

# Black Jade<sup>Flow</sup> series

Double Glass BiFacial N-Type TOPCon Solar Module

## 480~505Watt

Model: UL-\*\*\*M-120BDGN

Maximum Efficiency: **22.81%**



### Cutting Free Technology

The half cells are made directly from half silicon wafer, reducing power losses and hidden cracks



### Bifacial Mono Module

Capable of generating power at back side, 80±5% efficiency of the front side



### Outstanding Mechanical load Resistance

2400 Pa wind load, 5400 Pa snow load



### Anti-PID(potential induced degradation)

Passed anti-PID test under 85°C damp heat 85% relative humidity for 192 hours



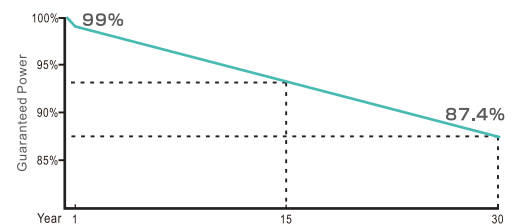
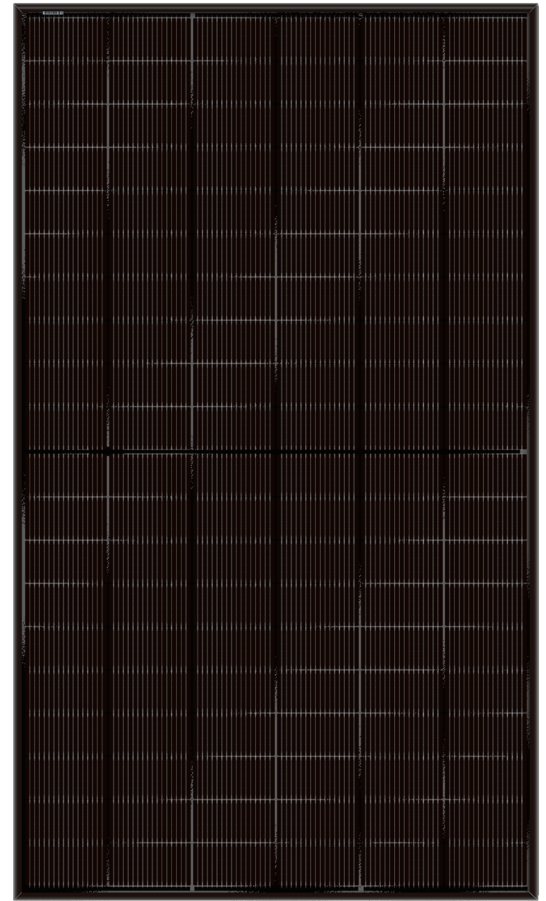
### Lower LCOE

Lower shading and resistive loss Lower temperature coefficient



### Widely Applied To Various Scenarios

Flexibly applied to roofs, ground surfaces, water surfaces, mountainous areas, and other diverse environments



**15** Year Product Warranty    **1%** Power Degradation In The First Year

**30** Year Linear Power Warranty    **0.4%** Linear Power Degradation



CEC Listed



IEC 61215, IEC 61730

ISO 9001: 2015(Quality management systems)

ISO 14001: 2015 (Environmental management systems)

ISO45001: 2018 (Occupational health and safety)

UNI 9177 la CLASSE DI REAZIONE AL FUOCO:1



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# DOUBLE GLASS BIFACIAL 480~505Watt



## ELECTRICAL SPECIFICATIONS

Module Type	UL-480M-120BDGN			UL-485M-120BDGN		UL-490M-120BDGN		UL-495M-120BDGN		UL-500M-120BDGN		UL-505M-120BDGN	
		STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*
Maximum Power(Pmax)	W	480	364	485	368	490	371	495	375	500	379	505	383
Maximum Power Voltage(Vmp)	V	36.35	33.44	36.52	33.60	36.68	33.75	36.85	33.90	37.02	34.06	37.18	34.21
Maximum Power Current(Imp)	A	13.20	10.88	13.28	10.94	13.36	11.00	13.43	11.06	13.51	11.13	13.58	11.19
Open-circuit Current(Voc)	V	43.02	39.15	43.18	39.29	43.35	39.45	43.52	39.60	43.78	39.84	43.98	40.02
Short-circuit Current(Isc)	A	14.25	11.49	14.30	11.53	14.35	11.58	14.43	11.64	14.48	11.68	14.54	11.73
Module Efficiency STC	%	21.68		21.91		22.14		22.36		22.59		22.81	

