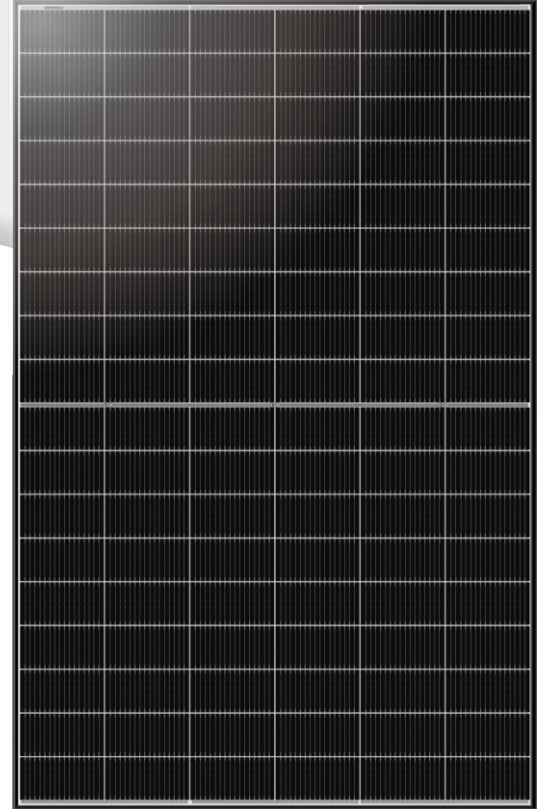
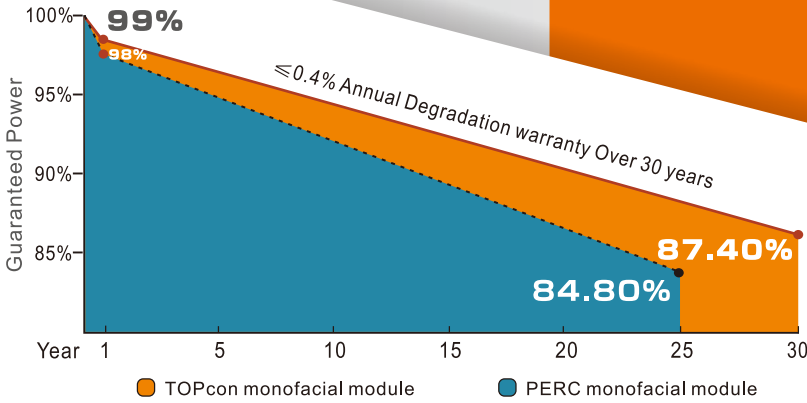


MONO-FACIAL MODULE N-TYPE 445~455 Watt



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 15-year product warranty
30 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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TOPCon(N TYPE) 445~455Watt

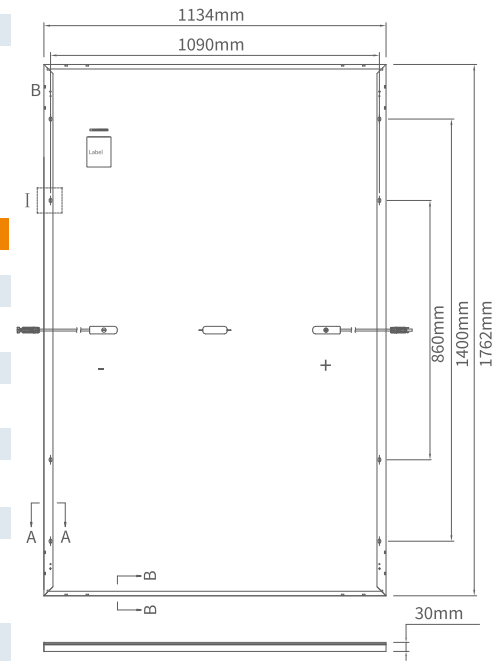
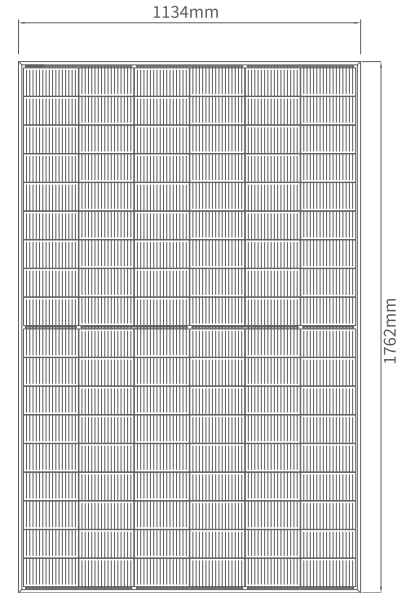


ELECTRICAL SPECIFICATIONS

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					

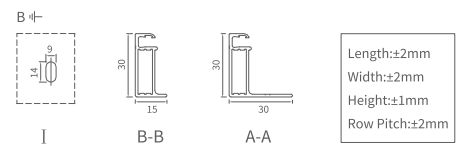
*STC : Cell temperature: 25°C, Irradiance: 1000 W/m², Air mass: 1.5G

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



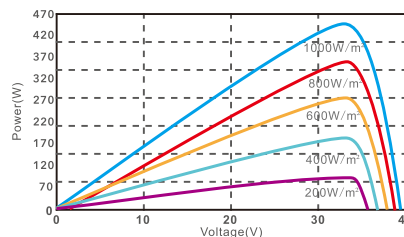
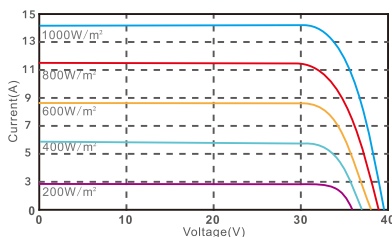
SPECIFICATIONS

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)	4mm ² Landscape: (+)1200mm/(-)1200mm or Customized Length
Packaging Configuration	Two Box=One Pallet 36pcs/Box, 72pcs/Pallet, 936pcs/40HQ Container

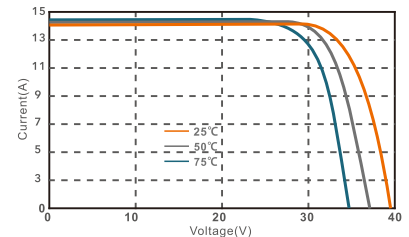


I-V CURVE

I-V characteristics at different irradiances (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-1762-108BHVNBHC-30-EN-V1.0