

# Solar Modules (DCR) 144 HALF CUT PERC CELL

525 - 555 W

BIFACIAL TRANSPARENT BACKSHEET

Suitable for



RESIDENTIAL



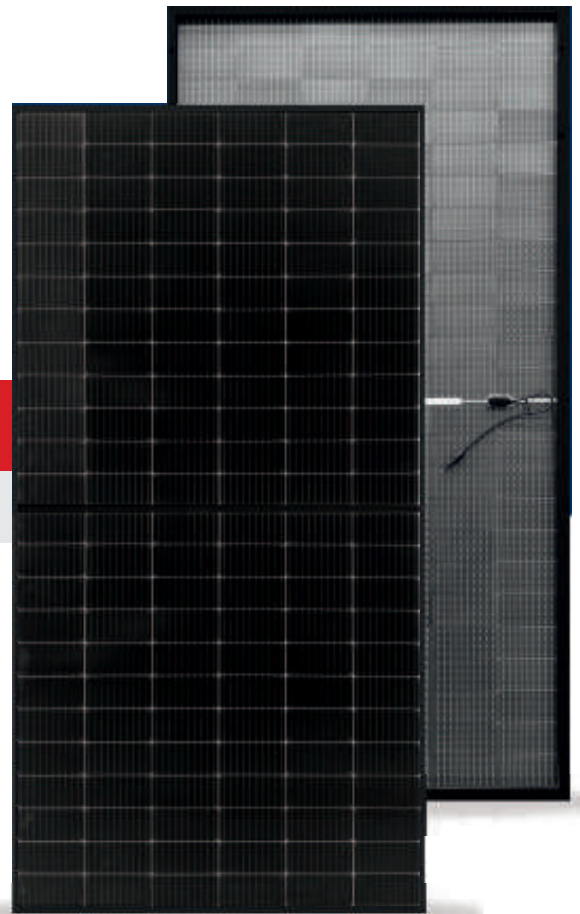
UTILITY



COMMERCIAL



OFF-GRID



## PRODUCT CERTIFICATES



IEC 61215 | IEC 61730 | IEC 61701 (Salt Mist) | IEC 62716 (Ammonia)

IEC 62782 (DMLT) | IEC 61853-1 & 2 (Panfile & IAM) | LID, LETID | IEC 62804 (PID)

CEC, CE | UL61730 | IEC 60068 (Sand & Dust) | IEC 62759 (Transportation)

MADE IN INDIA

**30 YEARS** Liner Performance Output Warranty\*

**12 YEARS** Product warranty on materials & workmanship\*\*

## PRODUCT | KEY FEATURES



### 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)

### Electrical Characteristics (STC)

MODULE TYPE	PE-525HB	PE-530HB	PE-535HB	PE-540HB	PE-450HB	PE-550HB	PE-555HB
Maximum Power (Pmp)	525	530	535	540	545	550	555
Open Circuit Voltage (Voc)	49.43	49.43	49.51	49.68	49.76	49.82	49.88
Short Circuit Current (Isc)	13.63	13.70	13.82	13.94	13.99	14.06	14.12
Maximum Power Voltage (Vmp)	40.93	41.02	41.11	41.21	41.30	41.38	41.41
Maximum Power Current (Imp)	12.83	12.93	13.03	13.11	13.21	13.31	13.41
Module Efficiency (nm)	20.32	20.52	20.71	20.90	21.10	21.29	21.48
Power Tolerance	0 to +5W						
Maximum System Voltage	1500V(UL & IEC)						
Maximum Series Fuse Rating	25 Amp						
*STC Irradiance 1000W/m <sup>2</sup> , Module Temperature 25°C and AM 1.5				Measuring Tolerance: ±3%			

### Electrical Characteristics (NOCT)

MODULE TYPE	PE-525HB	PE-530HB	PE-535HB	PE-540HB	PE-450HB	PE-550HB	PE-555HB
Maximum Power (Pmp)	390	390	394	397	401	405	408
Open Circuit Voltage (Voc)	46.09	46.19	46.26	46.42	49.49	46.55	46.61
Short Circuit Current (Isc)	10.87	10.92	11.02	11.11	11.15	11.21	11.26
Maximum Power Voltage (Vmp)	37.98	38.06	38.15	38.24	38.32	38.40	38.42
Maximum Power Current (Imp)	10.17	10.24	10.32	10.39	10.46	10.53	10.62
Module Efficiency (nm)	14.95	15.09	15.23	15.38	15.52	15.66	15.80
*NOCT- Irradiance 800 W/m <sup>2</sup> , AM 1.5, Ambient Temperature 25°C & Wind speed 1m/s				Measuring Tolerance: ±3%			

