PVM Sun Mono 280-320 BLACK

MONOCRYSTALLINE PHOTOVOLTAIC MODULE

solaico
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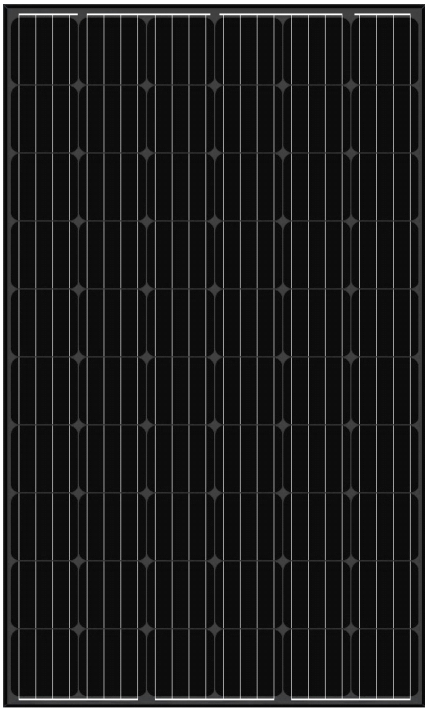
Europe Solar Production

Premium Quality Solar Module Data sheet



KEY SALIENT FEATURES

Aesthetically appealing design with black backsheet and frame.

High module conversion efficiency up to 19.67% by using high efficient solar cells and advanced manufacturing technology.

Low degradation and excellent performance under high temperature and low light conditions.

Robust aluminum frame ensures the modules to withstand wind loads up to 3600Pa and snow loads up to 5400Pa.

High reliability against extreme environmental conditions (passing salt mist, ammonia and hail tests).

Potential induced degradation (PID) resistance.

Positive power tolerance of 0 ~ +3 %.

IEC61215, IEC61730, IEC62716, IEC61701, CE, CQC, CGC, ETL(USA), JET(Japan), J-PEC(Japan), Kemco(South Korea), KS(South Korea), MCS(UK), CEC(Australia), FSEC(FL-USA), CSI Eligible(CA-USA), Israel Electric(Israel), InMetro(Brazil), TSE(Turkey)

ISO9001:2008: Quality management system

ISO14001:2004: Environmental management system

OHSAS18001:2007: Occupational health and safety management system

MANAGEMENT SYSTEM CERTIFICATES

ISO 9001: 2008: Quality Management System
ISO14001: 2004 : Standards for Environmental Management System
OHSAS 18001: 2007: Occupational Health and Safety Management System

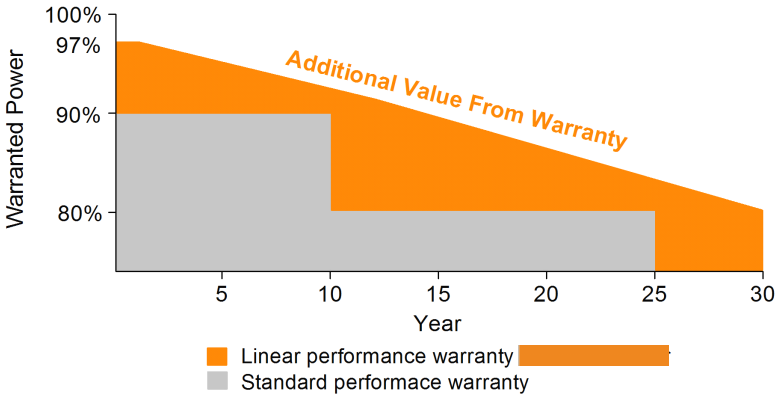
PRODUCT CERTIFICATES

IEC61215/IEC61730/IEC61701/IEC62716
UL 1703

SPECIAL WARRANTY

12 years limited product warranty

Limited linear power warranty:
12 years 91.2% of the nominal power output,
30 years 80.6% of the nominal power output.



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PVM Sun Mono 280-320 BLACK

Electrical Characteristics at STC

Maximum Power (P_{max})	280W	285W	290W	295W	300W	305W	310W	315W	320W
Open Circuit Voltage (V_{OC})	38.8V	39.0V	39.2V	39.4V	39.6V	39.8V	40.0V	40.2V	40.4V
Short Circuit Current (I_{SC})	9.35A	9.44A	9.53A	9.62A	9.70A	9.79A	9.88A	9.97A	10.06A
Voltage at Maximum Power (V_{mp})	31.6V	31.8V	32.0V	32.2V	32.4V	32.6V	32.8V	33.0V	33.2V
Current at Maximum Power (I_{mp})	8.87A	8.97A	9.07A	9.17A	9.26A	9.36A	9.46A	9.55A	9.64A
Module Efficiency (%)	17.21	17.52	17.83	18.13	18.44	18.75	19.05	19.36	19.67
Operating Temperature	-40°C to +85°C								
Maximum System Voltage	1000V DC/1500V DC								
Fire Resistance Rating	Type 1(in accordance with UL 1703)/Class C(IEC 61730)								
Maximum Series Fuse Rating	15A								

