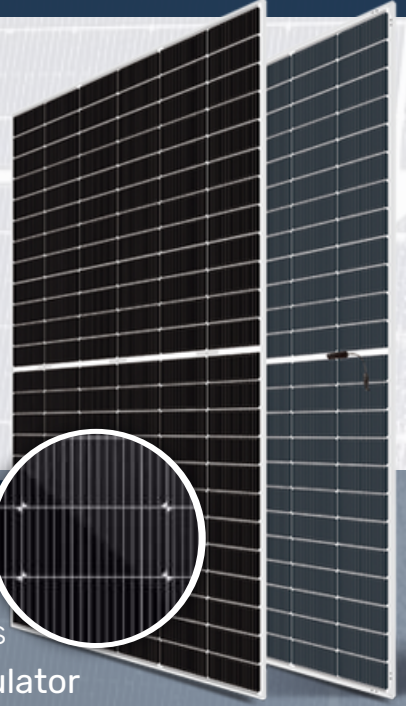


# N-Type TOPCon Fotovoltaik (PV) Module 575-585W



## Overviews

- TOPCon Cell Technology
- PID Free Feature with Low Degradation
- High Resistance to Environmental and Mechanical Conditions
- A++**  $\pm 1\%$  Measurement Uncertainty with Pasan Solar Simulator
- Touchless Production with Latest Technology Kuka Robots

16 BB



### Electroluminescence Imaging:

Micro crack control in 3 separate processes with high resolution and quality in accordance with IEC 60904-13 standard



### Ammonia Corrosion Test:

Minimum degradation against NH<sub>3</sub> Ammonia gas according to IEC 62716 standards



**A++ Solar Simulator:** According to IEC 60904-9 standard, more accurate and stable I-V characteristic measurement results with  $\pm 1\%$  low measurement uncertainty with A++ Pasan Solar Simulator



PID

### Potential Induced Degradation:

PID Free condition with 0.8% power degradation according to IEC 62804 standard



### Salt - Mist Corrosion Test:

Level 4 corrosion resistance according to EC 61701 standards, superior corrosion resistance with 0.2% degradation



### Low Radiation Performance:

Superior low light performance under 200W/m<sup>2</sup> irradiance according to IEC 61215-2 standard on cloudy days



5400Pa

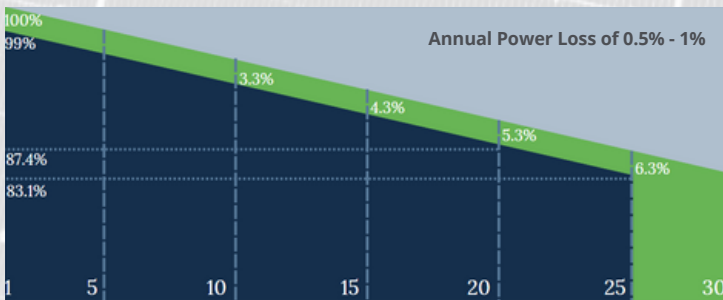
### Static and Dynamic Mechanical Load

**Resistance:** Superior mechanical load resistance against wind and snow loads with 0.2% degradation in 2400Pa/5400Pa test loads according to IEC 61215-2 standards



LID  
LeTID

**LID ve LeTID:** Maximum efficiency with optimized temperature coefficients against radiation and heat and low operating temperature



Prowatt N-Type Bifacial PV  
Module Linear Power Guarantee

Standard Module Linear  
Power Warranty

## High Performance Guarantee

We strictly control every step of the production process, from product component supply, and offer efficient and sustainable products with risk analysis, preventive activities, accredited above-standard tests.

- 12 Year Product Warranty
- Above 85% Power Performance for Up to 30 Years



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Electrical Parameters in STC

TYPE	575W	580W	585W
Rated Maximum Power (Pmax) [W]	575	580	585
Open Circuit Voltage (Voc) [V]	51.74	51.93	52.18
Maximum Power Voltage (Vmpp) [V]	43.81	44.12	44.17
Short Circuit Current (Isc) [A]	13.76	13.85	13.87
Maximum Power Current (Impp) [A]	13.12	13.15	13.24
Module Efficiency [%]	22.2	22.3	22.5
Measurement Uncertainty	Pmax±% 1.4 , Isc±% 1 , Voc±% 0,6		

