RUNERGY

TIER 1 HY-WH120P8

445-465W

21.5%	P-Type	120 Pieces
Max. Efficiency	Single Glass	Half-Cell

High Conversion Efficiency

Module efficiency up to 21.5% achieved through advanced cell technology and manufacturing process

Excellent weak light performance

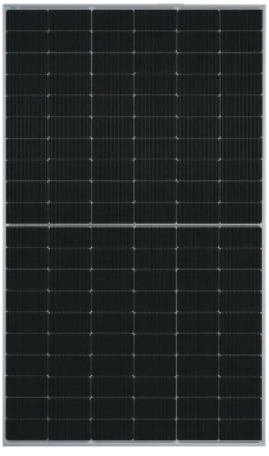
More power output in weak light condition, such as cloudy days, morning and sunset

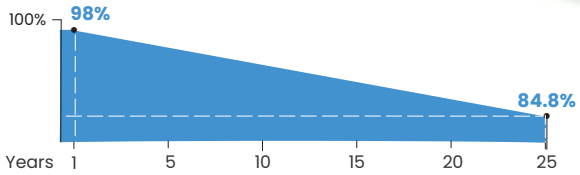
Extended mechanical performance

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

Quality Guarantee

High module quality ensures long-term reliability





Runergy P-Type Single Glass Product Performance Warranty

- **15 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

Munich RE

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RUNERGY

HY-WH120P8-445/465

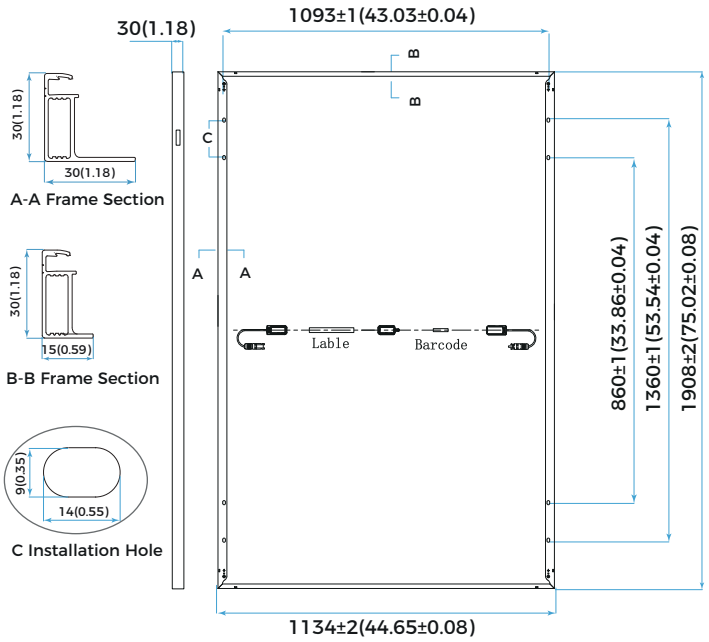
Unit: mm(inch)

Mechanical Parameters

Solar Cell	Mono PERC 182mm
No. of Cells	120 (6 × 20)
Dimensions	1908 × 1134 × 30mm(75.12 x 44.65 x 1.18in)
Weight	24kg(52.91lbs)
Junction Box	IP68 rated (3 bypass diodes)
Output Cable	4mm² (IEC), 12 AWG(UL) ±1200mm(47.24in.) or customized
Connector	RY01 or similar
Front Cover	3.2mm (0.13in.) AR Tempered glass
Frame	Aluminum, silver/black anodized
Container	36 pcs/Pallet, 864 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)	465	460	455	450	445
Power Tolerance (W)			0 ~ +5		
Optimum Operating Voltage (Vmp/V)	35.18	35.03	34.90	34.73	34.57
Optimum Operating Current (Imp/A)	13.22	13.13	13.04	12.96	12.87
Open Circuit Voltage (Voc/V)	41.72	41.54	41.36	41.20	41.04
Short Circuit Current (Isc/A)	14.09	14.02	13.95	13.87	13.79
Module Efficiency	21.5%	21.3%	21.0%	20.8%	20.6%

Electrical Characteristics - NMOT

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

Maximum Power at NMOT (Pmax/W)	351.7	347.9	344.2	340.4	336.5
Optimum Operating Voltage (Vmp/V)	33.36	33.22	33.10	32.94	32.78
Optimum Operating Current (Imp/A)	10.54	10.40	10.34	10.26	10.20
Open Circuit Voltage (Voc/V)	39.56	39.39	39.22	39.07	38.92
Short Circuit Current (Isc/A)	11.37	11.31	11.25	11.19	11.13

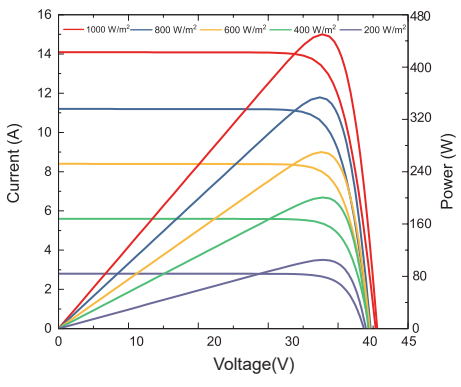
Warranty

Product Workmanship Warranty	15 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（460W）



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

HY-WH120P8-Global-Ver3.0