

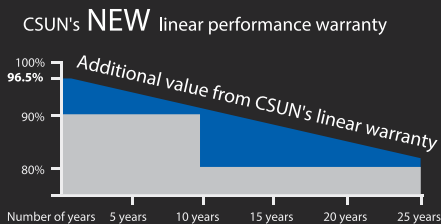
Mono



Powerguard insurance global coverage

Within the first year, the output power shall not be less than 96.5% of the minimum output power in CSUN's product datasheet, thereafter the loss of output power shall not exceed 0.68% per year, ending with 80.18% in the 25th year.

■ CSUN ■ Standard warranty



CSUN320-72M

Highest efficiency offer: QSAR™



CSUN320-72M CSUN310-72M
CSUN315-72M CSUN305-72M

19%
Cell efficiency

320W
Highest power output

10 years
Material & workmanship warranty

25 years
Linear power output warranty



Higher efficiency – perfect for rooftop projects



Positive tolerance offer



Excellent current distribution performance reduces power loss



Resistance against salt mist, ammonia, blowing sand and hail



Certificated to withstand wind (2400 Pa) and snow load (5400 Pa)



Excellent performance under weak light conditions



Good temperature coefficient enables better output in high temperature regions

- CSUN, established in 2004, is a high-tech corporation with its core business in R&D, manufacturing and sale of high-efficiency silicon based solar cells and modules.
- As one of the leading PV enterprises in the world, CSUN has delivered more than 1.4GW solar products to residential, commercial, utility and off-grid projects all around the world.
- Through strict selection of raw materials, stringent quality control and tests in state of the art facilities in Istanbul, Nanjing and Shanghai, CSUN has always committed to higher efficiency, more stable and better cost performance products.

QSAR™ is the trade mark owned by CSUN, also the brand name of high efficiency solar module produced by CSUN. From March 2012, CSUN will change "QUASAR" originally used into "QSAR".

All information and data are subject to change without notice.



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Electrical characteristics at Standard Test Conditions (STC)

Module	QSAR 320-72M	QSAR 315-72M	QSAR 310-72M	QSAR 305-72M
Maximum Power - P _{mpp} (W)	320	315	310	305
Positive power tolerance	0~3%	0~3%	0~3%	0~3%
Open Circuit Voltage - Voc (V)	45.9	45.8	45.7	45.6
Short Circuit Current - Isc (A)	9.01	8.92	8.86	8.79
Maximum Power Voltage - V _{mpp} (V)	37.4	37.2	37.1	36.9
Maximum Power Current - I _{mpp} (A)	8.56	8.47	8.36	8.27
Module efficiency	16.53%	16.27%	16.01%	15.75%

Electrical data relates to standard test conditions (STC) : irradiance 1000W/m² ; AM 1.5 ; cell temperature 25°C measuring uncertainty of power is within ±3%. Certified in accordance with IEC61215, IEC61730-1/2 and UL 1703

Electrical Characteristics at Normal Operating Cell Temperature (NOCT)

Module	QSAR 320-72M	QSAR 315-72M	QSAR 310-72M	QSAR 305-72M
Maximum Power - P _{mpp} (W)	235	231	227	224
Maximum Power Voltage - V _{mpp} (V)	34.5	34.4	34.2	34.0
Maximum Power Current - I _{mpp} (A)	6.81	6.71	6.64	6.59
Open Circuit Voltage - Voc (V)	42.2	42.1	42.0	41.9
Short Circuit Current - Isc (A)	7.27	7.19	7.15	7.09

Electrical data relates to normal operating cell temperature (NOCT): irradiance 800 W/m² ; wind speed 1 m/s ; cell temperature 45°C ambient temperature 20°C measuring uncertainty of power is within ±3%

Temperature Characteristics

Voltage Temperature Coefficient	-0,307%/K
Current Temperature Coefficient	+0,039%/K
Power Temperature Coefficient	-0,423%/K

Maximum Ratings

Maximum system voltage (V)	1000
Series fuse rating (A)	20
Reverse current overload (A)	27

Mechanical Characteristics

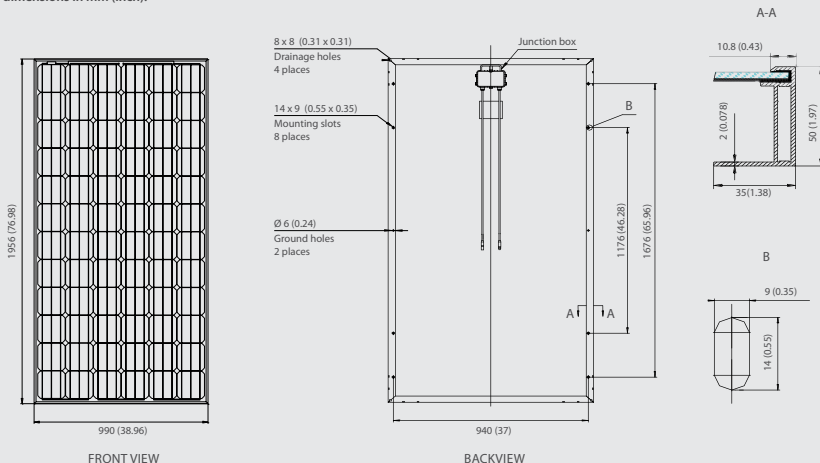
Dimensions	1956 × 990 × 50 mm
Weight	22.3 kg
Frame	Anodized aluminum profile
Front glass	White toughened safety glass, 3.2 mm
Cell Encapsulation	EVA (Ethylene-Vinyl-Acetate)
Back Sheet	Composite film
Cells	6 × 12 pieces monocrystalline solar cells series strings (156 mm × 156 mm)
Junction Box	Rated current ≥ 12A, IP ≥ 65, TUV & UL
Cable	Length 900 mm, 1 × 4 mm ²
Connector	MC4/ compatible with MC4

System Design

Temp. range	-40°C to + 85°C
Hail	Max. diameter of 25mm with 23m/s impact speed
Max. capacity	Snow 5400 Pa, wind 2400 Pa
Application class	A
Safety class	II

Dimensions

Note: All dimensions in mm (inch).



IV-Curves

