RUNERGY

Preliminary Version

TIER 1 HY-WH144P8

540-560W

21.7%	P-Type	144 Pieces
Max. Efficiency	Single Glass	Half-Cell

High Conversion Efficiency

Module efficiency up to 21.7% achieved through advanced cell technology and manufacturing process

Excellent weak light performance

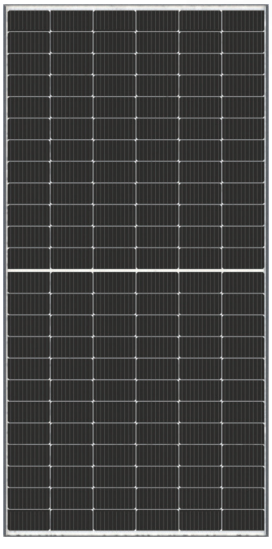
More power output in weak light condition, such as cloudy days, morning and sunset

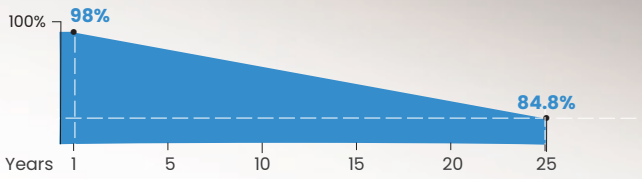
Extended mechanical performance

Module certified to withstand extreme wind(2400 Pa) and snow loads(5400 Pa)

Anti-dust accumulation design

The unique frame design effectively reduces dust accumulation and increases power generation gain throughout the module life cycle.





Runergy P-Type Single Glass Product Performance Warranty

- **12 Years** warranty for materials and workmanship
- **25 Years** warranty for extra linear power output
- 1st year <**2%**, annual degradation <**0.55%**

IEC61215 / IEC61730 / UL61730 / IEC61701 / IEC62716 / IEC60068 / ISO9001 / ISO14001/ ISO45001

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RUNERGY

HY-WH144P8-540/560

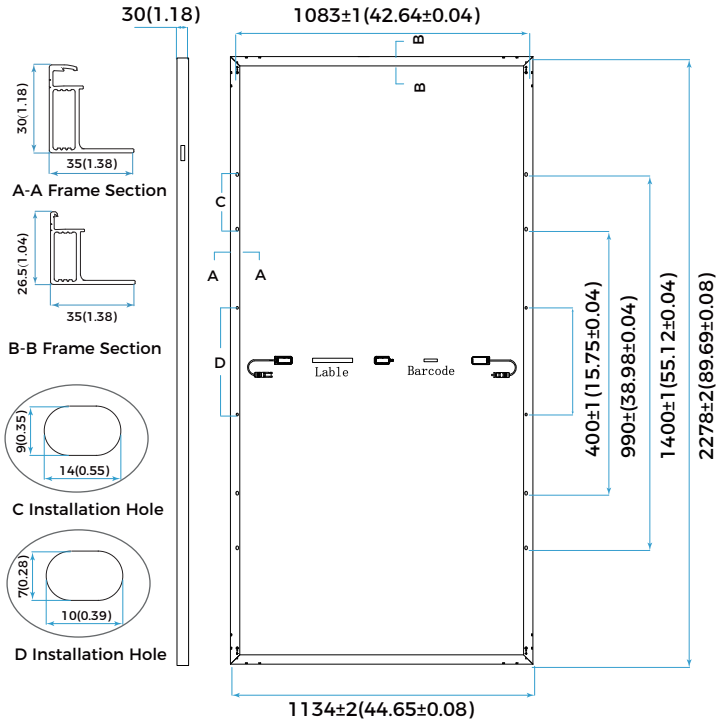
Unit: mm(inch)

Mechanical Parameters

Solar Cell	Mono PERC 182mm
No. of Cells	144 (6 × 24)
Dimensions	2278 × 1134 × 30mm(89.69 x 44.65 x 1.18in)
Weight	27.6kg(60.85 lbs)
Junction Box	IP68 rated (3 bypass diodes)
Output Cable	4mm² (IEC), 12 AWG(UL) +400/-200mm(+15.75/-7.87in.) or customized
Connector	RY01/EVO2 or similar
Front Cover	3.2mm (0.13in.) AR Tempered glass
Container	36 pcs/Pallet, 720 pcs/40' HQ

Operating Parameters

Max. System Voltage	DC 1500V（IEC/UL）
Operating Temperature	-40˚C ~ +85˚C(-40°F ~ +185°F)
Max. Fuse Rating	25A
Frontside Max. Loading	5400Pa(112lb/ft²)
Backside Max. Loading	2400Pa(50lb/ft²)
Fire Resistance	IEC Class C



Electrical Characteristics - STC

Irradiance 1000 W/m², cell temperature 25 ˚C, AM1.5, , Test uncertainty for Pmax: ±3%

Maximum Power at STC (Pmax/W)	560	555	550	545	540
Power Tolerance (W)			0 ~ +5		
Optimum Operating Voltage (Vmp/V)	42.28	42.12	41.96	41.80	41.64
Optimum Operating Current (Imp/A)	13.25	13.18	13.11	13.04	12.97
Open Circuit Voltage (Voc/V)	50.20	50.05	49.90	49.75	49.60
Short Circuit Current (Isc/A)	14.14	14.07	14.00	13.93	13.86
Module Efficiency	21.7%	21.5%	21.3%	21.1%	20.9%

Electrical Characteristics - NMOT

Irradiance 800 W/m², ambient temperature 20 ˚C, AM1.5, wind speed 1 m/s.

Maximum Power at NMOT (Pmax/W)	423.7	419.9	416.0	412.2	408.5
Optimum Operating Voltage (Vmp/V)	40.09	39.94	39.79	39.64	39.49
Optimum Operating Current (Imp/A)	10.57	10.51	10.46	10.40	10.34
Open Circuit Voltage (Voc/V)	47.61	47.46	47.32	47.18	47.04
Short Circuit Current (Isc/A)	11.41	11.35	11.30	11.24	11.18

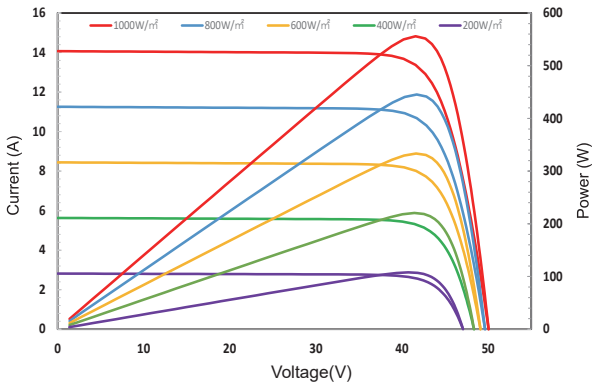
Warranty

Product Workmanship Warranty	12 Years
Linear Power Output Warranty	25 Years
First Year Degradation	2%
Annual Power Degradation	0.55%

Temperature Characteristics

Nominal Module Operating Temperature	42 ± 2 ˚C
Nominal Cell Operating Temperature	45 ± 2 ˚C
Temperature Coefficient of Pmax	-0.35%/˚C
Temperature Coefficient of Voc	-0.26%/˚C
Temperature Coefficient of Isc	0.048%/ ˚C

Current-Voltage & Power-Voltage Curve（560W）



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