

SOLAR PV MODULE

144 HALF CUT TOPCon CELL

BIFACIAL DUAL GLASS 10BB & 16BB 560-590 W

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)

High Performance Guarantee!



**LINEAR POWER
OUTPUT WARRANTY**



**PRODUCT
WARRANTY**

Suitable for



RESIDENTIAL



UTILITY



COMMERCIAL



OFF-GRID

Certification



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

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

IEC 60068 (Sand & Dust) | IEC 61215 | CEC, CE | IEC 61730 | UL 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-560 THGB 144	PE-565 THGB 144	PE-570 THGB 144	PE-575 THGB 144	PE-580 THGB 144	PE-585 THGB 144	PE-590 THGB 144
	PEI-144-560 THGB-M10	PEI-144-565 THGB-M10	PEI-144-570 THGB-M10	PEI-144-575 THGB-M10	PEI-144-580 THGB-M10	PEI-144-585 THGB-M10	PEI-590-425 THGB-M10
Maximum Power (Pmp)	560	565	570	575	580	585	590
Open Circuit Voltage (Voc)	51.18	51.22	51.26	51.30	51.34	51.38	51.42
Short Circuit Current (Isc)	13.40	13.50	13.61	13.71	13.83	13.93	14.04
Maximum Power Voltage (Vmp)	43.91	43.95	43.99	44.03	44.07	44.11	44.15
Maximum Power Current (Imp)	12.76	12.86	12.96	13.06	13.17	13.27	13.37
Module Efficiency %	21.66	21.86	22.05	22.24	22.44	22.63	22.83
Power Tolerance	0 to+5W						
Maximum System Voltage	1500V(UL & IEC)						
Maximum Series Fuse Rating	25 Amp						
*STC Irradiance 1000W/m², Module Temperature 25°C and AM 1.5						Measuring Tolerance: ±3%	

Electrical Characteristics (NOCT)

MODULE TYPE	PE-560 THGB 144 PEI-144-560 THGB-M10	PE-565 THGB 144 PEI-144-565 THGB-M10	PE-570 THGB 144 PEI-144-570 THGB-M10	PE-575 THGB 144 PEI-144-575 THGB-M10	PE-580 THGB 144 PEI-144-580 THGB-M10	PE-585 THGB 144 PEI-144-585 THGB-M10	PE-590 THGB 144 PEI-590-425 THGB-M10
Maximum Power (Pmp)	412	416	419	423	427	430	434
Open Circuit Voltage (Voc)	47.82	47.86	47.90	47.93	47.97	48.01	48.61
Short Circuit Current (Isc)	10.68	10.76	10.85	10.93	11.02	11.10	11.19
Maximum Power Voltage (Vmp)	40.74	40.78	40.82	40.86	40.89	40.93	40.97
Maximum Power Current (Imp)	10.11	10.19	10.27	10.35	10.43	10.51	10.59
Module Efficiency %	15.95	16.09	16.23	16.38	16.52	16.66	16.76
*NOCT- Irradiance 800 W/m ² , AM 1.5, Ambient Temperature 25°C & Wind speed 1m/s							Measuring Tolerance: ±3%

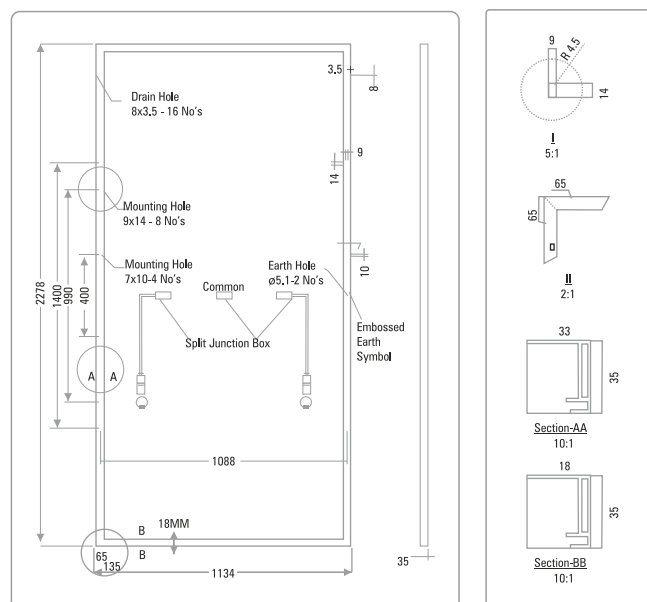
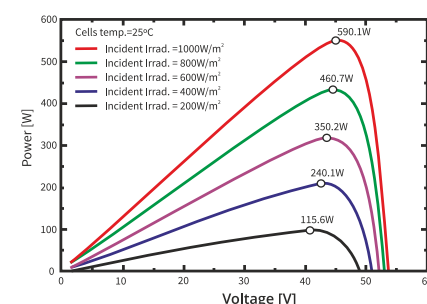
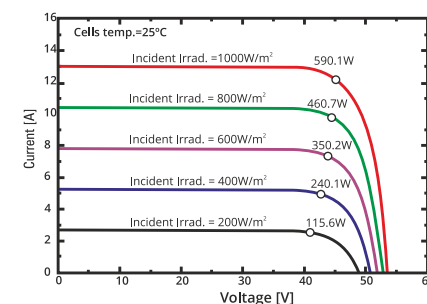
GAIN		PE-560 THGB 144 PEI-144-560 THGB-M10	PE-565 THGB 144 PEI-144-565 THGB-M10	PE-570 THGB 144 PEI-144-570 THGB-M10	PE-575 THGB 144 PEI-144-575 THGB-M10	PE-580 THGB 144 PEI-144-580 THGB-M10	PE-585 THGB 144 PEI-144-585 THGB-M10	PE-590 THGB 144 PEI-590-425 THGB-M10
10%	Power Pmp	616.0	621.5	627.0	632.5	638.0	643.5	649.0
20%	Power Pmp	672.0	678.0	684.0	690.0	696.0	702.0	708.0
30%	Power Pmp	728.0	734.5	741.0	747.5	754.0	760.5	767.0

- 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	-0.30%/°C
Voc Temperature Coefficient Up to	-0.27%/°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	2278(±2mm) x 1134 (±2mm) x 35(±1mm)
Weight	34 (± 3%) Kg
Solar Cells	10BB/16BB, TOPCon - crystalline 91mm x 182mm ± 1mm
Front Glass	2 mm, Semi Tempered, HS Glass
Rear Cover	2 mm, Semi Tempered, HS Glass
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 39 (UL 61730) Or Class C (IEC 61730)
Output Cable	4.0 mm2 400 mm Length

Frame Profile 35x33(Long) & 35x18mm(Short)
Also Available 30x30(Long) & 30x15mm(Short)

Packing Configuration

Container	40'HQ
Pieces per Pallet	31
Pallets per Container	20
Pieces per Container	620

FIRST YEAR
DEGRADATION
< 1.0%

YEAR 2-30 POWER
DEGRADATION
< 0.40%

