

ASH SOLAR CABLES TCU/LSZH/LSZH FOR PHOTOVOLTAIC SYSTEMS

Cable Features:

- Solar cables are intended for use in the connection of photovoltaic modules and panels, LV DC installation between panels and connection boxes and LV DC installation between the connection boxes and the inverter of the solar system.
- ASHSOLAR fully meets the requirements of EN50618 with the highest properties; resistance against ultraviolet rays, low smoke emission during fire, flame and fire retardant and flexibility for installation.

STANDARDS

BS EN 50618	Electric cables for photovoltaic systems. (H1Z2Z2-K)
BS EN 60228	Conductors of insulated cables
BS EN 60332-1-2	Test for vertical flame propagation for a single insulated wire or cable
BS EN 61034-2	Measurement of smoke density of cables.

CONSTRUCTION DETAILS

CONDUCTOR	Annealed Tinned copper to ASTM B33, Flexible Stranded conductor Class 5 of BS (EN) 60228.
INSULATION	Extruded Low smoke and fume, halogen free flame-retardant cross-linkable compound in natural color.
OUTER JACKET	Extruded Low smoke and fume, halogen free flame-retardant cross-linkable compound.
Color Identification	Black or as request.
Cable Marking	ASHSOLAR (size) MM2 H1Z2Z2-K 1.5KV BS EN 50618 ASHCABLES KSA (Year of manufacture) (Meter Marking)



DIMENSIONAL DATA

S/N	ASH ITEM CODE	Conductor Size (mm ²)	Insulation Thickness (mm)	Jacket Thickness (nominal) (mm)	Apprx. Diameter (mm)	Approx. Weight (KG/KM)	Conductor DC Resistance (20°C) (Ω/Km)	Allowable Current Ampacity* (AMPS)		
								Single Cable Free in Air	Single Cable on a surface	Two Loaded Cables touching on a surface
1	OM6S-01C00150-UXXXS	1.5	0.70	0.80	5.40	34	≤13.70	30	29	24
2	OM6S-01C00250-UXXXS	2.5	0.70	0.80	5.90	45	≤8.21	41	39	33
3	OM6S-01C00400-UXXXS	4.0	0.70	0.80	6.60	64	≤5.09	55	52	44
4	OM6S-01C00600-UXXXS	6.0	0.70	0.80	7.40	85	≤3.39	70	67	57
5	OM6S-01C01000-UXXXS	10	0.70	0.80	8.80	135	≤1.95	98	93	79
6	OM6S-01C01600-UXXXS	16	0.70	0.90	10.10	190	≤1.24	132	125	107
7	OM6S-01C025000-UXXXS	25	0.90	1.00	12.50	280	≤0.795	176	167	142
8	OM6S-01C035000-UXXXS	35	0.90	1.10	14.00	400	≤0.565	218	207	176

Note:

-The expected period of use at max. conductor temperature of 120°C and at a max. ambient temperature of 90°C is limited to 20 000h.

-Permitted Short Circuit temperature 250°C (5s).

ELECTRICAL PROPERTIES

Voltage rating	Operating Voltage: 1.0KV (AC) – 1.5KV (DC) Maximum Operating Voltage: 1.2KV (AC) – 1.8KV (DC)
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CORRECTION FACTORS

-For different ambient temperatures, use below table:

Ambient Temperature °C	Conversion Factor
Up to 60	1.00
70	0.92
80	0.84
90	0.75

PHYSICAL & ENVIRONMENTAL PROPERTIES

Temperature Range	Fixed Temp: -40°C to 90°C Maximum Temp: +120°C (up to 20000h)
Minimum Bending Radius	≥ 4xCable Outside Diameter
Flame Retardant	IEC:60332-2-1
Halogen Acid Gases	IEC 60754-1
Corrosive Gases	IEC 60754-2
Light Transmit	IEC61034 1&2
Cable life expectancy	25 yrs.