RED SOLAR

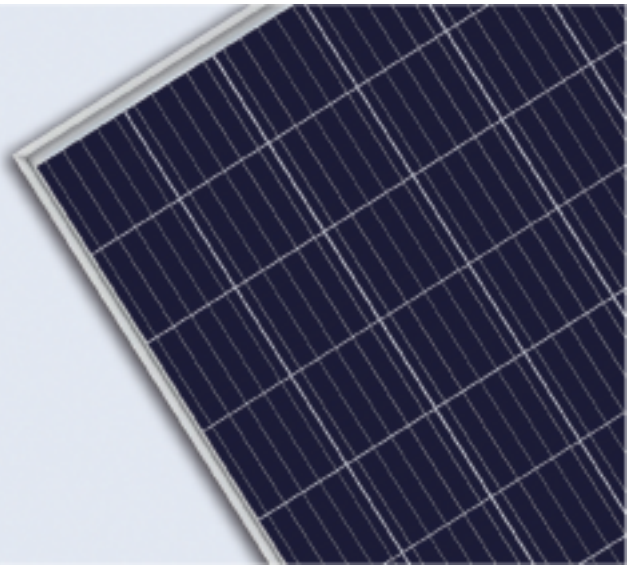
LIGHTBEAM series

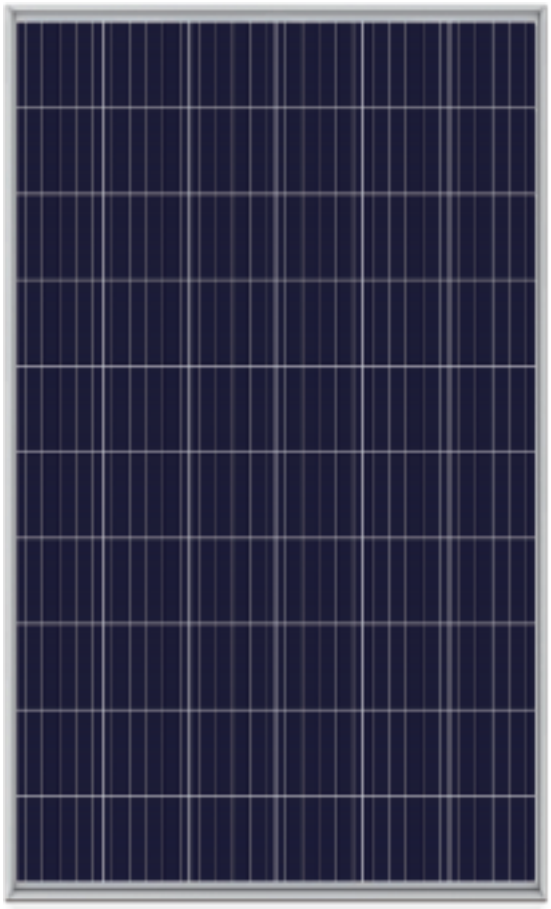
RED280-60P

280W

POLY CRYSTALLINE MODULE

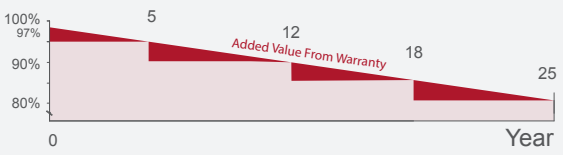
IEC61215 / IEC61730 / IEC61701 / IEC62716 /IEC62804





LINEAR PERFORMANCE WARRANTY

- 10 Years Manufacturing Warranty
- 12 Years 90% Power Output
- 25 Years 80% Power Output



IP68 Junction Box, Connector

IP68 Junction Box and Connector have a high degree of waterproof, effectively resist the harsh environment

15A current

The junction box carries a current of 15A, ensuring high current flow through the modules

Super strong frame

Glue-spilled tank has a double-layer waterproof, cross-section with hook-shaped aluminum frame, enhanced by 10% of the mechanical load strength

Current division

The module refines the current division, thus effectively reducing the loss of up to 2% due to mismatch and increasing the power output of the system

Salt spray, Ammonia and PID test

Excellent salt spray resistance, anti-ammonia and anti PID, TUV, SUD certification approved

