

# ES-132 MONO 700 BIFACIAL TOPCon

700Wp/42.10Vmp



High conversion efficiency High module efficiency to guarantee power output



Self-cleaning glass Coating glass for self-cleaning, reduce surface dust



Outstanding low irradiation performance Excellent module efficiency even in the weak light conditions, such as morning or cloudy



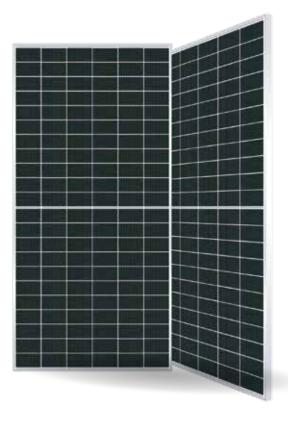
Excellent loading capability 2400Pa wind loads, 5400Pa snow loads



0 to +5W positive tolerance. Detailed information in **Electrical Specifications** 



48-hour response service















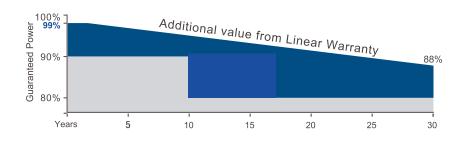






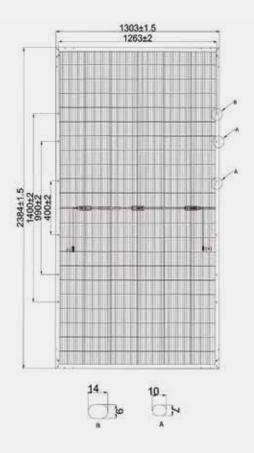


warranty on materials and workmanship



- Linear performance warranty
- Standard tiered warranty

# **Engineering Drawings**



## **Temperature Characteristics**

Normal Operating Cell Temperature (NOCT)	44°±2°C
Temperature Coefficiency of Pmax	-0.26%°C
Temperature Coefficiency of Voc	-0.24%°C
Temperature Coefficiency of Isc	+0.04%°C

## Safety & Warranty

Safety Glass	Class II
Product Warranty	15 yrs Workmanship
Performance Warranty	30 yrs Linear Warranty*

<sup>\*</sup>less than 1% attenuation in the 1st year, the annual attenuation from the 2nd year is no more than 0.375%, and the power is no less than 88% until the 30th year

# **Shipping Configurations**

Container size	40'
Pallets per Container	18
Modules per Pallet (pcs)	31
Modules per Container (pcs)	558

### **Electrical Characteristics (STC\*)**

ES - 132 MONO BIFICIAL TOPCon	680	685	690	695	700
Maximum Power (Pmax)	680W	685W	690W	695W	700W
Module Efficiency %	21.89%	22.05%	22.21%	22.37%	22.53%
Optimum Operating Voltage (Vmp)	41.49V	41.65V	41.80V	41.95V	42.10V
Optimum Operating Current (Imp)	16.39A	16.45A	16.51A	16.57A	16.63A
Open Circuit Voltage (Voc)	49.50V	49.66V	49.82V	49.98V	50.13V
Short Circuit Current (Isc)	17.19A	17.25A	17.31A	17.37A	17.43A
Operating Module Temperature	-40 to 85 °C				
Maximum System Voltage	DC 1500V (IEC)				
Maximum Series Fuse	30A				
Power Tolerance	0~+5W				
Bifaciality	80% ±5%				

<sup>\*</sup>STC: Irradiance 1000W/m  $^2$  - Cell temperature 25  $^0$ C - AM=1.5 - Tolerance of Pmax is within +/-3%

#### BSTC\*\*

Maximum Power (Pmax)	750W	755W	760W	765W	770W
Optimum Operating Voltage (Vmp)	41.49V	41.65V	41.80V	41.95V	42.10V
Optimum Operating Current (Imp)	18.08A	18.13A	18.19A	18.24A	18.29A
Open Circuit Voltage (Voc)	49.50V	49.66V	49.82V	49.98V	50.13V
Short Circuit Current (Isc)	18.96A	19.01A	19.07A	19.12A	19.17A

<sup>\*\*</sup>BSTC: Front side irradiation 1000W/m $^2$  - Back side reflection irradiation 135W/m $^2$  - AM=1.5 - Ambient temperature 25  $^0$ C

#### **Mechanical Characteristics**

Cell Type	HJT Mono 201 x 105mm
Cell Connection	132 (6X22)
Module Dimension	2384 x 1303 x 35mm
Weight	38,7kg
Junction Box	IP68
Output Cable	4mm2, 1400mm in legnth, length can be customized / UV resistant
Connectors Type	MC4 compatible
Frame	Anodised aluminum alloy
Encapsulant	EPE
Front Load	5400 Pa
Rear Load	2400 Pa
O (	T) 0.00

Glass Thickness (F) 2.00mm anti-reflective surface solar glass - (B) 2.00mm solar glass

**Note:** the specifications are obtained under the Standard Test Conditions (STCs): 1000W/m² solar irradiance, 1.5 Air Mass, and cell temperature of 25°C. The NOCT is obtained under the Test Conditions: 800W/m², 20°C ambient temperature, 1m/s wind speed, AM 1.5 spectrum. Please contact **service.support@ecosun.gr** for technical support.

The actual transactions will be subject to the contracts. This parameters are for reference only and are not a part of the contracts. The specifications are subject to change without prior notice.