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Mate series

Double Glass BiFacial N-Type TOPCon Solar Module

570~595Watt

Model: UL-***M-144ADGN

Maximum Efficiency: 23.03%

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)

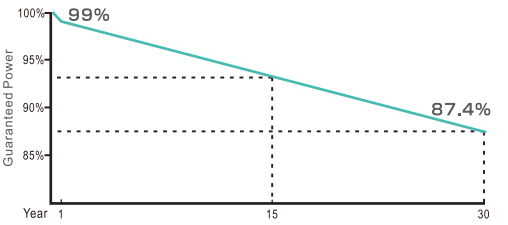
Passed anti-PID test under 85°C damp heat 85%
relative humidity for 192 hours

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

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 570~595Watt

ELECTRICAL SPECIFICATIONS

Module Type		UL-570M-144ADGN		UL-575M-144ADGN		UL-580M-144ADGN		UL-585M-144ADGN		UL-590M-144ADGN		UL-595M-144ADGN	
		STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*
Maximum Power(Pmax)	W	570	432	575	436	580	440	585	443	590	447	595	451
Maximum Power Voltage(Vmp)	V	43.70	40.20	43.85	40.34	44.02	40.50	44.17	40.64	44.35	40.80	44.55	40.99
Maximum Power Current(Imp)	A	13.04	10.74	13.11	10.80	13.18	10.85	13.24	10.91	13.30	10.96	13.36	11.00
Open-circuit Current(Voc)	V	52.12	47.43	52.32	47.61	52.52	47.79	52.72	47.98	52.82	48.07	52.92	48.16
Short-circuit Current(Isc)	A	13.83	11.16	13.89	11.20	13.95	11.25	14.01	11.30	14.02	11.31	14.06	11.34
Module Efficiency STC	%	22.07		22.26		22.45		22.65		22.84		23.03	

*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

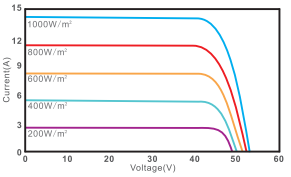
Operating Temperature	-40℃~85℃
Maximum system voltage	DC1500V(IEC)
Maximum series fuse rating	30A
Nominal operating cell temperature	43±2℃
Power tolerance	0~+5Watt

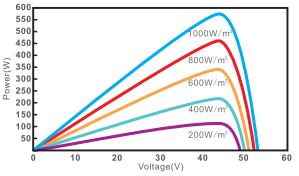
TEMPERATURE RATINGS

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

I-V CURVE

I-V characteristics at different irradiations (reference to 580 W)



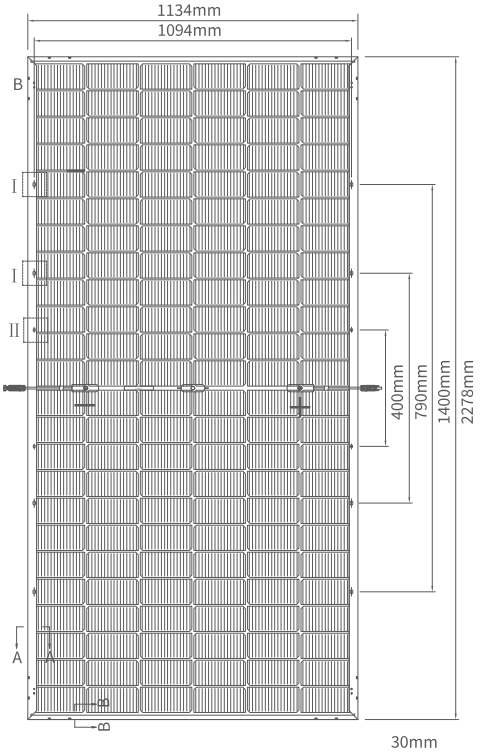


REAR SIDE POWER GAIN(REFERENCE TO 580W FRONT SIDE)

Pmax/W	580	609	638	667	696	725	754
Pmax gain	0%	5%	10%	15%	20%	25%	30%
Voc/V	52.52	52.52	52.53	52.52	52.52	52.52	52.52
Isc/A	13.95	14.65	15.35	16.04	16.74	17.44	18.14
Vmp/V	44.02	44.02	44.02	44.02	44.02	44.02	44.02
Imp/A	13.18	13.83	14.49	15.15	15.81	16.47	17.13

SPECIFICATIONS

Cell Type	N-type TOPCon Mono Half Cell
No.of cells	144(6×12×2)
Dimensions	2278*1134*30mm
Weight	30.3kg
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:(+)1400/(-)1400mm or ◯ Customized Length_____



PACKAGING INFORMATION

36 Pcs/Pallet

72 Pcs/Stack

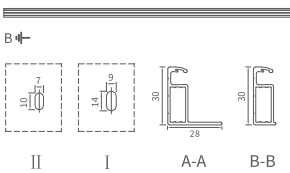
Length:2295mm

Width:1130mm

Height:2540mm

Weight:2262kg/Stack

10 Stack/40HQ
720Pcs/40HQ



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

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

Ulica Solar reserves the right of final interpretation.

Version number: UL-2278-144ADGNBB-30-EN-V2.0