HYPERION SOLAR

MADE IN THAILAND

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

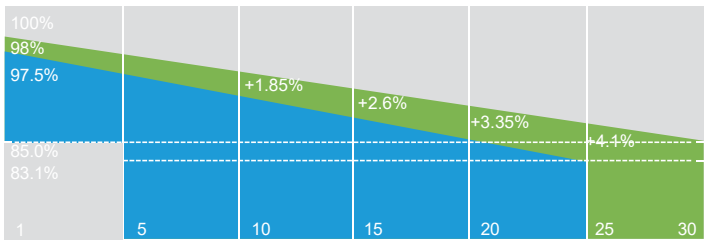
More power output in weak light condition，such as cloudy，morning and sunset

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



Convential power degradation

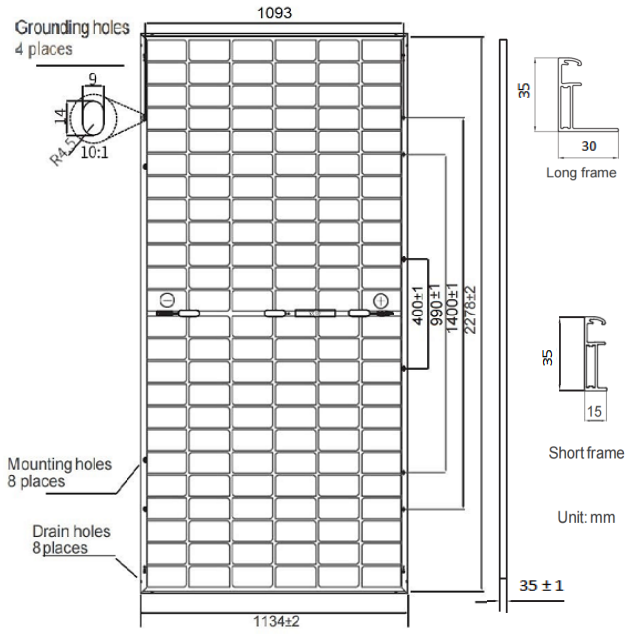
Hyperion power degradation

12 Years warranty for materials and processing

30 Years warranty for extra linear power output

sales@ussolarsupplier.com
www.ussolarsupplier.com | +1 (502) 546-6102

HY-DH144P8 530-550W



Mechanical Characteristics

Solar Cell	Mono PERC 182 mm
No. of Cells	144 (6 × 24)
Dimensions	2278±2 × 1134±2 × 35±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	31 pcs/Pallet, 558pcs/ 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)	550	545	540	535	530
Optimum Operating Voltage (Vmp)	41.96	41.80	41.64	41.47	41.31
Optimum Operating Current (Imp)	13.11	13.04	12.97	12.90	12.83
Open Circuit Voltage (Voc)	49.90	49.75	49.60	49.45	49.30
Short Circuit Current (Isc)	14.00	13.93	13.86	13.79	13.72
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

NOCT

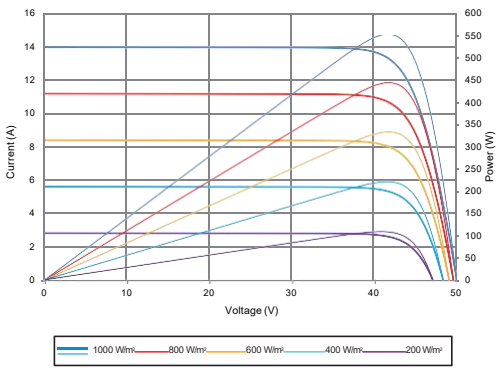
Maximum Power at NMOT (Pmax)	415.0	411.5	408.0	404.3	400.6
Optimum Operating Voltage (Vmp)	38.9	38.7	38.6	38.4	38.2
Optimum Operating Current (Imp)	10.67	10.63	10.58	10.53	10.47
Open Circuit Voltage (Voc)	46.9	46.7	46.5	46.4	46.3
Short Circuit Current (Isc)	11.22	11.18	11.13	11.08	11.02

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)	567	621	675
Optimum Operating Voltage (Vmp)	41.8	41.8	41.9
Optimum Operating Current (Imp)	13.59	14.88	16.18
Open Circuit Voltage (Voc)	49.5	49.5	49.6
Short Circuit Current (Isc)	14.48	15.86	17.24
Module Efficiency	21.9%	24.0%	26.1%

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



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