

# FVG 60-156BI

## POLYCRYSTALLINE 6"

*Solrif®*



### ROOF INTEGRATED SOLUTION - SPECIAL COMPONENTS

A building integration system which consists of a laminated 60-cell polycrystalline module coupled with the innovative Solrif® support frame. FVG ENERGY laminated modules are highly efficient and highly reliable with high performance, also in environments with diffused cloudiness and challenging climatic conditions. They have been expressly developed for integrated roof structures through Solrif® system which guarantees top aesthetic and functional results in any residential and commercial building.

### FEATURES



Excellent performances even during low solar radiation (cloudiness, morning or evening)



4 mm solar-grade tempered prismatic glass



Heavy load mechanical resistance: TÜV certified (5.400 Pa tested against snow and 2.400 Pa test against wind)



Strict and continuous quality controls during all the production phases up to shipment



High efficiency level up to 14.70%



Strong and reliable junction box with 6 by-pass diodes and IP67 connectors



Positive tolerance on power peak of every module



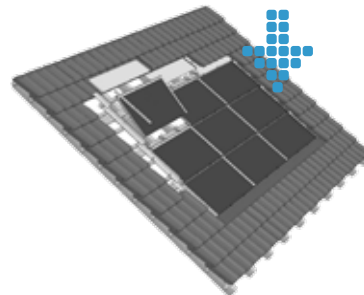
10-year commercial guarantee on materials and manufacturing defects



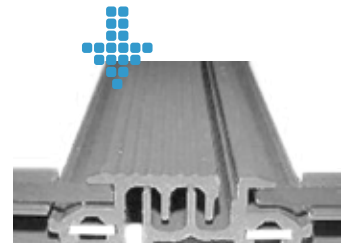
### Example of residential installation



### Detail of installation layout



### Detail of special frame with interlocking system



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### ELECTRICAL FEATURES

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					STC
Type	Model	xxx Rated Power [W]			
<b>FVG 60-156BI</b>	<b>FVG xxxP-SOL*</b>	<b>225</b>	<b>230</b>	<b>235</b>	<b>240</b>
Module Efficiency	$\eta_m$ (%)	13.77	14.08	14.38	14.70
Cell Efficiency	$\eta_c$ (%)	15.45	15.80	16.15	16.50
Power Peak	Pm (W)	225	230	235	240
Maximum Power Voltage	Vm (V)	30.00	30.30	30.40	30.50
Maximum Power Current	Im (A)	7.50	7.60	7.75	7.88
Open Circuit Voltage	Voc (V)	37.00	37.20	37.40	37.60
Short Circuit Current	Isc (A)	8.07	8.14	8.21	8.28
Maximum System Voltage	(VDC)	1000			
Power Output Tolerance	(W)	0 / + 5			
Max-Series Fuse	(A)	20			
Operating/Storage Temp.	(°C)	-40 ~ + 85			
Dielectric Insulation Voltage	(VDC)	3000 max			
Code	MFP	50235SOL	50236SOL	50237SOL	50238SOL

STC: Irradiance 1000 W/m<sup>2</sup>, module temperature 25 °C, AM=1.5  
Power measurement tolerance: ± 3%

### NOCT

Typical Power at NOCT	Pm (W)	165	169	173	176
Maximum Power Voltage	Vm (V)	26.90	27.20	27.30	27.40
Maximum Power Current	Im (A)	6.12	6.22	6.35	6.45
Open Circuit Voltage	Voc (V)	33.80	34.00	34.20	34.40
Short Circuit Current	Isc (A)	6.65	6.71	6.77	6.84

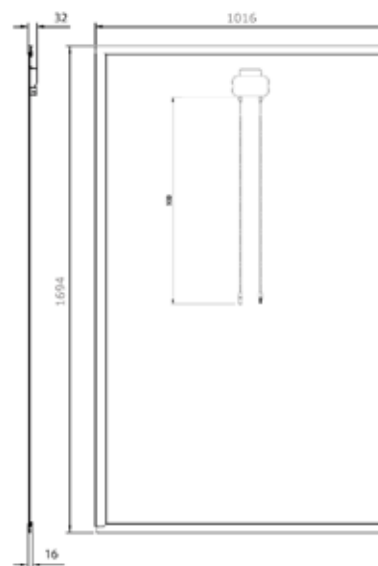
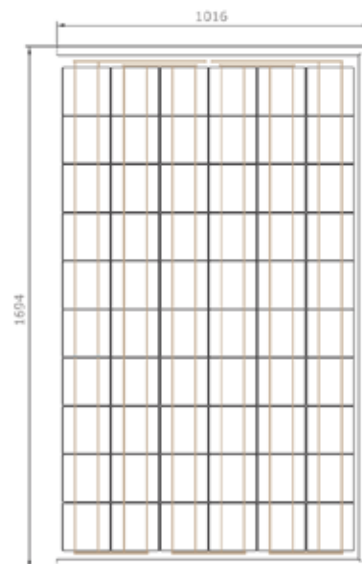
NOCT: Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, wind speed 1 m/s  
Power measurement tolerance: ± 3%

### TEMPERATURE CHARACTERISTICS - STC

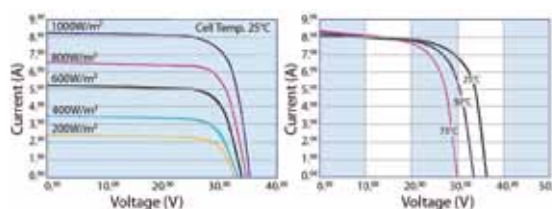
NOCT - Nominal Operating Cell Temperature	(°C)	45 ± 2
Pm Temperature Coefficient	(%/°C)	- 0.44
Voc Temperature Coefficient	(%/°C)	- 0.33
Isc Temperature Coefficient	(%/°C)	0.055

### MECHANICAL FEATURES

Cell Size	(mm)	156 x 156
Number of cells		60 cells - polycrystalline silicon
Module Dimensions	(mm)	1694 x 1016 x 16-32
Module Weight	(kg)	21.50
Front Glass		4 mm tempered glass
Frame		anodized aluminium alloy
Junction box		6 by-pass diodes
Connectors		IP67 MC4
Output Cables	(mm)	900



### CURVE CURRENT - VOLTAGE



\* xxx suffix indicates Rated Power [W]

“-B” suffix, if added, indicates the version All-Black