



Quasar^{Series}

PRODUCTS

CSP17-72H

POWER RANGE

435-450W

MONO PERC

166mm HIGH EFFICIENCY

9BB

MULTIPLE BUSBAR TECHNOLOGY

20.58%

MAXIMUM EFFICIENCY

12 YEARS

HARDWARE WARRANTY



Higher Power Output

- Higher module conversion efficiency benefit from bigger wafer 166mm and half-cell structure.
- 9BB(busbar) technology enhance stronger current collection with lower series resistance.
- Reduce losses of current mismatch.



Excellent Temperature Coefficient

- Higher power yield with lower operating temperature coefficient.
- Enables better output in hot weather conditions.
- Better performance in weak light conditions.



Higher reliability

- Positive loading 5400 Pa on front side and 2400 Pa loading on back side.
- Split-type junction box design to guarantee reliability and safety during project operation.
- Excellent anti-PID performance to guarantee safe and reliable operation in extreme weather condition.



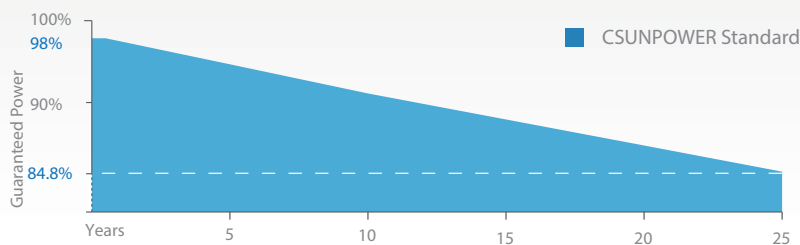
Lower Hot Spot and Crack Risk

- Reduce hot-spot risk with optimized electrical design and lower operating current.
- crack risk limitation with help of 9BB solar cell design.
- Better anti-shading performance.

Founded in 2004, CSUNPOWER(CSP) is one of the leading comprehensive solar energy solution providers in the world. We are specialized in high efficient solar module research, manufacturing and distribution as well as solar project development, EPC and O&M business. Till the end of 2019, we accumulatively distributed more than 10GW solar modules to 50countries, developed and built 500MW+ solar projects in Asia Pacific region.

PERFORMANCE WARRANTY

12 Year Product Warranty · 25 Year Power Warranty

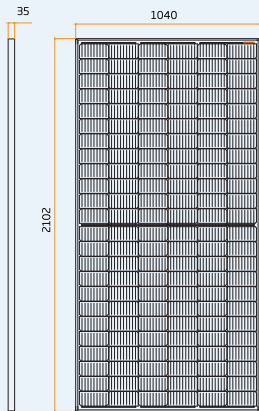


From the 2nd year to the 25th year, the average annual power decline will be no more than 0.55%.

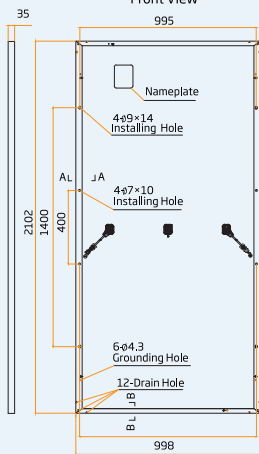
Comprehensive Products and System Certificates



DIMENSIONS OF PV MODULE(mm)

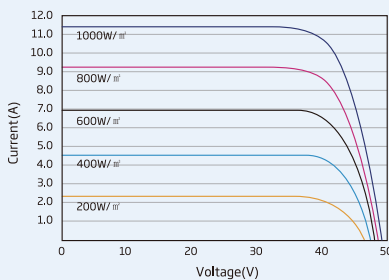


Front View

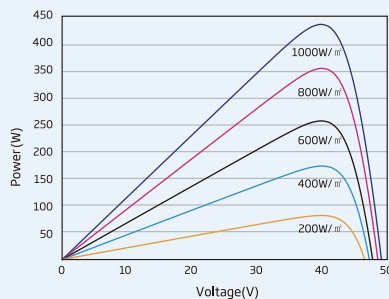


Back View

I-V CURVES OF PV MODULE(440W)



P-V CURVES OF PV MODULE(440W)



Electrical performance (STC)

Maximum Power (Pmax)	435	440	445	450
Maximum Power Voltage (Vmp)	40.54	40.75	40.94	41.10
Maximum Power Current (Imp)	10.73	10.80	10.87	10.95
Open-circuit Voltage (Voc)	49.01	49.27	49.50	49.60
Short-circuit Current (Isc)	11.28	11.36	11.42	11.50
Module Efficiency(%)	19.90%	20.13%	20.36%	20.58%

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5.
*Measuring tolerance: ±3%.

ELECTRICAL DATA (NMOT)

Maximum Power (Pmax)	329	333	336	340
Maximum Power Voltage (Vmp)	38.31	38.6	38.71	38.9
Maximum Power Current (Imp)	8.59	8.63	8.69	8.75
Open-circuit Voltage (Voc)	46.5	46.6	46.8	47
Short-circuit Current (Isc)	9.07	9.13	9.2	9.25

NMOT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	144 [2 x (12 x 6)]
Module Dimensions	2102*1040*35mm
Weight	24kg
Glass	3.2mm (0.13 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant Material	EVA
Backsheet	White
Frame	35 mm (1.38 inches) Anodized Aluminium Alloy Black
J-Box	IP68
Output Cables (Including Connector)	Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²),Length:300mm
Connector	MC4/MC4 Compatible

TEMPERATURE RATINGS

NMOT _(NominalModule Operating Temperature)	41 °C (±3 °C)
Temperature Coefficient of Pmax	-0.36%/ °C
Temperature Coefficient of Voc	-0.26%/ °C
Temperature Coefficient of Isc	+0.04%/ °C

(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

MAXIMUM RATINGS

Operational Temperature	-40 °C ~+85 °C
Maximum System Voltage	1500V DC (IEC)
	1500V DC (UL)
Maximum rated current series	20A

WARRANTY

12 year Product Workmanship Warranty
25 year Power Warranty

PACKAGING CONFIGURATION

Modules per box: 30pieces
container: 660 pieces