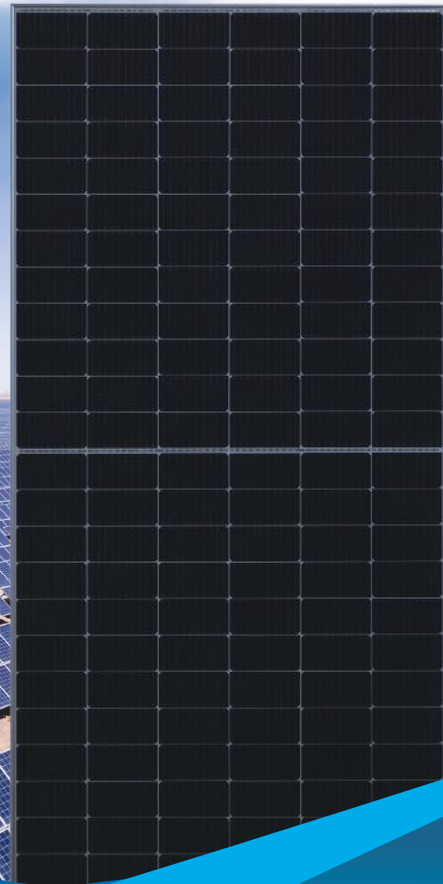




MADE IN THAILAND



# 535-555W

### High Conversion Efficiency



Module efficiency up to 21.5% 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



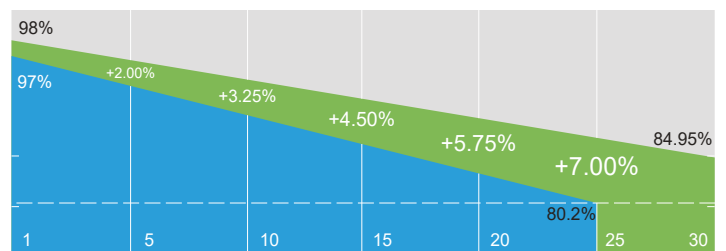
Module certified to withstand extreme wind (2400 Pa) and snow loading (5400 Pa)

### Quality Guarantee



High module quality ensures long-term reliability

## HY-DH144P8 144 HALF-CELL BIFACIAL MODULE



■ Conventional Module

■ Hyperion Performance



12 Years warranty for materials and workmanship



30 Years warranty for extra linear power output



Warranty partner

IEC61215 / IEC61730 / UL61730  
IEC61701 / IEC62716 / IEC60068  
ISO9001



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American Hyperion Solar LLC.  
2880 Zanker Road, Suite 203, San Jose, CA 95134

# HY-DH144P8-535/555

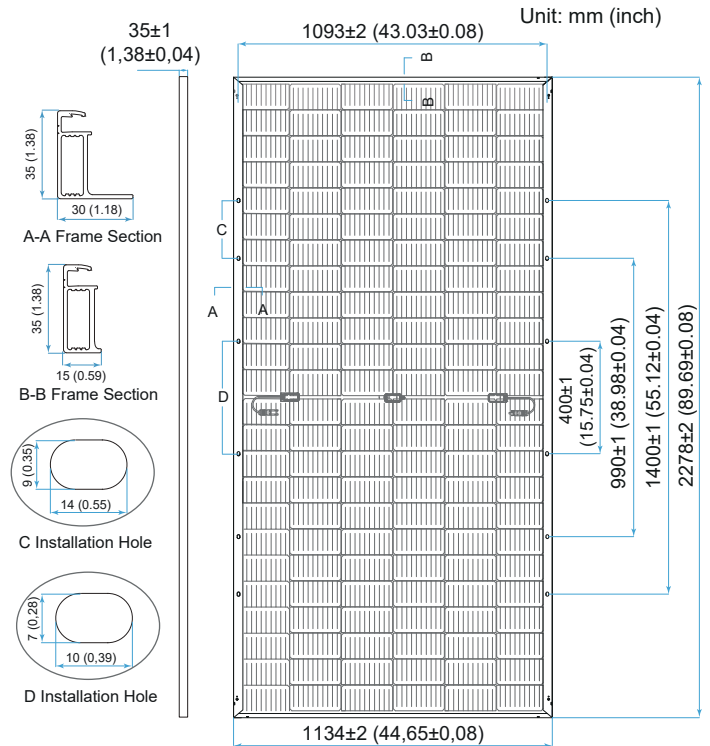
## Mechanical Parameters

Solar Cell	Mono PERC 182 mm
No. of Cells	144 (6 × 24)
Dimensions	2278 × 1134 × 35 mm (89.69 × 44.65 × 1.38in.)
Weight	32.7kg (72.09lbs)
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	4mm <sup>2</sup> (IEC), 12AWG(UL) +400/-200mm (+15.75/-7.87in.) or customized
Connector	QC4.10 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' HC

## 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	IEC Class A, UL Type 29

## Engineering Drawing



## Electrical Characteristics - STC

Irradiance 1000 W/m<sup>2</sup>, ambient temperature 25 °C, AM1.5.

	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	16.15	17.55
Module Efficiency	22.6%	24.7%	26.7%

## 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	-0.27%/°C
Temperature Coefficient of Isc	0.05%/°C

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

