

Photovoltaic Solar Cable Range

Photovoltaic Solar H1Z2Z2-K Cables

(Complies with BS EN 50618)



Class 5 Flexible Tinned Copper/ Low Smoke Zero Halogen Cross-Linked Insulation / Low Smoke Zero Halogen Cross-Linked Sheath

Application

Designed for interconnection within photovoltaic systems such as solar panel arrays and similar equipment. The product is suitable for fixed wiring installations or conduit systems, internal and external. Manufactured in accordance with the European harmonized code H1Z2Z2-K.

The cable is manufactured with a Low Smoke Zero Halogen (LSZH) sheath, making it suitable for installations where fire, smoke and acid gas evolution would pose a hazard to public life and equipment.



Cable Description

Class 5 flexible tinned copper conductor,
Low smoke zero halogen cross linked polyethylene (XLPE) insulation,
Low smoke zero halogen cross linked polyethylene (XLPE) outer sheath

N.B. In the event of fire, the gases evolved from this cable are free from Halogen and the design is optimised to limit the quantity and cleanliness of the smoke evolved during this period. Although the acronym LSZH is applied to the sheath material, the terms LSOH, HFFR and HFFR are also applicable.

Sheath Colour

Black

Other colours available on request

Physical characteristics

No of Cores	Conductor Class	Nominal Cross-Sectional Area (mm ²)	Nominal Insulation Thickness (mm)	Nominal Sheath Thickness (mm)	Nominal Overall Dimensions (mm)	Maximum Conductor Resistance at 20°C (ohms/km)	Approx. Weight of Cable (kg/km)
1	5	1.50	0.70	0.80	5.40	13.70	40
1	5	2.50	0.70	0.80	5.90	8.21	50
1	5	4.00	0.70	0.80	6.60	5.09	65
1	5	6.00	0.70	0.80	7.40	3.39	85
1	5	10.0	0.70	0.80	8.80	1.95	135
3	5	16.0	0.70	0.80	10.10	1.24	190

Mechanical characteristics

Characteristic	Unit	Value
Fixed Temperature Range	°C	-40 / +90
Minimum Bend Radius	Diameter	5D
Maximum Conductor Temperature	°C	+120

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Electrical characteristics at 20°C

Characteristic	Unit	Value
Voltage Rating Uo/U	V	AC: 1000/1000V
	V	DC: 1500/1500V
Maximum Voltage (Umax)		1800V
Current Rating Table	-	*As below

Notes

Current Carrying Capacity / Resistance Table – In accordance with 18th Edition of IET Wiring Regulations

Nominal Cross-Sectional Area (mm ²)	Maximum DC Resistance of Conductor at 20 °C (ohms/km)	Maximum DC Resistance of Conductor at 90 °C (ohms/km)	CURRENT CARRYING CAPACITY (Amps)		
			Single Cable in Free Air	Single Cable on Surface	Two Cables Adjacent on Surface
1.5	13.70	17.46	30	29	24
2.5	8.21	10.46	41	39	33
4.0	5.09	6.49	55	52	44
6.0	3.39	4.32	70	67	57
10.0	1.95	2.48	98	93	79
16.0	1.24	1.58	132	125	107

Fire Performance

Test	Test Method	Value	Comment
Fume Emission	XR-F	No halogen, nitrogen, phosphorous or Sulphur containing com-pounds (trace elements ≤ 0.5% w/w)	Compliant
Single Cable Vertical Burn Test	BS EN 60332-1: 2004	Onset of char (from top support): > 50mm Extent of char (from top support): < 540mm	Compliant
Bunched Cable Vertical Burn Test	BS EN 50399	PHR / THR / FIGRA / SPR / TSP / d	Compliant
Acid Gas Emission	BS EN 50267-2-1: 1999	Less than 5mg/g	Compliant
Smoke Emission	BS EN 61034-2: 2005	Minimum light transmittance >60%	Compliant
CPR Euro Classification	BS EN 50575-201 4 A1-2016		