

## High Performance 60 Cell Mono crystalline 156x156mm Solar Photovoltaic Module

Model Number: CNPV-235M to CNPV-260M / Power Range:235Wp to 260Wp

### Typical Electrical Characteristics

Model Number	UOM	Standard PV Modules			Optimal Premium PV Modules		
		CNPV-235M	CNPV-240M	CNPV-245M	CNPV-250M	CNPV-255M	CNPV-260M
Rated Maximum Power-Pmax	Wp	235	240	245	250	255	260
Power Tolerance	%	0/+3	0/+3	0/+3	0/+3	0/+3	0/+3
Maximum Power Voltage-Vmp	V	30.7	30.8	30.9	31.0	31.3	31.5
Maximum Power Current-Imp	A	7.65	7.80	7.93	8.05	8.15	8.25
Open Circuit Voltage-Voc	V	37.5	37.6	37.7	37.8	37.9	38.0
Short Circuit Current-Isc	A	8.30	8.40	8.50	8.60	8.70	8.80
Maximum System Voltage-VDC	V	1000					
Encapsulated Solar Cell Efficiency- $\eta_c$	%	16.4	16.7	17.1	17.4	17.8	18.1
Module Efficiency- $\eta_m$	%	14.4	14.7	15.0	15.3	15.6	15.9
Solar Cell and Configuration		60 cells(156×156mm/6"×6") in a 6x10 matrix connected in series					
Solar Cell Technology & Size	mm	Mono Crystalline 156×156mm(6"×6")					
Cable Type,Diameter		4mm <sup>2</sup> (12AWG), TÜV Certified					
Type of Connector		IP67,Type IV					
Junction Box		IP65,1000VDC, Certified TÜV&UL Certified					
Number of Bypass Diodes & Type		3Nos. Schottky by-pass diodes					
Maximum Series Fuse Rating	A	20					
Temperature coefficient of Power	%/°C	- 0.40%/°C(-0.22%/°F)					
Temperature coefficient of Voc	%/°C	- 0.30%/°C(-0.17%/°F)					
Temperature coefficient of Isc	%/°C	0.05%/°C(0.028%/°F)					
Nominal Operating Cell Temperature-NOCT	°C	45± 2°C(113±3.6°F)					
Standard Test Conditions	STC	STC:AM=1.5, 1000W/m <sup>2</sup> , Cells Temperature 25°C(77°F)					
Operating Temperature	°C	-40~+85°C(-40~+185°F)					
Product Certifications		IEC61215, IEC61730, UL1703&CE					

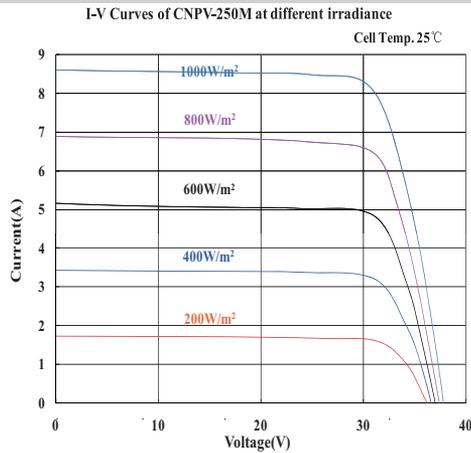
### Mechanical & Packaging Characteristics

Dimensions A×B×C	mm	1650×992×35mm(64.96"×39.06"×1.38")
Installation Hole Dimensions E×F	mm	990×941mm(38.98"×37.05")
Cable Length G	mm	1000mm(39.37")
Weight	Kg	18Kg(39.68lb)
Number of Draining Holes in Frame		8
Construction		Superstrate:High transmission 3.2mm tempered low iron glass;Substrate:White Back Sheet; Encapsulant: Fast Cure EVA
Frame		Clear anodized aluminium alloy type 6063T5; Color:silver
Packing Configuration and Quantity per Pallet		30 pcs per carton and one carton per pallet
Container Loading Capacity		840 pcs per 40 ft high cubic container; 360 pcs per 20 ft cubic container