STC: Irradiance 1000W/m^2, Cell temperature 25°C, AM1.5

Electrical Characteristics at NOCT

Maximum Power (P_{max})	207W	211W	215W	218W	222W	226W	230W	234W	238W
Open Circuit Voltage (V_{OC})	35.7V	35.9V	36.1V	36.3V	36.5V	36.7V	36.9V	37.1V	37.3V
Short Circuit Current (I_{SC})	7.57A	7.65A	7.72A	7.79A	7.86A	7.93A	8.00A	8.08A	8.15A
Voltage at Maximum Power (V_{mp})	28.8V	29.0V	29.2V	29.4V	29.6V	29.8V	30.0V	30.2V	30.4V
Current at Maximum Power (I_{mp})	7.19A	7.28A	7.37A	7.42A	7.50A	7.59A	7.67A	7.75A	7.83A

NOCT: Irradiance 800W/m^2, Ambient temperature 20°C, Wind Speed 1 m/s

Mechanical Characteristics

Cell type	Monocrystalline 6inch
Number of cells	60 (6x10)
Module dimensions	1640x992x35mm (64.57x39.06x1.38inches)
Weight	17.5kg (38.6lbs)
Front cover	3.2mm (0.13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	IP67, 3 diodes
Cable	4mm^2 (0.006inches^2), 900mm (35.43inches)
Connector	MC4 or MC4 compatible

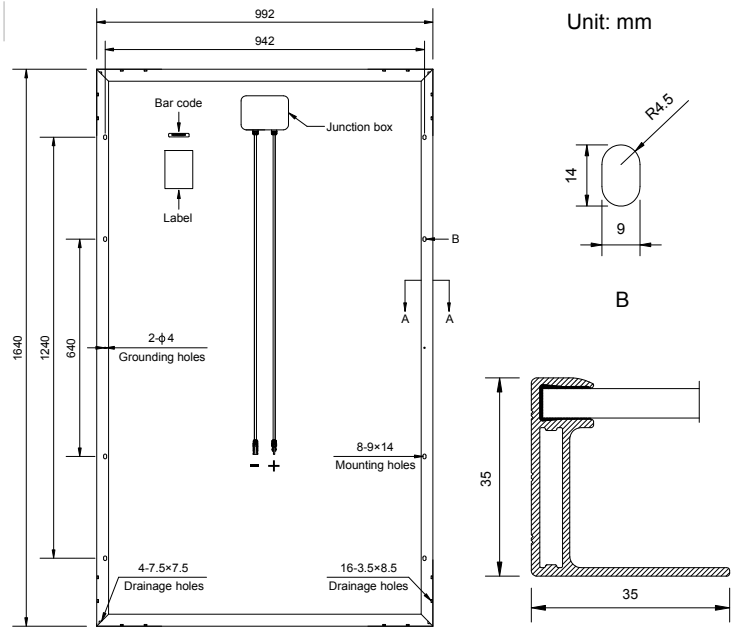
Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	45°C±2°C
Temperature Coefficients of P_{max}	-0.38%/°C
Temperature Coefficients of V_{OC}	-0.29%/°C
Temperature Coefficients of I_{SC}	0.052%/°C

Packaging

Standard packaging	30pcs/pallet
Module quantity per 20' container	360pcs
Module quantity per 40' container	840pcs(GP)/924pcs(HQ)

Engineering Drawings

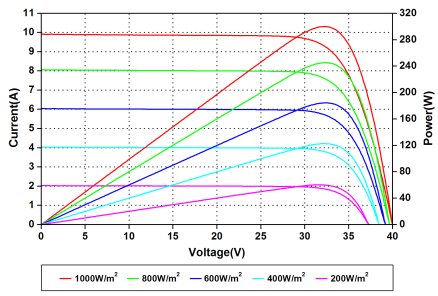


Rear View

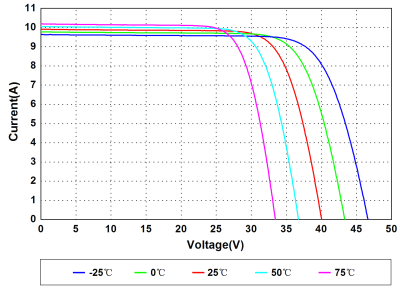
Section A-A

Specifications in this datasheet are subject to change without prior notice.

IV Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances



Current-Voltage Curves at Different Temperatures