

535-560W
POWER RANGE

HounenSolar

HNM7-SHDB144 Series

Hounen Solar 10BB HALF-CELL Bifacial
Monocrystalline P - TYPE Solar Module

KEY FEATURES



Excellent Cells Efficiency

MBB technology reduce the distance between busbars and finger grid line which is benefit to power increase.



Anti PID

Ensured PID resistance through the quality control of cell manufacturing process and raw materials.



Bifacial Technology

Up to 25% additional power gain from back side depending on albedo.



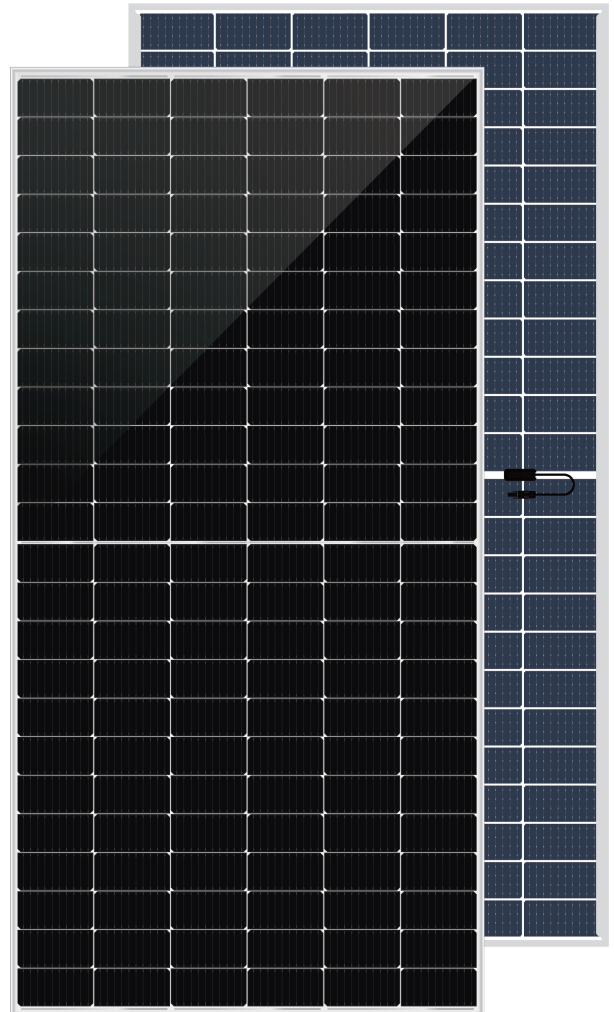
Better Weak Illumination Response

More power output in weak light condition, such as haze, cloudy, and early morning.

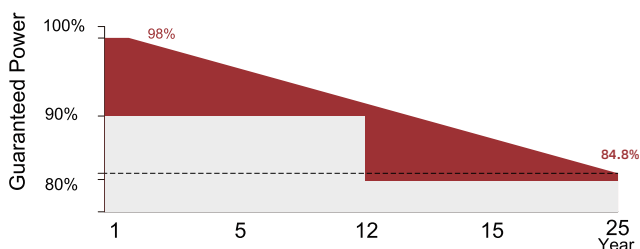


Adapt To Harsh Outdoor Environment

Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity environment.



LINEAR PERFORMANCE WARRANTY



IEC61730, UL61730
ISO9001:2015: Quality Management System
ISO14001:2015: Environment Management System
ISO45001:2018 Occupational health and safety management systems



