

Phono[®] Solar

Premium Module

Mono/280-290W



Excellent Temperature Coefficient



Higher Power Output

Outstanding performance in weak-light conditions



Better Durability

Enhanced durability in practical application through more strict in house testing standards than IEC

Bloomberg
NEW ENERGY FINANCE

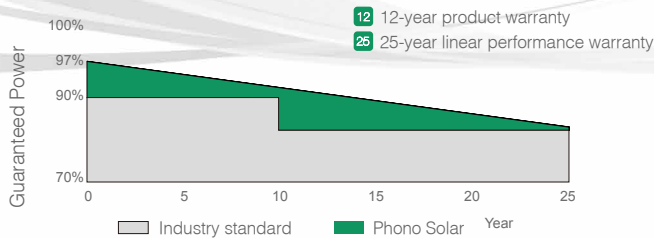
Tier1



TOP
PERFORMER



60
Cells



EN EN-20180917

SINOMACH | SUMEC
SUMEC GROUP CORPORATION

ELECTRICAL TYPICAL VALUES

Model	PS280M-20/U PS280MH-20/U	PS285M-20/U PS285MH-20/U	PS290M-20/U PS290MH-20/U
Type	Monocrystalline 6 inch x 6 inch square, 6 × 10 pieces in series		
Rated Power (Pmpp)	280W	285W	290W
Tolerance		0~+5w	
Rated Current (Impp)	8.86	8.96	9.07
Rated Voltage (Vmpp)	31.61	31.81	31.98
Short Circuit Current (Isc)	9.15	9.20	9.25
Open Circuit Voltage (Voc)	38.50	38.60	38.70
Module Efficiency (%)	17.21	17.52	17.83
NOCT (Nominal Operation Cell Temperature)		45±2°C	
Voltage Temperature Coefficient		-0.35%/°C	
Current Temperature Coefficient		+0.07%/°C	
Power Temperature Coefficient		-0.45%/°C	

MECHANICAL CHARACTERISTICS

Dimension (L× W × H)	Length: 1640mm (64.57 inch) Width: 992mm (39.06 inch) Height: 35mm (1.38 inch)
Weight	18kg (39.68 lbs)
Front Glass	3.2mm toughened glass
Frame	Anodized aluminium alloy
Cable	4mm ² (IEC) , Length:900mm or Customized Length
Junction Box	IP 68 rated

ABSOLUTE MAXIMUM RATING

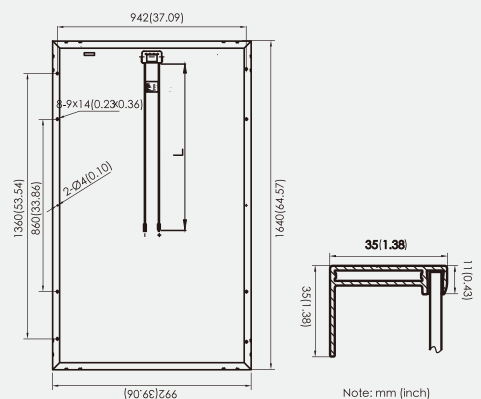
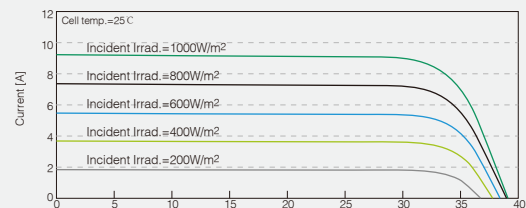
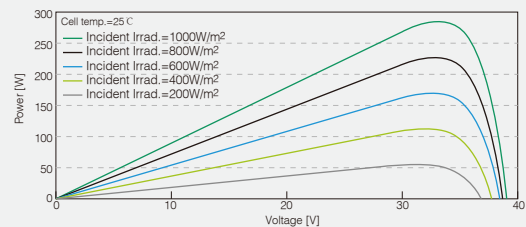
Parameter	Values
Operating Temperature	From -40 to +85°C
Hail Diameter @ 80km/h	Up to 25mm
Surface Maximum Load Capacity	Up to 5400Pa
Maximum Series Fuse Rating	20A
Application Class and Safety Class	II
Fire Rating (IEC61730)	C
Module Fire Performance (UL 1703)	Type1
Maximum System Voltage	DC 1000V/1500V (IEC/ETL)

PACKING CONFIGURATION

Container	20' GP	40' HQ
Pieces/Container	312	896

- In compliance with our warranty terms and conditions.
- Measurement conditions under irradiance level of Standard Test Conditions(STC): 1000W/m
Air mass 1.5 Spectrum, cell temperature of 25°C.

ELECTRICAL CHARACTERISTICS



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Note: This datasheet is not legally binding. Phono Solar Technology Co., Ltd. reserves the right to adjust specifications without notice. Further information please refer to our [Website:www.phonosolar.com](http://www.phonosolar.com), [E-mail:info@phonosolar.com](mailto:info@phonosolar.com)