

Phoenix^{Veil} series

Double Glass BiFacial N-Type TOPCon Solar Module

625~650Watt

Model: UL-***M-156ADGN

Maximum Efficiency: **23.25%**



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



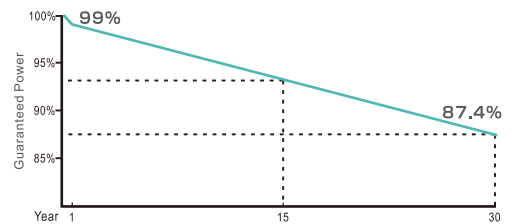
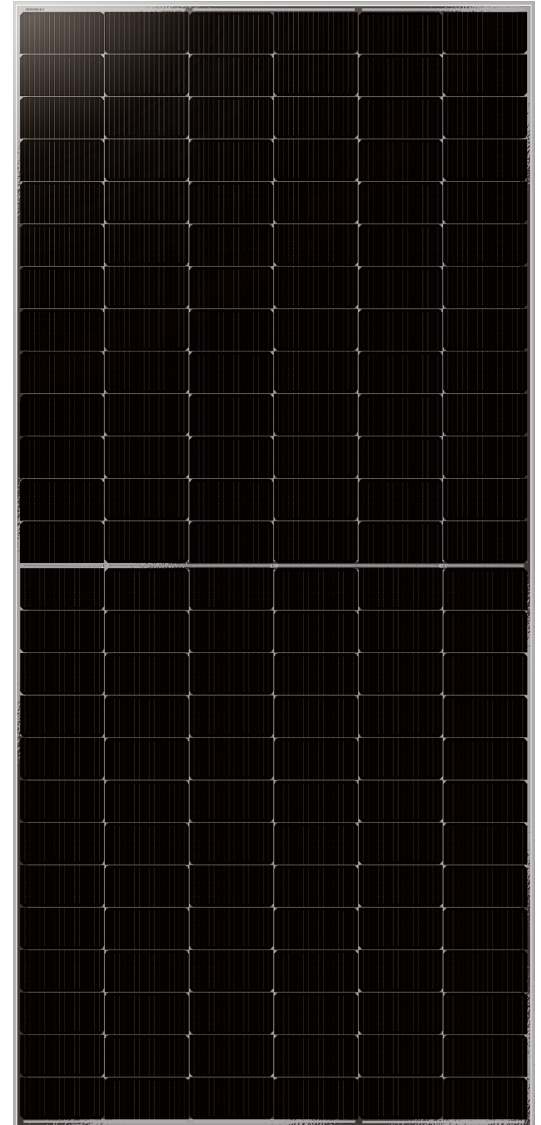
Lower LCOE

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-625M-156ADGN		UL-630M-156ADGN		UL-635M-156ADGN		UL-640M-156ADGN		UL-645M-156ADGN		UL-650M-156ADGN		
	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	
Maximum Power(Pmax)	W	625	474	630	477	635	481	640	485	645	489	650	493
Maximum Power Voltage(Vmp)	V	46.10	42.41	46.28	42.58	46.48	42.76	46.68	42.95	46.88	43.13	47.08	43.31
Maximum Power Current(Imp)	A	13.56	11.17	13.61	11.21	13.66	11.25	13.71	11.29	13.76	11.33	13.81	11.37
Open-circuit Current(Voc)	V	56.95	51.82	57.08	51.94	57.21	52.06	57.41	52.24	57.61	52.43	57.81	52.61
Short-circuit Current(Isc)	A	13.80	11.13	13.86	11.18	13.92	11.23	13.97	11.27	13.99	11.28	14.03	11.32
Module Efficiency STC	%	22.36		22.54		22.72		22.90		23.07		23.25	

*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

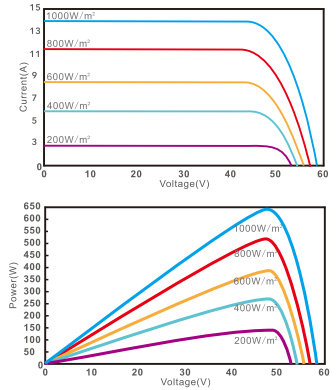
Operating Temperature	-40°C~85°C
Maximum system voltage	DC1500V(IEC)
Maximum series fuse rating	30A
Nominal operating cell temperature	43±2°C
Power tolerance	0~+5Watt

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 irradianations (reference to 650 W)



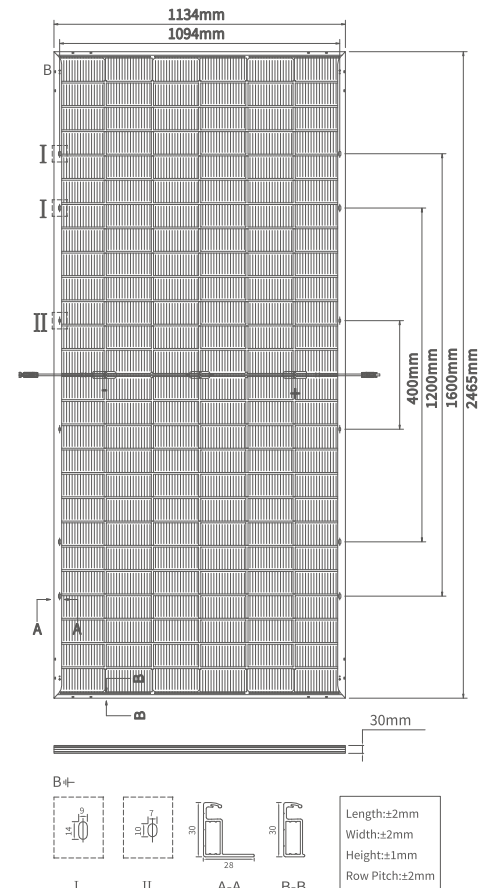
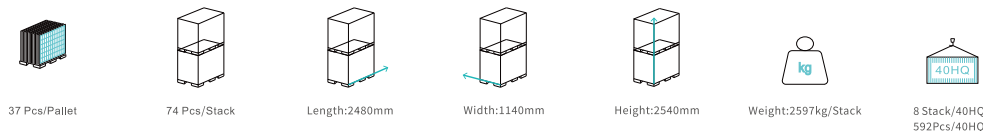
REAR SIDE POWER GAIN(REFERENCE TO 650W FRONT SIDE)

Pmax/W	650	683	715	748	780	813	845
Pmax gain	0%	5%	10%	15%	20%	25%	30%
Voc/V	57.81	57.81	57.81	57.81	57.81	57.81	57.81
Isc/A	14.03	14.73	15.43	16.13	16.84	17.54	18.24
Vmp/V	47.08	47.08	47.08	47.08	47.08	47.08	47.08
Imp/A	13.81	14.50	15.19	15.88	16.57	17.26	17.95

SPECIFICATIONS

Cell Type	N-type TOPCon Mono Half Cell	
No. of cells	156(6×13×2)	
Dimensions	2465*1134*30mm	
Weight	33.8kg	
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



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

Ulica Solar reserves the right of final interpretation.

Version number: UL-2465-156ADGNYB-30-EN-V1.1