

SOLAR PV MODULE

# 108 HALF CUT TOPCon CELL

BIFACIAL TRANSPARENT BACKSHEET 405-425 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 61215 | IEC 61730 | IEC 61701 (Salt Mist) | IEC 62716 (Ammonia)

IEC 62782 (DMLT) | IEC 61853- 2 (IAM) | LID, LETID | IEC 60068 (Sand & Dust)

IEC 62804 (PID) | UL 61730

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

**AVAILABLE IN ALL BLACK RANGE**

Electrical Characteristics (STC)

| MODULE TYPE                                                  | PE-405 THB 108        | PE-410 THB 108        | PE-415 THB 108        | PE-420 THB 108        | PE-425 THB 108           |
|--------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------------|
|                                                              | PEI-108-405 THB - M10 | PEI-108-410 THB - M10 | PEI-108-415 THB - M10 | PEI-108-420 THB - M10 | PEI-108-425 THB - M10    |
| Maximum Power (Pmp)                                          | 405                   | 410                   | 415                   | 420                   | 425                      |
| Open Circuit Voltage (Voc)                                   | 38.24                 | 38.28                 | 38.32                 | 38.36                 | 38.40                    |
| Short Circuit Current (Isc)                                  | 12.97                 | 13.11                 | 13.25                 | 13040                 | 13.55                    |
| Maximum Power Voltage (Vmp)                                  | 32.81                 | 32.85                 | 32.89                 | 32.93                 | 32.97                    |
| Maximum Power Current (Imp)                                  | 12.35                 | 12.49                 | 12.62                 | 12.76                 | 12.90                    |
| Module Efficiency %                                          | 20.74                 | 21.00                 | 21.25                 | 21.51                 | 21.76                    |
| 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% |

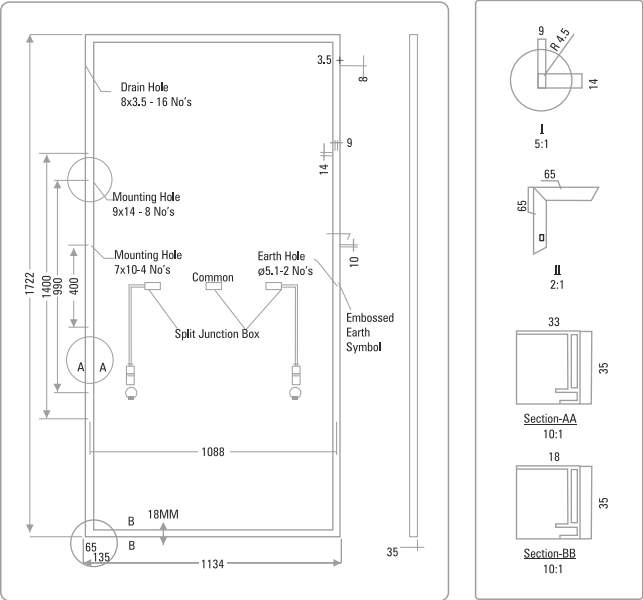
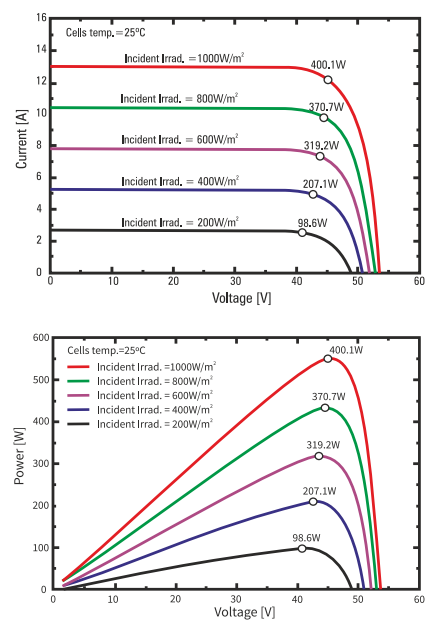
Electrical Characteristics (NOCT)

| MODULE TYPE                                                                   |  | PE-405 THB 108        | PE-410 THB 108        | PE-415 THB 108        | PE-420 THB 108           | PE-425 THB 108        |
|-------------------------------------------------------------------------------|--|-----------------------|-----------------------|-----------------------|--------------------------|-----------------------|
|                                                                               |  | PEI-108-405 THB - M10 | PEI-108-410 THB - M10 | PEI-108-415 THB - M10 | PEI-108-420 THB - M10    | PEI-108-425 THB - M10 |
| Maximum Power (Pmp)                                                           |  | 298                   | 302                   | 305                   | 309                      | 313                   |
| Open Circuit Voltage (Voc)                                                    |  | 35.73                 | 35.77                 | 35.80                 | 35.84                    | 35.88                 |
| Short Circuit Current (Isc)                                                   |  | 10.34                 | 10.45                 | 10.56                 | 10.68                    | 10.80                 |
| Maximum Power Voltage (Vmp)                                                   |  | 30.44                 | 30.48                 | 30.52                 | 30.56                    | 30.59                 |
| Maximum Power Current (Imp)                                                   |  | 9.79                  | 9.89                  | 10.00                 | 10.11                    | 10.22                 |
| Module Efficiency %                                                           |  | 15.26                 | 15.44                 | 15.63                 | 15.82                    | 16.01                 |
| NOCT- Irradiance 800 W/m², AM 1.5, Ambient Temperature 25°C & Wind speed 1m/s |  |                       |                       |                       | Measuring Tolerance: ±3% |                       |

| GAIN                                                                                                                                                |           | PE-405 THB 108        | PE-410 THB 108        | PE-415 THB 108        | PE-420 THB 108           | PE-425 THB 108        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------|-----------------------|-----------------------|--------------------------|-----------------------|
|                                                                                                                                                     |           | PEI-108-405 THB - M10 | PEI-108-410 THB - M10 | PEI-108-415 THB - M10 | PEI-108-420 THB - M10    | PEI-108-425 THB - M10 |
| 10%                                                                                                                                                 | Power Pmp | 445.0                 | 510.0                 | 456.5                 | 462.0                    | 467.5                 |
| 20%                                                                                                                                                 | Power Pmp | 486.0                 | 492.0                 | 498.0                 | 504.0                    | 510.0                 |
| 30%                                                                                                                                                 | Power Pmp | 526.5                 | 533.0                 | 539.5                 | 546.0                    | 552.5                 |
| • Bifacial gains depends on the power plant design & albedo of installation site<br>• 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       |
| Ise Temperature Coefficient        | 0.04%/°C        |
| Operating Tempertature             | -40°C To + 85°C |
| Nominal Operating Cell Temperature | 42 ± 3° C       |



Mechanical Specifications

|                     |                                                     |
|---------------------|-----------------------------------------------------|
| External Dimensions | 1722 (±2mm) x 1134 (±2mm) x 35(±1mm)                |
| Weight              | 21 (± 3%) Kg                                        |
| Solar Cells         | 10BB TOPCon 91mm x 182mm ± 1mm                      |
| Front Glass         | 3.2 mm, High Transmission, Low Iron, Tempered Glass |
| Rear Cover          | High Transparent / Black / White 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             | 40'HQ |
| Pieces per Pallet     | 31    |
| Pallets per Container | 26    |
| Pieces per Container  | 806   |

FIRST YEAR  
DEGRADATION  
< 1.0%

YEAR 2-30 POWER  
DEGRADATION  
< 0.40%