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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

**Seraphim Solar System Co., Ltd.**

**SRP-6MB-HV 280-295**

**SRP-280-6MB-HV**

Also available on the web at

[EnergyPal.com/seraphim-solar-system-co-ltd-solar-panels/srp-280-6mb-hv](http://EnergyPal.com/seraphim-solar-system-co-ltd-solar-panels/srp-280-6mb-hv)

# SRP-(280-295)-6MB-HV



## Electrical Characteristics(STC)

Module Type	SRP-280-6MB-HV	SRP-285-6MB-HV	SRP-290-6MB-HV	SRP-295-6MB-HV
Maximum Power at STC -P <sub>mp</sub> (W)	280	285	290	295
Open Circuit Voltage -V <sub>oc</sub> (V)	38.9	39.1	39.3	39.5
Short Circuit Current -I <sub>sc</sub> (A)	9.22	9.33	9.44	9.56
Maximum Power Voltage -V <sub>mp</sub> (V)	31.3	31.5	31.7	31.9
Maximum Power Current -I <sub>mp</sub> (A)	8.95	9.05	9.15	9.25
Module Efficiency STC-η <sub>m</sub> (%)	17.11	17.41	17.72	18.02
Optimizer Max.Output Voltage (V)		35.0		
Power Tolerance (W)		(0,+4.99)		
Maximum System Voltage (V)		1500		
Maximum Series Fuse Rating (A)		15		

## Temperature Characteristics

Pmax Temperature Coefficient	-0.38 %/°C
Voc Temperature Coefficient	-0.28 %/°C(0%/°C at voltage limiting)
Isc Temperature Coefficient	+0.05 %/°C
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature (NOCT)	45±2 °C

## Packing Configuration

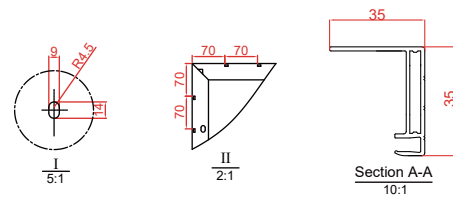
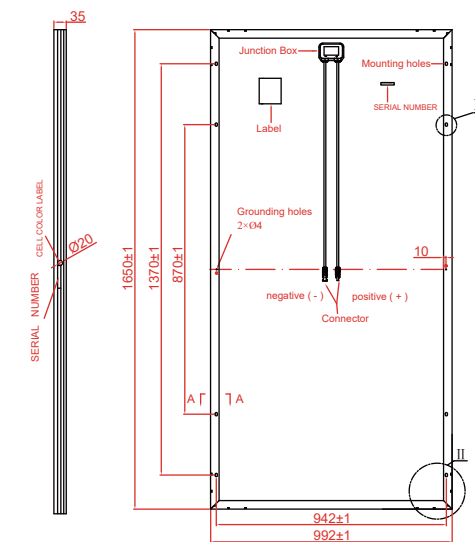
	1650 x 992 x 35 mm		
Container	20'GP	40'GP	40'HQ
Pieces per Pallet	30	30	30+2*
Pallets per Container	12	28	28
Pieces per Container	360	840	896

\* 30+2 pieces per pallet is the special package which only suits for container transport.For details,please consult SERAPHIM.

