



144 Cell | 10 BB Cell

Mono Perc Half Cut Module

520wp to 560wp



MONO PERC 560+Wp

newlight
SERIES



Ideal For Large Scale Installations



High Power



Better Shading Tolerance



Lower LCOE & system cost



Excellent Temperature Performance



Non-Destructive Cutting

MONOPERC CITIZEN Half-Cut Modules have high efficiency >21.70% with higher power output, reliable PID/LID resistance, and lower degradation. Designed for extreme conditions, they ensure long-term performance and higher energy yield over 30 years.

Module Efficiency
>21.7%

Positive Power Tolerance upto
0~+5wp

30 Years Performance Warranty

12 Years Product Warranty

PID Resistant

ALMM Approved List by MNRE*



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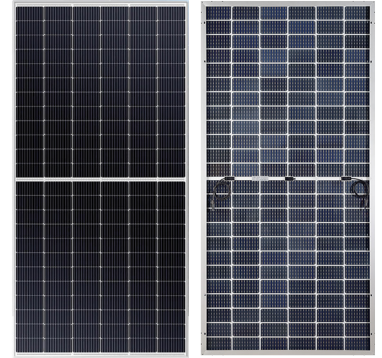


+91 8000 111 222

TECHNICAL DATA

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

Product Model Number	CSPL-144MHC-WF-520	CSPL-144MHC-WF-525	CSPL-144MHC-WF-530	CSPL-144MHC-WF-535	CSPL-144MHC-WF-540	CSPL-144MHC-WF-545	CSPL-144MHC-WF-550	CSPL-144MHC-WF-555	CSPL-144MHC-WF-560
	CSPL-144MHC-TF-520	CSPL-144MHC-TF-525	CSPL-144MHC-TF-530	CSPL-144MHC-TF-535	CSPL-144MHC-TF-540	CSPL-144MHC-TF-545	CSPL-144MHC-TF-550	CSPL-144MHC-TF-555	CSPL-144MHC-TF-560
Nominal Wattage (Pmax) Wp	520	525	530	535	540	545	550	555	560
No's of Cut Cells	144	144	144	144	144	144	144	144	144
Matrix Configuration	12x6 II 12x6	12x6 II 12x6	12x6 II 12x6	12x6 II 12x6	12x6 II 12x6	12x6 II 12x6	12x6 II 12x6	12x6 II 12x6	12x6 II 12x6
Maximum Voltage (Vmp) V	41.14	41.29	41.45	41.60	41.75	41.90	41.95	42.10	42.25
Open Circuit Voltage (Voc) V	49.01	49.16	49.31	49.46	49.61	49.76	49.80	49.95	50.10
Maximum Current (Imp) A	12.65	12.73	12.80	12.88	12.95	13.02	13.12	13.19	13.26
Short Circuit Current (Isc) A	13.55	13.63	13.69	13.76	13.83	13.90	13.98	14.04	14.10
Fill Factor (F.F.) in %	78.37	78.45	78.60	78.61	78.71	78.80	79.00	79.15	79.28
Module efficiency (%)	20.14	20.33	20.53	20.72	20.91	21.11	21.3	21.5	21.7
Power Tolerance	0~+5wp	0~+5wp	0~+5wp	0~+5wp	0~+5wp	0~+5wp	0~+5wp	0~+5wp	0~+5wp



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

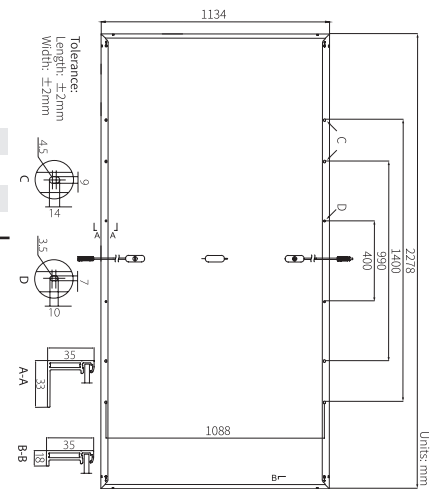
Electrical Parameters at NOCT

Maximum Power Pmax (Wp)	388.20	393.20	397.50	401.30	405.00	408.80	411.1	414.8	418.6
Maximum Power Voltage (V)	38.09	38.29	38.48	38.68	38.79	38.80	38.97	39.11	39.25
Maximum Power Current (A)	10.15	10.27	10.33	10.39	10.46	10.53	10.56	10.61	10.67
Open Circuit Voltage Voc (V)	45.75	45.94	46.17	46.41	46.54	46.49	46.82	46.97	47.11
Short Circuit Current Isc (A)	10.68	10.78	10.85	10.91	10.98	11.08	11.31	11.35	11.40

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

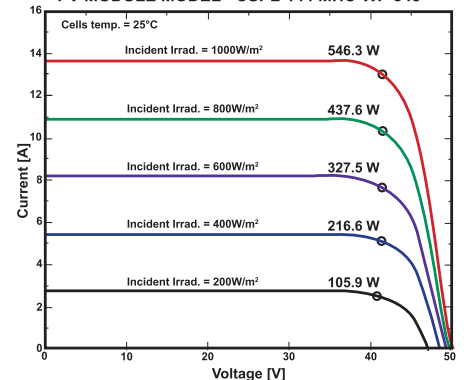
Temperature Coefficients (Tc) permissible operating conditions

Maximum Series Fuse Ratings	25A
Maximum System Voltage	DC1500V(IEC/UL)



MECHANICAL DATA	
Length x Width x Height (in mm)	2278 x 1134 x 35 (±1.5mm)
Weight	28 kg
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 No's Half Cut Mono PERC Solar Cells
Cells Encapsulant	EVA (Ethylene Vinyl Acetate)
Back Sheet	Composite Film - White / Transparent
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 83Kmh

I-V CHARACTERISTICS AT DIFFERENT IRRIDANCE PV MODULE MODEL - CSPL-144 MHC-WF-545



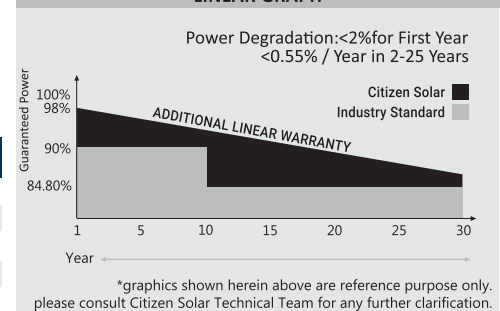
WARRANTY AND CERTIFICATIONS

Performance Warranty**	Linear Power Warranty for 30 years, 90% for 12 years and 80% for 30 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
40FT	616 Nos.	22 Pallets	28 Nos. / 850 Kgs.	2300 x 1080 x 1300
20 GP Container	310 Nos.	10 Pallets	31 Nos. / 945 Kgs.	2300 x 1080 x 1300
40 HC Container	620 Nos.	20 Pallets	31 Nos. / 945 Kgs.	2300 x 1080 x 1300

LINEAR GRAPH



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.