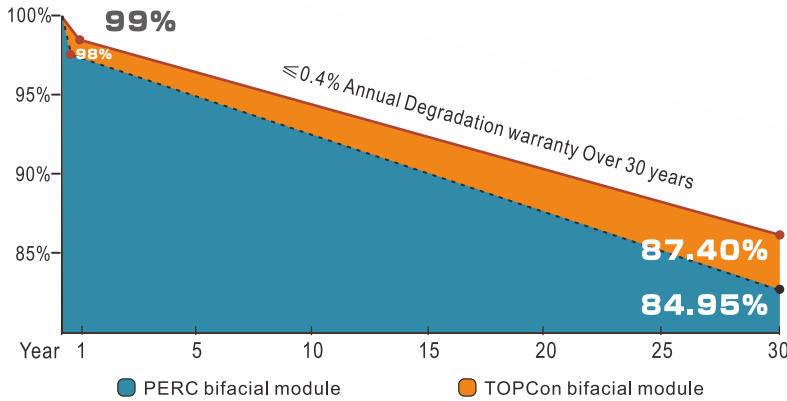


QIN Series

DOUBLE-GLASS BIFACIAL N-TYPE 475~485 Watt



Global Patent
Innovation Composite Finger Technology



Higher Output
Same dimension 30W higher, Module power up to 490W
Module efficiency up to 24.01%



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-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



Add: No. 238 Yunlin Middle Road, Wangchun Industrial District, Ningbo China

Tel: +86-574-28828939

Email: sales@ulsolar.com.cn

Fax: +86-574-28828997

Web: www.ulicasolar.com

TOPCon(N TYPE) 475~485Watt

ELECTRICAL SPECIFICATIONS

Module Type	UL-475M-108CDGN		UL-480M-108CDGN		UL-485M-108CDGN		
	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	
Maximum Power (Pmax)	W	475	360	480	364	485	368
Maximum Power Voltage (Vmp)	V	33.49	30.80	33.60	30.90	33.72	31.00
Maximum Power Current (Imp)	A	14.19	11.68	14.28	11.77	14.38	11.85
Open-circuit Voltage (Voc)	V	39.63	36.10	39.76	36.20	39.88	36.30
Short-circuit Current (Isc)	A	15.11	12.19	15.21	12.27	15.31	12.35
Module Efficiency STC	%	23.27		23.52		23.76	
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

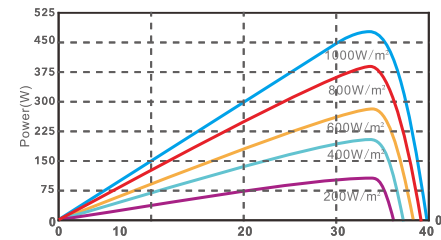
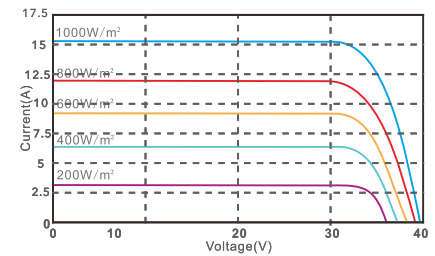
Cell Type	N type Mono-crystalline
No. of cells	108(6×9×2)
Dimensions	1800*1134*30mm
Weight	24.5kg
Glass	2.0mm+2.0mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Junction Box	IP68, 3 diodes
Connector	MC4 Compatible
Cable Length (including Connector)	4mm ² Landscape: (+)1200/(-)1200mm or Customized Length
Packaging Configuration	Two Box=One Pallet 36pcs/Box, 72pcs/Pallet, 864pcs/40HQ Container

Electrical characteristics with different rear side power gain (reference to 480 W front)

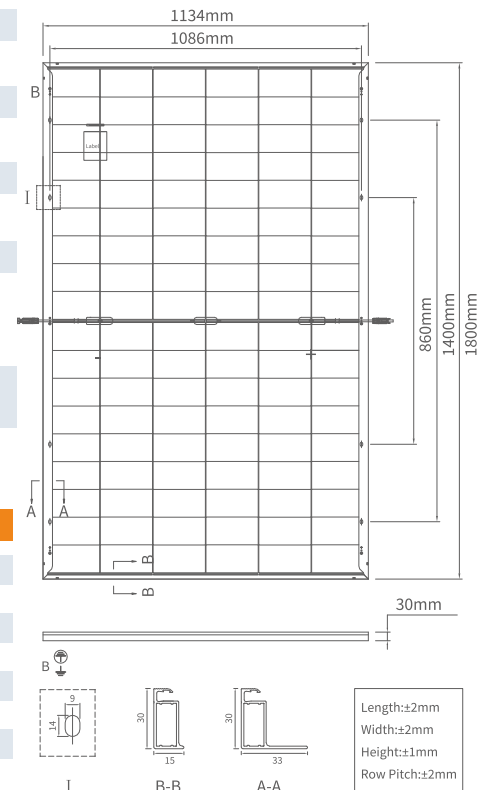
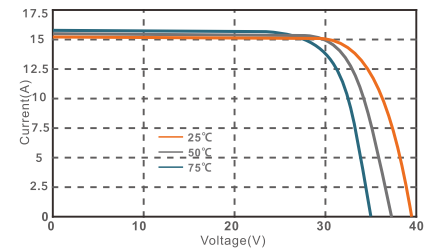
Pmax/W	Voc/V	Isc/A	Vmp/V	Imp/A	Pmax gain
480	39.76	15.21	33.60	15.21	0%
504	39.76	15.97	33.60	15.97	5%
528	39.76	16.73	33.60	16.73	10%
552	39.76	17.49	33.60	17.49	15%
576	39.76	18.25	33.60	18.25	20%
600	39.76	19.01	33.60	19.01	25%
615	39.76	19.77	33.60	19.77	30%

I-V CURVE

I-V characteristics at different irradiances (reference to 480 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 No.: QIN-UL-1800-108CDGNBHC-30-EN-V1.0