12 YEARS PRODUCT WARRANTY



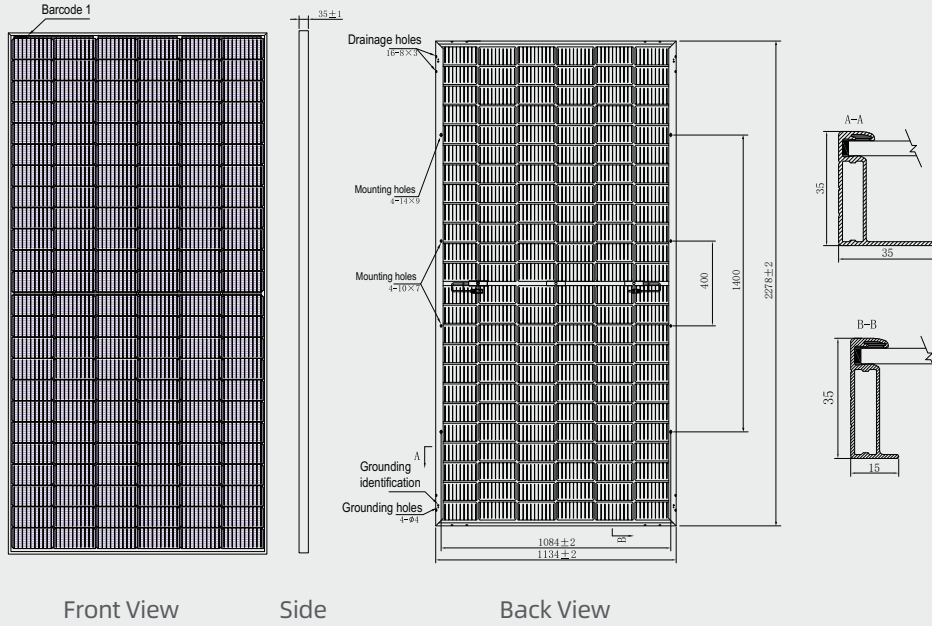
25 YEARS OUTPUT GUARANTEE

560W
MAXIMUM POWER OUTPUT

21.68%
MAXIMUM EFFICIENCY

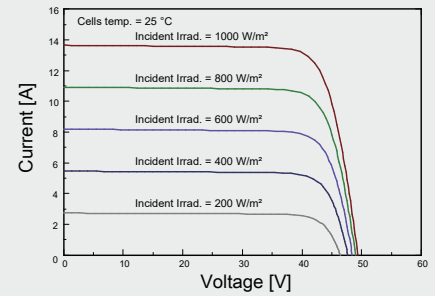
70±5%
BIFACIALITY

DIMENSIONS OF PV MODULE(mm)

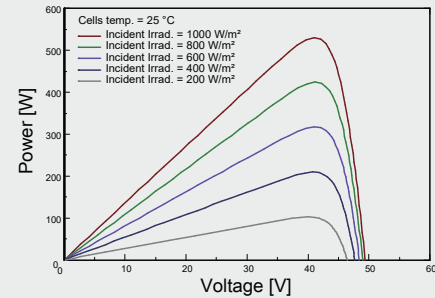


*Remark: customized frame color and cable length available upon request.

I-V CURVES OF PV MODULE(530W)



P-V CURVES OF PV MODULE(530W)



ELECTRICAL CHARACTERISTICS

Module Type	HNM7-SHDB144-535/M		HNM7-SHDB144-540/M		HNM7-SHDB144-545/M		HNM7-SHDB144-550/M		HNM7-SHDB144-555/M		HNM7-SHDB144-560/M	
STC/NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Nominal Power Watt Pmax(W)*	535	399.90	540	403.60	545	406.80	550	410.80	555	414.60	560	418.10
Maximum Power Voltage Vmp(V)	41.30	38.40	41.50	38.50	41.70	38.80	41.90	38.90	42.10	39.10	42.30	39.30
Maximum Power Current Imp(A)	12.96	10.42	13.02	10.47	13.07	10.49	13.13	10.56	13.19	10.61	13.24	10.64
Open Circuit Voltage Voc(V)	49.60	46.30	49.80	46.50	50.00	46.70	50.20	46.90	50.40	47.10	50.60	47.20
Short Circuit Current Isc(A)	13.71	11.07	13.77	11.12	13.83	11.17	13.89	11.22	13.95	11.27	14.01	11.31
Module Efficiency (%)	20.71		20.90		21.10		21.29		21.48		21.68	

*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25±2°C, AM 1.5.

*NMOT: Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s.

BIFACIAL OUTPUT-REARSIDE POWER GAIN

Maximum Power (Pmax)	562Wp	567Wp	572Wp	578Wp	583Wp	588Wp
5%						
Maximum Efficiency STC (%)	21.76%	21.95%	22.14%	22.37%	22.57%	22.76%
Maximum Power (Pmax)	615Wp	621Wp	627Wp	633Wp	638Wp	644Wp
15%						
Maximum Efficiency STC (%)	23.81%	24.04%	24.27%	24.50%	24.70%	24.93%
Maximum Power (Pmax)	669Wp	675Wp	681Wp	688Wp	694Wp	700Wp
25%						
Maximum Efficiency STC (%)	25.90%	26.13%	26.36%	23.63%	26.87%	27.10%

MECHANICAL DATA

Solar cells	Mono P-Type
Cells orientation	144 (6x24)
Module dimension	2278x1134x35 (With Frame)
Weight	28±1Kg
Glass	3.2mm, High Transmission, AR Coated Tempered Glass
Junction Box	IP68, 3 diodes
Cables	4 mm², 400mm
Connectors	MC4 or MC4-compatible

*Please refer to regional datasheet for specified connector.

WORKING CONDITIONS

Maximum System Voltage	1500VDC
Operating Temperature	-40°C~+85°C
Maximum Fuse Rating	30A
Rear Side Mechanical Load	2400Pa
Front Side Mechanical Load	5400Pa
Safety Class	Class II

TEMPERATURE RATINGS

Maximum System Voltage	1500VDC	NMOT	44°C±2°C
Operating Temperature	-40°C~+85°C	Temperature coefficient of Pmax	-0.35%/°C
Maximum Fuse Rating	30A	Temperature coefficient of Voc	-0.29%/°C
Rear Side Mechanical Load	2400Pa	Temperature coefficient of Isc	0.05%/°C
Front Side Mechanical Load	5400Pa	Refer. Bifacial Factor	70±5%

PACKAGING CONFIGURATION

Container	40'HQ
Piece/Box	31

Piece/Container 620
*Customized packaging is available upon request.

Revised in Sep 2023 1st Edition.
Specifications included in this datasheet are subject to change without notice.
Hounen Solar reserves the right of final interpretation.