

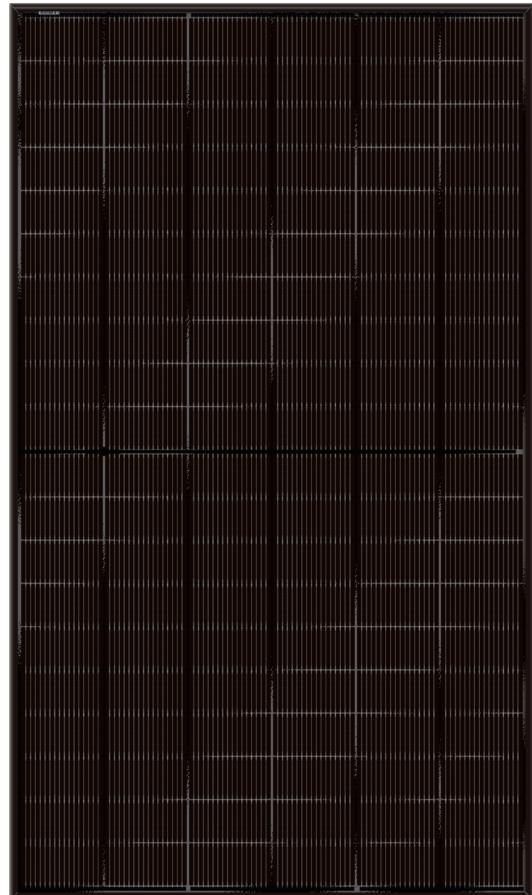
Black Jade^{Flow} series

Double Glass BiFacial N-Type TOPCon Solar Module

480~505 Watt

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,
 $80\pm5\%$ efficiency of the front side

Outstanding Mechanical load Resistance



2400 Pa wind load, 5400 Pa snow load

PID FREE

Anti-PID(potential induced degradation)

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



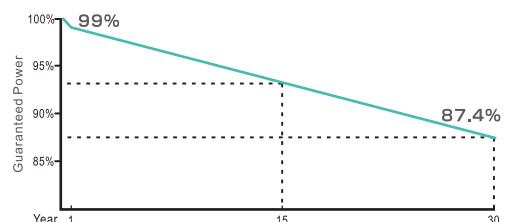
Lower LCOE

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



IEC 61215, IEC 61730

ISO 9001: 2015(Quality management systems)

ISO 14001: 2015 (Environmental management systems)

ISO45001: 2018 (Occupational health and safety)

UNI 9177 Ia 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*											
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

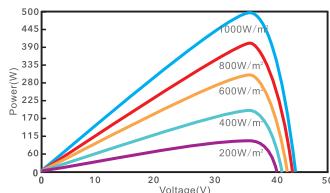
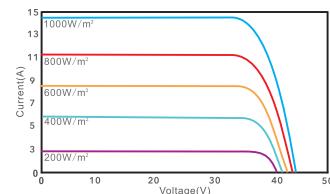
Operating Temperature	-40°C~85°C
Maximum system voltage	DC1500V(IEC)
Maximum series fuse rating	30A
Nominal operating cell temperature	43±2°C
Power tolerance	0~+5Watt

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 irradiations (reference to 500 W)

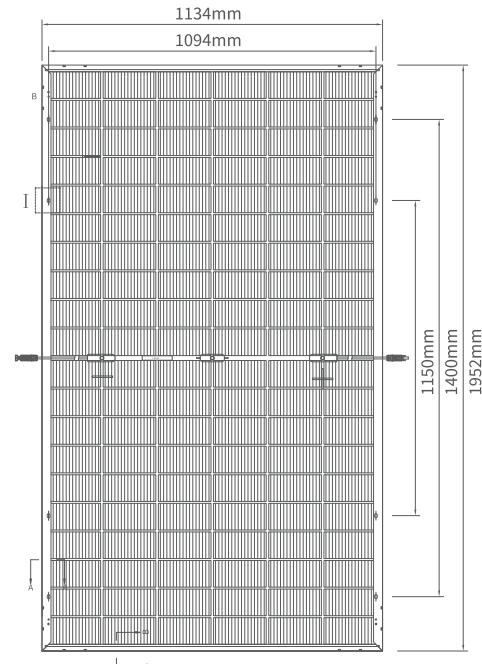


REAR SIDE POWER GAIN(REFERENCE TO 500W FRONT SIDE)

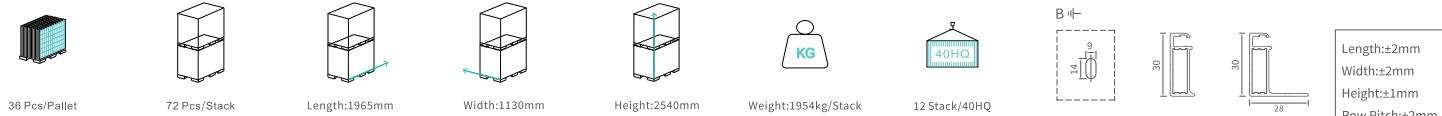
Pmax/W	500	525	550	575	600	625	650
Pmax gain	0%	5%	10%	15%	20%	25%	30%
Voc/V	43.78	43.78	43.78	43.78	43.78	43.78	43.78
Isc/A	14.48	15.20	15.93	16.65	17.38	18.10	18.82
Vmp/V	37.02	37.02	37.02	37.02	37.02	37.02	37.02
Imp/A	13.51	14.18	14.86	15.53	16.21	16.88	17.56

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)	4mm ² Short Cable: (+)400/(-)200mm or Long Cable:(+)1200/(-)1200mm or Customized Length



PACKAGING INFORMATION



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

Ulca Solar reserves the right of final interpretation.

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

