

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

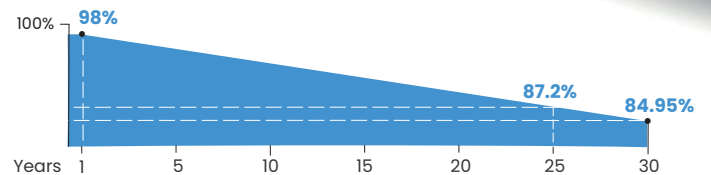
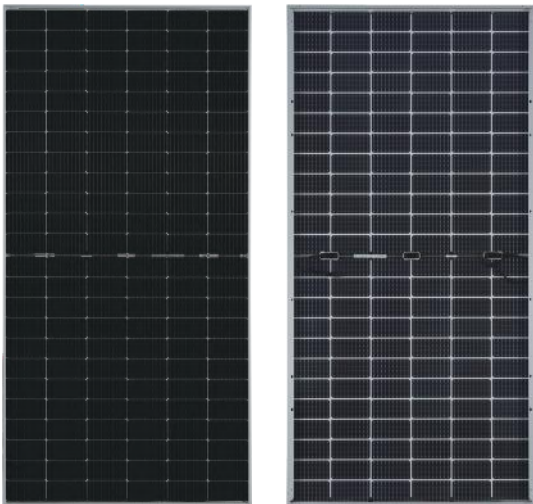
More power output in weak light condition, such as cloudy days, morning and sunset

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



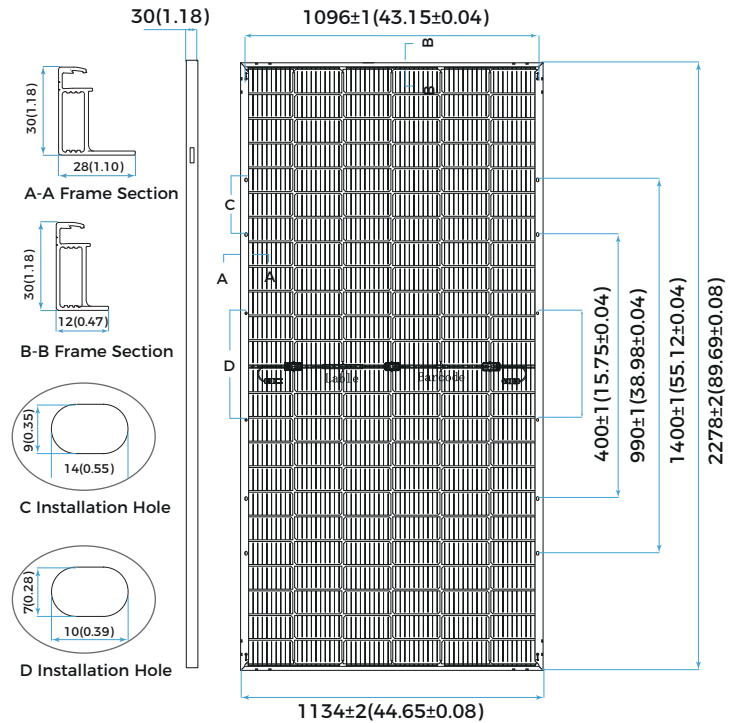
Unit: mm(inch)

Mechanical Parameters

| | |
|--------------|---|
| Solar Cell | Mono PERC 182mm |
| No. of Cells | 144 (6 × 24) |
| Dimensions | 2278 × 1134 × 30mm(89.69× 44.65 × 1.18in.) |
| Weight | 32kg(70.55lbs) |
| Junction Box | IP68 rated (3 bypass diodes) |
| Output Cable | 4mm ² (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, 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 | 30A |
| Frontside Max. Loading | 5400Pa(112lb/ft ²) |
| Backside Max. Loading | 2400Pa(50lb/ft ²) |
| Bifaciality | 70%±10% |
| Fire Resistance | IEC Class A |



Electrical Characteristics - STC

Irradiance 1000 W/m², 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/m², 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 |

