

# RUNERGY

## TIER 1 HY-DH144P8 535-555W

**21.5%**

Max. Efficiency

**P-Type**

Bifacial & Dual Glass

**144 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



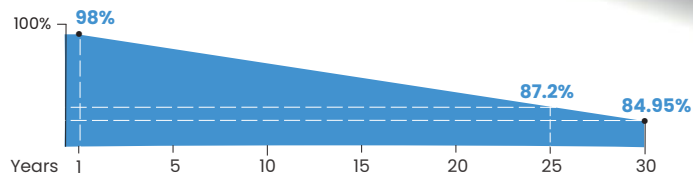
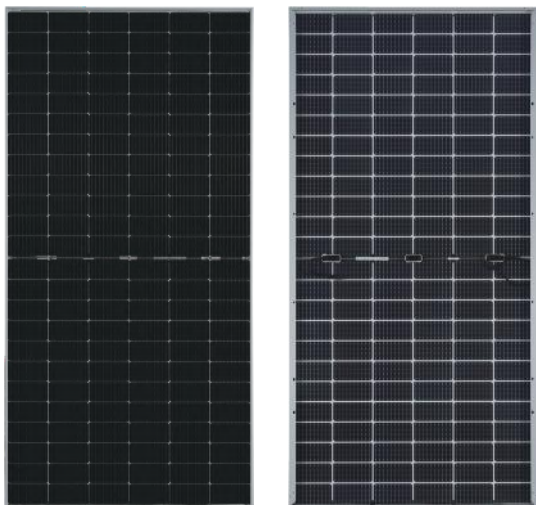
### Extended mechanical performance

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

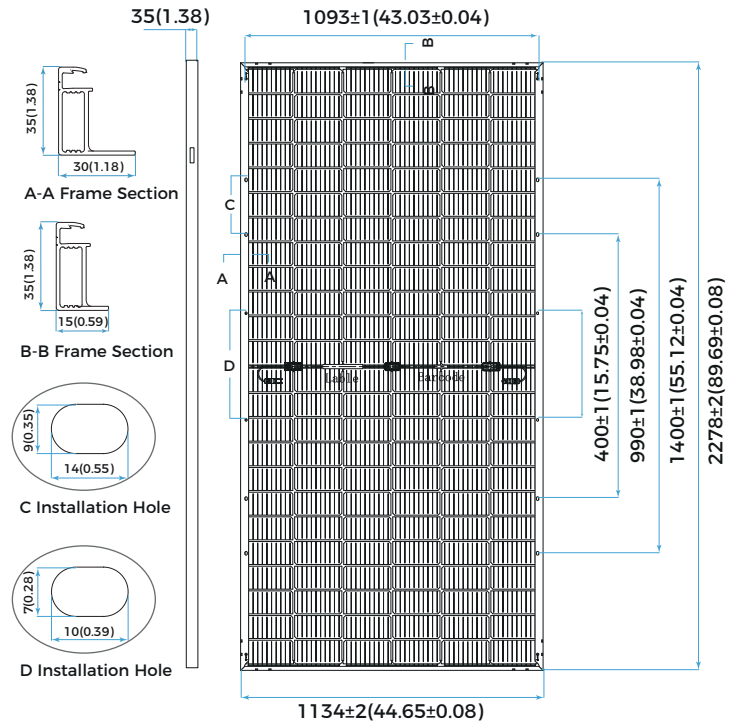
Unit: mm(inch)

## Mechanical Parameters

Solar Cell	Mono PERC 182mm
No. of Cells	144 (6 × 24)
Dimensions	2278 × 1134 × 35mm(89.69× 44.65 × 1.38in.)
Weight	32.7kg(72.09lbs)
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	31 pcs/Pallet, 558 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	UL Type 29



## Electrical Characteristics - STC

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

	555	550	545	540	535
Maximum Power at STC (Pmax/W)	555	550	545	540	535
Power Tolerance (W)			0 ~ +5		
Optimum Operating Voltage (Vmp/V)	42.12	41.96	41.80	41.64	41.47
Optimum Operating Current (Imp/A)	13.18	13.11	13.04	12.97	12.90
Open Circuit Voltage (Voc/V)	50.05	49.90	49.75	49.60	49.45
Short Circuit Current (Isc/A)	14.07	14.00	13.93	13.86	13.79
Module Efficiency	21.5%	21.3%	21.1%	20.9%	20.7%

## 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)	419.9	416.0	412.2	408.5	404.6
Optimum Operating Voltage (Vmp/V)	39.94	39.79	39.64	39.49	39.33
Optimum Operating Current (Imp/A)	10.51	10.46	10.40	10.34	10.29
Open Circuit Voltage (Voc/V)	47.46	47.32	47.18	47.04	46.89
Short Circuit Current (Isc/A)	11.35	11.30	11.24	11.18	11.13

## Rearside Power Gain (Reference to 555W Front)

	5%	15%	25%
Rearside Power Gain	5%	15%	25%
Maximum Power (Pmax/W)	583	638	694
Optimum Operating Voltage (Vmp/V)	42.12	42.22	42.22
Optimum Operating Current (Imp/A)	13.84	15.12	16.43
Open Circuit Voltage (Voc/V)	50.05	50.15	50.15
Short Circuit Current (Isc/A)	14.77	16.14	17.55
Module Efficiency	22.6%	24.7%	26.9%

## 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

