



SOLAR PV MODULE (DCR/NON-DCR)

# 132 HALF CUT PERC CELL

BIFACIAL TRANSPARENT BACKSHEET 485-510 W

## High Performance Guarantee!

**30**  
YEARS

**LINEAR POWER  
OUTPUT WARRANTY**

**12**  
YEARS

**PRODUCT  
WARRANTY**

## 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)

## Suitable for



**RESIDENTIAL**



**UTILITY**



**COMMERCIAL**



**OFF-GRID**

## Certification



IEC 61215  
IEC 61730  
Regular Production  
Surveillance  
www.tsm.com  
ID 1111261827



IEC 61215 | IEC 61730 | IEC 61701 (Salt Mist) | IEC 62804 (PID)  
IEC 62716 (Ammonia) | IEC 62782 (DMLT) | IEC 61853-2 (IAM)  
LID, LETID | IEC 60068 (Sand & Dust) | CE | UL161730

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-485HB	PE-490HB	PE-495HB	PE-500HB	PE-505HB	PE-510HB
Maximum Power (Pmp)	485	490	495	500	505	510
Open Circuit Voltage (Voc)	45.02	45.13	45.28	45.39	45.53	45.66
Short Circuit Current (Isc)	13.70	13.81	13.92	14.04	14.15	14.27
Maximum Power Voltage (Vmp)	37.90	38.05	38.14	38.23	38.32	38.41
Maximum Power Current (Imp)	12.80	12.88	12.98	13.08	13.18	13.28
Module Efficiency (nm)	20.43	20.64	20.86	21.07	21.28	21.49
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-485HB	PE-490HB	PE-495HB	PE-500HB	PE-505HB	PE-510HB
Maximum Power (Pmp)	357	360	364	368	371	375
Open Circuit Voltage (Voc)	42.06	41.17	42.31	42.41	42.54	42.66
Short Circuit Current (Isc)	10.92	11.01	11.10	11.19	11.28	11.38
Maximum Power Voltage (Vmp)	35.17	35.31	35.39	35.47	35.56	35.64
Maximum Power Current (Imp)	10.14	10.21	10.29	10.37	10.45	10.53
Module Efficiency (nm)	15.03	15.19	15.34	15.50	15.65	15.81
*NOCT- Irradiance 800 W/m <sup>2</sup> , AM 1.5, Ambient Temperature 20°C & Wind speed 1m/s				Measuring Tolerance: ±3%		

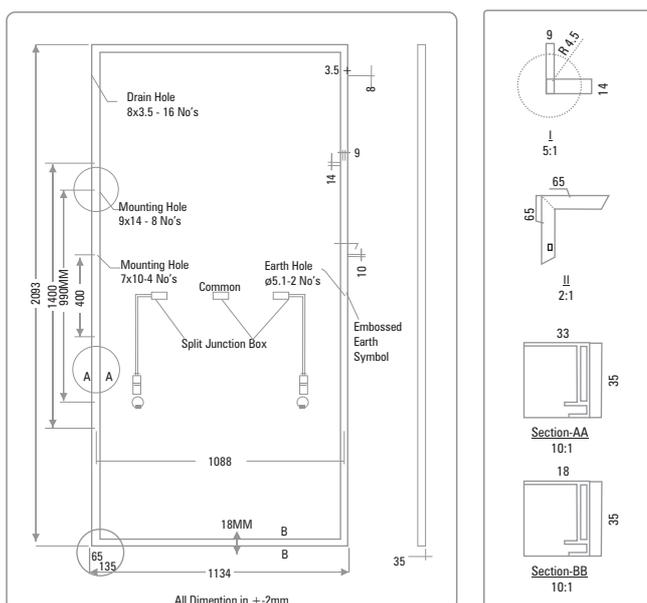
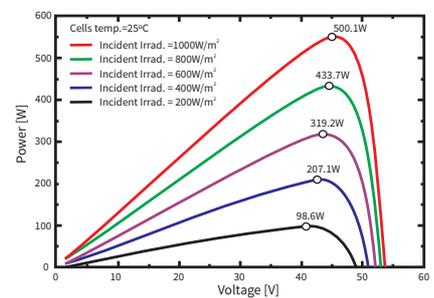
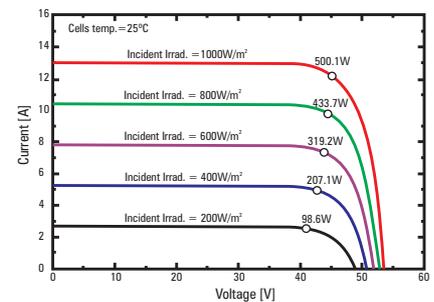
FOR PEIPL, MODEL CODE: PEI-132 - XXXHGB - M10  
(WHERE, XXX – 485 to 510 IN STEPS OF 5W)

GAIN		PE-485HB	PE-490HB	PE-495HB	PE-500HB	PE-505HB	PE-510HB
10%	Power Pmp	533.5	539.0	544.5	550.0	555.5	561.0
20%	Power Pmp	582.0	588.0	594.0	600.0	606.0	612.0
30%	Power Pmp	630.5	647.0	643.0	650.0	656.5	663.0

- 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 Temperature	-40°C To + 85°C
Nominal Operating Cell Temperature	42 ± 3° C



## Mechanical Specifications

External Dimensions	2093(±2mm) x 1134 (±2mm) x 35(±1mm)
Weight	26 (± 3%) Kg
Solar Cells	10 BB, Mono PERC - crystalline 91mm x 182mm ± 1mm
Front Glass	2.0 mm, ARC Semi Tempered, HS Glass
Rear Cover	High Transperant 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

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

## Packing Configuration

Container	32'GP	40'HQ
Pieces per Pallet	31	31
Pallets per Container	16	22
Pieces per Container	496	682

FIRST YEAR  
DEGRADATION  
< 2.0%

YEAR 2-30 POWER  
DEGRADATION  
< 0.45%

