



TOPCon – Half Cut Bifacial Module with Dual Glass

SPE 585W | 590W | 595W

Durability Against Extreme Environmental Conditions

Long-Term High Performance Guarantee

Positive Power Tolerance

Higher Bifacial Benefits

100% Customer Satisfaction

Anti-PID Technology

15 15 Years Product Warranty

30 30 Years Linear
Performance Guarantee



Electrical Characteristics (STC)

Model	SPE585-144GGT	SPE590-144GGT	SPE595-144GGT
Maximum Power	P _{max} 585 Wp	590 Wp	595 Wp
Maximum Power Voltage	V _{mpp} 43.36 V	43.46 V	43.57 V
Maximum Power Current	I _{mp} 13.50 A	13.58 A	13.66 A
Open Circuit Voltage	V _{oc} 51.77 V	51.88 V	51.99 V
Short Circuit Current	I _{sc} 14.19 A	14.27 A	14.35 A
Module Efficiency	η _m 22.6 %	22.80 %	23.0 %
Positive Power Tolerance	~ +5W		

Standard Test Conditions (STC): Irradiance 1000W/m², AM 1.5, Cell Temperature 25°C
Measurement tolerance ± 3%

Electrical Characteristics (NMOT)

Model	SPE585-144GGT	SPE590-144GGT	SPE595-144GGT
Maximum Power	P _{max} 444 Wp	447.8 Wp	451.5 Wp
Maximum Power Voltage	V _{mpp} 40.91 V	41.04 V	41.16 V
Maximum Power Current	I _{mp} 10.86 A	10.91 A	10.97 A
Open Circuit Voltage	V _{oc} 49.10 V	49.21 V	49.27 V
Short Circuit Current	I _{sc} 11.44 A	11.51 A	11.57 A

NMOT: Irradiance 800 W/m², Ambient Temperature 20° C, Air Mass 1.5, Wind Speed 1m/s

System Design

Maximum System Voltage	1500V DC
Operating Temperature	-40°C — +85°C
Maximum Series Fuse Rating	30 A
Static Load	2400 Pa (Wind), 5400Pa (Snow)*
Safety Class	II
Fire Class	UL Type 1
Bifacial Rate**	80±5%

* Only mounted with adherence to prescribed techniques

** [P_{max} (backsurface) / P_{max} (frontsurface)] x 100

Thermal Characteristics

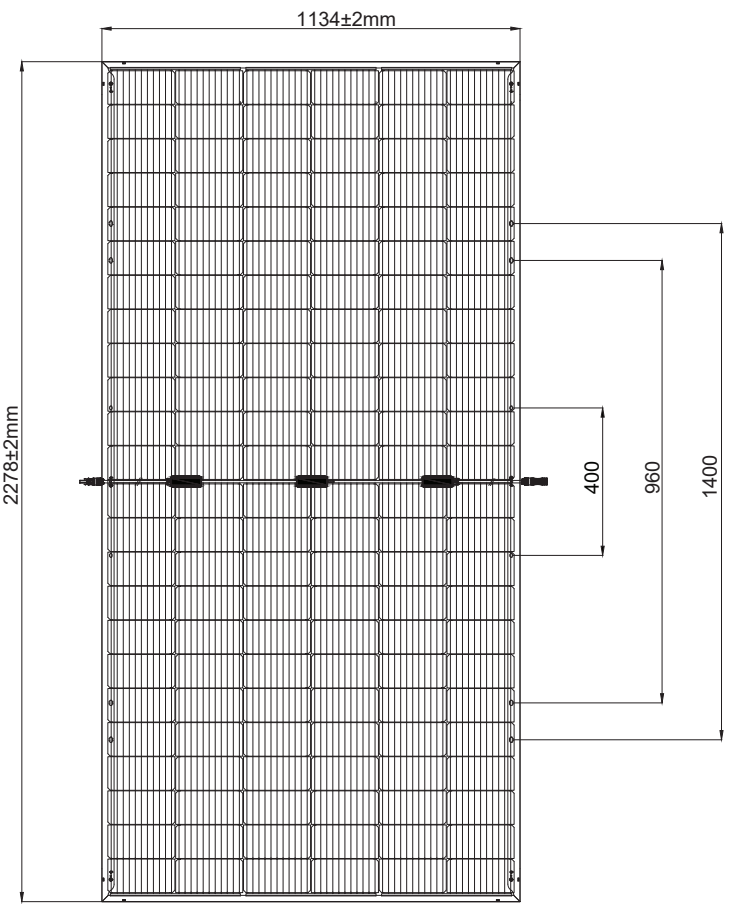
NOCT	45 ±2 °C
Temperature Coefficient P _{mp}	-0.290 % / °C
Temperature Coefficient I _{sc}	+0.045 % / °C
Temperature Coefficient V _{oc}	-0.250 % / °C

Mechanical Characteristics

Dimension	2278mm x 1134mm x 35mm
Cell Type	TOPCon M10
Cells Per Module	144 Half-Cell
Weight	31 kg ±1kg
Front / Rear Glass	2.0+2.0mm, tempered glass
Frame	Anodized Aluminum alloy
Junction Box	Protection Class IP68 (3 bypass diode)
Cable	4 mm ² solar cable, Length: 400mm (+), 300mm (-) Length 1500mm (+), 1300 mm (-)*
Connector	Original Staubli MC4 Evo2

* Cable lenght may differ based on the installation method

Technical Module Drawing

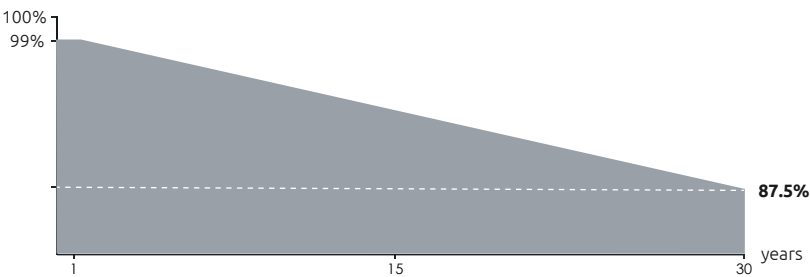


Measurement unit: mm

Bifacial Rearside Power Gain

Gain	Module Type	SPE585-144GGT	SPE590-144GGT	SPE595-144GGT
5 %	Maximum Power (P _{max})	614 Wp	620 Wp	625 Wp
	Module Efficiency at STC (%)	23.81	24.01	24.22
10 %	Maximum Power (P _{max})	644 Wp	649Wp	655 Wp
	Module Efficiency at STC (%)	24.94	25.16	25.37
15 %	Maximum Power (P _{max})	673 Wp	679 Wp	684 Wp
	Module Efficiency at STC (%)	26.08	26.30	26.52

Warranty Period



Headquarters

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