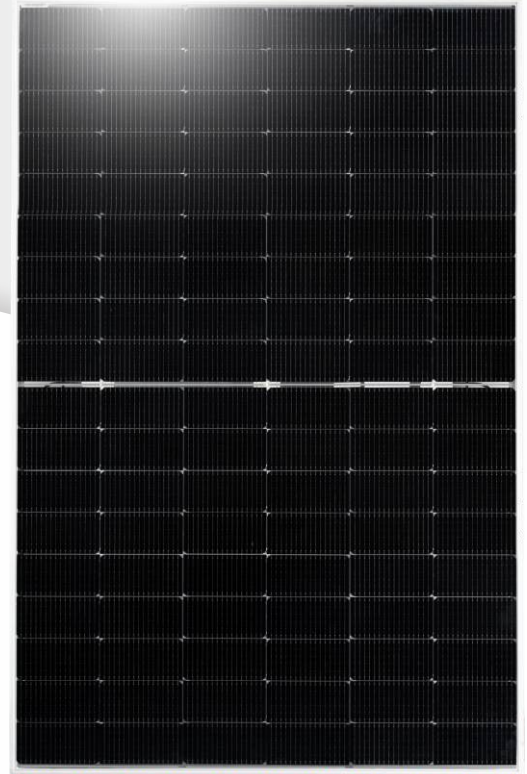
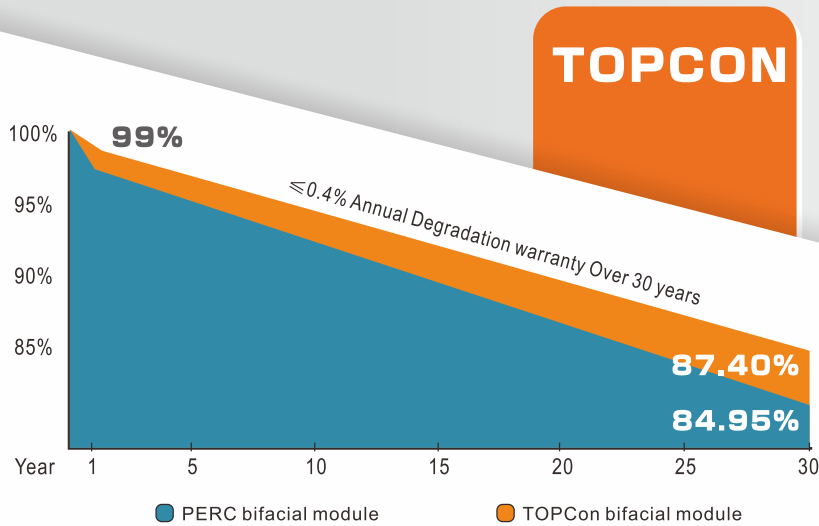


DOUBLE-GLASS BI-FACIAL MODULE N-TYPE 430~440 Watt MBB 182mm Cells



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

Tier 1 Global Tier 1 brand as announced by Bloomberg NEF

Lower LCOE
Lower shading and resistive loss
Lower temperature coefficient

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

Outstanding mechanical load resistance
3800 Pa wind load, 5400 Pa snow load

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



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) 430~440Watt



ELECTRICAL SPECIFICATIONS

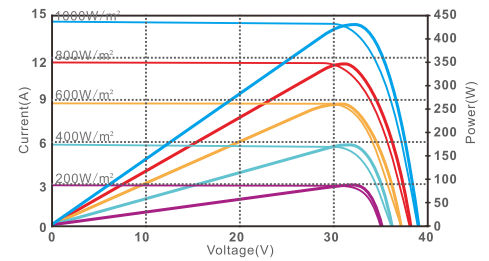
Module Type		UL-430M-108DGN		UL-435M-108DGN		UL-440M-108DGN	
		STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	W	430	320	435	324	440	328
Maximum Power Voltage (Vmp)	V	31.8	29.3	31.9	29.3	32.0	29.4
Maximum Power Current (Imp)	A	13.52	10.95	13.64	11.05	13.75	11.14
Open-circuit Voltage (Voc)	V	38.0	34.6	38.2	34.8	38.4	34.9
Short-circuit Current (Isc)	A	14.24	11.49	14.32	11.56	14.45	11.66
Module Efficiency STC	%	22.02		22.28		22.53	
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		-0.30%/°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

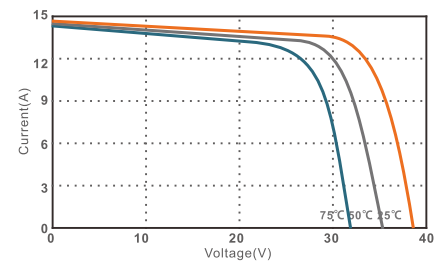
*NOCT : Air temperature: 20°C, Irradiance: 800 W/m², Air mass: 1.5G, Wind speed: 1 m/s

I-V CURVE

I-V characteristics at different irradiances

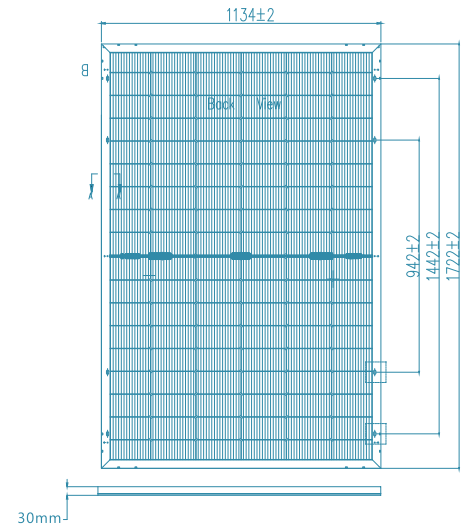


I-V characteristics at different temperature



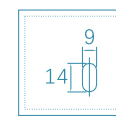
SPECIFICATIONS

Cell Type	N type Mono-crystalline
No. of cells	108 (6×9×2)
Dimensions	1722*1134*30mm
Weight	24.9Kg
Glass	2.0mm+2.0mm, 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

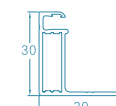


Electrical characteristics with different rear side power gain (reference to 435W front)

Pmax/W	Voc/V	Isc/A	Vmp/V	Imp/A	Pmax gain
435	38.2	14.32	31.9	13.64	0
457	38.2	15.04	31.9	14.32	5%
479	38.2	15.75	31.9	15.00	10%
500	38.2	16.47	31.9	15.68	15%
522	38.2	17.18	31.9	16.36	20%
544	38.2	17.90	31.9	17.05	25%
566	38.2	18.62	31.9	17.73	30%



Section A-A



Length: ± 2mm
Width: ± 2mm
Height: ± 1mm
Row Pitch: ± 2mm