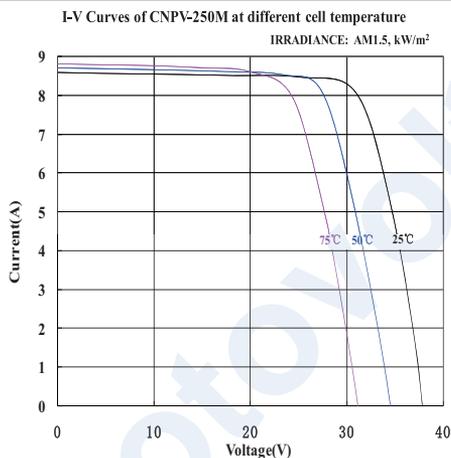


High Performance Mono Crystalline SPV Module

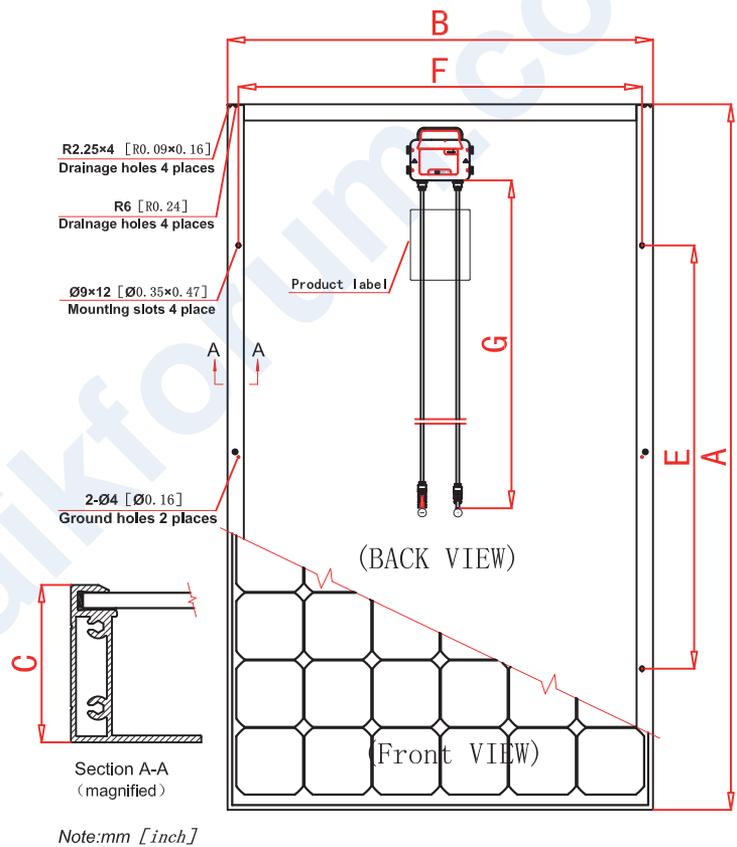
### I-V Characteristics at Different Irradiance



### I-V Characteristics at Different Temperature



### Dimensional Characteristics



Note: This publication summarizes product warranty and specifications, which are subject to change without notice. Additional information may be found on our website: [www.cnpv-power.com](http://www.cnpv-power.com)

#### SALIENT FEATURE

- 3% Positive Tolerance
- ARC Glass
- 78% Fill Factor
- Triple Busbar
- Larger Diameter
- Cell & Module Matching
- Smart Junction Box
- 100% Electro Luminescence
- Unique Frame
- Mechanical Strength-8000 Pa
- International Bankability
- PID Free
- 10 years Workmanship Warranty
- 25 years True Linear Warranty

#### CERTIFICATIONS



**HIGH PERFORMANCE 60 CELL MONOCRYSTALLINE  
SOLAR PHOTOVOLTAIC MODULE**  
**CNPV-260M, CNPV-255M, CNPV-250M**

**Optimal Premium  
Series by**



**MOREPOWER**

**3% Positive Tolerance**

CNPV's positive tolerance on label rating power provides higher kWh for money invested.

**ARC Glass**

Low iron, anti reflective coated glass gives 2% Energy gain.

**Triple Busbar**

3 busbar design cells in modules ensures longevity and greater power output.

**Cell & Module Matching**

Matching gives 2% additional power gain measured at STC conditions.

**Independent Performance Verification**

Independently verified by Photon and Öko-Test as amongst the best kWh/kWp output worldwide.

