POLY | MONO

ABOUT PHONO SOLAR

Phono Solar Technology Co., Ltd. is one of the worldÕs leading renewable energy product manufacturers and a well trusted brand provider. The Phono Solar brand has become synonymous with high performing, top quality photovoltaic panels that are ideal for use in large scale power plants, commercial and residential installations.

DIAMOND Series
280-330

HIGH PERFORMANCE SOLAR MODULES

Phono® Solar
SHARE THE SUN, POWER THE FUTURE!

RELIABLY HIGH YIELDS

- High efficiency solar cells together with high transmission textured glass deliver module efficiency of over 16.0%, leading to minimized installation costs and maximized system output.
- High output due to excellent performance in weak-light conditions.
- Higher specific yields due to positive power sorting.
- Product quality is assured through the use of branded components.

QUALITY ASSURANCE

- Durability assured in even the harshest environments with AMMONIA CORROSION, SALT MIST CORROSION, and FIRE TEST certifications.
- Certified to withstand increased snow and wind loads of up to 5400Pa.
- Manufacturing facility certified by ISO 9001, ISO 14001 and OHSAS 18001.
- Internal quality control with standards higher than both IEC and UL.

WARRANTIES

- 10-year product warranty*
- 25-year performance warranty*
- Free module recycling through PV Cycle Association membership**

CEC

Clean Energy Council

PV CYCLE

* IN COMPLIANCE WITH OUR WARRANTY TERMS AND CONDITIONS.

** IN PV CYCLE MEMBER COUNTRIES ONLY, SEE: WWW.PVCYCLE.COM

MECHANICAL CHARACTERISTICS

Solar Cells	Polycrystalline 156mm x 156mm square, 6 x 12 pieces in series
Dimension	Length: 1956mm (77.0 inch)
	Width: 992mm (39.1 inch)
	Height: 50mm (2.0 inch)
Weight	26kg (57.3lbs)
Front Glass	4.0mm toughened glass
Frame	Anodized aluminium alloy
Cable	1.10m wire (¿4mm ^{2})
Diodes	6 pieces Schottky by-pass diodes
Junction Box	IP 65 rated

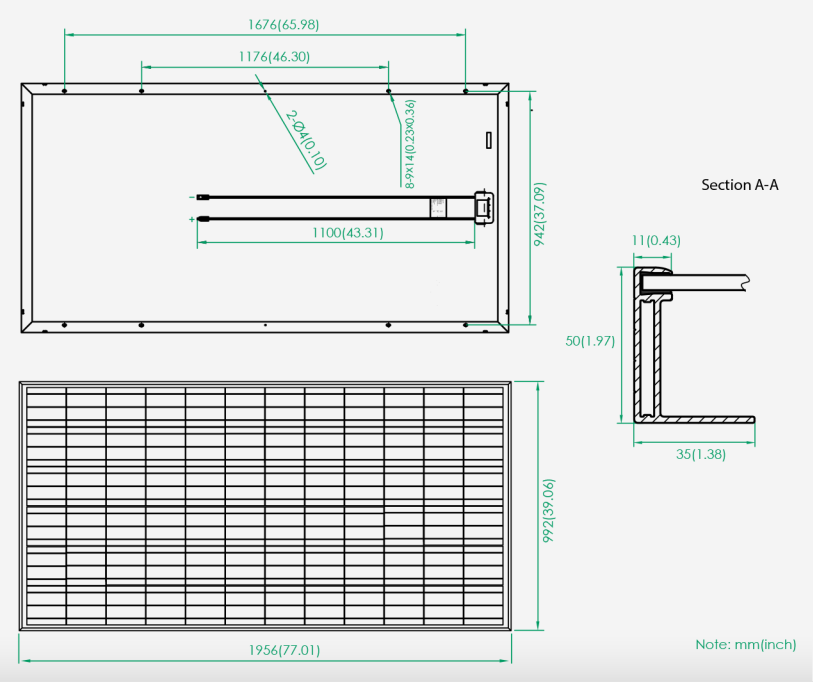
ABSOLUTE MAXIMUM RATING

Parameter	Values
Operating Temperature	From -40 to +85 ℃
Typical Application	24V DC
Hail Diameter @ 80km/h	Up to 25mm
Surface Maximum Load Capacity	Up to 5400Pa
Maximum Series Fuse Rating	15A
IEC Application Class (IEC 61215)	A
Fire Rating (UL 1703)	C
Maximum System Voltage	1000V DC (IEC 61215)
	1000V DC (UL 1703)

ELECTRICAL TYPICAL VALUES [1,2]

Model	Rated Power (P_{mpp})	Tolerance	Rated Current (I_{mpp})	Rated Voltage (V_{mpp})	Short Circuit Current (I_{sc})	Open Circuit Voltage (V_{oc})	Module Efficiency (%)
PS280P-24/T	280W	0~+5W	7.82	35.8	8.35	44.8	14.43
PS290P-24/T	290W	0~+5W	8.03	36.1	8.50	45.2	14.95
PS300P-24/T	300W	0~+5W	8.24	36.4	8.65	45.6	15.46
PS310P-24/T	310W	0~+5W	8.45	36.7	8.80	46.0	15.98
PS320P-24/T	320W	0~+5W	8.66	37.0	8.95	46.4	16.49
PS330P-24/T	330W	0~+5W	8.87	37.3	9.10	46.8	17.01

DIMENSIONS



TEMPERATURE CHARACTERISTICS

NOCT (Nominal Operation Cell Temperature)	45℃ ± 2℃
Voltage Temperature Coefficient	-0.31%/K
Current Temperature Coefficient	+0.07%/K
Power Temperature Coefficient	-0.40%/K

WEAK LIGHT PERFORMANCE

Intensity [W/m ^{2}]	I_{mpp}	V_{mpp}
1000	1	1
800	0.8	0.996
600	0.6	0.99
400	0.4	0.983
200	0.2	0.952
100	0.1	0.921

PACKING CONFIGURATION

Container	40' HQ
Pieces per pallet	22
Pallets per container	22
Pieces per container	484

Note: This datasheet summarises product warranty and specifications, which are subject to change without notice. The exact module specification will be subject to the description in the sales contract. Further information can be found on our website: www.phonosolar.com

1. Defined as standard deviation of thousands measurements. Absolute power values depend on the measuring system. They can differ by +/-5% from one measuring system to another.

2. Measurement conditions under irradiance level of Standard Test Conditions(STC): 1000W/m Air mass 1.5 Spectrum, cell temperature of 25 ℃.