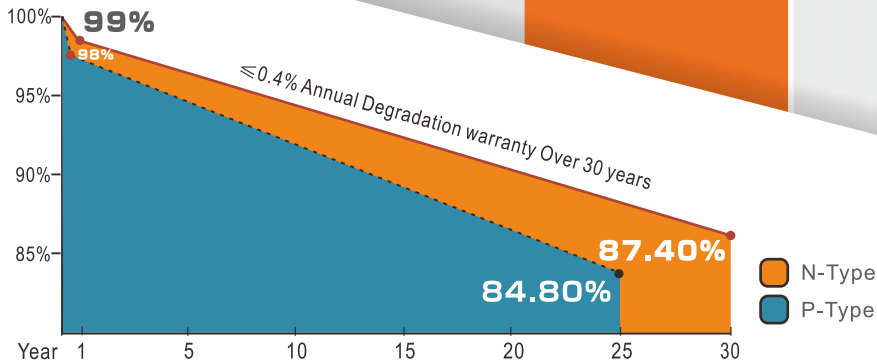


# MONO-FACIAL MODULE N-TYPE 445~455 Watt



TOPCon



**Cutting Free Technology**  
Minimized micro-crack



**Anti-PID (potential induced degradation)**  
Passed anti-PID test under 85°C damp heat  
85% relative humidity for 192 hours



**Great Durability against extreme conditions**  
Passed salt mist corrosion test, ammonia corrosion test  
dust & sand test, fire test, all certified by TÜV



**Lower LCOE**  
Lower shading and resistive loss  
Lower temperature coefficient



**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 Ia CLASSE DI REAZIONE AL FUOCO: 1



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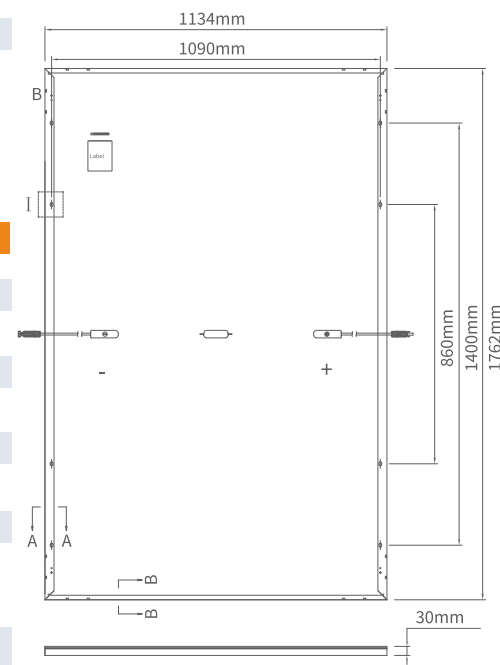
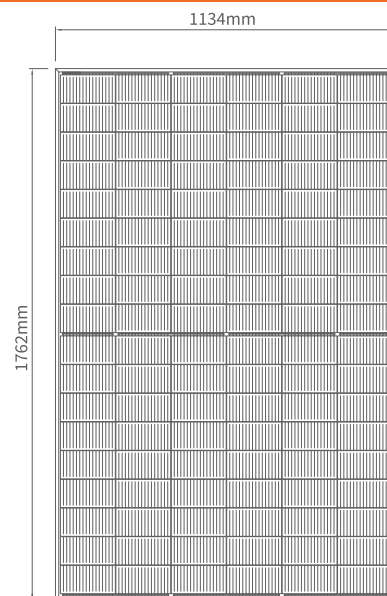
# TOPCon(N TYPE) 445~455Watt

## ELECTRICAL SPECIFICATIONS

Module Type	UL-445M-108BHVN		UL-450M-108BHVN		UL-455M-108BHVN		
	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	
Maximum Power (Pmax)	W	445	337	450	341	455	345
Maximum Power Voltage (Vmp)	V	33.02	30.38	33.22	30.56	33.42	30.75
Maximum Power Current (Imp)	A	13.48	11.10	13.55	11.16	13.61	11.21
Open-circuit Voltage (Voc)	V	39.58	36.02	39.78	36.20	39.98	36.38
Short-circuit Current (Isc)	A	14.30	11.53	14.38	11.60	14.45	11.66
Module Efficiency STC	%	22.27		22.52		22.77	
Operating Temperature	-40°C~85°C						
Maximum system voltage	DC1500V(IEC)						
Maximum series fuse rating	25A						
Power tolerance	0~+5Watt						
Temperature coefficients of Pmax	-0.29%/°C						
Temperature coefficients of Voc	-0.25%/°C						
Temperature coefficients of Isc	0.046%/°C						
Nominal operating cell temperature (NOCT)	43±2°C						

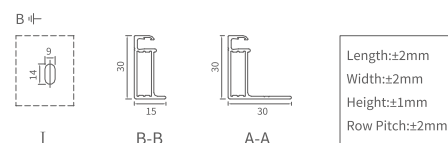
\*STC : Cell temperature: 25°C, Irradiance: 1000 W/m², Air mass: 1.5G

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



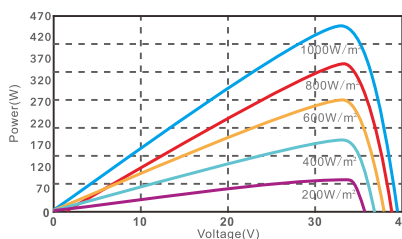
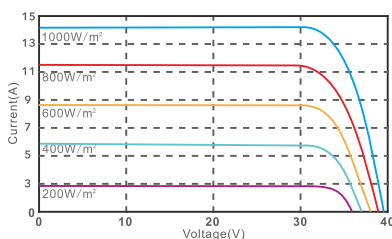
## SPECIFICATIONS

Cell Type	N type Mono-crystalline
No. of cells	108(6×9×2)
Dimensions	1762*1134*30mm
Weight	21.0kg
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 Landscape: (+)1200/(-)1200mm or Customized Length
Packaging Configuration	Two Box=One Pallet 36pcs/Box, 72pcs/Pallet, 936pcs/40HQ Container

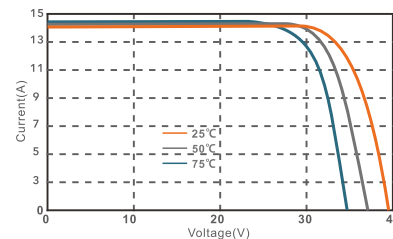


## I-V CURVE

I-V characteristics at different irradiations (reference to 450 W)



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.

Version No.: UL-1762-108BHVNBBC-30-EN-V1.0