

**FLEXTRON**  
Flexible Photovoltaic Solution

**CIGS. Flexible, Peel & Stick**

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.

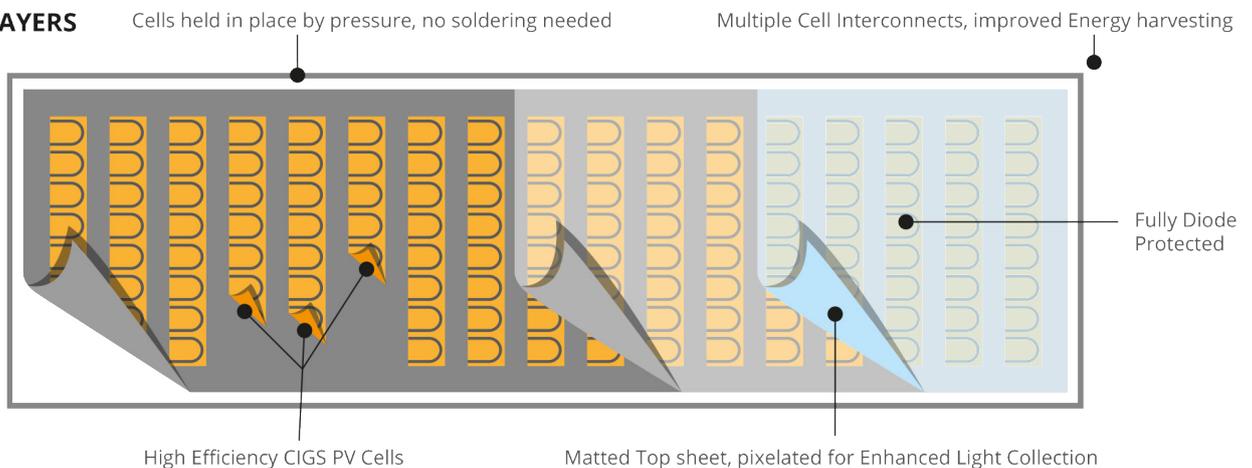
FLEXTRON is a 'peel & stick' module with integrated solar cells. Modules are attached to the approved substrate to create a roofing system that can be installed in the same way as a conventional roof.

FLEXTRON modules can be sold independently or with a roof system as a package.

**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/m<sup>2</sup>
- Improved aesthetics
- Multiple Bypass Diode design to improve performance in shading / low light
- 5 year product warranty & 25 year performance warranty

**MODULE LAYERS**



# Technical Characteristics

Copper Indium Gallium Diselenide thin film flexible solar module designed to be fitted to approved roofing panels. The modules are delivered with front or rear mounted junction boxes with IP67 rated terminals housing assembly and quick connect terminals.

## Electrical Performance at STC

Front Contact		F13F120B1	F15F240B1	F33F360B1
Rear Contact		F13R120B1	F15R240B1	F33R360B1
Nominal Power	[W]	120	240	360
Power Output Tolerance	[W]		+ / -3%	
Maximum Power Voltage	[V]	31.18	62.36	93.83
Maximum Power Current	[A]	3.85	3.85	3.84
Open Circuit Voltage	[V]	38.6	77.2	115.95
Short Circuit Current	[A]	4.43	4.43	4.41
Maximum Series Fuse Rating	[A]		10	
Maximum System Voltage	[V]		1000	
Cell Efficiency	%		15.5%	
Watts Per Square Metre	W/m <sup>2</sup>	128	112 / 56	168 / 84
Cells / Bypass Diodes Per Module		56 / 28	112 / 56	168 / 84

Standard Test Conditions (STC): 1000 W/m<sup>2</sup>, 25°C cell temperature, AM 1.5 spectrum.

## Thermal Characteristics

NOCT	[°C]	56.2
Temperature Coefficient of P <sub>MPP</sub>	[% / °C]	-0.268
Temperature Coefficient of V <sub>OC</sub>	[% / °C]	-0.209
Temperature Coefficient of I <sub>SC</sub>	[% / °C]	-0.0007

## Physical & Mechanical Specifications

Length	mm	2609	5067	2609
Width	mm	358	358	990
Module Area	m <sup>2</sup>	0.934	1.81	2.58
Thickness, Maximum at J-Box, Module	mm		19	
Thickness, laminate without adhesive	mm		2.5	
Thickness, laminate with adhesive	mm		3.5	
Weight (Module without adhesive)	kg	2.08	4.05	5.76
Weight (Module with adhesive)	kg	3.56	6.91	9.84
Weight / Area (Module without adhesive)	kg / m <sup>2</sup>		2.23	
Weight / Area (Module with adhesive)	kg / m <sup>2</sup>		3.81	
Junction Box Type			IP67	
Cell Type		Copper Indium Gallium Diselenide (CIGS)		
Certification		IEC 61730-1, IEC 61730-2, IEC 61646, KIWA		
MCS		MCS 017 (TUV SUD / BABT)		
Quality System		ISO 9001 (SGS)		
Warranty		5 year product, 10 / 25 year performance		

