

# FVG 60-156IBI

## 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 15.45%



3.2 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



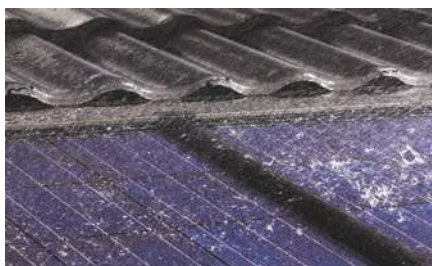
Custom-made modules even in "All Black" version



Strong and reliable junction box with 3 by-pass diodes and IP67 connectors



## EXAMPLES OF INSTALLATION



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#### ELECTRICAL FEATURES

STC

Type	Model	xxx Rated Power [W]			
FVG 60-156IBI	FVG xxxP-FL*	230	240	245	250
Module Efficiency	$\eta_m$ (%)	14,21	14,83	15,14	15,45
Cell Efficiency	$\eta_c$ (%)	16,50	17,00	17,40	17,80
Power Peak	Pm (W)	230	240	245	250
Maximum Power Voltage	Vm (V)	28,96	29,43	29,66	29,89
Maximum Power Current	Im (A)	7,94	8,15	8,26	8,36
Open Circuit Voltage	Voc (V)	36,46	37,05	37,34	37,62
Short Circuit Current	Isc (A)	8,55	8,78	8,90	9,01
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			
Code	MFP	50236IFL	50238IFL	50239IFL	50240IFL

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)	179	187	191	195
Maximum Power Voltage	Vm (V)	28,34	28,86	29,12	29,37
Maximum Power Current	Im (A)	6,30	6,46	6,55	6,63
Open Circuit Voltage	Voc (V)	34,04	34,63	34,92	35,20
Short Circuit Current	Isc (A)	6,91	7,09	7,19	7,28

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

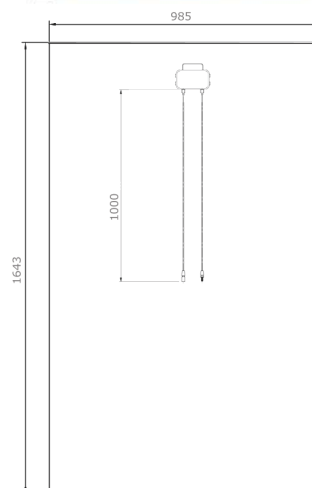
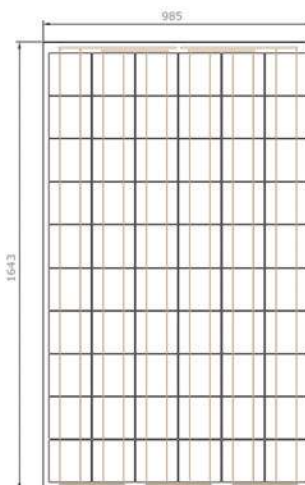
#### TEMPERATURE CHARACTERISTICS - STC

NOCT - Nominal Operating Cell Temperature	(°C)	45 ± 2
Pm Temperature Coefficient	(%/°C)	- 0,44
Voc Temperature Coefficient	(%/°C)	- 0,32
Isc Temperature Coefficient	(%/°C)	0,059

#### MECHANICAL FEATURES

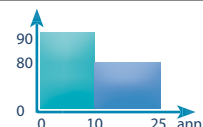
Cell Size	(mm)	156 x 156
Number of cells		60 cells - polycrystalline silicon
Module Dimensions	(mm)	1643 x 985 x 5-6
Module Weight	(kg)	16,50
Front Glass		3,2 mm tempered glass
Junction box		3 by-pass diodes
Connectors		IP65 MC4
Output Cables	(mm)	1000

\* xxx suffix indicates Rated Power [W]  
- "B" suffix, if added, indicates the version All-Black



#### ITALIAN WARRANTY

10-year commercial warranty  
25-year performance warranty

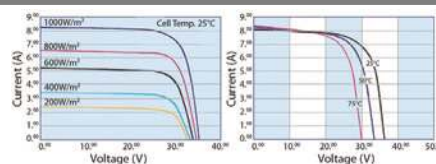


#### JUNCTION BOX



3 by-pass diodes  
IP65 MC4 connectors  
1000 mm cable length

#### CURVE CURRENT - VOLTAGE



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