

# FVG 60-156BI

## 6" POLYCRYSTALLINE

### *frameless*

## LAMINATE PV MODULE FOR A BUILDING INTEGRATION SOLUTION

FVG ENERGY laminate PV modules are highly efficient and reliable with high performance and guarantee a sure return on your investment thanks to the use of the best technologies and components available. Even in environments with diffused cloudiness, localized shading and challenging climatic conditions these panels ensure exceptional performance, simple and safe installations and excellent aesthetic and functional results for every type of residential, agricultural, commercial and industrial installation.

### FEATURES



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



Element suitable for innovative building integration



High efficiency level up to 15.10%



4 mm solar-grade tempered prismatic glass



Positive tolerance on power peak of every module



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



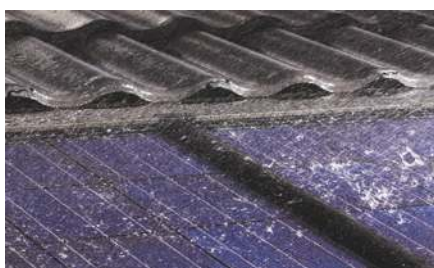
Custom-made modules even in "All Black" version



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



## EXAMPLES OF INSTALLATION



WARNING: Printing errors excepted. Technical and illustrative content of the items in FVG ENERGY catalogue are subject to change without prior notice.

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## 6" POLYCRYSTALLINE

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#### ELECTRICAL FEATURES

		STC			
Type	Model	xxx Rated Power [W]			
<b>FVG 60-156BI</b>	<b>FVG xxxP-FL*</b>	<b>230</b>	<b>240</b>	<b>245</b>	<b>250</b>
Module Efficiency	$\eta_m$ (%)	14.08	14.70	14.90	15.10
Cell Efficiency	$\eta_c$ (%)	15.80	16.50	16.70	16.90
Power Peak	Pm (W)	230	240	245	250
Maximum Power Voltage	Vm (V)	30.30	30.50	30.50	30.50
Maximum Power Current	Im (A)	7.60	7.88	8.05	8.20
Open Circuit Voltage	Voc (V)	37.20	37.60	37.60	37.60
Short Circuit Current	Isc (A)	8.14	8.28	8.60	8.80
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	50236FL	50238FL	50239FL	50240FL

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)	169	176	179	182
Maximum Power Voltage	Vm (V)	27.20	27.40	27.70	27.90
Maximum Power Current	Im (A)	6.22	6.45	6.53	6.60
Open Circuit Voltage	Voc (V)	34.00	34.40	34.45	34.50
Short Circuit Current	Isc (A)	6.71	6.84	6.98	7.10

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

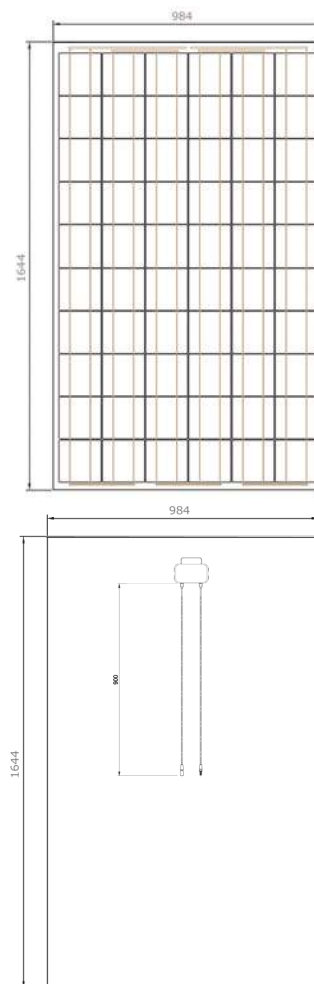
Cell Size	(mm)	156 x 156
Number of cells	60 cells - polycrystalline silicon	
Module Dimensions	(mm)	1644 x 984 x 5-6
Module Weight	(kg)	20,00
Front Glass	4 mm tempered glass	
Junction box	6 by-pass diodes	
Connectors	IP67 MC4	
Output Cables	(mm)	900

\* xxx suffix indicates Rated Power [W]

- "B" suffix, if added, indicates the version All-Black

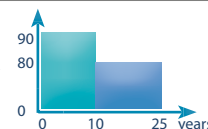
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#### ITALIAN WARRANTY

**10-year commercial warranty**  
**25-year performance warranty**



#### JUNCTION BOX



6 by-pass diodes  
CIXI REHNE PHOTOVOLTAIC  
PV -RH 701  
IP67 MC4 connectors  
900 mm cable length

#### CURVE CURRENT - VOLTAGE

