YellowLine TOP PERFORMANCE

# FVG 60-156

## 6“ POLYCRYSTALLINE

FVGENERGY italian style

**Silicon-wafer Polycrystalline photovoltaic module with power peak from 230 W to 250 W**

## APPLICATIONS

- Residential, industrial, commercial and agricultural
- PV parks
- Architectural integration (CSTB pass innovation)

## 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 15.10%
- Custom-made modules even in ”All Black” version
- Positive tolerance on power peak of individual module

## ITALIAN WARRANTY

**10 years commercial warranty - 25 years performance warranty**

Commercial

- Standard 10 years on materials and manufacturing defects
- Integrative insurance policy on request

Performance

- Power not less than 90% of power peak during the first 10 years
- Power not less than 80% of power peak during the subsequent 15 years

YellowLine TOP PERFORMANCE

# FVG 60-156

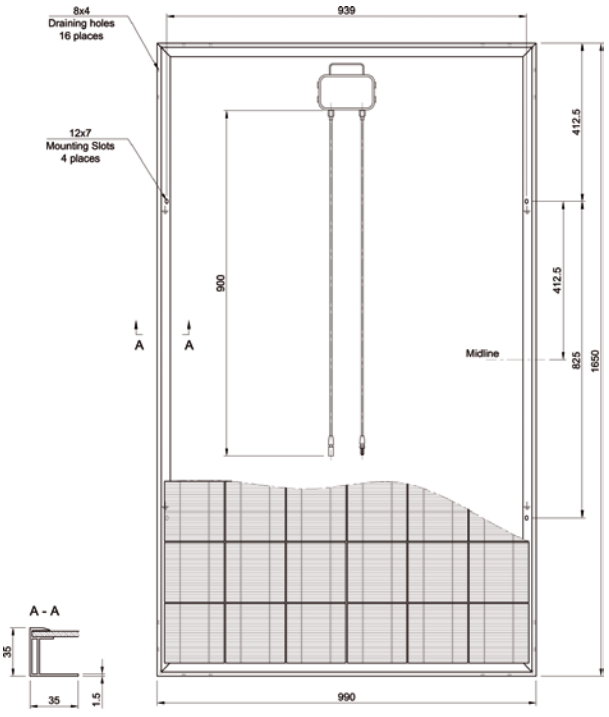
## 6“ POLYCRYSTALLINE

FVGENERGY italian style

## ELECTRICAL FEATURES

| | | STC | | | |
|---|---|---|---|---|---|
| **Type** | **Model** | **xxx Rated Power [W]** | | | |
| **FVG 60-156** | **FVG xxxP-MC*** | **230** | **240** | **245** | **250** |
| Module Efficiency | ηm (%) | 14.08 | 14.70 | 14.90 | 15.10 |
| Cell Efficiency | ηc (%) | 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 | 50236 | 50238 | 50239 | 50240 |

STC: Irradiance 1000 W/m², 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/m², ambient temperature 20 °C, wind speed 1 m/s
Power measurement tolerance: ± 3%

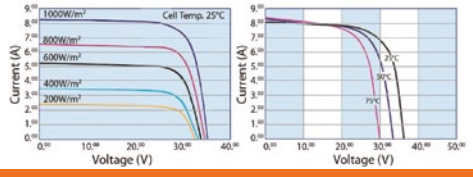
## JUNCTION BOX

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

## 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 |

## CURVE CURRENT - VOLTAGE




## MECHANICAL FEATURES

| | | |
|---|---|---|
| Cell Size | (mm) | 156 x 156 |
| Number of cells | | 60 cells - polycrystalline silicon |
| Module Dimensions | (mm) | 1650 x 990 x 35 |
| Module Weight | (kg) | 21.50 |
| Front Glass | | 4 mm tempered glass |
| Frame | | anodized aluminlum alloy |
| Junction box | | 6 by-pass diodes |
| Connectors | | IP65 type MC4 |
| Output Cables | (mm) | 900 |

## PACKING FEATURES

| | | |
|---|---|---|
| Carton Dimensions | (mm) | 1700 x 1050 x h85 |
| Pallet Dimensions | (mm) | 1700 x 1100 x h2000 |
| Pallet Weight | (kg) | 1090 |
| 1 Carton | | 2 modules |
| 1 Pallet | | 22 cartons (44 modules) |
| Container Loading Capacity 20 | (ft) | 264 modules (6 pallets) |
| Container Loading Capacity 40 | (ft) | 572 modules (13 pallets) |

** xxx suffix indicates Rated Power [W]*

**FVG ENERGY S.p.A.** ITALY TEL.+39 0431 68080 Fax +39 0431 68558 e-mail: office@fvgenergy.com **www.fvgenergy.com**