

# TopCon

Bi-Facial  
565Wp-650Wp



Glass  
To  
Glass



30 Years  
Performance  
Warranty



12 Years  
Manufacturing  
Warranty

**2 GW**

Manufacturing  
Facility



Best in class  
thermal coefficients



Sustain heavy  
snow & wind loads



Highest  
commercial  
gains



Split junction  
box improve  
heat dissipation



Increase  
shade  
tolerance

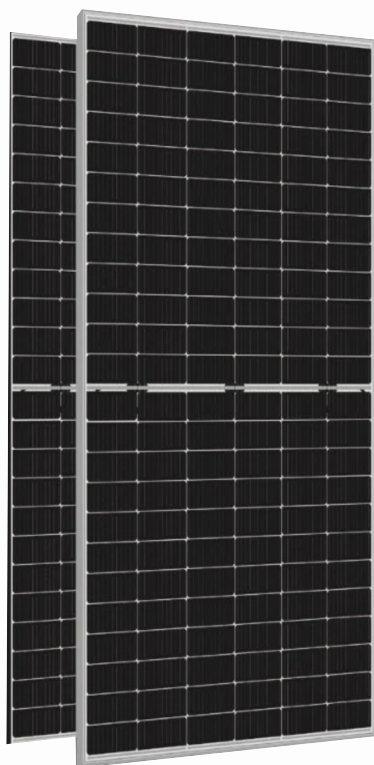


Highest  
reliability

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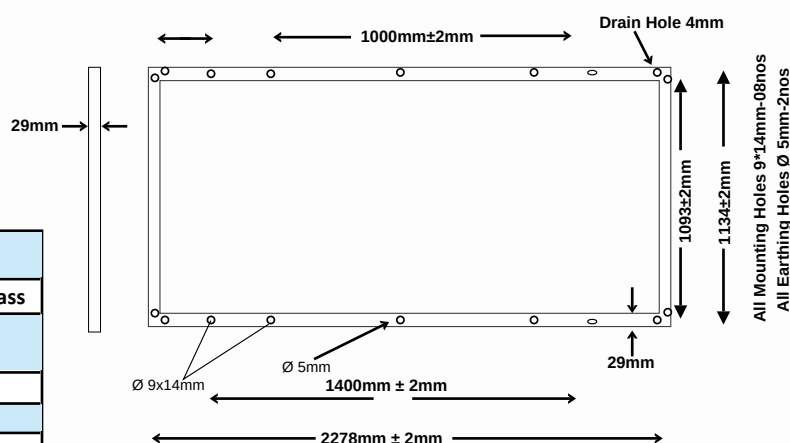


| Specifications                      | ECE144T595         |
|-------------------------------------|--------------------|
| Power (Pm) in Watts (nominal)       | 595±2%             |
| Open Circuit Voltage (Voc) in Volts | 51.91              |
| Short Circuit Current (Isc) in Amps | 13.97              |
| Voltage at Max Power (Vmp) in Volts | 45.07              |
| Current at Max Power (Imp) in Amps  | 13.26              |
| Module Fill Factor (%)              | 82.42              |
| Module Efficiency (%)               | 23.03%             |
| Maximum System Voltage (Vdc)        | 1500V              |
| Solar Cells per Module (Units)      | 144 Half Cut Cells |
| Max Series Fuse Rating in Amps      | 30                 |

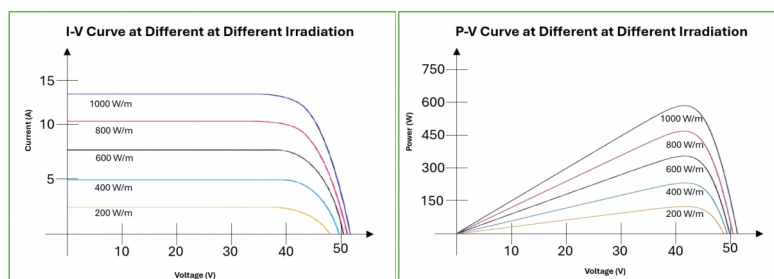
\* All electrical parameters specified at STC: 25°C cell temperature; 1000W/ M<sup>2</sup> irradiance; AM 1.5

### Mechanical Details

|                                            |                                                                                                              |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Solar Cells Type                           | Half cut TopCon                                                                                              |
| Solar Glass Front & Back                   | 2mm Tempered ARC Coated Glass                                                                                |
| Length (L)x Width(W) x Height(T)           | 2278mm x 1134mm x 29mm                                                                                       |
| Area                                       | 2.58 Sqm                                                                                                     |
| Mounting Hole Pitch (Y)                    | Y1= 1400mm, Y2=1000mm                                                                                        |
| Mounting Hole Pitch (X)                    | 1093 ± 2 mm                                                                                                  |
| Mounting hole size                         | 14mm*9mm(± 2 mm )                                                                                            |
| Weight                                     | ≈ 32.5 Kg                                                                                                    |
| Internal Circuit Connection                | Copper Ribbon                                                                                                |
| Frame                                      | Silver (more than 15 micron)<br>Anodized Aluminium                                                           |
| Cells Encapsulant                          | Front side : POE/EPE<br>Back Side : EPE                                                                      |
| Junction Box (Model Type & current Rating) | IP68 Split JB                                                                                                |
| Connectors                                 | MC4 Compatible                                                                                               |
| Mechanical Load Condition                  | Sustain heavy Wind & Snow loads (2400Pa & 5400Pa or 550kg/m2 Maximum diameter of 24mm with hail impact of 83 |
| Cable Length                               | 0.4 Meter                                                                                                    |



| Temperature Coefficients        |                   |
|---------------------------------|-------------------|
| Tc of Open Circuit Voltage (β)  | -0.02681%/°C±0.02 |
| Tc of Short Circuit Current (α) | 0.0469%/°C±0.01   |
| Tc of Power (γ)                 | -0.3218%/°C±0.02  |
| NOCT                            | 44±2°C            |



| Bi-Facial output - (Back side gain @ STC) |                                 | 595    |
|-------------------------------------------|---------------------------------|--------|
| 15%                                       | Nominal Maximum Power (Pmax) Wp | 684.25 |
|                                           | Module efficiency %             | 26.49  |
| 20%                                       | Nominal Maximum Power (Pmax) Wp | 714.00 |
|                                           | Module efficiency %             | 27.64  |
| 25%                                       | Nominal Maximum Power (Pmax) Wp | 743.75 |
|                                           | Module efficiency %             | 28.79  |

### Linear Performance Warranty

