

# RUNERGY

## TIER 1 HY-DH108P8 395-415W

**21.3%** Max. Efficiency    **P-Type** Bifacial & Dual Glass    **108 Pieces** Half-Cell

### High Conversion Efficiency

Module efficiency up to 21.3% achieved through advanced cell technology and manufacturing process

### Excellent weak light performance

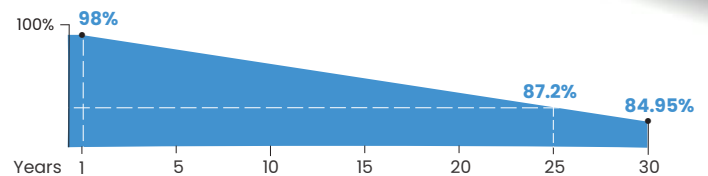
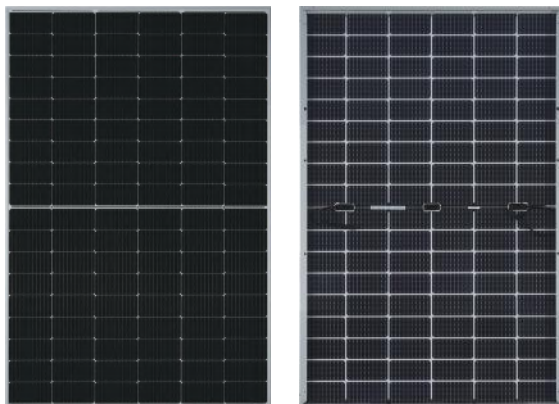
More power output in weak light condition, such as cloudy days, morning and sunset

### Pa 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 Dual Glass Product Performance Warranty

- **15 Years** warranty for materials and workmanship
- **30 Years** warranty for extra linear power output
- 1st year < **2%**, annual degradation < **0.45%**

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



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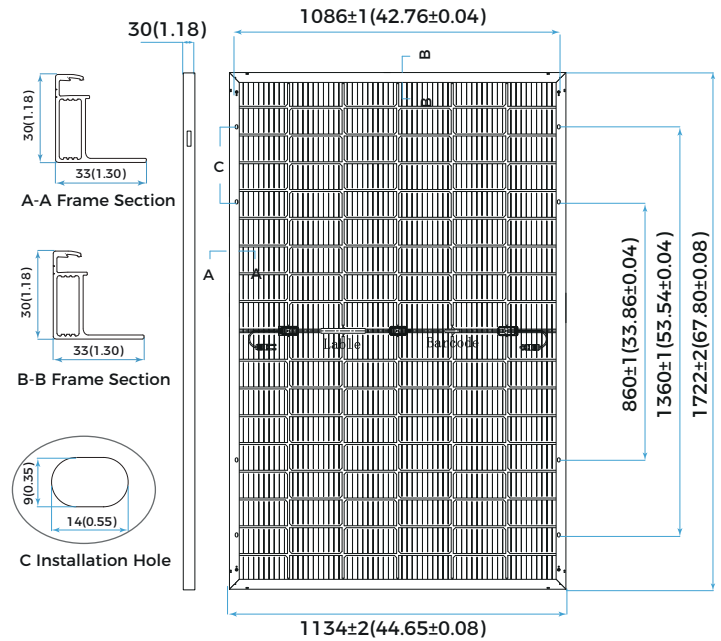
Unit: mm(inch)

## Mechanical Parameters

Solar Cell	Mono PERC 182mm
No. of Cells	108 (6 × 18)
Dimensions	1722 × 1134 × 30mm(67.80 x 44.65 x 1.18in)
Weight	24.2kg(53.35lbs)
Junction Box	IP68 rated (3 bypass diodes)
Output Cable	4mm <sup>2</sup> (IEC), 12 AWG(UL) ±1200mm(47.24in.) or customized
Connector	RY01 or similar
Front Cover	2.0mm (0.079in.)semi-tempered AR glass
Back Cover	2.0mm (0.079in.)semi-tempered glass
Frame	Aluminum, silver/black anodized
Container	36 pcs/Pallet, 936 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	30A
Frontside Max. Loading	5400Pa(112lb/ft <sup>2</sup> )
Backside Max. Loading	2400Pa(50lb/ft <sup>2</sup> )
Bifaciality	70%±10%
Fire Resistance	IEC Class A



## Electrical Characteristics - STC

Irradiance 1000 W/m<sup>2</sup>, cell temperature 25 °C, AM1.5, Test uncertainty for Pmax: ±3%

	415	410	405	400	395
Maximum Power at STC (Pmax/W)	415	410	405	400	395
Power Tolerance (W)	0 ~ +5				
Optimum Operating Voltage (Vmp/V)	31.61	31.45	31.21	31.01	30.84
Optimum Operating Current (Imp/A)	13.13	13.04	12.98	12.90	12.81
Open Circuit Voltage (Voc/V)	37.45	37.32	37.23	37.07	36.98
Short Circuit Current (Isc/A)	14.02	13.95	13.87	13.79	13.70
Module Efficiency	21.3%	21.0%	20.7%	20.5%	20.2%

## Electrical Characteristics - NMOT

Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, AM1.5, wind speed 1 m/s.

	313.9	310.2	306.4	302.5	298.8
Maximum Power at NMOT (Pmax/W)	313.9	310.2	306.4	302.5	298.8
Optimum Operating Voltage (Vmp/V)	29.98	29.82	29.60	29.41	29.25
Optimum Operating Current (Imp/A)	10.47	10.40	10.35	10.29	10.22
Open Circuit Voltage (Voc/V)	35.51	35.39	35.31	35.15	35.07
Short Circuit Current (Isc/A)	11.31	11.25	11.19	11.13	11.05

## Rearside Power Gain (Reference to 415W Front)

	5%	15%	25%
Rearside Power Gain	5%	15%	25%
Maximum Power (Pmax/W)	436	477	519
Optimum Operating Voltage (Vmp/V)	31.61	31.71	31.71
Optimum Operating Current (Imp/A)	13.79	15.05	16.36
Open Circuit Voltage (Voc/V)	37.45	37.55	37.55
Short Circuit Current (Isc/A)	14.72	16.08	17.48
Module Efficiency	22.3%	24.4%	27.6%

## 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

