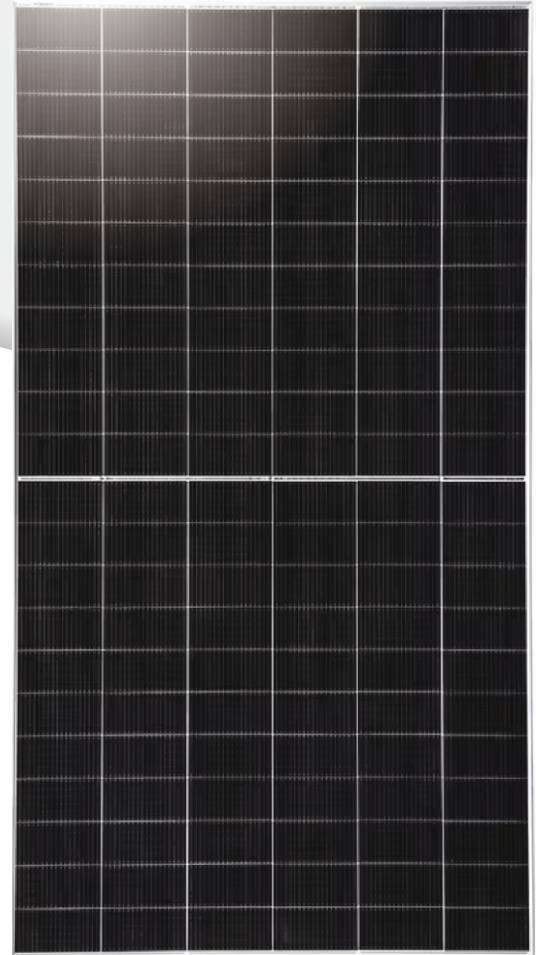
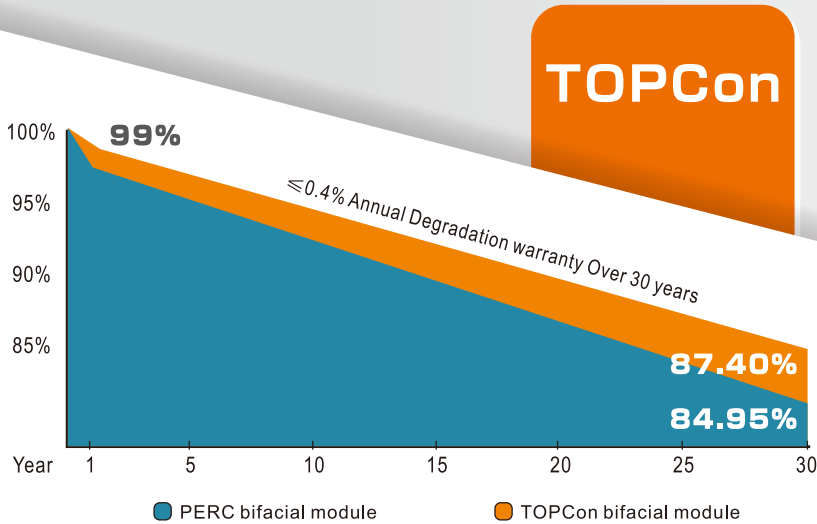


DOUBLE-GLASS BIFACIAL N-TYPE 690~705 Watt



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 Ia CLASSE DI REAZIONE AL FUOCO: 1



TOPCon(N TYPE) 690~705Watt



ELECTRICAL SPECIFICATIONS

Module Type	UL-690M-132DGN		UL-695M-132DGN		UL-700M-132DGN		UL-705M-132DGN		
	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	
Maximum Power (Pmax)	W	690	523	695	527	700	530	705	534
Maximum Power Voltage (Vmp)	V	40.17	36.96	40.35	37.12	40.54	37.29	40.69	37.44
Maximum Power Current (Imp)	A	17.18	14.15	17.22	14.19	17.27	14.22	17.33	14.27
Open-circuit Voltage (Voc)	V	48.22	43.88	48.42	44.06	48.62	44.24	48.77	44.38
Short-circuit Current (Isc)	A	18.25	14.72	18.28	14.75	18.32	14.78	18.38	14.83
Module Efficiency STC	%	22.21		22.37		22.53		22.70	
Operating Temperature	-40°C~85°C								
Maximum system voltage	DC1500V(IEC)								
Maximum series fuse rating	35A								
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

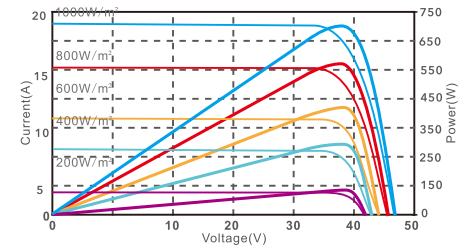
Cell Type	N type Mono-crystalline	
No. of cells	132(6×11×2)	
Dimensions	2384*1303*33mm	
Weight	37.9kg	
Glass	2.0mm+2.0mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass	
Junction Box	IP68, 3diodes	
Connector	MC4 Compatible	
Cable Length (Including Connector)	4m Portrait:(+)400/(-)200mm Landscape:(+)1400/(-)1400mm	
Packaging Configuration	33pcs/Pallet, 594pcs/40HQ Container	

Electrical characteristics with different rear side power gain(reference to 700 W front)

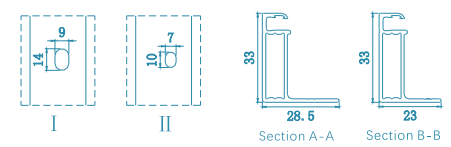
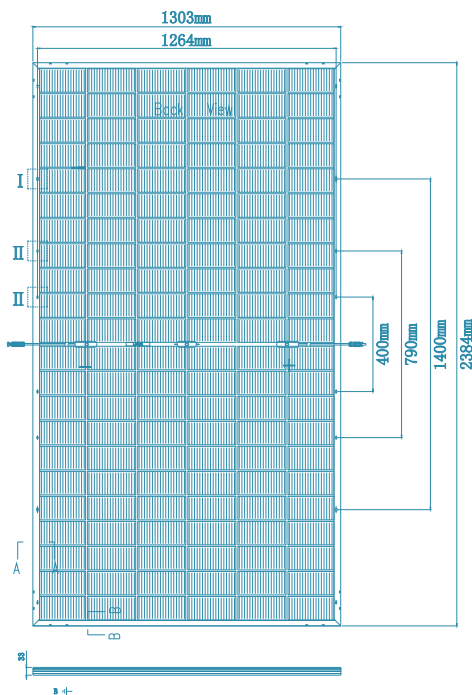
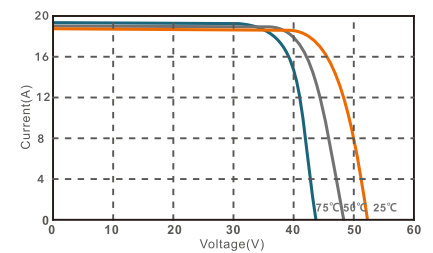
Pmax/W	Voc/V	Isc/A	Vmp/V	Imp/A	Pmax gain
700	48.62	18.32	40.54	17.27	0
735	48.62	19.24	40.54	18.13	5%
770	48.62	20.15	40.54	19.00	10%
805	48.62	21.07	40.54	19.86	15%
840	48.62	21.98	40.54	20.72	20%
875	48.62	22.90	40.54	21.59	25%
910	48.62	23.82	40.54	22.45	30%

I-V CURVE[700W]

I-V characteristics at different irradianations



I-V characteristics at different temperature



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

