SOLAR PV DC CABLE · H1Z2Z2-K · 1500 V DC

# INDOCABLES SOLAR H1Z2Z2-K

## PHOTOVOLTAIC POWER CABLE, HALOGEN FREE, FLAME RETARDANT — BS EN 50618

INDO CABLES ITEM CODE

IC-SO-01-«SIZE»-TC-E2X-H1Z2Z2K-1500-EN50618-UV

Size field = sq.mm × 100
Per-size item IDs in the ordering table

**REGISTER STATUS: DRAFT**

These item codes exist in the Product Code Master as DRAFT. They may not be quoted or sold until the code steward moves them to ACTIVE.

## APPLICATION

INDOCABLES low smoke, halogen free, flexible 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 — Core identification: black, and black with red stripe.

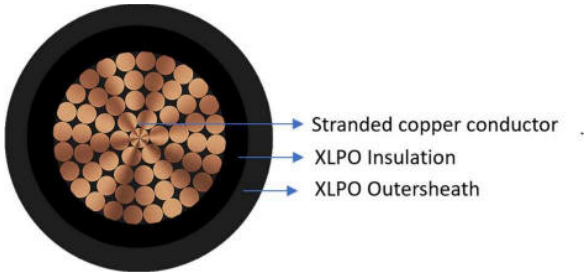


Figure 1 — Cross section.

Images not to scale. Follow table for dimensions

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## 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 +120 °C
Maximum conductor temperature: +120 °C

### BENDING RADIUS
For fixed installation > 6D. For occasional moved > 8D

### TEST VOLTAGE
6.5 kV AC 50 Hz

## CONSTRUCTION

### CONDUCTOR
Tinned copper conductor as per IEC 60228, class 5.

### INSULATION
E-Beam cross linked halogen free and flame-retardant compound (XLPO), 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**

**Flame retardant**

**High temperature resistant**

**UV, Ozone resistant**

**High life · Electron Beam Cross-linked**

**Hydrolysis resistant**

**Flexibility**

## STANDARD FOLLOWS

IEC 60228

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 |


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## WEIGHT, DIMENSION & ELECTRICAL DATA

| SINGLE CORE CROSS SECTIONAL AREA mm² | NOMINAL INSULATION THICKNESS mm | NOMINAL SHEATH THICKNESS mm | NOMINAL OVERALL DIAMETER mm | WEIGHT (APPROX.) Kg/Km | MAX. DC RESISTANCE AT 20 °C Ω/km | CURRENT RATING CAPACITY Amp. | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Single cable free in air | Single loaded cable on a surface | Two cables touching on a surface |
| 2.5 | 0.7 | 0.8 | 5.2 | 49 | 8.21 | 41 | 39 | 33 |
| 4.0 | 0.7 | 0.8 | 5.8 | 64 | 5.09 | 55 | 52 | 44 |
| 6.0 | 0.7 | 0.8 | 6.4 | 85 | 3.39 | 70 | 67 | 57 |
| 10 | 0.7 | 0.8 | 7.3 | 126 | 1.95 | 98 | 93 | 79 |
| 16 | 0.7 | 0.9 | 8.6 | 190 | 1.24 | 132 | 125 | 107 |
| 25 | 0.9 | 1.0 | 10.4 | 285 | 0.795 | 176 | 167 | 142 |
| 35 | 0.9 | 1.1 | 11.8 | 389 | 0.565 | 218 | 207 | 176 |
| 50 | 1.0 | 1.1 | 13.8 | 547 | 0.393 | 276 | 262 | 221 |
| 70 | 1.1 | 1.2 | 15.6 | 749 | 0.277 | 347 | 330 | 278 |
| 95 | 1.1 | 1.3 | 17.7 | 969 | 0.210 | 416 | 395 | 333 |
| 120 | 1.2 | 1.3 | 19.5 | 1222 | 0.164 | 488 | 464 | 390 |
| 150 | 1.4 | 1.4 | 21.6 | 1520 | 0.132 | 566 | 538 | 453 |
| 185 | 1.6 | 1.6 | 24.2 | 1867 | 0.108 | 644 | 612 | 515 |
| 240 | 1.7 | 1.7 | 27.1 | 2440 | 0.0817 | 775 | 736 | 620 |

## DE-RATING FACTOR

Current Ratings are based on EN 50618 at Max. Conductor Temperature 120 °C and Ambient Air temperature 60 °C.

Current rating de-rating factors other than 60 °C ambient temperature.

| AMBIENT AIR TEMPERATURE °C | up to 60 | 70 | 80 | 90 |
|---|---|---|---|---|
| DE-RATING FACTOR | 1.00 | 0.92 | 0.84 | 0.75 |

## ORDERING — INDO CABLES PRODUCT CODES

Single core, tinned copper, XLPO insulated and sheathed, 1.5 kV DC, to EN 50618, UV resistant. Quote the item ID on the order; the item code is the readable description of the same item.

## SOLAR PV DC CABLE · H1Z2Z2-K · 1500 V DC

| SIZE MM² | ITEM ID | ITEM CODE |
|---|---|---|
| 2.5 | IC1006337 | IC-SO-01-00250-TC-E2X-H1Z2Z2K-1500-EN50618-UV |
| 4.0 | IC1006338 | IC-SO-01-00400-TC-E2X-H1Z2Z2K-1500-EN50618-UV |
| 6.0 | IC1006339 | IC-SO-01-00600-TC-E2X-H1Z2Z2K-1500-EN50618-UV |
| 10 | IC1006340 | IC-SO-01-01000-TC-E2X-H1Z2Z2K-1500-EN50618-UV |
| 16 | IC1006341 | IC-SO-01-01600-TC-E2X-H1Z2Z2K-1500-EN50618-UV |
| 25 | IC1006342 | IC-SO-01-02500-TC-E2X-H1Z2Z2K-1500-EN50618-UV |
| 35 | IC1006343 | IC-SO-01-03500-TC-E2X-H1Z2Z2K-1500-EN50618-UV |
| 50 | IC1006344 | IC-SO-01-05000-TC-E2X-H1Z2Z2K-1500-EN50618-UV |
| 70 | IC1006345 | IC-SO-01-07000-TC-E2X-H1Z2Z2K-1500-EN50618-UV |
| 95 | IC1006346 | IC-SO-01-09500-TC-E2X-H1Z2Z2K-1500-EN50618-UV |
| 120 | IC1006347 | IC-SO-01-12000-TC-E2X-H1Z2Z2K-1500-EN50618-UV |
| 150 | IC1006348 | IC-SO-01-15000-TC-E2X-H1Z2Z2K-1500-EN50618-UV |
| 185 | IC1006349 | IC-SO-01-18500-TC-E2X-H1Z2Z2K-1500-EN50618-UV |
| 240 | IC1006350 | IC-SO-01-24000-TC-E2X-H1Z2Z2K-1500-EN50618-UV |

1.5 mm² is also in the register as IC1006336. It is not listed above because the source datasheet's dimensional table starts at 2.5 mm². EN 50618 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