

Mate^{Veil} series

Double Glass BiFacial N-Type TOPCon Solar Module

575~600W

Model: UL-***M-144ADGN

Maximum Efficiency: **23.23%**



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



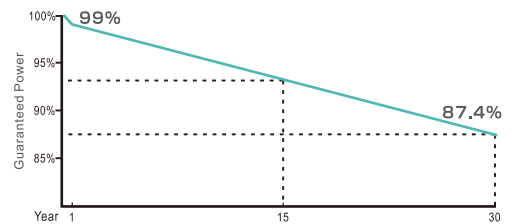
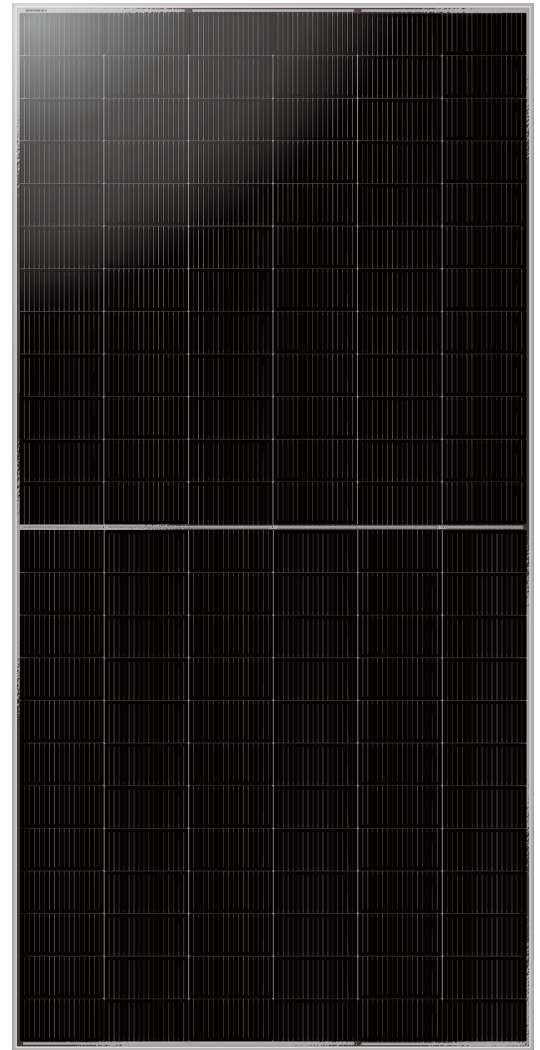
Lower LCOE

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-575M-144ADGN		UL-580M-144ADGN		UL-585M-144ADGN		UL-590M-144ADGN		UL-595M-144ADGN		UL-600M-144ADGN		
	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	
Maximum Power(Pmax)	W	575	436	580	440	585	443	590	447	595	451	600	455
Maximum Power Voltage(Vmp)	V	43.85	40.34	44.02	40.50	44.17	40.64	44.35	40.80	44.55	40.99	44.71	41.13
Maximum Power Current(Imp)	A	13.11	10.80	13.18	10.85	13.24	10.91	13.30	10.96	13.36	11.00	13.42	11.05
Open-circuit Current(Voc)	V	52.32	47.61	52.52	47.79	52.72	47.98	52.82	48.07	52.92	48.16	53.02	48.25
Short-circuit Current(Isc)	A	13.89	11.20	13.95	11.25	14.01	11.30	14.02	11.31	14.06	11.34	14.09	11.37
Module Efficiency STC	%	22.26		22.45		22.65		22.84		23.03		23.23	

*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

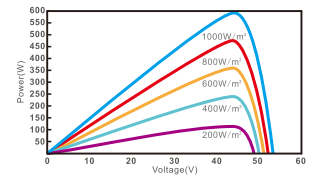
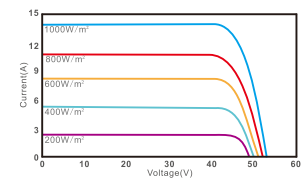
Operating Temperature	-40°C~85°C
Maximum system voltage	DC1500V(IEC)
Maximum series fuse rating	30A
Nominal operating cell temperature	43±2°C
Power tolerance	0~+5Watt

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 600 W)



REAR SIDE POWER GAIN(REFERENCE TO 600W FRONT SIDE)

	600	630	660	690	720	750	780
Pmax/W	600	630	660	690	720	750	780
Pmax gain	0%	5%	10%	15%	20%	25%	30%
Voc/V	53.02	53.02	53.02	53.02	53.02	53.02	53.02
Isc/A	14.09	14.79	15.50	16.20	16.91	17.61	18.32
Vmp/V	44.71	44.71	44.71	44.71	44.71	44.71	44.71
Imp/A	13.42	14.09	14.76	15.43	16.10	16.78	17.45

SPECIFICATIONS

Cell Type	N-type TOPCon Mono Half Cell	
No. of cells	144(6×12×2)	
Dimensions	2278*1134*30mm	
Weight	31.2kg	
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, 3 diodes	
Connector	MC4 Compatible: PV-UL608 or others _____	Original: MC4-EVO2A
Cable Length (Including Connector)	4mm² Short Cable: (+)400/(-)200mm or Long Cable: (+)1400/(-)1400mm or Customized Length _____	

PACKAGING INFORMATION



37 Pcs/Pallet



74 Pcs/Stack



Length: 2295mm



Width: 1140mm



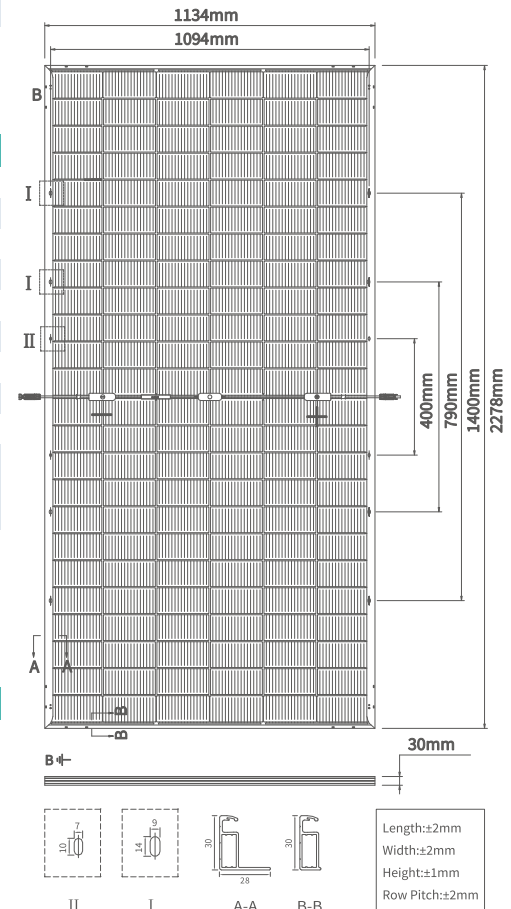
Height: 2540mm



Weight: 2389kg/Stack



10 Stack/40HQ
740Pcs/40HQ



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

Ulica Solar reserves the right of final interpretation.

Version number: UL-2278-144ADGNB-30-EN-V4.1