

# 530-550W

## High conversion efficiency



Module efficiency up to 21.0% achieved through advanced cell technology and manufacturing process

## Excellent weak light performance



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

## Extended mechanical performance



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

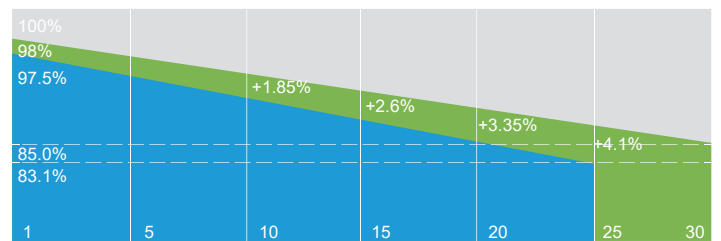
## Quality guarantee



High module quality ensures long-term reliability

HY-DH144P8

144HALF-CELL BIFACIAL MODULE



■ Conventional power degradation ■ Hyperion power degradation



warranty for materials and processing

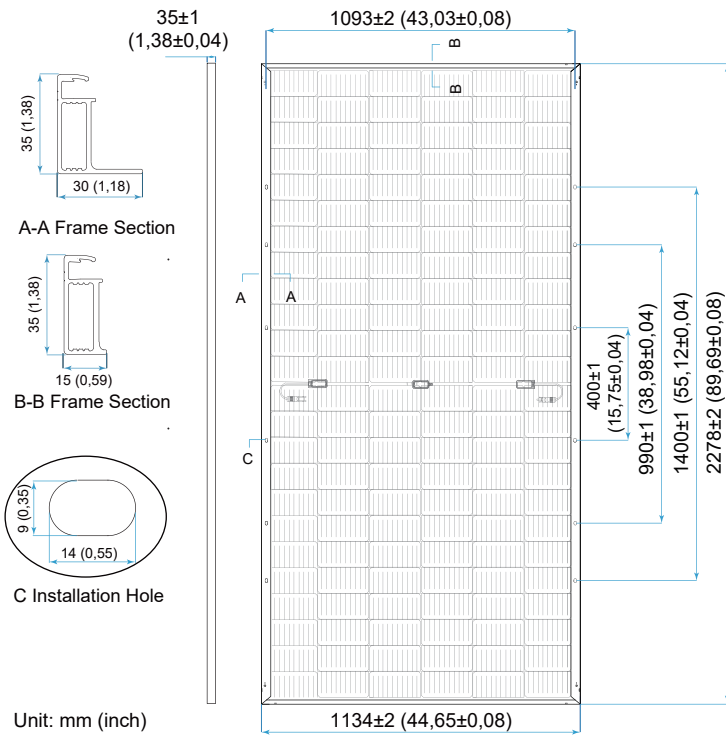


warranty for extra linear power output



IEC61215 / IEC61730 / UL61730  
IEC61701 / IEC62716  
ISO9001: Quality Management System

# HY-DH144P8-530/550



Unit: mm (inch)

### Mechanical Characteristics

|                          |  |
|--------------------------|--|
| Solar Cell               | Mono PERC 182 mm   |
| No. of Cells             | 144 (6 × 24)   |
| Dimensions               | 2278 × 1134 × 35 mm<br>(89,69 × 44,65 × 1,38in.)                             |
| Weight                   | 33.2kg (73,19lbs) ±5%  |
| Cable Cross Section Size | 4mm <sup>2</sup> (IEC), 12 AWG(UL)   |
| Junction Box             | IP68 rated (3 bypass diodes)   |
| Output Cables            | (-)350mm (13,78in.) & (+)160 mm (6,30in.)<br>in length or customized length  |
| Front/Back Glass         | 2.0mm ( 0,079in.) AR Tempered glass<br>2.0mm ( 0,079in.) Semi-tempered glass |
| Container                | 31 pcs/Pallet, 558pcs/40' HC   |

### Operating Parameters

|                              |                                |
|------------------------------|--------------------------------|
| Max. System Voltage          | DC 1500V                       |
| Operating Temperature        | -40 C ~ +85 C                  |
| Max. Fuse Rated Current      | 30A                            |
| Front Static Load(snow,wind) | 5400Pa(112lb/ft <sup>2</sup> ) |
| Back Static Load(wind)       | 2400Pa(50lb/ft <sup>2</sup> )  |
| Bifaciality                  | 70%±10%                        |
| Fire Resistance              | IEC Class A, UL Type 29        |

### Electrical Characteristics - STC

Irradiance 1000 W/m<sup>2</sup>, ambient temperature 25 °C, AM=1.5.

|                                   |        |       |       |       |       |
|-----------------------------------|--------|-------|-------|-------|-------|
| Maximum Power at STC (Pmax/W)     | 550    | 545   | 540   | 535   | 530   |
| Power Tolerance (W)               | 0 ~ +5 |       |       |       |       |
| Optimum Operating Voltage (Vmp/V) | 41.96  | 41.80 | 41.64 | 41.47 | 41.31 |
| Optimum Operating Current (Imp/A) | 13.11  | 13.04 | 12.97 | 12.90 | 12.83 |
| Open Circuit Voltage (Voc/V)      | 49.90  | 49.75 | 49.60 | 49.45 | 49.30 |
| Short Circuit Current (Isc/A)     | 14.00  | 13.93 | 13.86 | 13.79 | 13.72 |
| Module Efficiency                 | 21.3%  | 21.1% | 20.9% | 20.7% | 20.5% |

### Electrical Characteristics - NMOT

Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, AM=1.5, wind speed 1 m/s.

|                                   |       |       |       |       |       |
|-----------------------------------|-------|-------|-------|-------|-------|
| Maximum Power at NMOT (Pmax/W)    | 416.0 | 412.2 | 408.5 | 404.6 | 400.8 |
| Optimum Operating Voltage (Vmp/V) | 39.79 | 39.64 | 39.49 | 39.33 | 39.18 |
| Optimum Operating Current (Imp/A) | 10.46 | 10.40 | 10.34 | 10.29 | 10.23 |
| Open Circuit Voltage (Voc/V)      | 47.32 | 47.18 | 47.04 | 46.89 | 46.75 |
| Short Circuit Current (Isc/A)     | 11.30 | 11.24 | 11.18 | 11.13 | 11.07 |

### Different Rearside Power Gain (Reference to 540W Front)

|                                   |       |       |       |
|-----------------------------------|-------|-------|-------|
| Rearside Power Gain               | 5%    | 15%   | 25%   |
| Maximum Power (Pmax/W)            | 567   | 621   | 675   |
| Optimum Operating Voltage (Vmp/V) | 41.8  | 41.8  | 41.9  |
| Optimum Operating Current (Imp/A) | 13.59 | 14.88 | 16.18 |
| Open Circuit Voltage (Voc/V)      | 49.5  | 49.5  | 49.6  |
| Short Circuit Current (Isc/A)     | 14.48 | 15.86 | 17.24 |
| Module Efficiency                 | 21.9% | 24.0% | 26.1% |

### Temperature Characteristics

|                                      |            |
|--------------------------------------|------------|
| Nominal Module Operating Temperature | 42 ± 2 °C  |
| Nominal Cell Operating Temperature   | 45 ± 2 °C  |
| Temperature Coefficient of Pmax      | -0.36%/°C  |
| Temperature Coefficient of Voc       | -0.304%/°C |
| Temperature Coefficient of Isc       | 0.050%/°C  |

Current-Voltage & Power-Voltage Curve (550W)

