



**Sunshine PV Corp.**  
www.sunshine-pv.com



ISO 9001:2008



## SUNSHINE CIGS SERIES

120 ~ 160 Watt

### WORLD'S LARGEST CIGS THIN FILM SOLAR MODULE

Excellent power output with high product quality and cost efficiency  
Certified according to the standards of IEC61646 and IEC 61730

#### Mechanical Characteristics

Size	1100mm x 1400mm
Depth	7.7mm
Weight (w/back rail, w/o back rail)	33kg / 28.5kg
Type of Frame	w/back rail, w/o back rail
Front Cover	Tempered glass
Back Cover	Float glass
Encapsulation	Glass / EVA / Glass
Snow/Wind Load (IEC)	2400Pa (w/o back rail), 5400Pa (w/ back rail)
Junction box, Connector	IP 68, MC-4 compatible
Output Cable	14 AWG ( 2.5mm <sup>2</sup> )
Cell Type	162 CIGS Cells
Safety Class	II
Fire Rating	Class C

## Electrical Characteristics

\*Standard Test Conditions (STC)

Sunshine CIGS Series	SS1114120K	SS1114130K	SS1114140K	SS1114150K	SS1114160K
Power Output (Pmpp)	120Wp	130Wp	140Wp	150Wp	160Wp*
Max. Power Voltage (Vmpp)	57.69V	59.87V	64V	66.4V	71.4V
Max. Power Current (Impp)	2.13A	2.17A	2.2A	2.25A	2.28A
Open Circuit Voltage (Voc)	85.25V	87.33V	90.63V	92.07V	95.4V
Short Circuit Current (Isc)	2.62A	2.62A	2.59A	2.59A	2.61A
Max. System Voltage	1000V	1000V	1000V	1000V	1000V
Power Tolerance	+/-5%				
Maximum System Voltage	1000Vdc (IEC), 600 Vdc (UL)				
Operating Temperature	-40°C to 85°C				

\* TUV certification in progress.

#### Loading Capacity

20 ft container	150 pcs ( 6 pallets)
40 ft container	350 pcs ( 14 pallets)
40 ft HQ container	700 pcs ( 28 pallets)

\* Module per pallet: 25pcs

## Warranty

### Product Guarantee

Warranty of the Materials and the Workmanship for 10 years.

### Power Guarantee

90% of the minimal rated Power Output for 10 years after shipment.

80% of the minimal rated Power Output for 20 years after shipment.

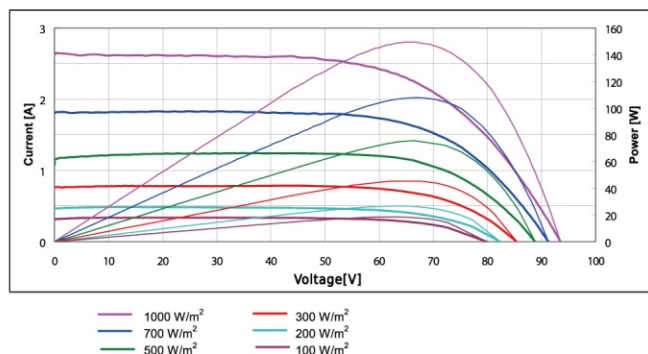


# SUNSHINE

## CIGS THIN FILM SOLAR MODULE

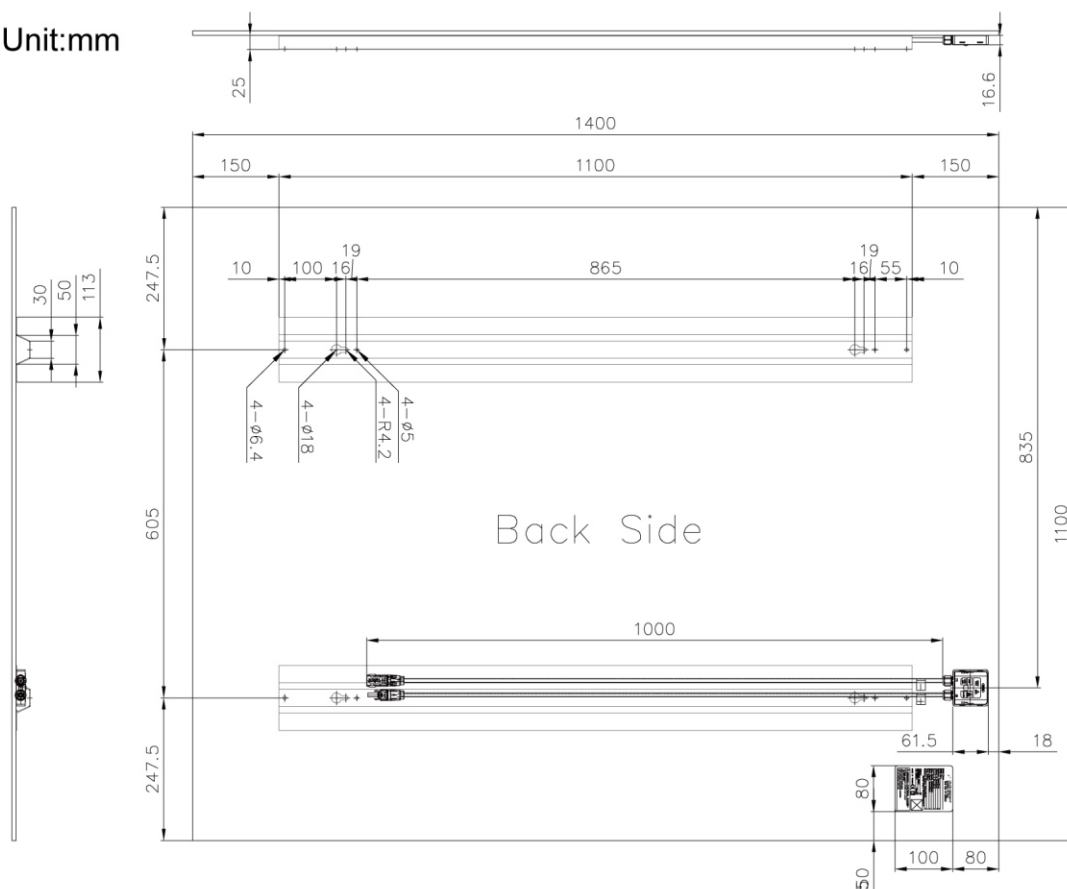
### I-V and P-V Curve

(SS1114150K)



## Physical Specification

Unit:mm



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