**100% Electro Luminescence**

EL screening provides defect free modules.

**Unique Frame**

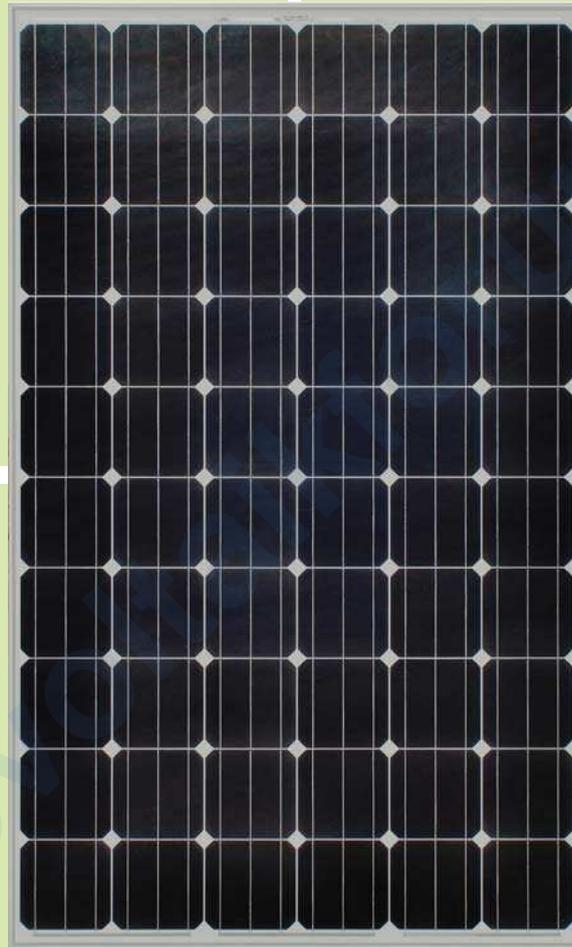
Twist resistant frame design.

**International Bankability**

Pre-approved with financial institutions and rapid capability ensures customers' cost of project is reduced.

**ISO9001  
ISO14001  
OHSAS18001**

Audited controls for high value consistency.



**FOR LONGER**

**True Linear Warranty 25 years**

Highest power warranty coverage available on a linear basis.

**Workmanship Warranty 10 years**

10 years global workmanship warranty.

**Strength 8000Pa**

Industry leading snow loading capacity.

**Degradation Resistance**

Superior resistance to PID.

**Accredited ammonia/salt mist resistance**

Long life in marine and high pollution environments.

**Smart Junction Box**

Long term water vapour screening and increased heatsink.

**Low Carbon Footprint**

One of the lowest carbon footprints over 100 years life cycle.

**Green Credentials**

Fully committed to recycling during production and end of product life, a dedicated member of PV cycle.

**Eco Friendly Packaging**

Friendly materials choice with high density packing.

**ISO14001 accredited ISO**

Continuous improvement in reducing environmental impact.

**MUCH SAFER**

**AND GREENER**

**About CNPV**

CNPV Solar Power SA, is a leading integrated manufacturer of solar photovoltaic products, that designs, manufactures and supplies highly efficient and cost effective crystalline solar photovoltaic modules. Reliability & longevity are built into our world-class crystalline solar photovoltaic modules, which undergo rigorous internal tests and external certifications (IEC61215, IEC61730, UL, and CE) to ensure peak performance and safety. For further information, please visit CNPV's website at <http://www.cnpv-power.com>, please contact us at [marketing@cnpv-power.com](mailto:marketing@cnpv-power.com).



Electrical Data	CNPV-250M	CNPV-255M	CNPV-260M
Peak Power Watts-Pmax (Wp)	250	255	260
Power Output Tolerance-Pmax (%)	0/+3	0/+3	0/+3
Maximum Power Voltage-Vmp(V)	31.0	31.3	31.5
Maximum Power Current-Imp (A)	8.05	8.15	8.25
Open Circuit Voltage-Voc (V)	37.8	37.9	38.0
Short Circuit Current-Isc(A)	8.60	8.70	8.80
Encapsulated Solar Cell Efficiency-ηc	17.4	17.8	18.1
Module Efficiency-ηm (%)	15.3	15.6	15.9

