



## SOLAR PV MODULE

# 144 HALF CUT PERC CELL

BIFACIAL TRANSPARENT BACKSHEET M10+ 525-555 W WITH NEW 182.2X183.75mm CELL 10BB

### Suitable for



RESIDENTIAL



UTILITY



COMMERCIAL



OFF-GRID

## Transition to a Brighter Tomorrow



### SMBB TECHNOLOGY

Better light trapping and current collection to improve module power output and reliability



### PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control



### Higher Power Output

Module power increases 5-25% generally, bringing significantly lower LCOE and higher IRR



### Auto Bussing & Soldering Technology

Induction based Improved soldering quality without pollution to module



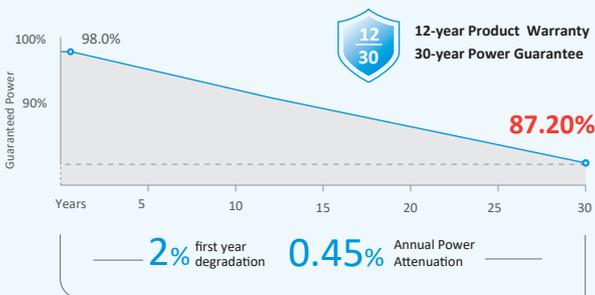
### Enhanced Mechanical Load

Certified to withstand wind load (2400 Pascal) and snow load (5400 Pascal)



### Positive power tolerance (0 to +5w)

## Performance Warranty



\* Please refer to product warranty for details

## Certification



IEC 62804 (PID) | IEC 61701 (Salt Mist) | IEC 62726 (Ammonia)

IEC 61853- 2 (Panfile & IAM) | LID, LETID | UL 61730

IEC 60068 (Sand & Dust) | IEC 61215 | IEC 61730

MADE WITH PREMIER ENERGIES M10 CELLS

M10-182MM WAFER, IDEAL FOR ULTRA-LARGE POWER PLANT

AVAILABLE IN ALL BLACK RANGE



## Electrical Characteristics (STC)

MODULE TYPE	PE-525HB	PE-530HB	PE-535HB	PE-540HB	PE-450HB	PE-550HB	PE-555HB
Maximum Power, W (Pmp) <sup>1</sup>	525	530	535	540	545	550	555
Open Circuit Voltage, V (Voc) <sup>1</sup>	49.43	49.43	49.51	49.68	49.76	49.82	49.88
Short Circuit Current, A (Isc) <sup>1</sup>	13.63	13.70	13.82	13.94	13.99	14.06	14.12
Maximum Power Voltage, V (Vmp) <sup>1</sup>	40.93	41.02	41.11	41.21	41.30	41.38	41.41
Maximum Power Current, A (Imp) <sup>1</sup>	12.83	12.93	13.03	13.11	13.21	13.31	13.41
Module Efficiency, % (Eff)	20.32	20.52	20.71	20.90	21.10	21.29	21.48
Temperature Coefficients of Pmax <sup>2</sup>	-0.32%/°C						
Temperature Coefficients of Voc <sup>2</sup>	-0.30%/°C						
Temperature Coefficients of Isc <sup>2</sup>	+0.045%/°C						

STC Irradiance 1000W/m<sup>2</sup>, Module Temperature 25°C, AM1.5G <sup>1</sup>Measurement Uncertainty: ±3%

<sup>2</sup>Due to different testing methods, the actual performances might marginally differ from the declared specifications.

## Electrical Characteristics (NOCT)

MODULE TYPE	PE-525HB	PE-530HB	PE-535HB	PE-540HB	PE-450HB	PE-550HB	PE-555HB
Maximum Power, W (Pmp)	390	390	394	397	401	405	408
Open Circuit Voltage, V (Voc)	46.09	46.19	46.26	46.42	49.49	46.55	46.61
Short Circuit Current, A (Isc)	10.87	10.92	11.02	11.11	11.15	11.21	11.26
Maximum Power Voltage, V (Vmp)	37.98	38.06	38.15	38.24	38.32	38.40	38.42
Maximum Power Current, A (Imp)	10.17	10.24	10.32	10.39	10.46	10.53	10.62
Module Efficiency, % (Eff)	14.95	15.09	15.23	15.38	15.52	15.66	15.80

