

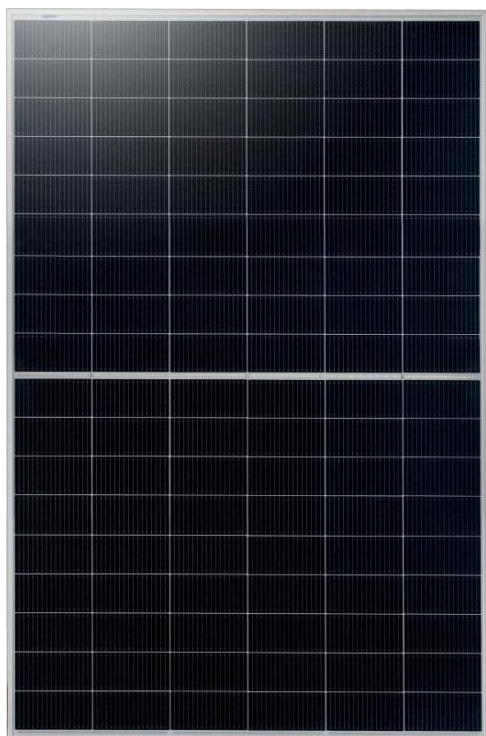
# PWSOLAR

## 450W N Type Topcon

### MONOCRYSTALLINE MODULE

#### ADVANCED PERFORMANCE & PROVEN ADVANTAGES

- ◆ High module conversion efficiency up to 22.52% 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 module 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	PW450Wp-108M
Maximum Power ( $P_{max}$ )	450W
Power Tolerance	$\pm 5\%$
Open Circuit Voltage (VOC)	39.78V
Short Circuit Current (ISC)	14.00A
Voltage at Nominal Power ( $V_{mp}$ )	33.22V
Current at Nominal Power ( $I_{mp}$ )	13.55A
Size of Module	1762 x 1134 x 30mm
Standard Test condition	Irradiance: 1000W/M <sup>2</sup> Temp: 25°C , & AM : 1.5G spectrum
Maximum system voltage	1000VDC/1500VDC
Operating temperature	- 40°C to +85°C
Module Efficiency	22.52%

#### ELECTRICAL CHARACTERISTICS AT STC

NOCT	45 $\pm$ 2°C
Voltage temperature coefficient ( $V_{oc}$ )	-0.33%/°C
Current temperature coefficient ( $I_{sc}$ )	+0.058%/°C
Power temperature coefficient ( $P_{mpp}$ )	-0.400%/°C
Minimum power tolerance	$\pm 10\%$
NOCT	45 $\pm$ 2°C



# MECHANICAL CHARACTERISTICS

Cell Type	Monocrystalline (182.2 x 94mm)
Number of cell	108pcs (2 x 54)
Size of Module	1762 x 1134 x 30mm
Weight	About 22.00kgs
Front Cover	3.2mm tempered glass with AR coating
Frame	Anodizedaluminumalloy
Junction Box	IP68, 3 diodes
Cable	4mm <sup>2</sup> (0.006inches <sup>2</sup> ),300mm(11.81inches)
Connector	MC4 or MC4 compatible

# MODULE WARRANTY

30-year limited warranty of 80% power output; 10-year limited warranty of 90% power output; 12-year limited warranty of materials and workmanship.

# PACKING

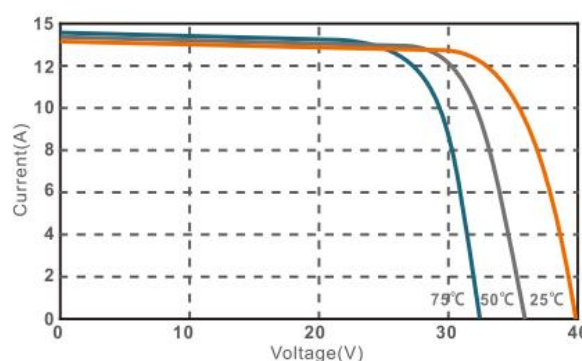
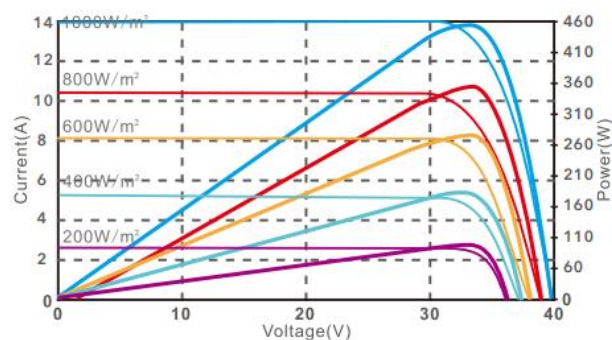
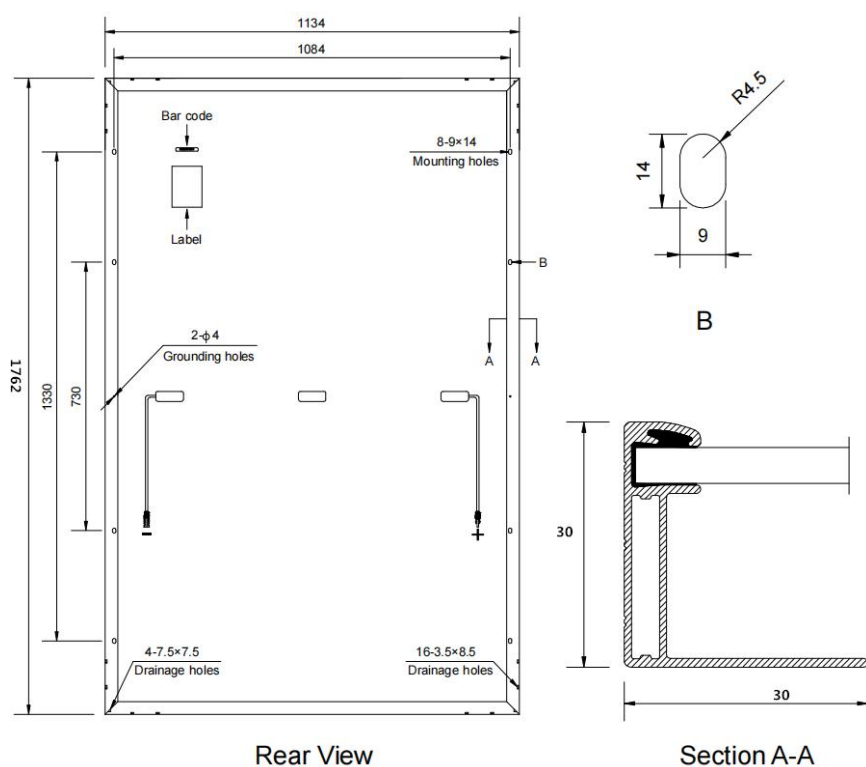
Standarding Packing: 36pcs/Pallet

Module Quantity of 20' container: 360pcs

Module Quantity of 40' container: 936pcs

# ENGINEERING DRAWING

# IV CURVES



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