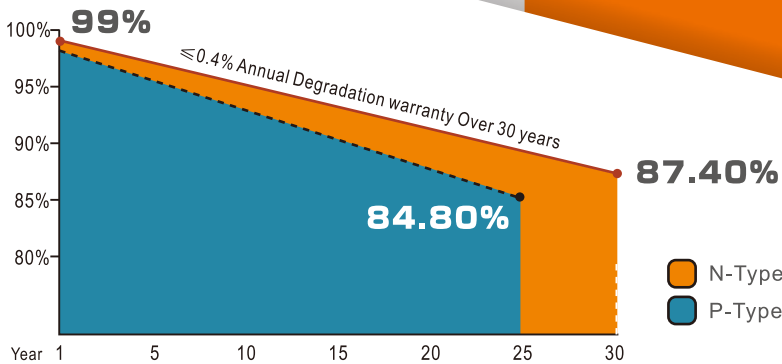


MONO-FACIAL MODULE N-TYPE 460~475 Watt



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 15-year product warranty
30 30-year linear power output



CEC Listed



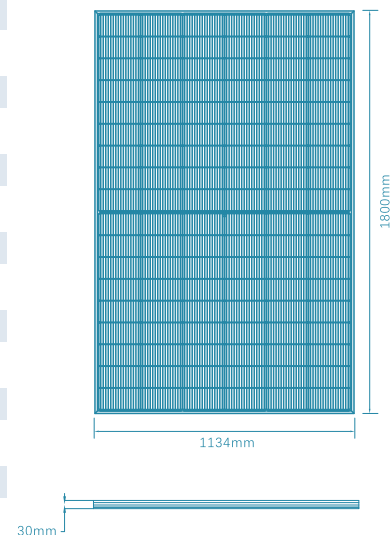
IEC 61215, IEC 61730
 ISO 9001: 2015 (Quality management systems)
 ISO 14001: 2015 (Environmental management systems)
 ISO 45001: 2018 (Occupational health and safety)
 UNI 9177 Ia CLASSE DI REAZIONE AL FUOCO:1



TOPCon(N TYPE) 460~475Watt

ELECTRICAL SPECIFICATIONS

Module Type	UL-460M-108CHVN		UL-465M-108CHVN		UL-470M-108CHVN		UL-475M-108CHVN	
	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*
Maximum Power (Pmax)	W 460	349	465	352	470	356	475	360
Maximum Power Voltage (Vmp)	V 33.22	30.56	33.42	30.75	33.62	30.93	33.82	31.11
Maximum Power Current (Imp)	A 13.85	11.41	13.91	11.46	13.98	11.52	14.04	11.57
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 14.58	11.76	14.64	11.81	14.71	11.87	14.89	12.01
Module Efficiency STC	% 22.54		22.78		23.03		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							

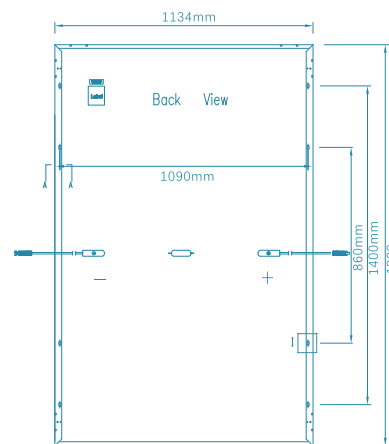


*STC : Cell temperature: 25°C, Irradiance: 1000 W/m², Air mass: 1.5G

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

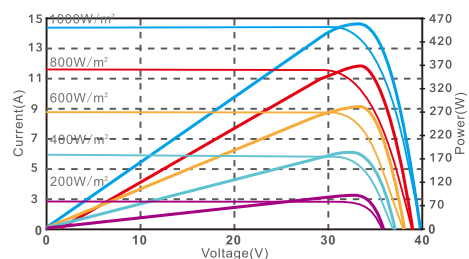
SPECIFICATIONS

Cell Type	N type Mono-crystalline
No. of cells	108 (6×9×2)
Dimensions	1800*1134*30mm
Weight	21.5Kg
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, 864pcs/40HQ Container



I-V CURVE[465W]

I-V characteristics at different irradiances



I-V characteristics at different temperature

