DATASHEET

METEKTRON

Building Integrated Photovoltaic Solution

Solar integrated roof for residential and commercialapplications

BIPVco is a British manufacturer of solar integrated roofing products, utilising market leading technology and processes to make Building Integrated Photovoltaics (BIPV) from conventional building materials; the BIPV functionalised roof works as a building product, whilst converting the building envelope from a liability into an asset by using the roof to generate low carbon electricity.

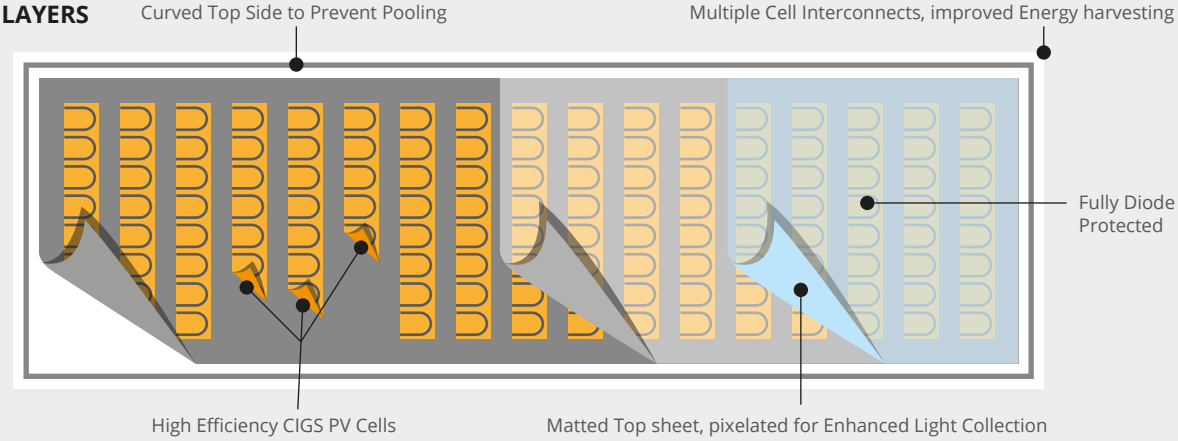
Metektron is a standing seam roofing product with integrated solar cells. Factory applied PV cells are integrated directly onto the approved pre-painted steel to create a roofing system that can be installed in the same way as a conventional roof.

This is a specification product with associated roof system warranty.

KEY FEATURES

- Cell Efficiency, up to 17%
- Best in class thin film technology
- No ballast, penetrations or racking required
- Low installed weight of less than 3kg/m2
- Improved aesthetics
- Multiple Bypass Diode design to improve performance in shading/low light
- 25 year performance warranty, 5 year product warranty

MODULE LAYERS



The Building Integrated Photovoltaics Company

BiPVco
The Building Integrated Photovoltaic Company

TECHNICAL CHARACTERISTICS

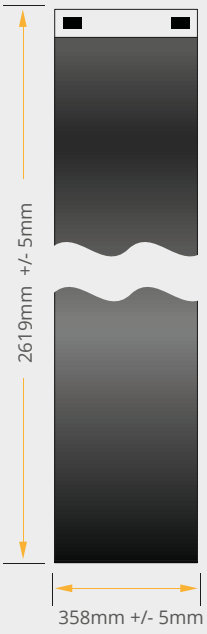
DESCRIPTION

Copper Indium Gallium Diselenide thin film cells on ultra thin stainless steel substrate heat and vacuum sealed directly onto premium pre-painted steel or aluminium based roofing panel. The module is delivered with IP67 rated terminal housing assembly and quick connect terminals.

ELECTRICAL PERFORMANCE AT STC[1]

			115W	120W	125W	130W
Nominal Power	P_{MPP}	[W]	115	120	125	130
Aperature Efficiency	η	[%]	15.0%	15.7%	16.4%	17.0%
Power Output Tolerance		[W]	+5/-0	+5/-0	+5/-0	+5/-0
Maximum Power Voltage	V_{MPP}	[V]	30.5	31.1	31.8	32.5
Maximum Power Current	I_{MPP}	[A]	3.83	3.89	3.94	4.00
Open Circuit Voltage	V_{OC}	[V]	38.6	39.1	39.6	40.1
Short Circuit Current		[A]	4.33	4.34	4.35	4.35
Maximum Series Fuse Rating		[A]	10			

[1]Standard Test Conditions (STC): 1000 W/m^2, 25°C cell temperature, AM 1.5 spectrum



THERMAL CHARACTERISTICS

NOCT	[°C]	48
Temperature Coefficient of P_{MPP}	[%/°C]	-0.40
Temperature Coefficient of V_{OC}	[%/°C]	-0.36
Temperature Coefficient of I_{SC}	[%/°C]	0.003

PHYSICAL AND MECHANICAL SPECIFICATIONS

Length	2619 mm
Width	358 mm
Thickness, Maximum at J–Box, Module	17 mm, 2.5mm
Weight (Module without adhesive)	2.0 kg
Weight (Module with adhesive)	2.7 kg
Weight/Area (Module without adhesive)	2.0 kg/m2
Weight/Area (Module with adhesive)	2.9 kg/m2
Junction Box Type	IP68
Cell Type	Copper Indium Gallium Diselenide (CIGS)
Warranty**	5 year workmanship; 10/25 year power output

** Please see full warranty for details

- Market leading high efficiency Copper Indium Gallium Diselenide (CIGS) solar photovoltaic (PV) cells that are applied to roofs and walls during the manufacturing of the building materials.
- Photovoltaic Integrated Roof Components – PV cells are directly encapsulated onto premium pre-painted steel/aluminum based or single ply membrane (TPO) roofs in highly controlled factory environment to create a combined PV roof system.
- Flexible Peel and Stick modules – PV cells are encapsulated onto a plastic backing sheet with specialist adhesive for supply to either metal component manufacturers (for application in factory) or installers (for application in the field).
- High performance solar module system for the building envelope, which can be applied to new roofs, during the building process, or retrospectively as an add-on.

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MADE IN BRITAIN