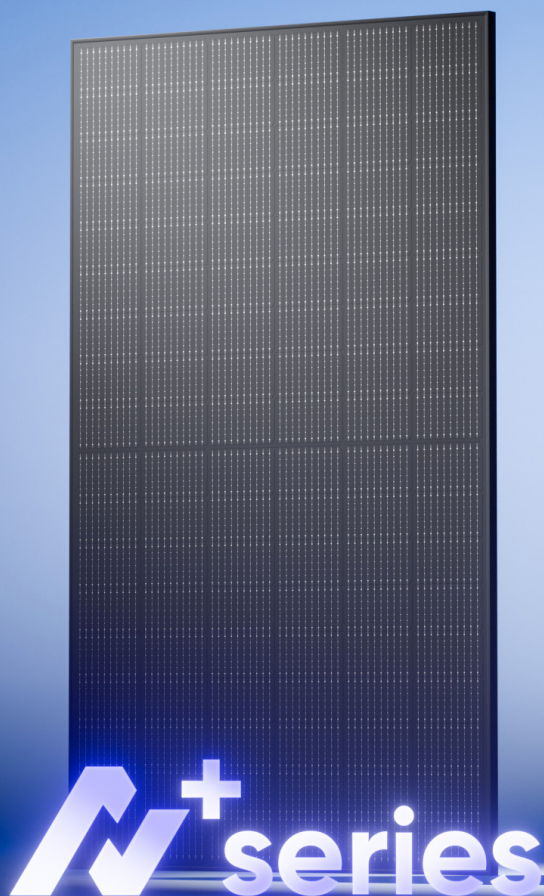




SKYWORTH
Make Every Ray of Sunshine Count

All-Black Solar Panels-54 **490-500W**



N⁺ series



Highly Anti PID

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



Better low irradiance response

Superior power generation under shading conditions



Highly reliable

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



Improvement in power generation performance

Conversion efficiency up to **22.5%**



Bifacial Energy Yield | N-type Silicon Wafer

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

QUALITY SYSTEM

IEC 61215(2021), IEC 61730(2018)

ISO 9001:2015: Quality management systems

ISO 14001:2015: Environmental management systems

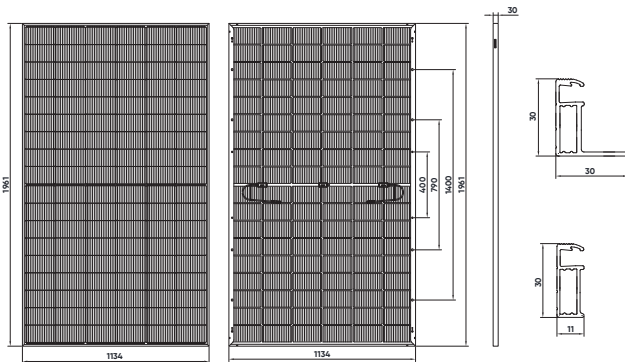
ISO 45001:2018: Occupational health and safety management systems

All Rights Reserved @Shenzhen Skyworth Photovoltaic Technology Co., LTD. Please refer to the latest version for any updates

Electrical Characteristics

Module Type	QM210R THCDH-490-54	QM210R THCDH-495-54	QM210R THCDH-500-54
	STC	STC	STC
Maximum Power[W]	490	495	500
Maximum Power Voltage[V]	32.89	33.09	33.29
Maximum Power Current[A]	14.90	14.96	15.02
Open circuit voltage[V]	39.59	39.79	40.09
Short Circuit Current[A]	15.79	15.82	15.85
Module Efficiency	22.0%	22.2%	22.5%
Operating Temperature	-40°C~+85°C		
Maximum System Voltage	DC 1500V		
Maximum Series Fuse Rating	25A		
Power Tolerance[W]	0~+5W		
Voc Temperature Coefficient	-0.28%/°C		
Pmax Temperature Coefficient	-0.29%/°C		
Isc Temperature Coefficient	0.04%/°C		
Nominal Operating Cell Temperature	45±2°C		

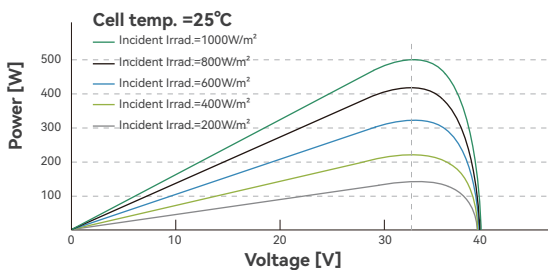
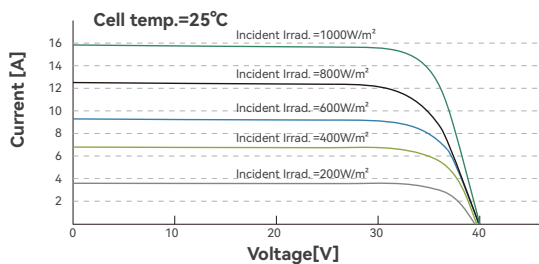
Technical drawing



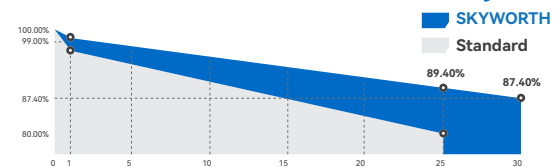
Mechanical Specifications

Solar Cells	108(54×2)
Dimension	1961×1134×30mm
Weight	27.5kg
Front Glass	2.0mm AR coated heat strengthened-Glass
Back Glass	2.0mm heat strengthened-Glass
Frame	Anodized aluminium alloy
Junction Box	IP68 / 3 diodes
Output Cables	4mm ² (IEC),+1200mm/-1200mm or customiz
Bifaciality	80%±5%

Characteristic



Linear Performance Warranty



15 YEARS 15-year product warranty
30 YEARS 30-year linear power output warranty
0.4% year 2-30 power degradation

Level

Fire Performance	C
Security Protection	Class II

Packing Configuration

Pallet	36pcs/Pallet
Container	864pcs/40HQ Container

SKYWORTH
 Make Every Ray of Sunshine Count

Global-V1.01-2025EN

Tel: 400-063-8989
 Email: sales@solavita-ess.com
 Web: www.solavita.com / www.skyworth-pv.com
 Add: Room No.0801,C Block, 5th Building, HuaQiang Creative Park,
 Guangming Street, Guangming District, Shenzhen