

Black Jade^{Flow} series

Double Glass BiFacial N-Type TOPCon Solar Module

495~520W

Model: UL-***M-108DDGN

Maximum Efficiency: **23.38%**



Bifacial Mono Module

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



Longer Term Reliability

Passed the IEC63209-1:2021 standard test (With testing standards 2 to 3 times stricter than regular IEC requirements)



Outstanding Mechanical load Resistance

2mm+2mm front and back sides tempered glass, sturdy and durable, resistant to hail impact, with a snow load of 5400Pa and a wind load of 2400Pa



Anti-PID(potential induced degradation)

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



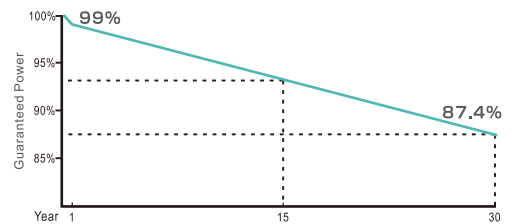
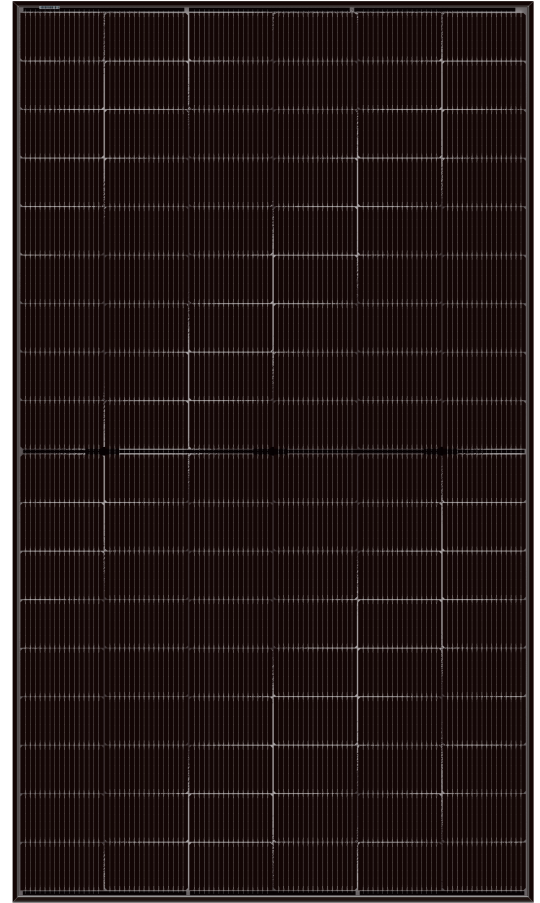
Lower LCOE

Lower shading and resistive loss Lower temperature coefficient



Full-Scenario Resilience

Proven through rigorous resistance tests for salt mist, ammonia corrosion, sand & dust, and LeTID degradation



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 Fire Test: Class 1



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ELECTRICAL SPECIFICATIONS

Module Type	UL-495M-108DDGN		UL-500M-108DDGN		UL-505M-108DDGN		UL-510M-108DDGN		UL-515M-108DDGN		UL-520M-108DDGN		
	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	
Maximum Power(Pmax)	W	495	375	500	379	505	383	510	386	515	390	520	394
Maximum Power Voltage(Vmp)	V	33.02	30.38	33.17	30.52	33.32	30.65	33.47	30.79	33.57	30.88	33.67	30.98
Maximum Power Current(Imp)	A	14.99	12.35	15.08	12.42	15.16	12.48	15.24	12.55	15.34	12.64	15.44	12.72
Open-circuit Current(Voc)	V	39.67	36.10	39.83	36.25	39.99	36.39	40.16	36.55	40.22	36.60	40.26	36.64
Short-circuit Current(Isc)	A	15.90	12.83	15.96	12.87	16.02	12.92	16.08	12.97	16.12	13.00	16.16	13.04
Module Efficiency STC	%	22.26		22.48		22.71		22.93		23.16		23.38	

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

OPERATING PARAMETERS

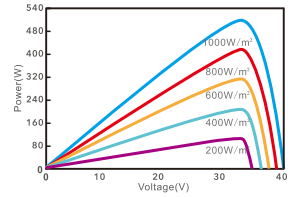
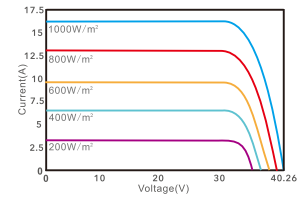
Operating Temperature	-40°C~85°C
Maximum system voltage	DC1500V(IEC)
Maximum series fuse rating	30A
Nominal operating cell temperature	43±2°C
Power tolerance	0~+5Watt

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 520 W)




REAR SIDE POWER GAIN(REFERENCE TO 520W FRONT SIDE)


Pmax/W	520	546	572	598	624	650	676
Pmax gain	0%	5%	10%	15%	20%	25%	30%
Voc/V	40.26	40.26	40.26	40.26	40.26	40.26	40.26
Isc/A	16.16	16.97	17.78	18.58	19.39	20.20	21.01
Vmp/V	33.67	33.67	33.67	33.67	33.67	33.67	33.67
Imp/A	15.44	16.21	16.98	17.76	18.53	19.30	20.07


SPECIFICATIONS


Cell Type	N-type TOPCon Mono Half Cell	
No. of cells	108(6×9×2)	
Dimensions	1961*1134*30mm	
Weight	26.6kg	
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, 3 diodes	
Connector	MC4 Compatible: PV-UL608 or others _____	Original: MC4-EVO2A
Cable Length (Including Connector)	4mm² Short Cable: (+)400/(-)200mm or Long Cable: (+)1200/(-)1200mm or Customized Length _____	


PACKAGING INFORMATION



 37 Pcs/Pallet



 74 Pcs/Stack

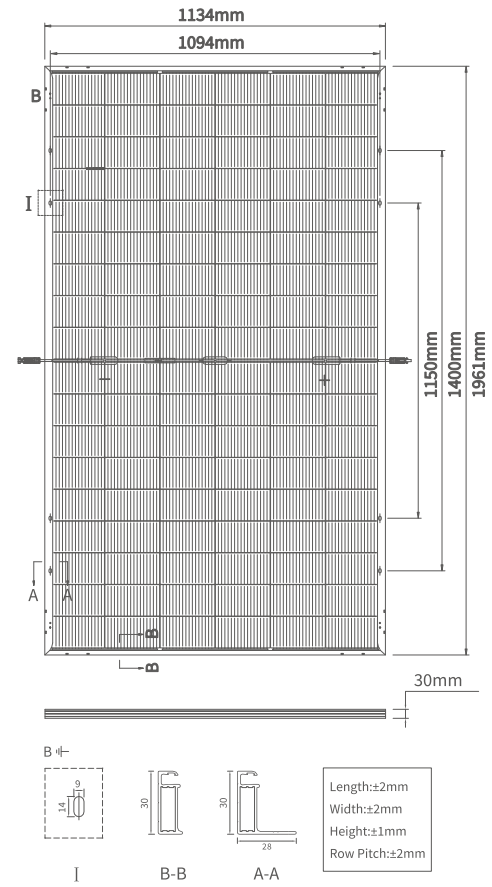

 Length: 1975mm


 Width: 1140mm


 Height: 2550mm


 Weight: 2037kg/Stack


 12 Stack/40HQ
 888 Pcs/40HQ



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

Ulica Solar reserves the right of final interpretation.

Version number: UL-1961-108DDGNTH-30-EN-V4.1