



PEAK PV
SOLAR

TOPCon

999

High Performance N-Type TOPCON Bifacial Module

PEAK144-565-595TN-BF

144 CELL

Half-Cut Cell

565-595Wp

Power Output Range

1500VDC

Maximum System Voltage

10BB / 16BB

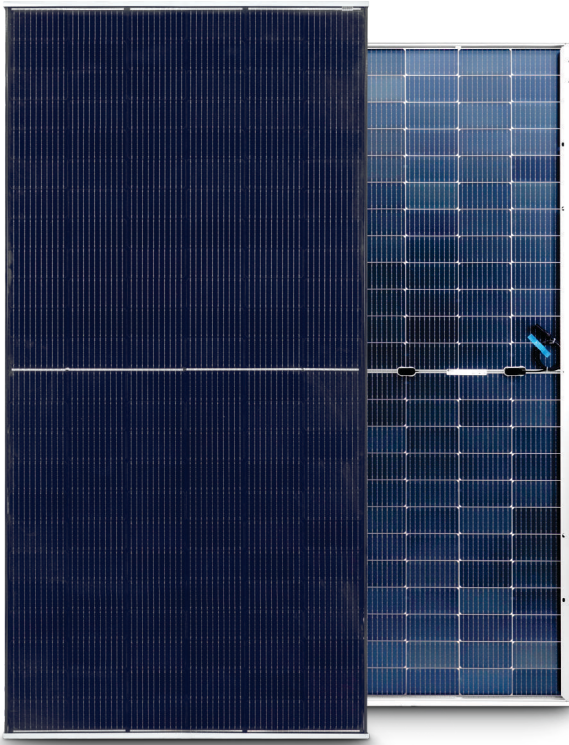
Busbar Technology

23.1%

Maximum Efficiency

TOPCon

N-Type Cell



KEY FEATURES



Better Temperature Coefficient



Excellent low irradiance performance



Excellent PID resistance



Triple EL testing ensuring defect-free products



Module Imp binning radically reduces string mismatch loss



Certified to withstand severe environmental conditions

- Anti-reflective & anti-soiling surface minimise power loss from dirt and dust
- Severe salt mist, ammonia & blown sand resistance, for seaside, farm and desert environments
- Excellent wind load 2400Pa & snow load 5400Pa resistance under certain installation method



Comprehensive product and system certification

- IEC 61215:2021; IEC 61730:2023
- ISO 9001:2015 Quality Management System
- ISO 14001:2015 Environmental Management System
- ISO 45001:2018 Occupational Health & Safety Management System
- ISO 50001:2018 Energy Management System
- ISO/IEC 27001:2022 Information Security Management System
- ISO 10002:2018 Customer Satisfaction Management System



Our factory complies with ISO (9001, 10002, 14001, 27001, 45001, 50001) standards & the solar panels produced are in international IEC (61215, 61730, 62716, 61701, 60068, 62804) standards.

★ As there are different certification requirements in different markets, please contact your local PEAK PV SOLAR sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

For more details, please contact:

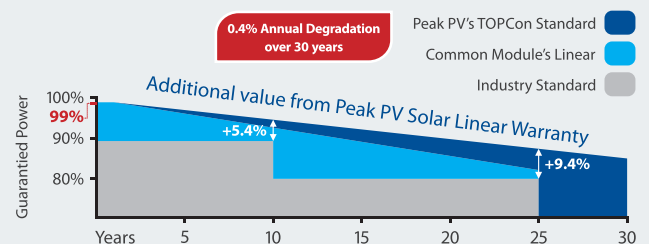
Peak PV Solar Teknolojileri A.Ş.

HQ: Saray Mah. Atom Cad. No:17 Kahramankazan/Ankara, P. +90.312 815 48 80 (pbx)

Factory: ASO 2 OSB, Alıcı OSB Mah. 2033. Cd. No:16, Sincan/Ankara, P. +90.312 309 03 44 (pbx)

LINEAR PERFORMANCE WARRANTY

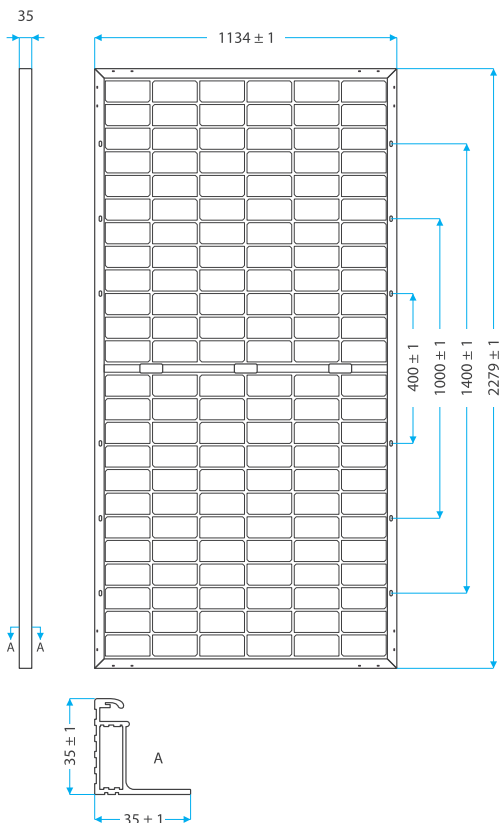
15-year Product Warranty | **30-year** Linear Power Warranty



Please check the valid version of Limited Product Warranty which is officially released by PEAK PV SOLAR TEKNOLOJİLERİ A.Ş.