FOR PEIPL, MODEL CODE: PEI-144 - XXXHB - M10  
(WHERE, XXX - 525 to 555 IN STEPS OF 5W)

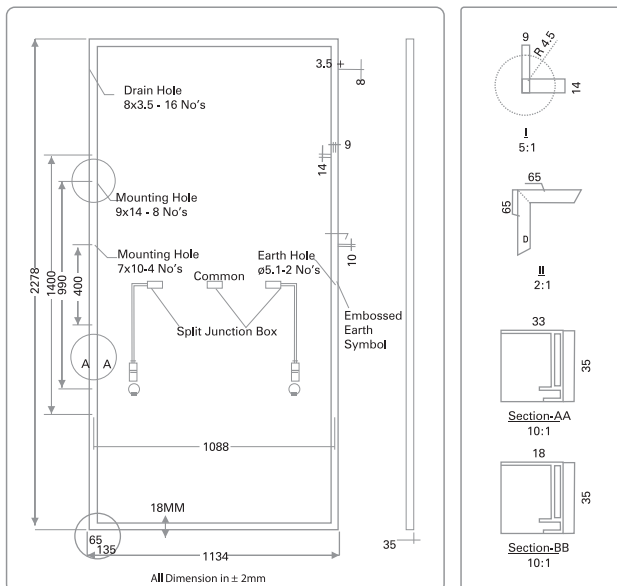
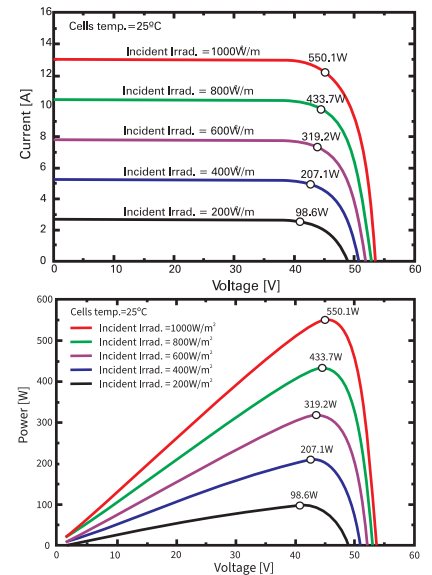
GAIN		PE-525HB	PE-530HB	PE-535HB	PE-540HB	PE-450HB	PE-550HB	PE-555HB
10%	Power Pmp	577.5	583.0	588.5	594.0	599.5	605.0	610.5
20%	Power Pmp	630.0	636.0	642.0	648.0	654.0	660.0	666
30%	Power Pmp	682.0	689.0	695.5	702.0	708.5	715.0	721.5

- Bifacial gains depends on the power plant design & albedo of installation site
- Power Bifaciality=Pmax(Rear)/Pmax(Front) are tested under STC

Measuring Tolerance: ±3%

### Temperature Characteristics

Pmax Temperature Coefficient Up to	-0.35%/°C
Voc Temperature Coefficient Up to	-0.30%/°C
Isc Temperature Coefficient	0.04%/°C
Operating Tempertature	-40°C To + 85°C
Nominal Operating Cell Temperature	42 ± 3° C



### Mechanical Specifications

External Dimensions	2278(±2mm) x 1134 (±2mm) x 35(±1mm)
Weight	28 (± 3%) Kg
Solar Cells	10 BB, Mono PERC - crystalline 91mm x 182mm ± 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 mm2   400 mm Length

### Frame Profile 35x33(Long) & 35x18mm(Short)

### Packing Configuration

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

FIRST YEAR  
DEGRADATION  
< 2.0%

YEAR 2-30 POWER  
DEGRADATION  
< 0.45%

**Caution:** Please read safety and installation instructions before using the product. **\*Warranty:** Linear performance warranty for 30 years, with degradation up to 2% in 1st year and 0.45 %/year from year 2 to year 30. Please read Mahindra warranty documents thoroughly. **Disclaimer:** Specifications included in the datasheet are subject to change without prior notice owing to continuous innovation in the Product Development and R&D Activities. Mahindra Solarize reserves the right to make any adjustment to the information described here. Dataset contained in this specification do not form a representative of a single module data. **@T&C Apply.**