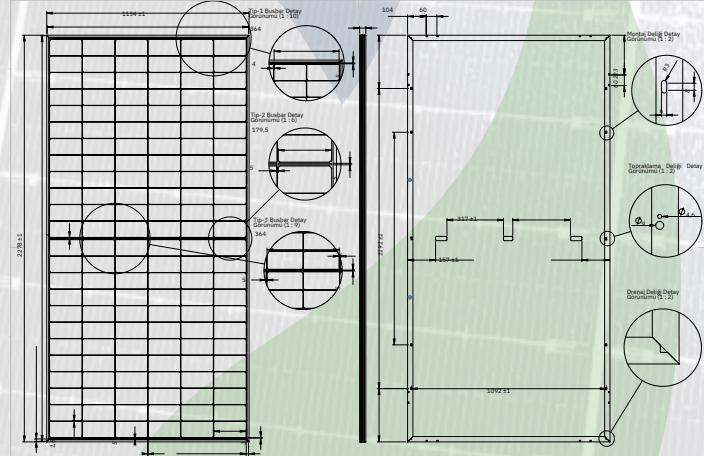
Electrical Measurements at 10% Irradiance

TYPE	575W	580W	585W
Rated Maximum Power (Pmax) [W]	623	625	630
Open Circuit Voltage (Voc) [V]	51.74	51.93	52.18
Maximum Power Voltage (Vmpp) [V]	43.81	44.12	44.17
Short Circuit Current (Isc) [A]	14.52	13.85	13.87
Maximum Power Current (Impp) [A]	14.22	14.17	14.26
Radiation Rate %10 (*)	%70 ± %10		
Measurement Uncertainty	Pmax±% 1.4 , Isc±% 1 , Voc±% 0,6		

Sistem Parametreleri

Positive Power Tolerance [W]	0 / +4.99W
Temperature Coefficient Isc ( $\alpha_{Isc}$ )	+0.045% / °C
Temperature Coefficient Voc ( $\beta_{Voc}$ )	-0.250% / °C
Temperature Coefficient Pmpp ( $\gamma_{Pmpp}$ )	-0.290% / °C
Operating Temperature [°C]	-40 / +85
NOCT [°C]	45±2°C, 800W/m², 20°C, AM 1.5 Rüzgar 1 m/s
Max System Voltage	1500V DC
Maximum Series Fuse Rating	30A

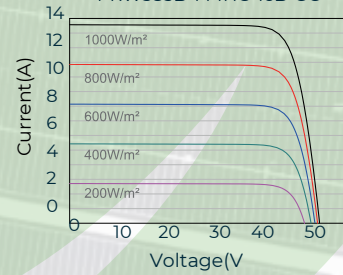
(\*)Bifaciality : Pmax (back)/ Pmax (front) = 0.70



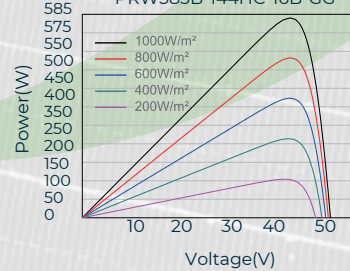
Components and Mechanical Properties

Solar Cell	TOPCon 16BB M10
Glass	GG 2 mm/GB 3.2mm Yüksek Geçirgenlik, AR Kaplamalı Isıyla Güçlendirilmiş Cam
Weight	31 KG ± 1
Dimensions	2278±2mmx1134±2mmx35±1mm
Cable Cross Section Size	4mm² (IEC), 12 AWG(UL)
Number of Cells	144(6x24)
Junction Box	IP68 Sınıflı 3 Diyot
Connector	MC4-EV02 / QC 4.10
Cable Length (Including Connector)	Cable length may vary depending on the installation method. 300mm/1300mm
Maximum Static Load, Front/Rear	+5400Pa / -2400 Pa Test Yüğü (1.5 Safety Factor)
Safety Class / Fire Performance	II / IEC Sınıf C

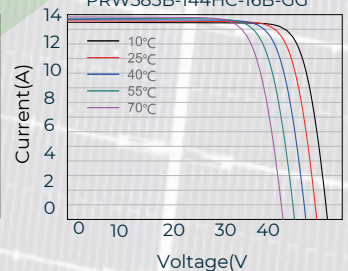
Irradiance Curve  
PRW585B-144HC-16B-GG



Power-Voltage Curve  
PRW585B-144HC-16B-GG



Current-Voltage Curve  
PRW585B-144HC-16B-GG



System And Product Certificates



IEC 62804  
IEC 61701  
IEC 62716



IEC 61215  
IEC 61730-1  
IEC 61730-2



ISO 9001  
ISO 14001  
ISO 45001



Standard Test Conditions (STC) Irradiance 1000W/m², Cell Temperature 25°C (±2°C), AM 1.5G

The information in this document may change depending on innovation processes. Prowatt Energy reserves the right to make changes to this information.