500-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	IC1006349 · TC / XLPO / EN 50618
1 × 240	IC-SO-01-24000-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	IC1006350 · TC / XLPO / EN 50618
1 × 300	IC-SO-01-30000-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	none — size not on line SO
1 × 400	IC-SO-01-40000-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	none — size not on line SO
1 × 500	IC-SO-01-50000-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	none — size not on line SO
1 × 630	IC-SO-01-63000-AL-HFI-A2XY-1500-ASNZS5000P1-FR-UV	none — size not on line SO

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