

# 565-590W

Monofacial Half-Cell PV Module

## AS565-590M10-144



**N-TYPE TOPCON** module could increase power generation by 3%+ per watt compared with PERC



**LOWER DEGRADATION RATE**  
First-year ≤1%, 2-30 year ≤0.4%



**COMPATIBLE** with mainstream trackers  
effective product for utility power plant

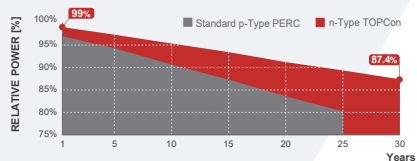


**BETTER shading tolerance**  
Excellent performance under dim light



**LOWER TEMP. COEFFICIENT**  
More power generation under high-temperature

### LINEAR PERFORMANCE WARRANTY



**30** Year  
Warranty for Extra Linear  
Power Output

**15** Year  
Warranty for Materials  
and Processing

**0.4**%  
Annual degradation

### ELECTRICAL CHARACTERISTICS (STC)

|                                 | 565   | 570   | 575   | 580   | 585   | 590   |
|---------------------------------|-------|-------|-------|-------|-------|-------|
| Maximum Power(Pmax/W)           | 565   | 570   | 575   | 580   | 585   | 590   |
| Open Circuit Voltage(Voc/V)     | 52.69 | 52.81 | 52.93 | 53.05 | 53.17 | 53.29 |
| Short Circuit Current(Isc/A)    | 13.60 | 13.66 | 13.72 | 13.78 | 13.84 | 13.90 |
| Voltage at Maximum Power(Vmp/V) | 43.26 | 43.46 | 43.66 | 43.86 | 44.06 | 44.26 |
| Current at Maximum Power(Imp/A) | 13.00 | 13.13 | 13.18 | 13.23 | 13.28 | 13.33 |
| Module Efficiency(%)            | 21.86 | 22.06 | 22.25 | 22.44 | 22.64 | 22.83 |

STC:AM1.5 1000W/m² 25 °C

### ELECTRICAL CHARACTERISTICS (NOTC)

|                                 | 425   | 429   | 433   | 437   | 441   | 445   |
|---------------------------------|-------|-------|-------|-------|-------|-------|
| Maximum Power(Pmax/W)           | 425   | 429   | 433   | 437   | 441   | 445   |
| Open Circuit Voltage(Voc/V)     | 48.06 | 48.20 | 48.34 | 48.48 | 48.62 | 48.76 |
| Short Circuit Current(Isc/A)    | 11.49 | 11.55 | 11.61 | 11.67 | 11.73 | 11.79 |
| Voltage at Maximum Power(Vmp/V) | 39.38 | 39.51 | 39.64 | 39.77 | 39.90 | 40.03 |
| Current at Maximum Power(Imp/A) | 10.79 | 10.85 | 10.91 | 10.97 | 11.03 | 11.09 |

NOCT:AM1.5 800W/m² 20 °C 1m/s Test uncertainty for Pmax ±3%

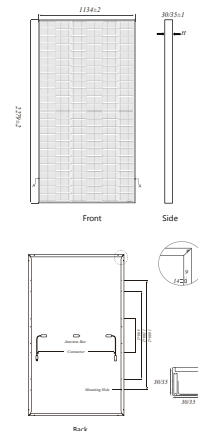
### MECHANICAL SPECIFICATION

|                          |                             |              |                                                                      |
|--------------------------|-----------------------------|--------------|----------------------------------------------------------------------|
| Cell                     | N-type TOPCon Mono          | Junction Box | IP68                                                                 |
| No. of cells             | 144(6x24)                   | Connector    | MC4 Compatible                                                       |
| Cable Length             | 300mm(+)/300mm(-)           | Weight       | 28.6kgs±3%                                                           |
| Cable Cross Section Size | 4mm²(IEC)                   | Cells Type   | Mono 182x91mm                                                        |
| Dimension(LxWxT)         | 2279±2mmx1134±2mmx30/35±1mm | Packaging    | 36pcs/pallet, 720pcs/40HQ (30mm)<br>31pcs/pallet, 620pcs/40HQ (35mm) |

### OPERATING PARAMETERS

|                        |                 |                          |                   |
|------------------------|-----------------|--------------------------|-------------------|
| Maximum System Voltage | 1500VDC         | Maximum StaticLoad,Front | 5400Pa(112lb/ft²) |
| Operating Temperature  | -40 °C ~ +85 °C | Maximum StaticLoad,Back  | 2400Pa(50lb/ft²)  |
| Maximum Series Fuse    | 30A             | Safety Class             | Class II          |

Remark: customized frame color and cable length available upon request



### TEMPERATURE RATINGS

|                                          |             |
|------------------------------------------|-------------|
| Nominal Operating Cell Temperature(NOCT) | 45±2 °C     |
| Temperature Coefficient of Isc           | +0.045%/ °C |
| Temperature Coefficient of Voc           | -0.25%/ °C  |
| Temperature Coefficient of Pmax          | -0.30%/ °C  |

### I-V CURVE(AS565-590M10-144)

