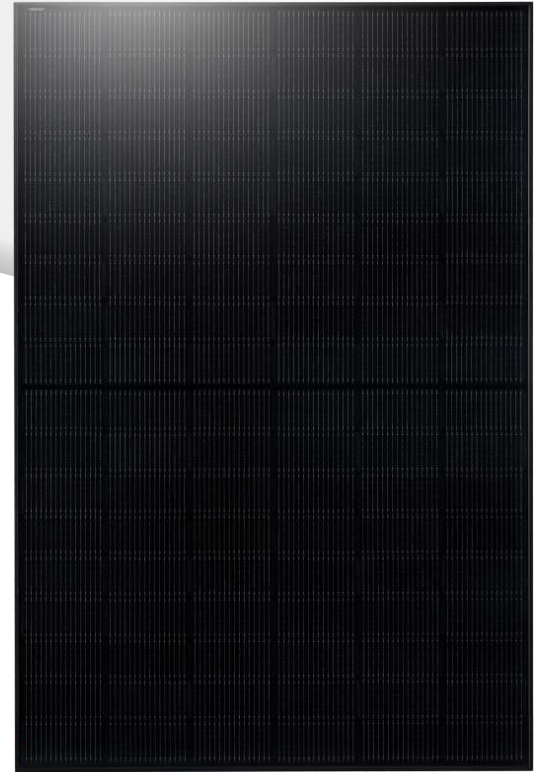
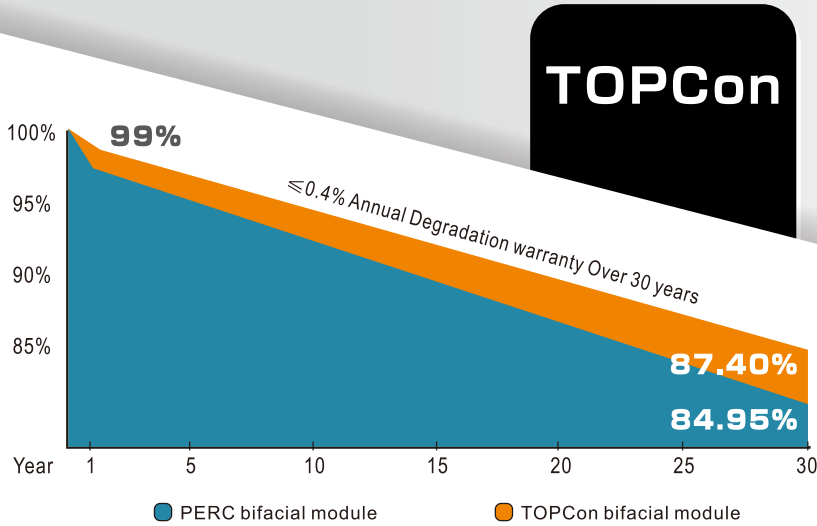


# DOUBLE-GLASS BIFACIAL N-TYPE 430~445 Watt ALL BLACK



### Bifacial Mono Module

Capable of generating power at back side, at least 80% efficiency of the front side



### Anti-PID (potential induced degradation)

Passed anti-PID test under 85% 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 la CLASSE DI REAZIONE AL FUOCO: 1

# TOPCon(N TYPE) 430~445Watt

## ELECTRICAL SPECIFICATIONS

Module Type	UL-430M-108ADGN		UL-435M-108ADGN		UL-440M-108ADGN		UL-445M-108ADGN	
	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*
Maximum Power (Pmax)	W 430	326	435	330	440	333	445	443
Maximum Power Voltage (Vmp)	V 31.81	29.27	31.91	29.36	32.01	29.45	32.15	29.58
Maximum Power Current (Imp)	A 13.52	11.13	13.63	11.23	13.75	11.32	13.84	11.40
Open-circuit Voltage (Voc)	V 39.24	35.71	39.39	35.84	39.54	35.98	39.69	36.12
Short-circuit Current (Isc)	A 13.89	11.20	13.95	11.25	14.01	11.30	14.10	11.37
Module Efficiency STC	% 22.02		22.28		22.53		22.79	
Operating Temperature	-40°C~85°C							
Maximum system voltage	DC1500V(IEC)							
Maximum series fuse rating	30A							
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

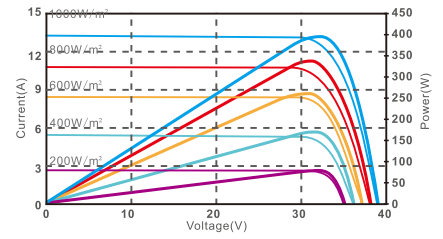
Cell Type	N type Mono-crystalline
No. of cells	108(6×9×2)
Dimensions	1722*1134*30mm
Weight	23.5kg
Glass	2.0mm+2.0mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Junction Box	IP68, 3 diodes
Connector	MC4 Compatible 4mm²
Cable Length (including Connector)	Portrait:(+)400/(-)200mm Landscape:(+)1100/(-)1100mm
Packaging Configuration	Two Box=One Pallet 36pcs/Box, 72pcs/Pallet, 936pcs/40HQ Container

## Electrical characteristics with different rear side power gain (reference to 440 W front)

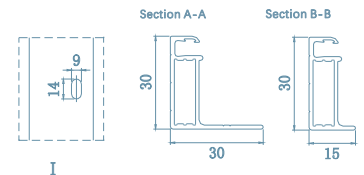
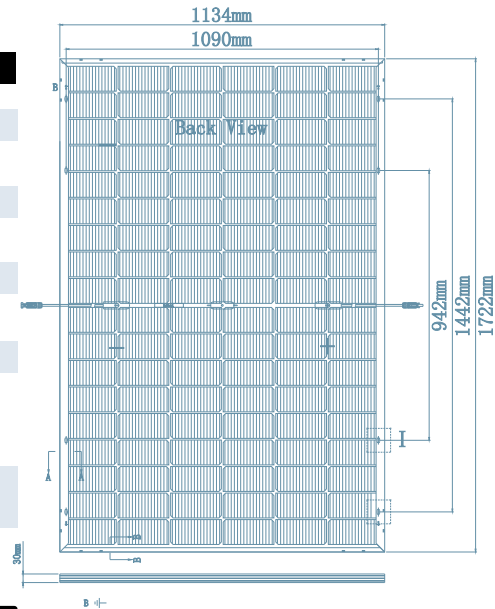
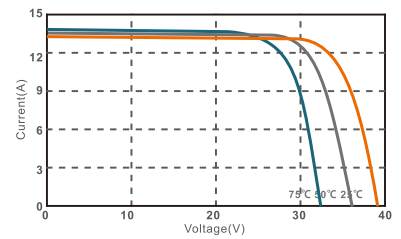
Pmax/W	Voc/V	Isc/A	Vmp/V	Imp/A	Pmax gain
440	39.54	14.01	32.01	13.75	0
462	39.54	14.71	32.01	14.43	5%
484	39.54	15.41	32.01	15.12	10%
506	39.54	16.11	32.01	15.81	15%
528	39.54	16.81	32.01	16.49	20%
550	39.54	17.51	32.01	17.18	25%
572	39.54	18.21	32.01	17.87	30%

## I-V CURVE[440W]

I-V characteristics at different irradiances



I-V characteristics at different temperature



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