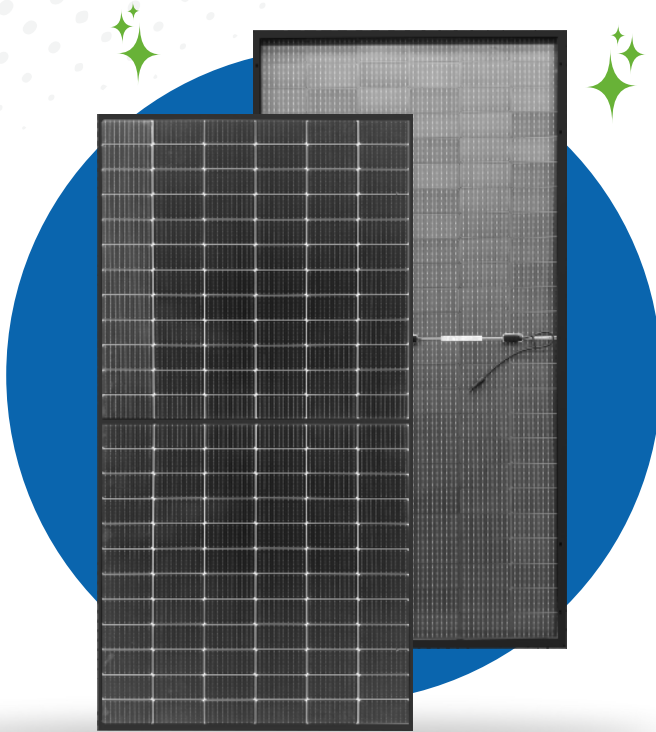




SOLAR PV MODULE (PREMIER ENERGIES CELL) 120 HALF CUT MONO PERC CELL BIFACIAL TRANSPARENT BACKSHEET 435-460 W



Made with Premier Energies Make Cell

TRANSITION TO A BRIGHTER TOMORROW

- Based on M10-182mm wafer, best choice for ultra-large power plant
- Advanced module technology delivers superior module efficiency
 - M10 Gallium-Doped Wafer
 - Smart Soldering
 - 10 Busbar Half-Cut Cells
- ARC Coated, High Transmission Glass for Higher Energy Yield
- High Module Quality Ensures Long-Term Reliability

HIGH PERFORMANCE GUARANTEE!

30 YEARS WARRANTY FOR LINEAR POWER OUTPUT

12 YEARS PRODUCT WARRANTY



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)

IDEAL FOR



Residential



Commercial



Utility



Off-grid

CERTIFICATION

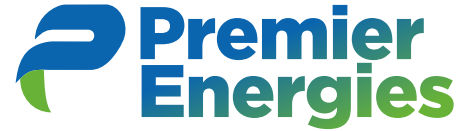
IEC 62804 (PID) | IEC 61701 (Salt Mist) | IEC 61726 (Ammonia) | IEC 62782 (DMLT)

IEC 61853-1 & 2 (Panfile & IAM) | LID, LETID | IEC 60068 (Sand & Dust) | IEC 61215

IEC 62759 (Transportation) | CEC, INMETRO, CE | IEC 61730 | UL 61730



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ELECTRICAL CHARACTERISTICS(STC)

MODULE TYPE	PE-435HB	PE-440HB	PE-445HB	PE-450HB	PE-455HB	PE-460HB
Maximum Power (Pmp)	435	440	445	450	455	460
Open Circuit Voltage (Voc)	36.84	40.92	41.03	41.14	41.23	41.33
Short Circuit Current (Isc)	13.51	13.65	13.73	13.84	13.95	14.06
Maximum Power Voltage (Vmp)	34.28	34.39	34.48	34.59	34.68	34.78
Maximum Power Current (Imp)	12.69	12.80	12.91	13.02	13.12	13.23
Module Efficiency (nm)	20.10	20.34	20.57	20.80	21.03	21.26
Power Tolerance	(-0, +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-435HB	PE-440HB	PE-445HB	PE-450HB	PE-455HB	PE-460HB
Maximum Power (Pmp)	320	324	327	331	335	338
Open Circuit Voltage (Voc)	34.42	38.23	38.34	38.44	38.52	38.62
Short Circuit Current (Isc)	10.77	10.88	10.95	11.03	11.12	11.21
Maximum Power Voltage (Vmp)	31.81	31.91	31.99	32.10	32.18	32.27
Maximum Power Current (Imp)	10.06	10.14	10.23	10.31	10.40	10.48
Module Efficiency (nm)	14.79	14.96	15.13	15.30	15.47	15.64

