

N⁺ series

All-Black Solar Panels-54

420-440W

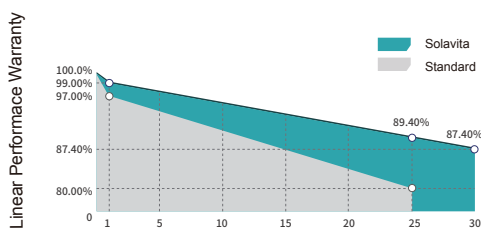
QUALITY SYSTEM

IEC 61215(2021), IEC 61730(2018)

ISO 9001:2015: Quality management systems

ISO 14001:2015: Environmental management systems

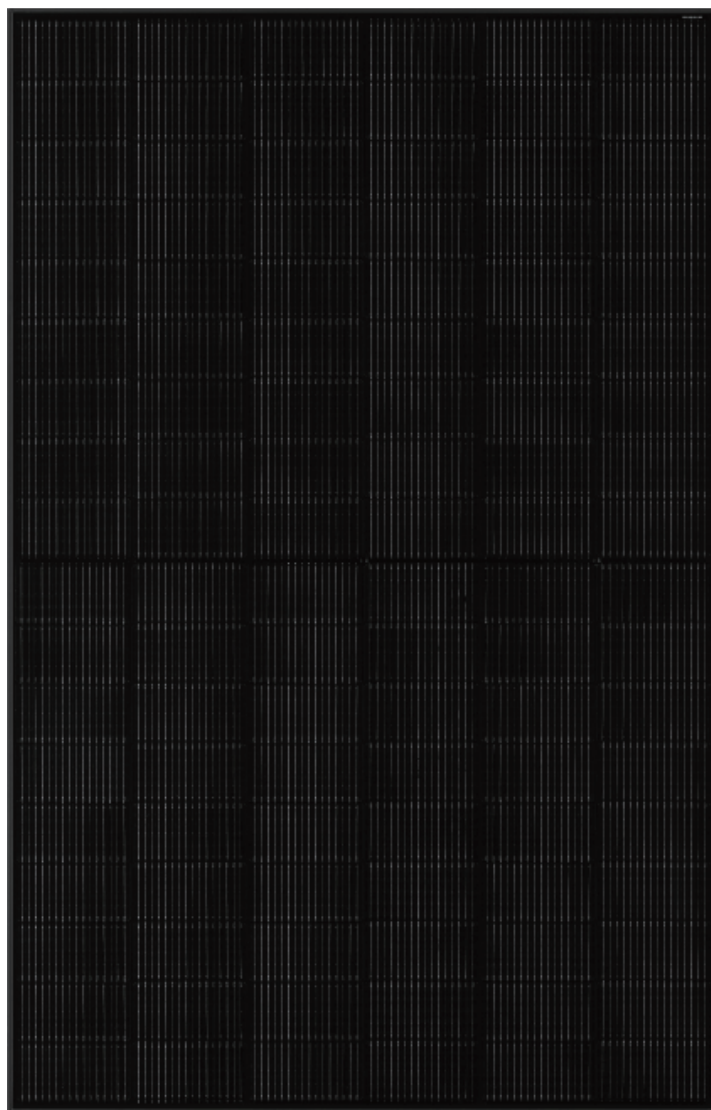
ISO 45001:2018: Occupational health and safety management systems



15 YEARS 15-year product warranty

30 YEARS 30-year linear power output warranty

0.4% year 2-30 power degradation



KEY FEATURES



Bifacial Energy Yield | N-type Silicon Wafer

Bifacial rate of up to 80%, module additional power generation of up to 10% over regular modules



Better low irradiance response

Superior power generation under shading conditions



Improvement in power generation performance

Conversion efficiency up to 22.02%



Highly Anti PID

linear power warranty with first year $\leq 1\%$ degradation and an annual degradation rate of up to 0.4% after that.

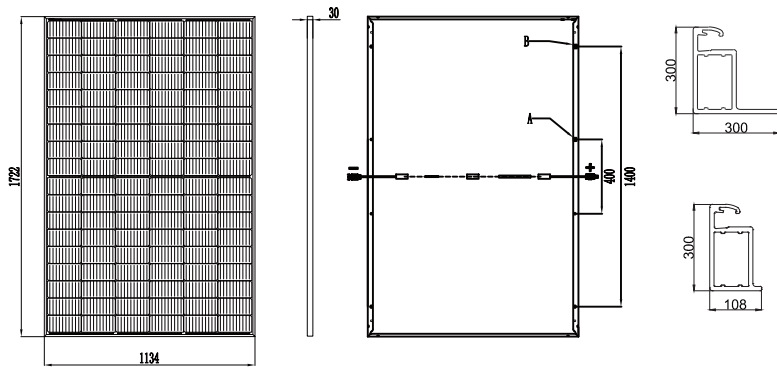


Highly reliable

15-year product warranty, 30-year linear power output warranty



Technical drawing



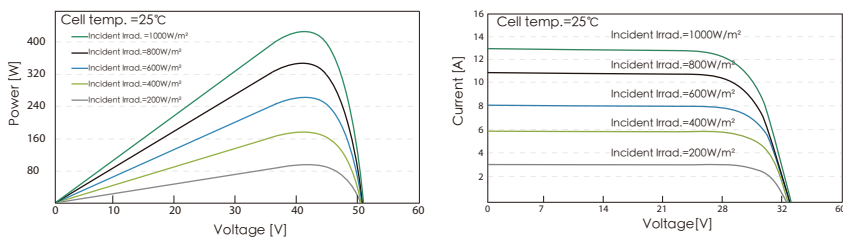
Mechanical Specifications

Solar Cells	108(54×2)
Dimension	1722 × 1134 × 30mm
Weight	23.8kg
Front Glass	2.0mm tempered Glass, high transparency
Back Glass	2.0mm heat-tempered glass
Frame	anodized aluminium alloy
Junction Box	IP68 / 3 diodes
Output Cables	4mm ² / +300mm -300mm (Customized Length)

Electrical Characteristics

Module Type	182THCD420-54	182THCD425-54	182THCD430-54	182THCD435-54	182THCD440-54
	STC	STC	STC	STC	STC
Maximum Power[W]	420	425	430	435	440
Maximum Power Voltage[V]	33.97	34.08	34.19	34.30	34.41
Maximum Power Current[A]	12.37	12.48	12.59	12.68	12.79
Open circuit voltage[V]	38.94	39.06	39.19	39.31	39.44
Short Circuit Current[A]	13.06	13.17	13.29	13.39	13.50
Module Efficiency	21.51%	21.76%	22.02%	22.27%	22.53%
Operating Temperature	-40℃~+85℃				
Maximum System Voltage	DC1500V				
Maximum Series Fuse Rating	25A				
Power Tolerance[W]	0~+5W				
Voc Temperature Coefficient	-0.28%/℃				
Pmax Temperature Coefficient	-0.29%/℃				
Isc Temperature Coefficient	0.04%/℃				
Nominal Opearting Cell Temperature	45±2℃				

Characteristic



Level

Fire Performance	C
Security Protection	Class II

Packing Configuration

Pallet	36pcs/Pallet
Container	40/HQ
Number of Container	936