

# BIFACIAL MONO TOPCON HALF CELL MODULE

## SEMI+MBB

LNE5N144  
565-580 WATT



### HIGHER POWER DENSITY

- Output up to 580watt on 2.584M<sup>2</sup>
- Module efficiency high to 22.44%
- Gain more solar power per square meter



### SEMI+MBB

- Semi design deduce working temperature of operation and minimize hot-spot risk
- MBB design deduce cover of busbars and improve current collection ability on windy days
- Improve the output/watt



### ENHANCED MECHANICAL LOAD

- Wind load 2400 Pascal
- Snow load 5400 Pascal



### APPLIED UNDER STRICT CONDITIONS

- Modules could be applied under ammonia, salt mist, high temperature, high humidity condition



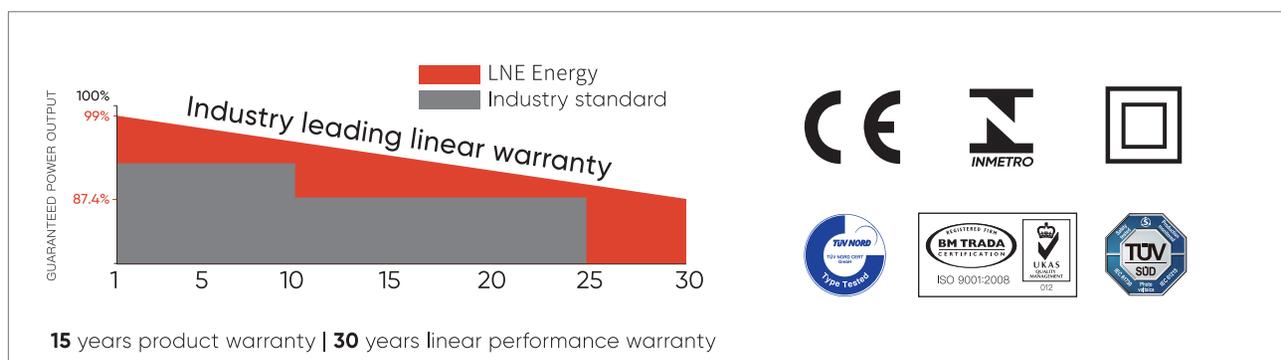
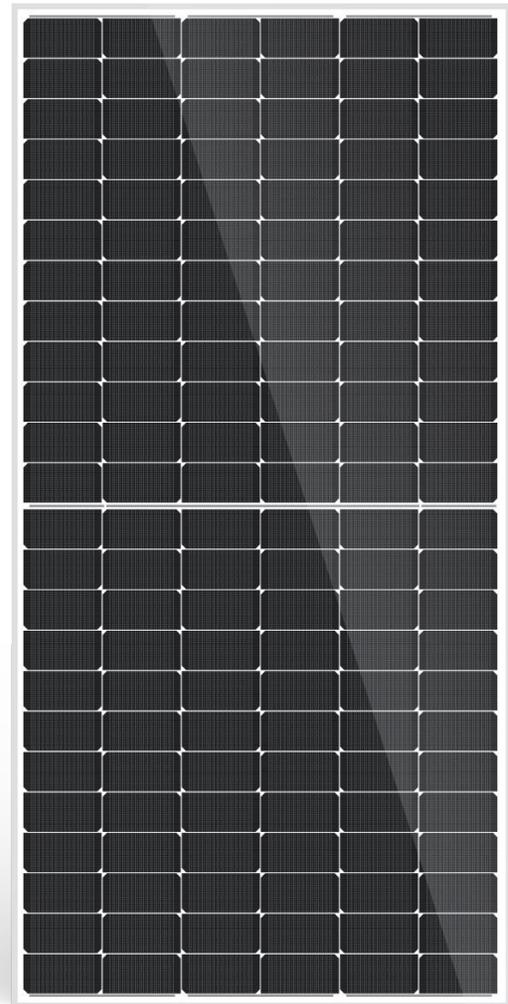
### IP68