## Mechanical Specifications

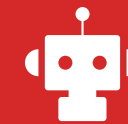
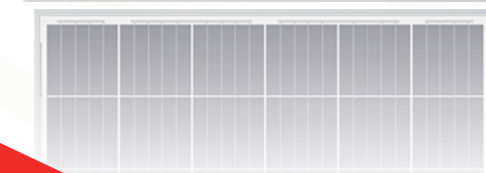
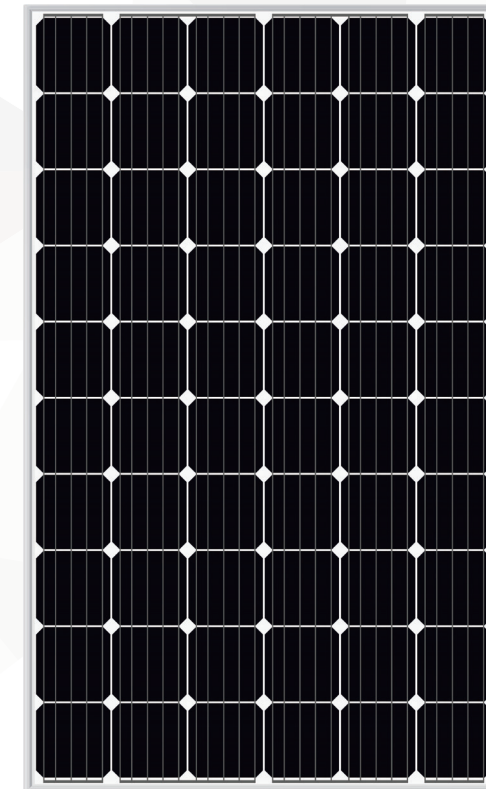
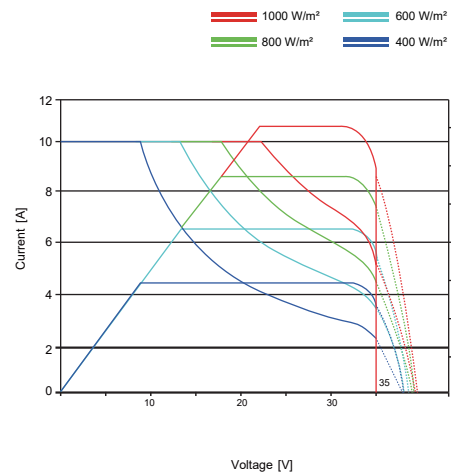
External Dimensions	1650 x 992 x 35 mm
Weight	18.0 kg
Solar Cells	Mono crystalline 6 inch(60pcs)
Front Glass	3.2 mm AR coating tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP68
Output Cables	4 mm <sup>2</sup> ,cable length:1000 mm
Connector	MC4 Compatible

STC: Irradiance 1000 W/m<sup>2</sup>, module temperature 25°C, AM=1.5  
 NOCT: Irradiance 800 W/m<sup>2</sup>, ambient temperature 20°C, wind speed :1m/s  
 Specifications are subject to change without further notification.



\* All Dimensions in mm  
 \* The above drawing is a graphical representation of the product.

## I-V CURVE (MPPT MODE)



SERAPHIM MX 1500V  
**SRP-(280-295)-6MB-HV**

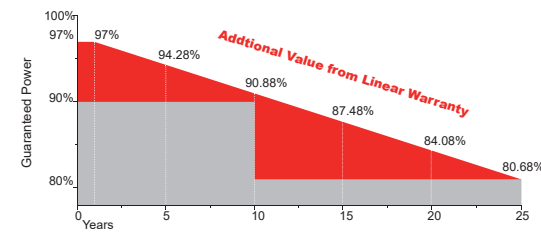
## SRP-(280-295)-6MB-HV



### MANAGEMENT SYSTEM

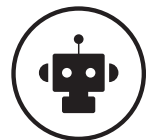
- ISO 9001:** Quality management system
- ISO 14001:** Standard for environmental management system
- OHSAS 18001:** International standard for occupational health and safety assessment system

### WARRANTY



- 10 YEARS** Guarantee on product material and workmanship
- 25 YEARS** Linear power output warranty

Optimized by maxim integrated.



