





Best in class thermal coefficients



Sustain heavy snow & wind loads



commercial gains



Split junction box improve heat dissipation



Increase shade tolerance



Highest reliability

Corporate Head Office

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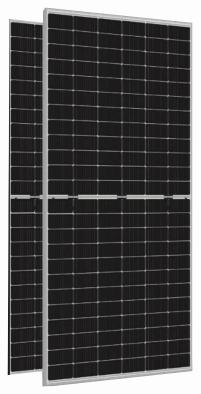
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TopCon Series 590w Bi-Facial | 144 Cell N-type Bifacial Module | Glass to Glass

Technical Specifications





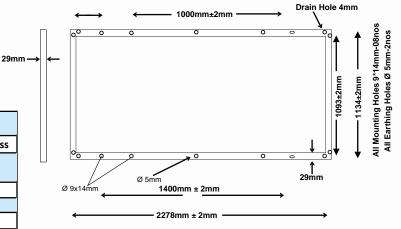
Specifications	ECE144T590
Power (Pm) in Watts (nominal)	590±2%
Open Circuit Voltage (Voc) in Volts	51.84
Short Circuit Current (Isc) in Amps	13.89
Voltage at Max Power (Vmp) in Volts	45.00
Current at Max Power (Imp) in Amps	13.16
Module Fill Factor (%)	82.26
Module Efficiency (%)	22.93%
Maximum System 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/M² 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) Anodized Aluminium
Cells Encapsulant	Front side : POE/EPE Back Side : EPE
Junction Box (Model Type & current Rating)	IP68 Split JB
Connectors	MC4 Compatible
Mechanical Load	Sustain heavy Wind & Snow
Condition	loads (2400Pa & 5400Pa or
	550kg/m2 Maximum diameter
	of 24mm with hail impact of 83
Cable Length	0.4 Meter

Bi-Facial output - (Back side gain @ STC) 590		
15%	Nominal Maximum Power (Pmax) Wp	678.50
	Module efficiency %	26.27
20%	Nominal Maximum Power (Pmax) Wp	708.00
	Module efficiency %	27.41
25%	Nominal Maximum Power (Pmax) Wp	737.50
	Module efficiency %	28.55



Temperature Coefficients		
Tc of Open Circuit Voltage (ß)	-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	