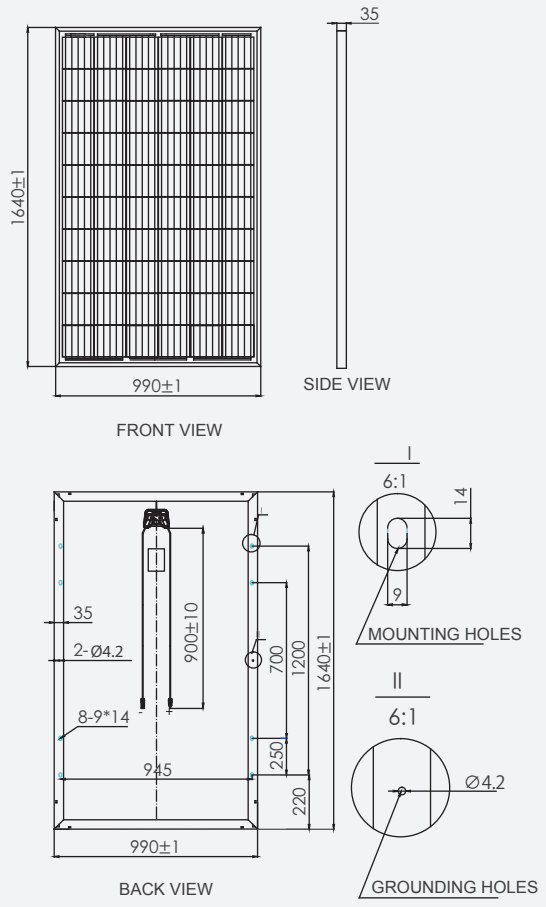
Strong Mechanical load capacity

Passed the 2400pa wind load and 5400pa snow load test, ensuring that the module has a stable mechanical life

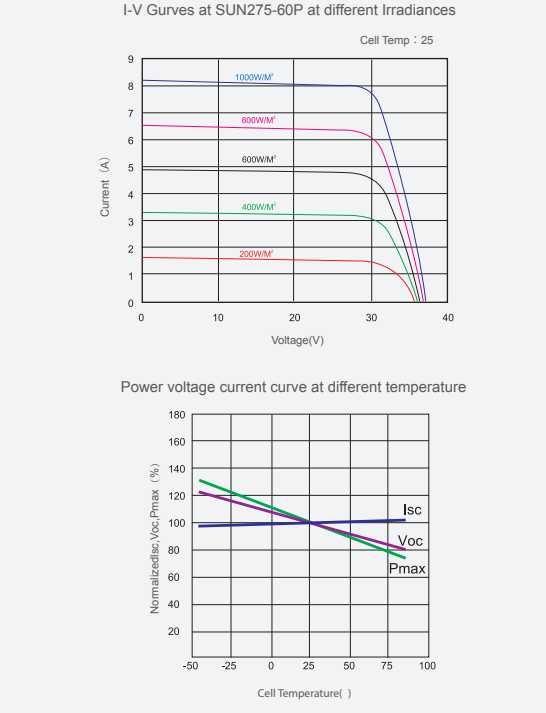
Color Classification

Modules are packaged according to color classification, to achieve consistent appearance after installation

MECHANICAL DRAWINGS



I-V CURVES



MECHANICAL SPECIFICATION

Cell Type	Poly Crystalline 156.75x156.75mm
Number Of Cells	60（6x10）
Dimensions(AxBxC)	1640x990x35mm
Weights	19kg
Front Glass	3.2mm Tempered Low Iron Glass
Frame	Anodized Aluminum
Junction Box	IP68,with Bypass Diodes
Connector	Mc4 Compatible
Output Cables	Tuv,±length 900mm,4.0mm²

ELECTRICAL CHARACTERISTICS

Maximum Power At STC(Pmax)	265W	270W	275W	280W
Short Circuit Current(Isc)	8.94A	9.06A	9.18A	9.29A
Open Circuit Voltage(Voc)	37.0V	37.2V	38.0V	38.5V
Maximum Power Current(Impp)	8.54A	8.65A	8.76A	8.86A
Maximum Power Voltage(Vmpp)	31.0V	31.2V	31.4V	31.6V
Module Efficiency	16.32%	16.63%	16.94%	17.25%
Power Tolerance	0~+3%	0~+3%	0~+3%	0~+3%

STC: 1000W/m2 irradiance, 25°C cell temperature, AM1.5.

NOCT

Maximum Power At STC(Pmax)	196.3	200.0	203.7	207.4
Short Circuit Current(Isc)	7.24	7.33	7.43	7.52
Open Circuit Voltage(Voc)	34.2	34.4	35.1	35.6
Maximum Power Current(Impp)	6.80	6.89	6.99	7.07
Maximum Power Voltage(Vmpp)	28.9	29.0	29.2	29.3

NOCT: Irradiance at 800W/m² , Ambient Temperature 20°C , wind speed 1m/s .

SYSTEM INTEGRATION PARAMETERS

Maximum System Voltage	VDC 1000V
Maximum Series Fuse	15A
Increased Snowload Acc.to Iec 61215	5400Pa
Operating Temperature	-40~ +85
Number Of Bypass Diodes	3

TEMPERATURE CHARACTERISTICS

Norminal Operating Cell Temperature(Noct)	45 ±2
Temperature Coefficient Of Pmax	-0.41%
Temperature Coefficient Of Voc	-0.33%
Temperature Coefficient Of Lsc	0.06%

PACKING CONFIGURATION

Container	20'GP	40'GP
Pieces Per Pallet	30	30
Pallets Per Container	14	28
Pieces Per Container	400	840