



CITIZEN SOLAR
solarising the nation

enlight
SERIES

16bb bifacial
cell technology

TOPCON 580+Wp

144 Cell | 16 BB Cell

N-Type TOPCON Half
Cut Bifacial Module

570wp to 590wp



Extra Power



Extra Life



Double-Sided Power Generation



**Excellent anti-LeTID &
anti-PID performance**



Lower temperature coefficient



Lower LCOE & system cost

N-type Citizen TOPCON Bifacial Modules have the best efficiency >22.84% with higher power generation and reliable characteristic resistance. These panels provide efficient production under extreme weather conditions along with bifaciality with lower degradation. N-type Citizen TOPCON Bifacial Modules generate significantly more power per watt(kwh/kw) over 25 years(Long life) of use compared to PERC panels.

**Module
Efficiency**
>22.84%

**Positive
Power
Tolerance of**
0~+5%

**25 Years
Performance
Warranty**

**12 Years
Product
Warranty**

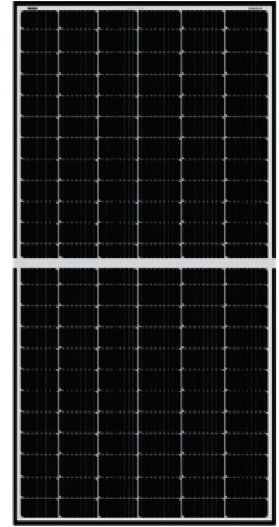
**PID
Resistant**

**Outstanding
Aesthetic
Design**

TECHNICAL DATA

Electrical Data : All Data refers to STC (1000W/m², AM1.5G, 25°C)

Product Model Number	CSPL-144THC -WF-570	CSPL-144THC -WF-575	CSPL-144THC -WF-580	CSPL-144THC -WF-585	CSPL-144THC -WF-590
	CSPL-144THC -TF-570	CSPL-144THC -TF-575	CSPL-144THC -TF-580	CSPL-144THC -TF-585	CSPL-144THC -TF-590
Nominal Wattage (Pmax) Wp	570	575	580	585	590
No's of Cut Cells	144	144	144	144	144
Matrix Configuration	12x6 II 12x6	12x6 II 12x6	12x6 II 12x6	12x6 II 12x6	12x6 II 12x6
Maximum Voltage (Vmp) V	43.58	43.73	43.88	44.02	41.17
Open Circuit Voltage (Voc) V	52.10	52.30	52.50	52.70	52.90
Maximum Current (Imp) A	13.08	13.15	13.22	13.29	13.36
Short Circuit Current (Isc) A	13.83	13.89	13.95	14.01	14.07
Fill Factor (F.F.) in %	80±5%	80±5%	80±5%	80±5%	80±5%
Module efficiency (%)	20.07	22.26	22.45	22.65	22.84
Power Tolerance (%)	0~+3%	0~+3%	0~+3%	0~+3%	0~+3%



STC : 1000W/m² irradiance, 25°C cell temperature, AM1.5G spectrum according to EN 60904-3
Average relative efficiency reduction of <5% at 200W/m² according to EN 60904-1

