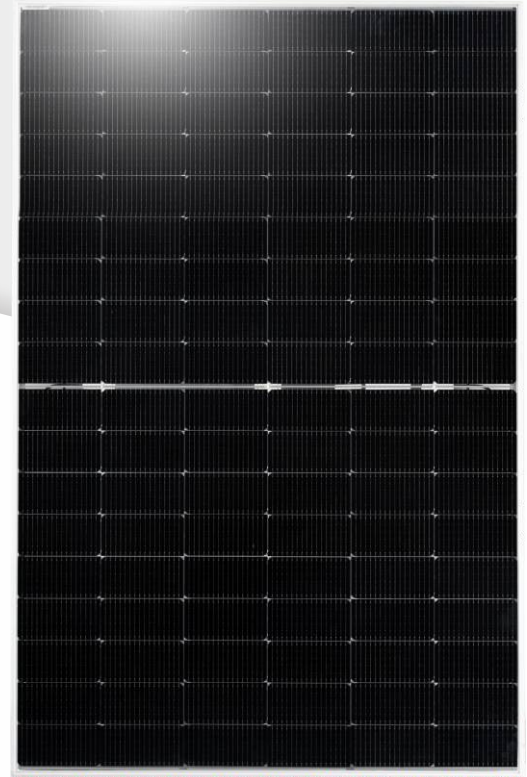
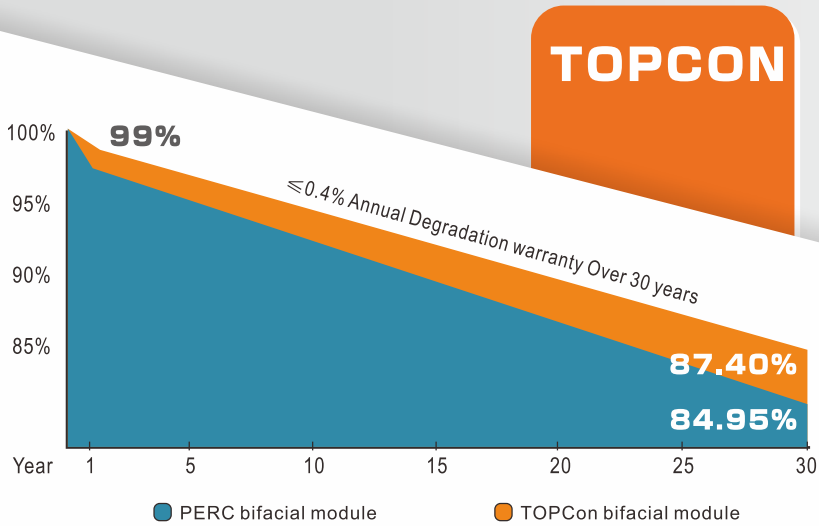


# DOUBLE-GLASS BIFACIAL N-TYPE 430~440 Watt



**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 la CLASSE DI REAZIONE AL FUOCO: 1



# TOPCON (N TYPE) 430~440Watt



## ELECTRICAL SPECIFICATIONS

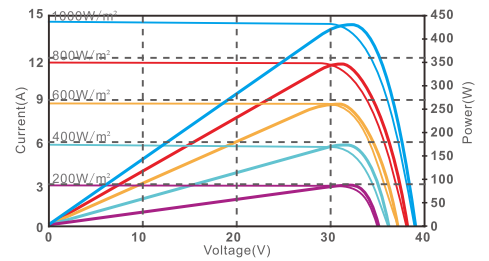
Module Type		UL-430M-108DGN		UL-435M-108DGN		UL-440M-108DGN	
		STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	W	430	320	435	324	440	328
Maximum Power Voltage (Vmp)	V	31.8	29.3	31.9	29.3	32.0	29.4
Maximum Power Current (Imp)	A	13.52	10.95	13.64	11.05	13.75	11.14
Open-circuit Voltage (Voc)	V	38.0	34.6	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

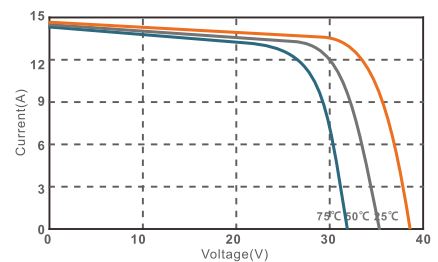
\*NOCT : Air temperature: 20°C, Irradiance: 800 W/m², Air mass: 1.5G, Wind speed: 1 m/s

## I-V CURVE

I-V characteristics at different irradiances

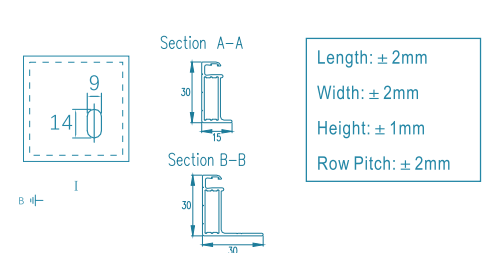
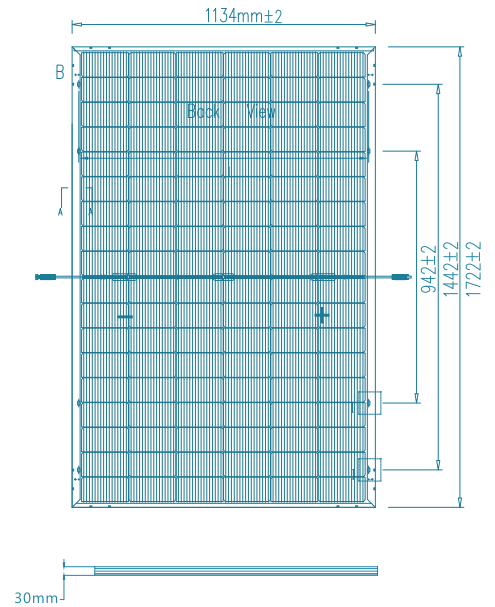


I-V characteristics at different temperature (7°C, 25°C, 45°C)



## SPECIFICATIONS

Cell Type	182x91mm N type Mono-crystalline
No. of cells	108 (6x9x2)
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%

