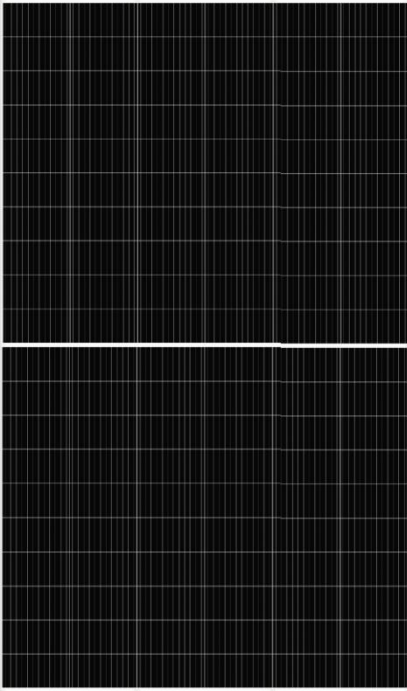


PWSOLAR

650W 132 cells series

MONOCRYSTALLINE MODULE



ADVANCED PERFORMANCE & PROVEN ADVANTAGES

- ◆ High module conversion efficiency up to 20.92% by using innovative Half-cell design and Multi-busbar(MBB) cell technology.
- ◆ Low temperature coefficient and excellent performance under high temperature and low light conditions.
- ◆ Robust aluminum frame ensures the modules to withstand wind loads up to 2400Pa and snow loads up to 5400Pa.
- ◆ High reliability against extreme environmental conditions (passing salt mist, ammonia and hail tests).
- ◆ Potential induced degradation (PID) resistance.
- ◆ Power tolerance of $\pm 5\%$.

ELECTRICAL CHARACTERISTICS AT STC

Model	PW650Wp-132M
Maximum Power (P_{max})	650W
Power Tolerance	$\pm 5\%$
Open Circuit Voltage (VOC)	45.50V
Short Circuit Current (ISC)	18.36A
Voltage at Nominal Power (V_{mp})	37.70V
Current at Nominal Power (I_{mp})	17.26A
Size of Module	2384 x 1303 x 35mm
Standard Test condition	Irradiance:1000W/M2 Temp: 25°C , & AM :1.5G spectrum
Maximum system voltage	1000VDC/1500VDC
Operating temperature	- 40°C to +85°C
Module Efficiency	20.92%

ELECTRICAL CHARACTERISTICS AT STC

NOCT	45 \pm 2°C
Voltage temperature coefficient(V_{oc})	-0.330%/°C
Current temperature coefficient (I_{sc})	+0.058%/°C
Power temperature coefficient(P_{mpp})	-0.400%/°C
Minimum power tolerance	+/-10%
NOCT	45 \pm 2°C





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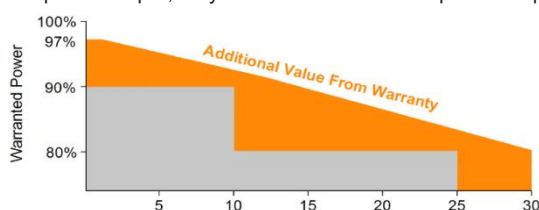
MECHANICAL CHARACTERISTICS

Cell Type	Monocrystalline (210*105)
Number of cell	132pcs (6 x 22)
Size of Module	2384x 1303 x 35mm
Weight	About 30.60kgs
Front Cover	3.2mm tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction Box	IP68, 3 diodes
Cable	4mm ² (0.006inches ²), Positive: 300mm, Negative: 200mm Length can be customized
Connector	MC4 or MC4 compatible
Maximum Load Capacity(Pa)	2400(wind load)/2400(snow load)

MODULE WARRANTY

12 year limited product; limited linear power warranty: 12 year 91.20% of nominal power output, 30 year 80.60% of nominal power output.
20 years product warranty; 30 years linear power output

-  Linear performance warranty from PWSOLAR
-  Standard performance warranty



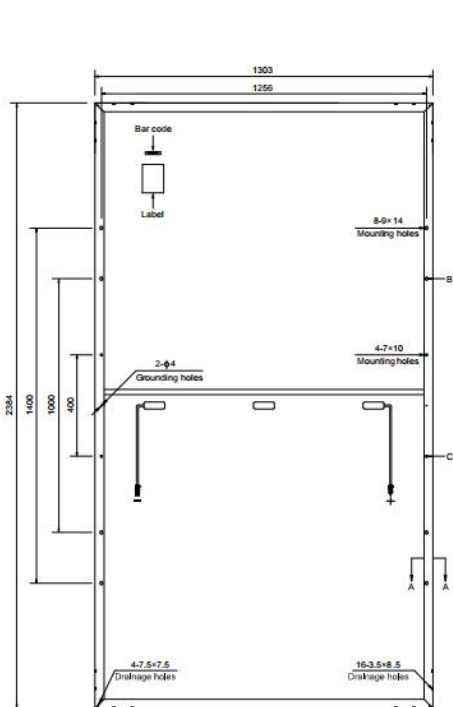
PACKING

Standarding Packing: 31pcs/Pallet

Module Quantity of 20' container: 124pcs

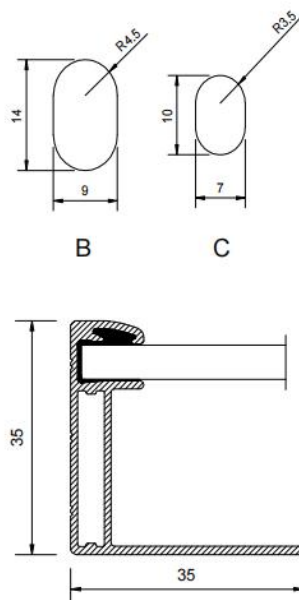
Module Quantity of 40' container: 527pcs

ENGINEERING DRAWING



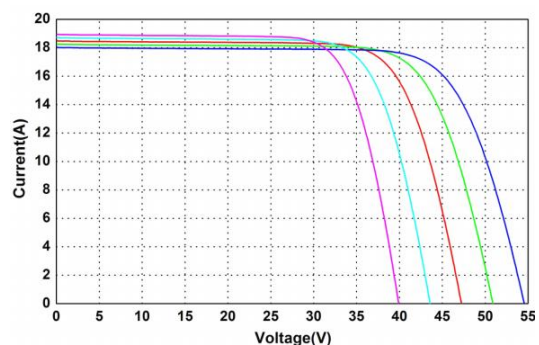
Rear View

Unit: mm

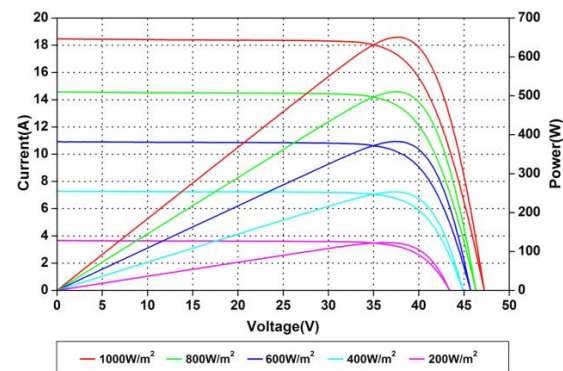


Section A-A

IV CURVES



— -25°C — 0°C — 25°C — 50°C — 75°C



— 1000W/m² — 800W/m² — 600W/m² — 400W/m² — 200W/m²



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