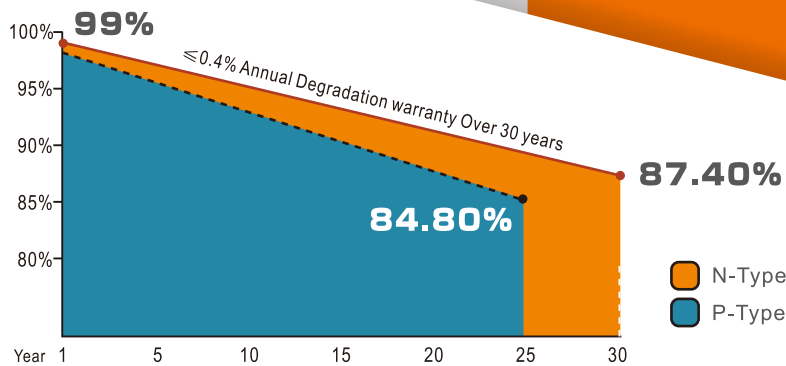


MONO-FACIAL MODULE N-TYPE 450~465 Watt



TOPCON



Cutting Free Technology
Minimized micro-crack



Anti-PID (potential induced degradation)
Passed anti-PID test under 85% damp heat
85% relative humidity for 96 hours



Higher Power Output
Lower shading and resistive loss



Outstanding mechanical load resistance
2400 Pa wind load, 5400 Pa snow load



15-year product warranty
30-year linear power output



CEC Listed



IEC 61215, IEC 61730

ISO 9001: 2015 (Quality management systems)

ISO 14001: 2015 (Environmental management systems)

ISO 45001: 2018 (Occupational health and safety)

UNI 9177 la CLASSE DI REAZIONE AL FUOCO: 1

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Tel: +86-574-28828939

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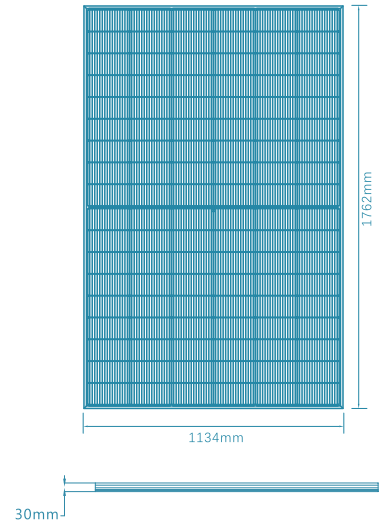


TOPCON (N TYPE) 450~465Watt



ELECTRICAL SPECIFICATIONS

Module Type		UL-450M-108BHVN	UL-455M-108BHVN	UL-460M-108BHVN	UL-465M-108BHVN
		STC* NOCT*	STC* NOCT*	STC* NOCT*	STC* NOCT*
Maximum Power (Pmax)	W	450 341	455 345	460 349	465 352
Maximum Power Voltage (Vmp)	V	33.22 30.56	33.42 30.75	33.63 30.94	33.83 31.12
Maximum Power Current (Imp)	A	13.55 11.16	13.61 11.21	13.68 11.27	13.75 11.32
Open-circuit Voltage (Voc)	V	39.78 36.20	39.98 36.38	40.18 36.56	40.38 36.75
Short-circuit Current (Isc)	A	14.00 11.29	14.06 11.34	14.13 11.40	14.20 11.45
Module Efficiency STC	%	22.52	22.77	23.02	23.27
Operating Temperature		-40°C~85°C			
Maximum system voltage		DC1500V(IEC)			
Maximum series fuse rating		25A			
Power tolerance		0~+5 Watt			
Temperature coefficients of Pmax		-0.29%/°C			
Temperature coefficients of Voc		-0.250%/°C			
Temperature coefficients of Isc		0.046%/°C			
Nominal operating cell temperature (NOCT)		43±2°C			

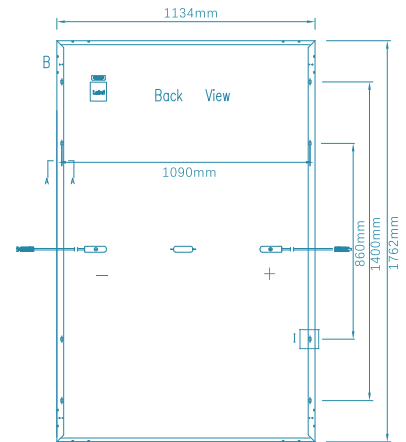


*STC : Cell temperature: 25°C, Irradiance: 1000 W/m², Air mass: 1.5G

*NOTC : Air temperature: 20°C, Irradiance: 800 W/m², Air mass: 1.5G, Wind speed: 1 m/s

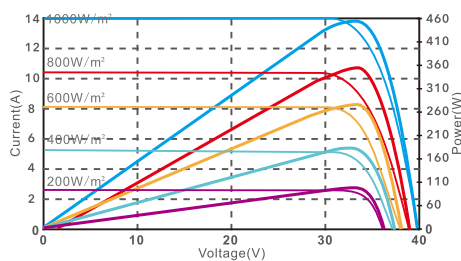
SPECIFICATIONS

Cell Type	182.2×94mm N type Mono-crystalline
No. of cells	108 (6×9×2)
Dimensions	1762*1134*30mm
Weight	22Kg
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Junction Box	IP68, 3 diodes
Connector	MC4 Compatible
Cable Length (Including Connector)	4mm² Portrait: (+)400 mm/(-) 200mm Landscape: (+) 1100mm/(-)1100 mm
Packaging Configuration	Two Box=One pallet 36pcs/Box, 72pcs/Pallet, 936pcs/40HQ Container

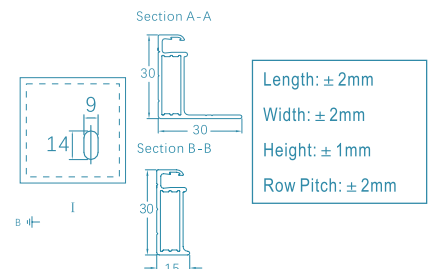
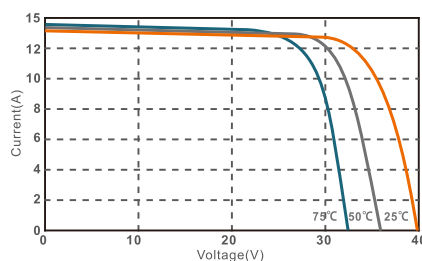


I-V CURVE[455W]

I-V characteristics at different irradiances



I-V characteristics at different temperature



Specifications included in this datasheet are subject to change without notice.

Ulica Solar reserves the right of final interpretation.