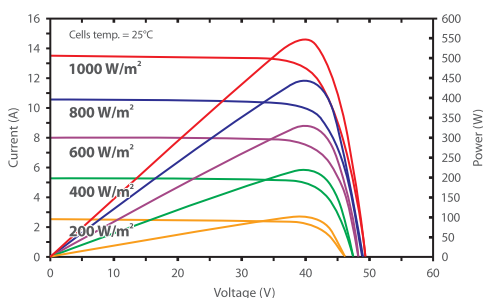


Dimensions of PV Module Unit: mm

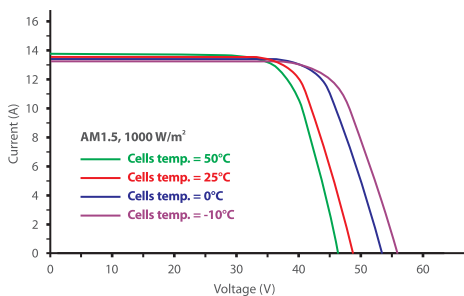


PEAK144-565TN

I-V characteristics at different irradiances



I-V characteristics at different temperatures



TYPE FAMILY PEAK144-565-595TN-BF

Pmp (W)	565	570	575	580	585	590	595
Voc (V)	51.57	51.77	51.97	52.17	52.37	52.57	52.77
Isc (A)	13.96	14.01	14.06	14.12	14.18	14.24	14.30
Vmp (V)	43.20	43.40	43.60	43.80	44.00	44.20	44.40
Imp (A)	13.12	13.17	13.22	13.27	13.32	13.37	13.42
Module Efficiency (%)	21.9	22.1	22.3	22.5	22.7	22.9	23.1
Power Tolerance	0 + 4.99	0 + 4.99	0 + 4.99	0 + 4.99	0 + 4.99	0 + 4.99	0 + 4.99

STC: Irradiance 1000 W/m², Cell Temperature 25 °C, AM=1.5 according to EN 60904-3

★ Module Efficiency (%): Round-off to the nearest number. Measurement Tolerance:±3

Electrical Characteristics with 10% Rear Side Power Gain

Pmp (W)	621	627	633	639	645	651	657
Voc (V)	51.57	51.77	51.97	52.17	52.37	52.57	52.77
Isc (A)	15.06	15.14	15.23	15.32	15.40	15.48	15.57
Vmp (V)	43.20	43.40	43.60	43.80	44.00	44.20	44.40
Imp (A)	14.38	14.45	14.52	14.59	14.66	14.73	14.80

Bifaciality Gain: The additional gain from the rear side compared to the power of the front side at the standard test condition.

It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

★ BNPI (Bifacial Nameplate Irradiance): It corresponds to 1000 W/m² radiation values applied to the front surface of the module and 135 W/m² applied to the back surface.

Electrical Data (NMOT)

Model Number	Pmp (W)	Voc (V)	Isc (A)	Vmp (V)	Imp (A)
PEAK144-565TN-BF	428.2	47.97	10.43	40.10	10.68
PEAK144-570TN-BF	432.3	48.15	11.48	40.28	10.73
PEAK144-575TN-BF	436.1	48.33	11.53	40.46	10.78
PEAK144-580TN-BF	439.8	48.52	11.58	40.65	10.82
PEAK144-585TN-BF	443.6	48.70	11.63	40.83	10.87
PEAK144-590TN-BF	448.2	48.88	11.68	41.05	10.92
PEAK144-595TN-BF	452.3	49.06	11.73	41.23	10.97

★ NMOT: Irradiance 800 W/m², Ambient Temperature 20 °C, Wind Speed 1 m/s, AM=1.5

Mechanical Data

Solar Cells	Cell Configuration	Module Dimensions	Weight
N-Type TOPCon	144 Cells	2279 x 1134 x 35 mm	27,8 kg
Front Glass	Frame	J-Box	Connector
3,2 mm High Transmission, Low Iron, Tempered ARC Glass	Anodized Aluminium Alloy	IP68, 3 bypass diodes	MC4-EVO2
Cables*	Connector		
4.0 mm ² (IEC), Positive (+) 1200 mm, Negative (-) 1200 mm (Connector incl.)	MC4-EVO2		

★ Cable lengths are optional. May vary depending on the project.

Temperature & Maximum Ratings

Nominal Module Operating Temperature (NMOT)	Temperature Coefficient of Voc	Temperature Coefficient of Isc	Temperature Coefficient of Pmax
43°C ± 2°C	-0.25% / °C	0.045% / °C	-0.32% / °C
Operational Temperature	Maximum System Voltage	Max Series Fuse Rating	
-40°C ~ +85°C	1500VDC	30A	

Packaging Configuration

Container	Number of Modules per Container	Number of Modules per Pallet	Number of Pallets per Container
40 ft (HQ)	704	32	22
Packaging Box Dimensions (L x W x H) in mm	Box Gross Weight (kg)		
2325 x 1150 x 1250	925		