- IP68 junction boxes improve water-proof performance



### EXCELLENT FIRE-PROOF PERFORMANCE

- Modules have passed anti-fire test



### ELECTRICAL DATA (STC)

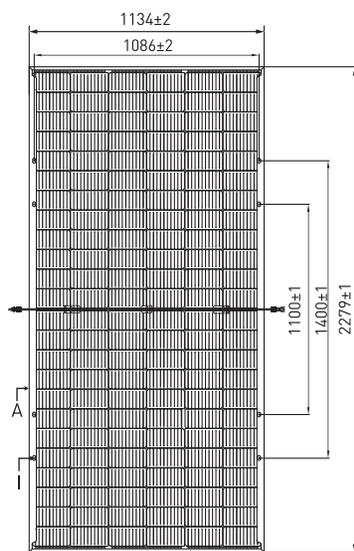
|                                |        |        |        |        |
|--------------------------------|--------|--------|--------|--------|
| Rated Power In Watts-Pmax (Wp) | 565    | 570    | 575    | 580    |
| Maximum Power Voltage-Vmpp (V) | 42.84  | 42.99  | 43.14  | 43.3   |
| Maximum Power Current-Impp (A) | 13.19  | 13.26  | 13.33  | 13.40  |
| Open Circuit Voltage-Voc (V)   | 50.72  | 50.97  | 51.23  | 51.48  |
| Short Circuit Current-Isc (A)  | 14.00  | 14.08  | 14.16  | 14.24  |
| Module Efficiency (%)          | 21.86% | 22.06% | 22.25% | 22.44% |

STC: Irradiation 1000 W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3.

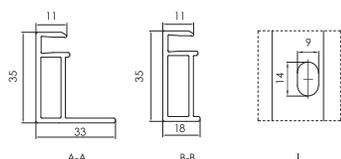
### ELECTRICAL DATA (NMOT)

|                                |       |       |       |       |
|--------------------------------|-------|-------|-------|-------|
| Maximum Power-Pmax (Wp)        | 424   | 429   | 435   | 441   |
| Maximum Power Voltage-Vmpp (V) | 39.93 | 40.15 | 40.32 | 40.61 |
| Maximum Power Current-Impp (A) | 10.62 | 10.70 | 10.78 | 10.86 |
| Open Circuit Voltage-Voc (V)   | 48.27 | 48.51 | 48.75 | 48.99 |
| Short Circuit Current-Isc (A)  | 11.21 | 11.27 | 11.33 | 11.39 |

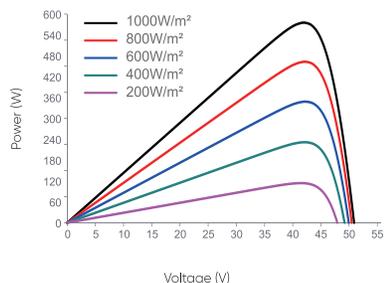
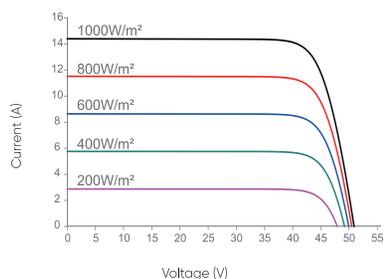
NOCT: Irradiation: 800 W/m<sup>2</sup>, ambient temperature: 20°C, air mass: 1.5, wind speed 1 m/s



Back Overview



Current-Voltage & Power-Voltage Curves



### Electrical Characteristics With Different Rear Side Power Again (Reference To 580w Front)

|                                |       |       |       |       |       |
|--------------------------------|-------|-------|-------|-------|-------|
| Pmax gain (%)                  | 5%    | 10%   | 15%   | 20%   | 25%   |
| Maximum Power (Pmax/W)         | 609   | 638   | 667   | 696   | 725   |
| Maximum Power Voltage (Vmpp/V) | 43.3  | 43.3  | 43.3  | 43.3  | 43.3  |
| Maximum Power Current (Impp/A) | 14.07 | 14.74 | 15.41 | 16.08 | 16.75 |

### MECHANICAL CHARACTERISTICS

|                    |  |
|--------------------|--|
| Solar Cells        | Monocrystalline N-type, MBB                                    |
| Cell Configuration | 144 cells (6 x 12 x 2)   |
| Module Dimensions  | 2279 x 1134 x 35 mm  |
| Weight             | 32.0 kg  |
| Glass              | 2.0mm Tempered ARC Glass                                       |
| Back Sheet         | 2.0mm Glass  |
| Frame              | Anodized Aluminium Alloy, Silver                               |
| J-Box              | IP68, 3 bypass diodes  |
| Cables             | 4.0mm <sup>2</sup> , (+) 380mm, (-) 380mm or customized length |
| Connector          | MC4 Compatible   |

### TEMPERATURE & MAXIMUM RATINGS

|   |             |
|---|-------------|
| Nominal Module Operating Temperature (NMOT) | 44±2°C      |
| Temperature Coefficient of Voc              | -0.25% / °C |
| Temperature Coefficient of Isc              | 0.045% / °C |
| Temperature Coefficient of Pmax             | -0.30% / °C |
| Operational Temperature                     | -40°C~+85°C |
| Maximum System Voltage                      | 1500VDC     |
| Max Series Fuse Rating                      | 25A         |

### PACKAGING

|                                 |           |
|---------------------------------|-----------|
|                                 | 40FT (HQ) |
| Number of Modules Per Container | 620       |
| Number of Modules Per Pallet    | 31        |
| Number of Pallets Per Container | 20        |