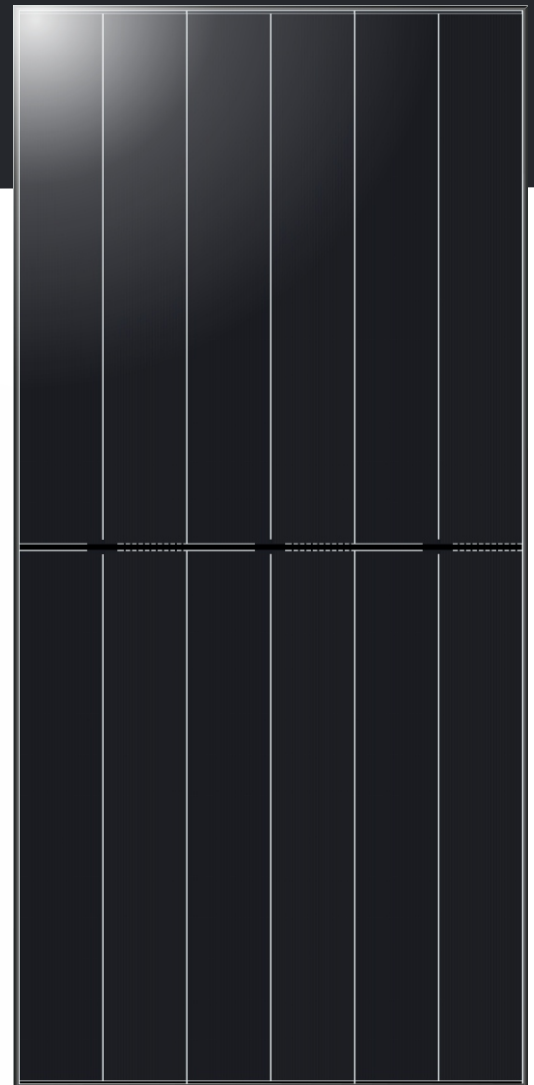
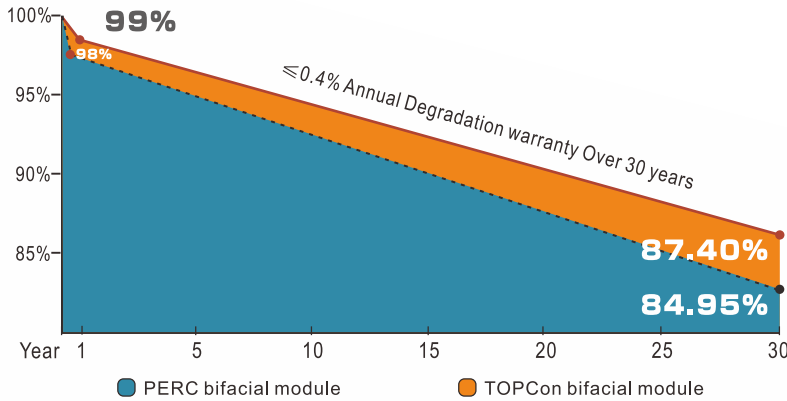


QIN Series

DOUBLE-GLASS BIFACIAL N-TYPE 630~645 Watt



Global Patent
Innovation Composite Finger Technology



Higher Output
Same dimension 30W higher, Module power up to 650W
Module efficiency up to 24.06%



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°C damp heat
85% relative humidity for 192 hours



Lower LCOE
Lower shading and resistive loss
Lower temperature coefficient



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 la CLASSE DI REAZIONE AL FUOCO: 1



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TOPCon(N TYPE) 630~645Watt



ELECTRICAL SPECIFICATIONS

Module Type	UL-630M-144CDGN		UL-635M-144CDGN		UL-640M-144CDGN		UL-645M-144CDGN		
	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	
Maximum Power (Pmax)	W	630	477	635	481	640	485	645	489
Maximum Power Voltage (Vmp)	V	44.38	40.83	44.48	40.92	44.58	41.01	44.68	41.11
Maximum Power Current (Imp)	A	14.20	11.69	14.28	11.76	14.36	11.83	14.44	11.89
Open-circuit Voltage (Voc)	V	52.49	47.77	52.59	47.86	52.69	47.95	52.79	48.04
Short-circuit Current (Isc)	A	15.11	12.19	15.18	12.24	15.27	12.32	15.35	12.38
Module Efficiency STC	%	23.32		23.51		23.69		23.88	
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	0.045%/°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