NOCT- Irradiance 800 W/m<sup>2</sup>, Ambient Temperature 20°C AM1.5G, Wind speed 1m/s

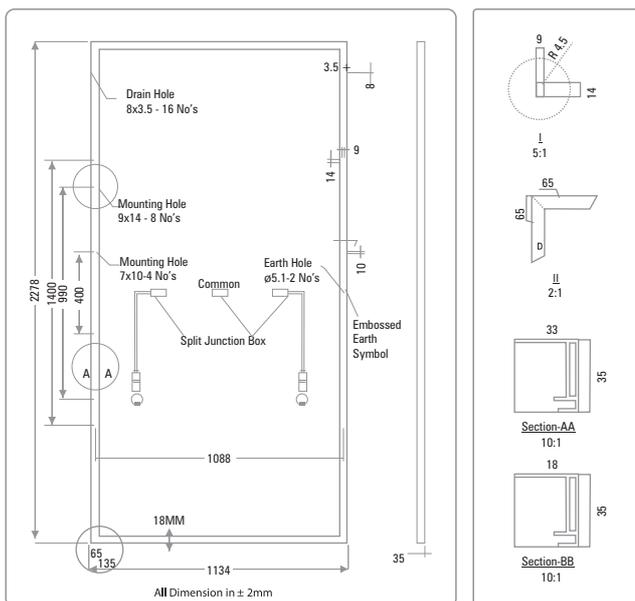
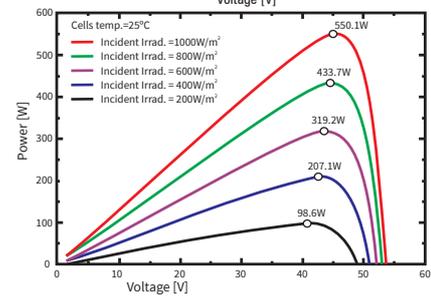
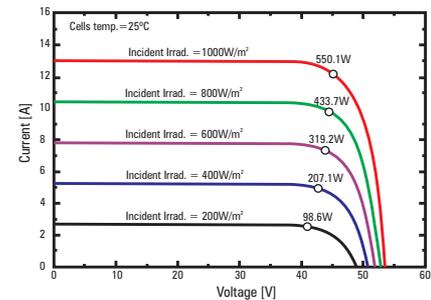
GAIN		PE-525HB	PE-530HB	PE-535HB	PE-540HB	PE-450HB	PE-550HB	PE-555HB
10%	Power Pmp	577.5	583.0	588.5	594.0	599.5	605.0	610.5
20%	Power Pmp	630.0	636.0	642.0	648.0	654.0	660.0	666
30%	Power Pmp	682.0	689.0	695.5	702.0	708.5	715.0	721.5

Bifacial gains depends on the power plant design & albedo of installation site

Measurement Uncertainty: ±3%

## Temperature Characteristics

Operating Temperature	-40 °C ~ +85 °C
Maximum System Voltage	1500 VDC (IEC)
Maximum Series Fuse Rating	30 A
Nominal Operating Cell Temperature - NOCT	45±2 °C
Bifaciality factor	70 ± 10%



## Mechanical Specifications

External Dimensions	2278(±2mm) x 1134 (±2mm) x 35(±1mm)
Weight	28 (± 3%) Kg
Solar Cells	10 BB, Mono PERC - crystalline 182.2 x 183.75mm ± 1mm
Front Glass	3.2 mm, High Transmission, Low Iron, Tempered Glass
Rear Cover	High Transparent Backsheet or White / Black Backsheet
Frame	Anodized Aluminium Alloy (Silver/Black)
Junction Box	3 Split, IP 68 Rated
Connector	Mc4 Compatible
Mechanical Load	5400 Pa For Snow Load, 2400 Pa Wind Load
Fire Performance	TYPE 4 ( UL 61730) Or Class C (IEC 61730)
Output Cable	4.0 mm <sup>2</sup>   400 mm Length

## Packing Configuration

Container	20'HQ	32'HQ	40'HQ
Pieces per Pallet	31	31	31
Pallets per Container	8	16	20
Pieces per Container	248	496	620



FIRST YEAR  
DEGRADATION  
< 2.0%

YEAR 2-30 POWER  
DEGRADATION  
< 0.45%