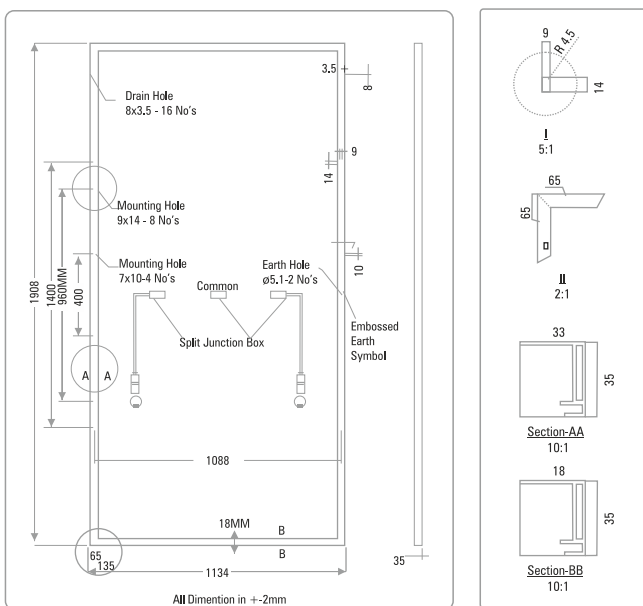
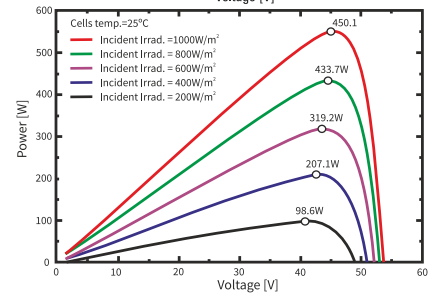
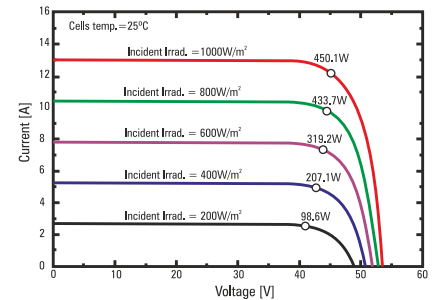
*NOCT- Irradiance 800 W/m², AM 1.5, Ambient Temperature 25°C and Wind speed 1m/s Measuring Tolerance: ±3%

BIFACIAL GAIN (70 ± 10%)		PE-435HB	PE-440HB	PE-445HB	PE-450HB	PE-455HB	PE-460HB
10%	Power Pmp	478.5	484.0	489.5	495.0	500.5	506.0
20%	Power Pmp	522.0	528.0	534.0	540.0	546.0	552.0
30%	Power Pmp	565.5	572.0	578.5	585.0	591.5	598.0

• Bifacial gains depends on the power plant design and albedo of installation site
• Power Bifaciality = Pmax(Rear)/Pmax(Front) and Pmax Front are tested under STC Measuring Tolerance: ±3%

TEMPERATURE CHARACTERISTICS

Pmax Temperature Coefficient	-0.35%/°C
Voc Temperature Coefficient	-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	1908(±2mm) x 1134 (±2mm) x 35(±1mm)
Weight	23 (± 3%) Kg
Solar Cells	10 BB, Mono PERC - crystalline 91mm x 182mm
Front Glass	3.2 mm, High Transmission, Low Iron, Tempered Glass
Rear Cover	High Transparent 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 (UL61730) Or Class C (IEC61730)
Output Cable	4.0 mm ² 400 mm Length

FRAME PROFILE 35X33MM(LONG) AND 35X18MM(SHORT)

PACKING CONFIGURATION

Container	40'HQ
Pieces per Pallet	31
Pallets per Container	24
Pieces per Container	744

FIRST YEAR DEGRADATION

< 2.0%

YEAR 2-30 POWER DEGRADATION

< 0.45%

For more details, please contact:

PREMIER ENERGIES GROUP

sales@premierenergies.com | premierenergies.com

The specification and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement, Premier Energies reserves the right to make necessary adjustment to the information described herein at any time without further notice.