530-550W

HY-DH144P8
144 HALF-CELL BIFACIAL MODULE

High conversion efficiency

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

Excellent weak light performance

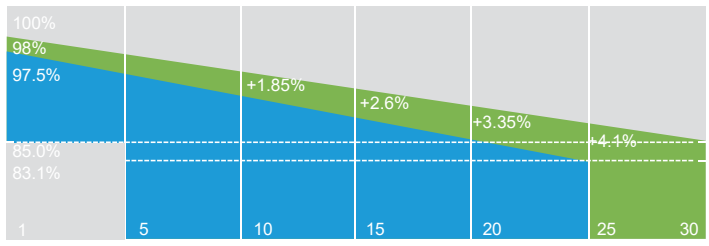
More power output in weak light condition，such as cloudy，morning and sunset

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



First year power degradation　Annual power degradation

12 Years warranty for materials and processing

30 Years warranty for extra linear power output

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Producer Address: Amata City Industrial Estate, Mapyangphon Subdistrict, Pluak Daeng District, Rayong Province, Thailand

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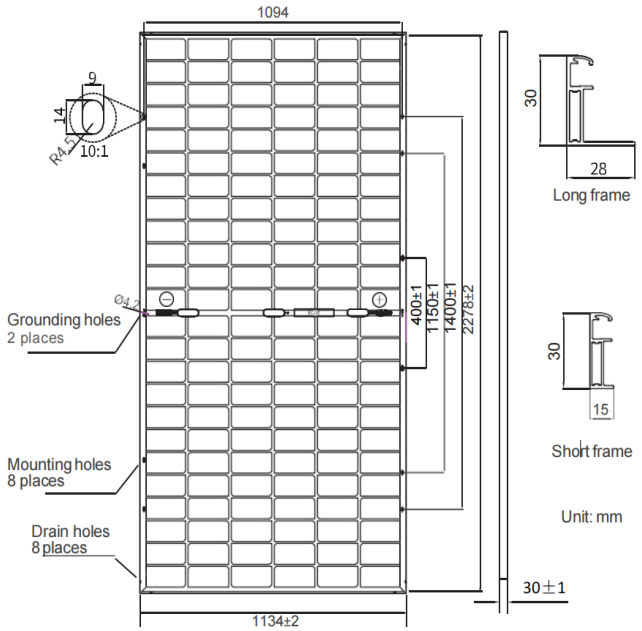

Mechanical Characteristics

Solar Cell	Mono PERC 182 mm
No. of Cells	144 (6 × 24)
Dimensions	2278±2 × 1134±2 × 30±1 mm
Weight	31.6 kg (±5%)
Cable Cross Section Size	4mm²(IEC),12 AWG(UL)
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	Portrait: (-)350 mm and (+)160 mm in length or customized length
Front/Back Glass	2.0mm AR Tempered glass 2.0mm Semi-tempered glass
Container	36 pcs/Pallet, 576 pcs/ 40'HQ

Operating Parameters

Max. System Voltage	DC 1500V
Operating Temperature	-40℃ ~ +85℃
Max. Fuse Rated Current	30A
Front Static Load(snow,wind)	5400Pa(112lb/ft²)
Back Static Load(wind)	2400Pa(50lb/ft²)
Bifaciality	70%±10%
Fire Resistance	UL Type 1

Electrical Characteristics

Maximum Power at STC (Pmax)	550W	545W	540W	535W	530W
Optimum Operating Voltage (Vmp)	41.96V	41.80V	41.64V	41.47V	41.31V
Optimum Operating Current (Imp)	13.11A	13.04A	12.97A	12.90A	12.83A
Open Circuit Voltage (Voc)	49.90V	49.75V	49.60V	49.45V	49.30V
Short Circuit Current (Isc)	14.00A	13.93A	13.86A	13.79A	13.72A
Module Efficiency	21.3%	21.1%	20.9%	20.7%	20.5%
Operating Module Temperature	-40 °C to +85 °C		Maximum Series Fuse Rating		25 A
Maximum System Voltage	1500 V DC (IEC)		Power Tolerance		0/+5 W

NMOT

Maximum Power at NMOT (Pmax)	415.0W	411.5W	408.0W	404.3W	400.6W
Optimum Operating Voltage (Vmp)	38.9V	38.7V	38.6V	38.4V	38.2V
Optimum Operating Current (Imp)	10.67A	10.63A	10.58A	10.53A	10.47A
Open Circuit Voltage (Voc)	46.9V	46.7V	46.5V	46.4V	46.3V
Short Circuit Current (Isc)	11.22A	11.18A	11.13A	11.08A	11.02A

Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s.

Electrical Characteristics with Different Rearside Power Gain (Reference to 540W Front)

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

Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	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 (550S)