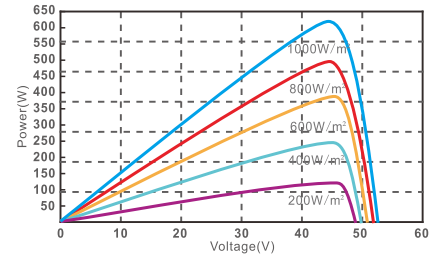
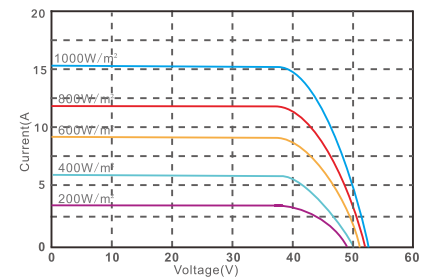
Cell Type	N type Mono-crystalline		
No. of cells	144 (6×12×2)		
Dimensions	2382*1134*30mm		
Weight	32.0kg		
Glass	2.0mm+2.0mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass		
Junction Box	IP68, 3diodes		
Connector	MC4 Compatible		
Cable Length (Including Connector)	4mm ² Landscape: (+) 1400mm/(-) 1400 mm or Customized Length		
Packaging Configuration	Two Box=One pallet 36pcs/Box, 72pcs/Pallet, 720pcs/40HQ Container		

Electrical characteristics with different rear side power gain (reference to 635 W front)

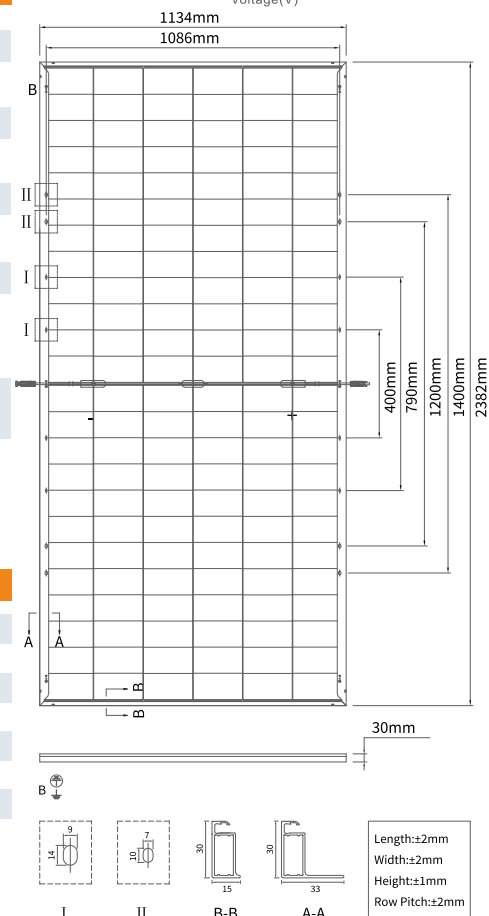
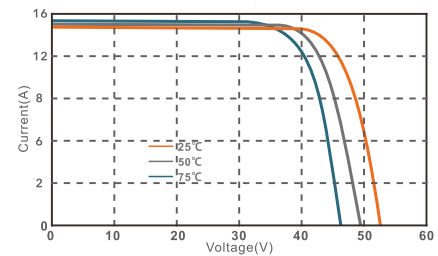
Pmax/W	Voc/V	Isc/A	Vmp/V	Imp/A	Pmax gain
635	52.59	15.18	44.48	14.28	0%
667	52.59	15.94	44.48	14.99	5%
699	52.59	16.70	44.48	15.70	10%
730	52.59	17.46	44.48	16.42	15%
762	52.59	18.22	44.48	17.13	20%
794	52.59	18.98	44.48	17.85	25%
826	52.59	19.73	44.48	18.56	30%

I-V CURVE

I-V characteristics at different irradiances (reference to 635 W)



I-V characteristics at different temperature



Specifications included in this datasheet are subject to change without notice.

Ulica Solar reserves the right of final interpretation.

Version number: QIN-UL-2382-144CDGNBBC-30-EN-V1.0