

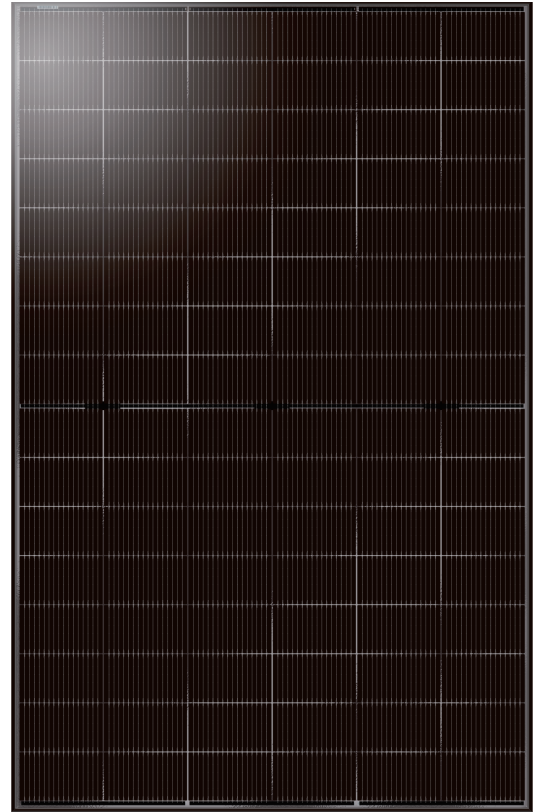
Black Jade^{Flow} series

Double Glass BiFacial N-Type TOPCon Solar Module

430~455Watt

Model: UL-***M-96DDGN

Maximum Efficiency: **22.77%**



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

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



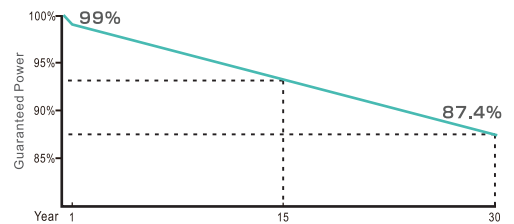
Lower LCOE

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 Ia CLASSE DI REAZIONE AL FUOCO:1



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ELECTRICAL SPECIFICATIONS

Module Type	UL-430M-96DDGN		UL-435M-96DDGN		UL-440M-96DDGN		UL-445M-96DDGN		UL-450M-96DDGN		UL-455M-96DDGN		
	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	
Maximum Power(Pmax)	W	430	326	435	330	440	333	445	337	450	341	455	345
Maximum Power Voltage(Vmp)	V	29.08	26.75	29.21	26.87	29.35	27.00	29.48	27.12	29.61	27.24	29.75	27.37
Maximum Power Current(Imp)	A	14.79	12.18	14.89	12.27	14.99	12.35	15.09	12.43	15.20	12.52	15.30	12.60
Open-circuit Current(Voc)	V	34.56	31.45	34.70	31.58	34.84	31.70	35.00	31.85	35.14	31.98	35.29	32.11
Short-circuit Current(Isc)	A	15.90	12.83	15.95	12.87	16.00	12.91	16.05	12.95	16.10	12.99	16.15	13.03
Module Efficiency STC	%	21.52		21.77		22.02		22.27		22.52		22.77	

*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

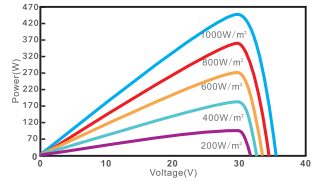
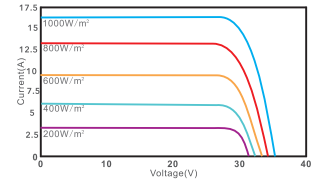
Operating Temperature	-40°C~85°C
Maximum system voltage	DC1500V(IEC)
Maximum series fuse rating	30A
Nominal operating cell temperature	43±2°C
Power tolerance	0~+5Watt

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 450 W)

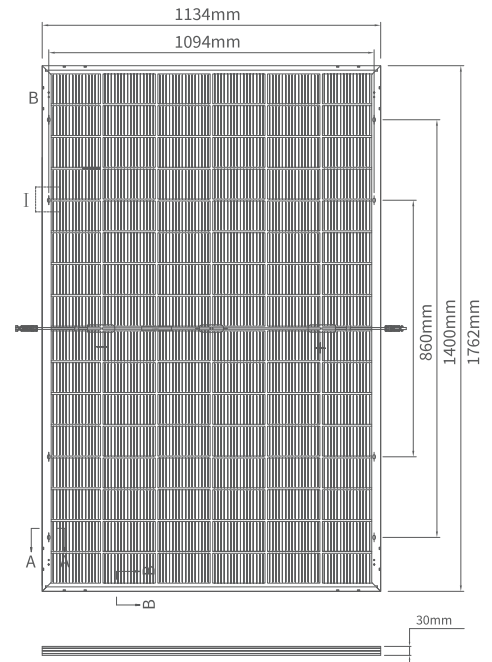


REAR SIDE POWER GAIN(REFERENCE TO 450W FRONT SIDE)

Pmax/W	450	473	495	518	540	563	585
Pmax gain	0%	5%	10%	15%	20%	25%	30%
Voc/V	35.14	35.14	35.14	35.14	35.14	35.14	35.14
Isc/A	16.10	16.91	17.71	18.52	19.32	20.13	20.93
Vmp/V	29.61	29.61	29.61	29.61	29.61	29.61	29.61
Imp/A	15.20	15.96	16.72	17.48	18.24	18.99	19.75

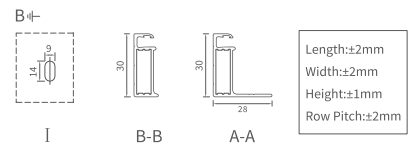
SPECIFICATIONS

Cell Type	N-type TOPCon Mono Half Cell	
No. of cells	96(6×8×2)	
Dimensions	1762*1134*30mm	
Weight	23.7kg	
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-EVO2
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: 1775mm	Width: 1130mm	Height: 2540mm	Weight: 1770kg/Stack	13 Stack/40HQ 936 Pcs/40HQ



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

Ulica Solar reserves the right of final interpretation.

Version number: UL-1762-96DDGNTH-30-EN-V2.0