

# RUNERGY

## TIER 1 HY-DH156P8 580-600W

**21.5%** Max. Efficiency    **P-Type** Bifacial & Dual Glass    **156 Pieces** Half-Cell

### High Conversion Efficiency

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

### Excellent weak light performance

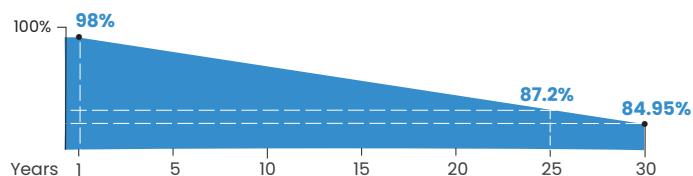
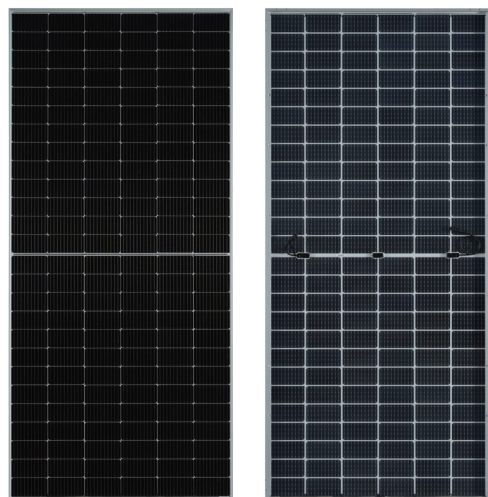
More power output in weak light condition, such as cloudy days, morning and sunset

### 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

- **12 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



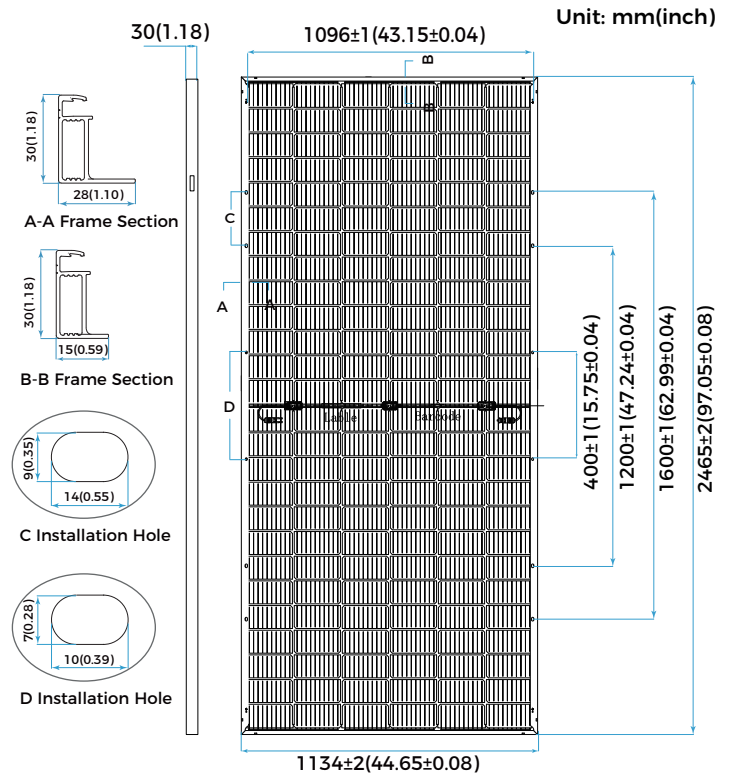
www.runergy.com  
sales-inform@runergy.com

## Mechanical Parameters

Solar Cell	Mono PERC 182mm
No. of Cells	156 (6 × 26)
Dimensions	2465 × 1134 × 30mm(97.05 × 44.65 × 1.18in.)
Weight	33.9kg(74.74lbs)
Junction Box	IP68 rated (3 bypass diodes)
Output Cable	4mm <sup>2</sup> (IEC), 12 AWG(UL) +400/-200mm (+15.75/-7.87in.) 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
Container	36 pcs/Pallet, 576 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%

Maximum Power at STC (Pmax/W)	600	595	590	585	580
Power Tolerance (W)	0 ~ +5				
Optimum Operating Voltage (Vmp/V)	45.57	45.40	45.23	45.05	44.87
Optimum Operating Current (Imp/A)	13.17	13.11	13.05	12.99	12.93
Open Circuit Voltage (Voc/V)	54.15	53.99	53.83	53.67	53.50
Short Circuit Current (Isc/A)	14.09	14.02	13.95	13.88	13.81
Module Efficiency	21.5%	21.3%	21.1%	20.9%	20.8%

## Electrical Characteristics - NMOT

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

Maximum Power at NMOT (Pmax/W)	453.9	450.1	446.4	442.6	438.8
Optimum Operating Voltage (Vmp/V)	43.21	43.05	42.89	42.72	42.55
Optimum Operating Current (Imp/A)	10.50	10.46	10.41	10.36	10.31
Open Circuit Voltage (Voc/V)	51.35	51.20	51.05	50.90	50.74
Short Circuit Current (Isc/A)	11.37	11.31	11.25	11.20	11.14

## Rearside Power Gain (Reference to 600W Front)

Rearside Power Gain	5%	15%	25%
Maximum Power (Pmax/W)	630	690	750
Optimum Operating Voltage (Vmp/V)	45.57	45.67	45.67
Optimum Operating Current (Imp/A)	13.82	15.11	16.42
Open Circuit Voltage (Voc/V)	54.15	54.25	54.25
Short Circuit Current (Isc/A)	14.79	16.17	17.58
Module Efficiency	22.5%	24.7%	26.8%

## 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