Provide flexibility to system design



Allows 20~35% more modules per string saving BoS cost



Higher power density



Enhanced energy harvest

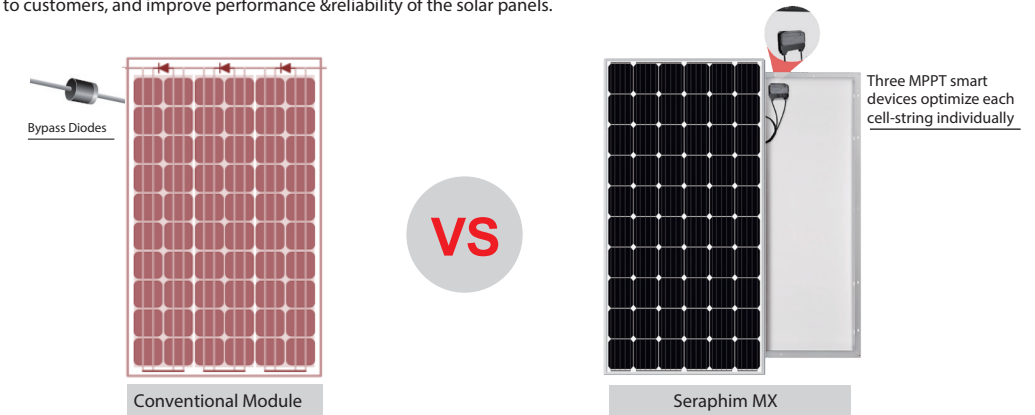


Withstand and applicable up to 1500V high system voltage

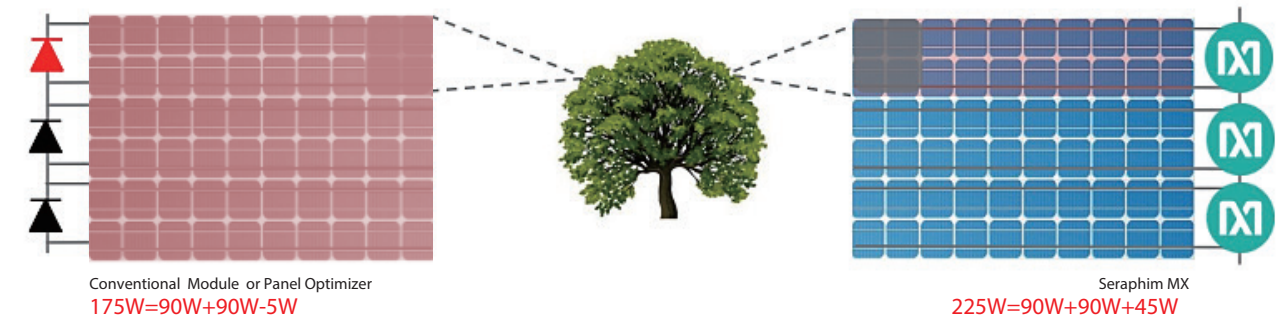


Reduced shading effect Prevent Hot-spot

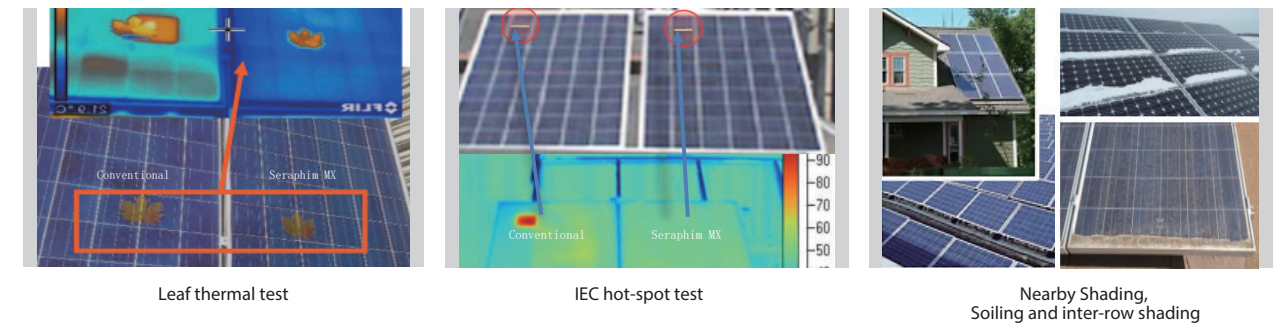
Comparing with conventional product, Seraphim integrated cell-string level optimizer into solar panel and redesigned the module. Trying best to provide advanced smart solution to customers, and improve performance & reliability of the solar panels.



Under any condition, the Seraphim MX can optimize power output to enhance energy harvest. However, conventional modules or panel optimizer product will bypass cell-strings when they underperform. So seraphim MX will give higher energy production, eliminate hot-spots issues.



Seraphim MX reduces the shading effect significantly, prevents hot-spot formation, and eliminates diode failures. In the meantime, it will lower Operation and Maintenance costs.



Seraphim MX enables flexible PV system design. Best performance with easiest installation.



Combine strings of different length  
i.e. 10 panels in parallel with 12:  
+5% energy increase!

Series connect panels facing different directions  
i.e. 10 East panels in series with West panels:  
+12% energy increase!

Series connect panels facing different tilts  
i.e. 10 panels in series with 25 panels:  
+1.6% energy increase!

Note: From simulations of PV System in San Jose, CA