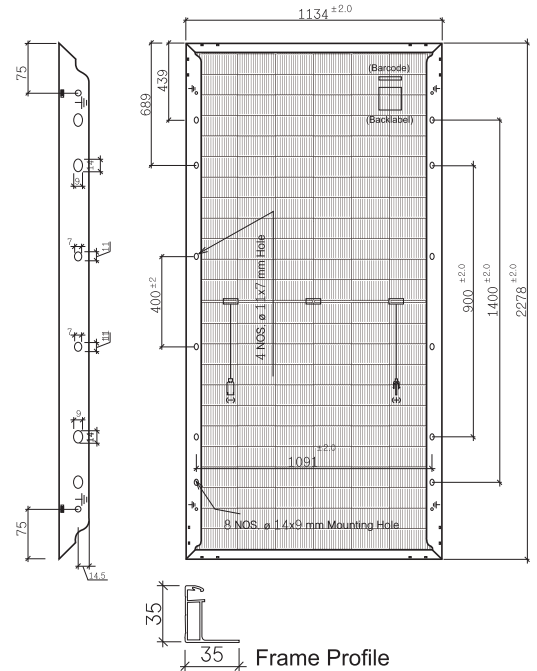
Electrical Parameters at NOCT

Parameter	570	575	580	585	590
Maximum Power Pmax (Wp)	430	433	437	441	445
Maximum Power Voltage (V)	40.56	40.73	40.89	41.05	41.21
Maximum Power Current (A)	10.59	10.64	10.69	10.74	10.79
Open Circuit Voltage Voc (V)	39.60	39.75	39.90	40.05	40.20
Short Circuit Current Isc (A)	11.16	11.21	11.26	11.31	11.36

NOCT irradiance 800 W/m², ambient temperature 20°C, wind speed 1 m/sec

Temperature Coefficients (Tc) permissible operating conditions

Operating Temperature (°C)	-40° ~ +85°C
Maximum system voltage	1500 VDC (IEC)
Maximum series fuse rating	30A
Temperature coefficients of Pmax	-0.29%/°C
Temperature coefficients of Voc	-0.25%/°C
Temperature coefficients of Isc	0.045%/°C
Nominal operating cell temperature (NOCT)	45±2°C
Refer. Bifacial Factor	80±5%



MECHANICAL DATA

Length x Width x Height (in mm)	2278 x 1134 x 35 (±1.5mm)
Weight	28.00 kgs
Split Type Junction Box	IP68 Rated With 3 Bypass Diodes
Cable & Connectors	4sqm (12AWG) Solar Cable 300mm x 2nos black MC4 Compatible Connectors
Application Class	Class A (Safety Class II)
Substrate (Glass)	High Transmission, Low Iron, Tempered Glass, AR Coated
Solar Cells & Orientation	144 (72x2) N-type TOPCON
Cells Encapsulant	EVA (Ethylene Vinyl Acetate)
Frame	Silver Anodized Aluminium Frame With Twin Wall Profile
Mechanical Load Test	Sustain Heavy Wind & Snow Load (2400Pa & 5400Pa Or 550Kg/m ² Maximum Diameter Of 24mm With Hail Impact of 83Km/h

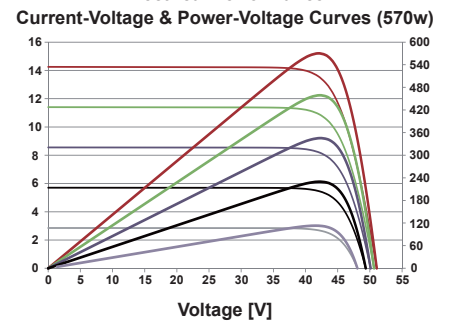
WARRANTY AND CERTIFICATIONS

Performance Warranty**	Linear Power Warranty for 25years, 90% for 10years and 80% for 25 years
Approvals & Certificates	Products: IS:14286 / IEC:61215:2005-ED2, IEC:61730-Ed.1&ED.2

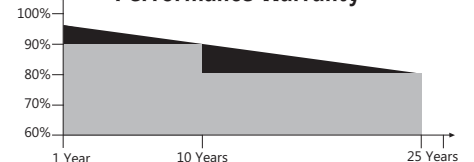
STACKING STANDARD

	No. of Modules	No. of Pallets	Modules Per Pallet / Pallet Weight	Pallet Dimensions
19FT	224 Nos.	8 Pallets	28 Nos. / 850 Kgs.	2300 x 1010 x 1300
32FT	336 Nos.	12 Pallets	28 Nos. / 850 Kgs.	2300 x 1010 x 1300

Electrical Performance



Performance Warranty



*graphics shown herein above are reference purpose only, please consult Citizen Solar Technical Team for any further clarification.

Declaration : With the technical progress and product updates, there exists a deviation between the technical parameter of the CITIZEN SOLAR's future products and the technical parameter in this specification. The CITIZEN SOLAR reserves the right to adjust the technical parameter at any time without notifying the customers. CITIZEN SOLAR reserves the final right of interpretation.