\*STC:Cell temperature:25°C,Irradiance:1000W/m²,Ari mass:1.5G,Power measurement tolerance: ±3%  
\*NOCT:Air temperature:20°C,Irradiance:1000W/m²,Ari mass:1.5G,Wind speed:1m/s

## OPERATING PARAMETERS

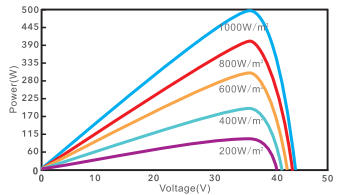
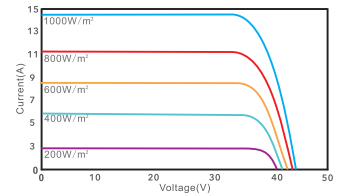
Operating Temperature	-40°C~85°C
Maximum system voltage	DC1500V(IEC)
Maximum series fuse rating	30A
Nominal operating cell temperature	43±2°C
Power tolerance	0~+5Watt

## TEMPERATURE RATINGS

Temperature coefficients of Pmax	-0.29%/°C
Temperature coefficients of Voc	-0.25%/°C
Temperature coefficients of Isc	0.046%/°C

## I-V CURVE

I-V characteristics at different irradiances (reference to 500 W)



## REAR SIDE POWER GAIN(REFERENCE TO 500W FRONT SIDE)

Pmax/W	500	525	550	575	600	625	650
Pmax gain	0%	5%	10%	15%	20%	25%	30%
Voc/V	43.78	43.78	43.78	43.78	43.78	43.78	43.78
Isc/A	14.48	15.20	15.93	16.65	17.38	18.10	18.82
Vmp/V	37.02	37.02	37.02	37.02	37.02	37.02	37.02
Imp/A	13.51	14.18	14.86	15.53	16.21	16.88	17.56

## SPECIFICATIONS

Cell Type	N-type TOPCon Mono Half Cell	
No.of cells	120(6×10×2)	
Dimensions	1952*1134*30mm	
Weight	26.2kg	
Front Glass	2.0mm,Anti-Reflection Coating,High Transmission,Low Iron,Tempered Glass	
Back Glass	2.0mm,High Transmission,Low Iron,Tempered Glass	
Frame	Anodized Aluminium Alloy	
Junction Box	IP68,3diodes	
Connector	MC4 Compatible:PV-UL608 or Original:MC4-EVO2 or others	

Cable Length (Including Connector) 4mm²  
Short Cable: (+)400/(-)200mm or Long Cable:(+)1200/(-)1200mm  
or Customized Length

## PACKAGING INFORMATION



36 Pcs/Pallet



72 Pcs/Stack



Length:1965mm



Width:1130mm



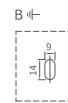
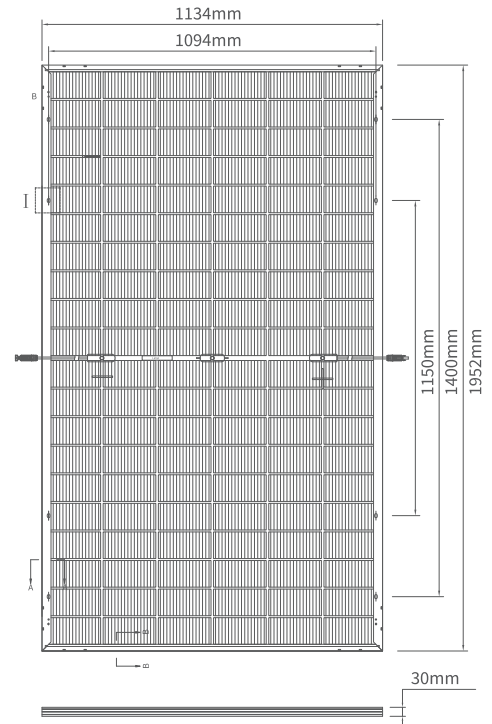
Height:2540mm



Weight:1954kg/Stack



12 Stack/40HQ  
864Pcs/40HQ



I



B-B



A-A

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



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

Ulica Solar reserves the right of final interpretation.

Version number: UL-1952-120BDGNTH-30-EN-V2.0