Values at Standard Test Conditions STC (Air Mass AM 1.5, Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C)

Mechanical Data	
Solar Cells	Mono Crystalline 156×156mm
Cells Configuration	60 cells (6×10)
Module Dimension	1650×992×35mm(64.96"×39.06"×1.38")
Weight	18Kg(39.68lb)
Glass	High transmission tempered glass with ARC
Frame	Anodized aluminium alloy type 6063T5; color: Silver
J-box	IP65, 1000VDC, TUV&UL certified with 3 schottky bypass diodes
Cables/Connector	4.0mm <sup>2</sup> (12AWG), TUV certified/IP67, Type IV

Temperature Ratings	
Nominal Operating Cell Temperature (NOCT)	45°C(±2°C)
Temperature Coefficient of Pmax	-0.40%/°C
Temperature Coefficient of Voc	-0.30%/°C
Temperature Coefficient of Isc	0.05%/°C

Warranty
10 years workmanship warranty
25 years world's first true linear performance warranty

(Please refer to CNPV product warranty for details)

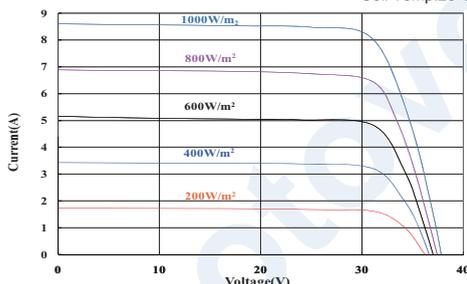
Maximum Ratings	
Operational Temperature	-40~+85°C
Maximum System Voltage	1000VDC
Maximum Series Fuse Rating	20A

Packaging Configuration	
Modules per box	30 pcs
Modules per 40 ft high cubic container	840 pcs
Modules per 20 ft container	360 pcs
Dimensions of Pallet (L×W×H)	1705×1145×1174mm
Gross Weight	615kg

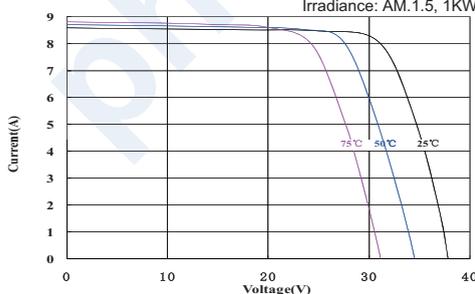


### I-V Characteristics at Different Irradiance & Temperature

I-V Curves of CNPV-255M at different irradiance  
Cell Temp. 25°C



I-V Curves of CNPV-255M at different cell temperature  
Irradiance: AM.1.5, 1KW/ m<sup>2</sup>



Module Efficiency Up to

15.9%

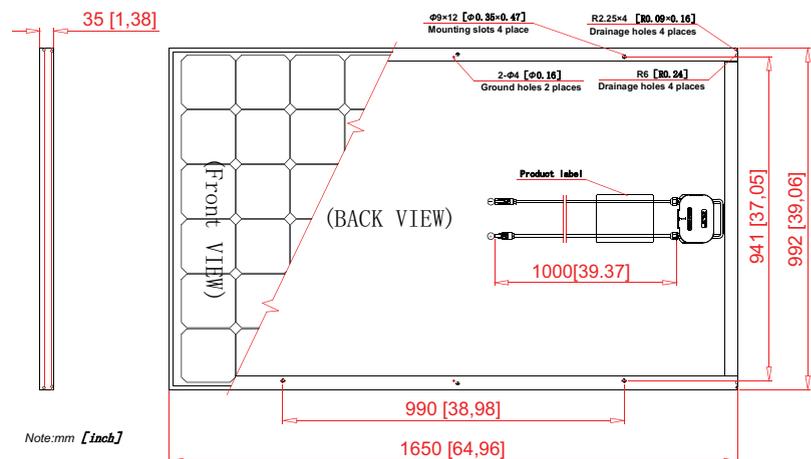
Wattage Up to

260W

Years Warranty

25

### Dimensional Characteristics



DISCLAIMER: specifications included in this datasheet are subject to change without previous notice from the company. In case of any conflicts/problems that may arise due to misinterpretation, prevailing conditions are the ones described in the original version (in English).

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