



# SKYMAX<sup>series</sup> VL-550W-182M/144 BIFACIAL

Bifacial Monocrystalline PERC Module

**2279×1134×35**      **182×91**

Module dimensions (mm)      Cell size (mm)

**144 CELL**      **525-550Wp**

Mono PERC module      Power output

**1500V DC**      **21.28%**

Max. system voltage      Max. efficiency



## KEY FEATURES

- Higher Power Output**  
Module power increases by 5-25% generally, bringing significantly lower LCOE and higher IRR. 0-5w positive tolerance output warranty.
- Most Advanced Production Technologies**  
Optimize module current profile, improve system-side power generation.
- Multi Busbar Technology**  
By improving optical utilization rate, power increases by 2~3% and efficiency increases by 0.4~0.6%.
- PID Resistance**  
Excellent Anti-PID performance guarantee via optimized mass-production process and material control.
- Low-light Performance**  
Excellent performance in low light.
- Enhanced Mechanical Load**  
Certified to withstand: wind load (2400 Pa) and snow load (5400 Pa).
- Durability Against Extreme Environmental Conditions**  
High salt mist and ammonia resistance certified by TUV NORD.
- EL Full Inspection**  
Dual stage 100% EL Inspection warranting defect-free product.

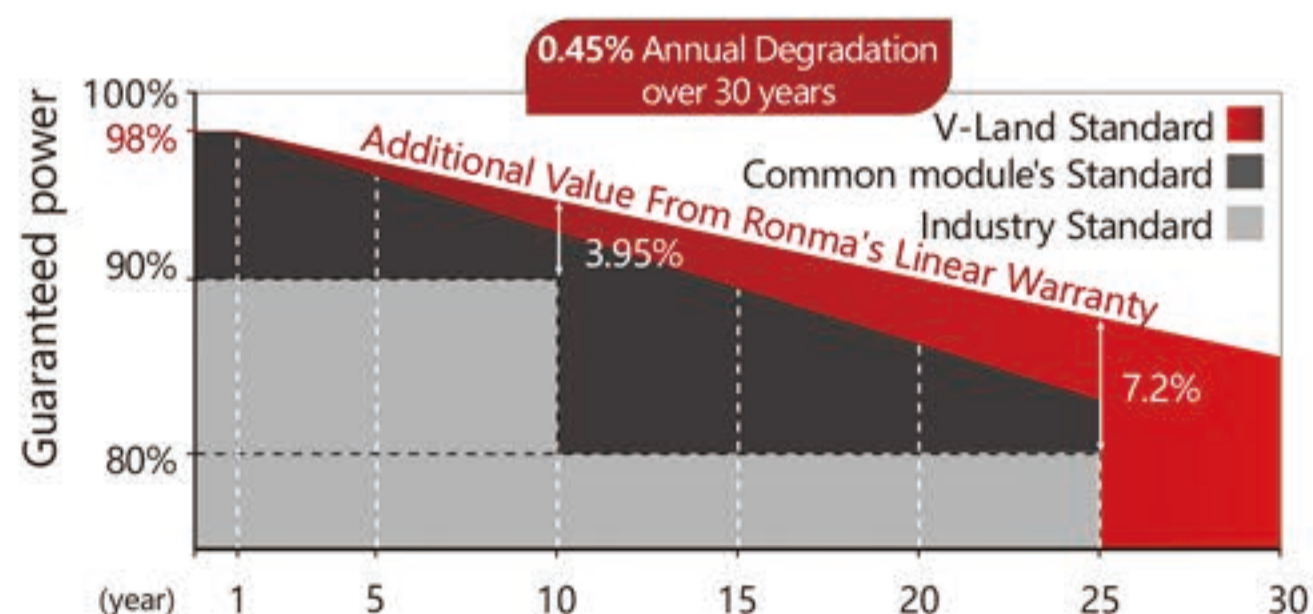


### Comprehensive Products and System Certificates

- IEC61215/IEC61730/IEC61701/IEC62716
- ISO 9001: Quality Management System
- ISO 14001: Environmental Management System
- ISO14064: Greenhouse Gases Emissions Verification
- OHSAS 18001: Occupational Health and Safety Management System

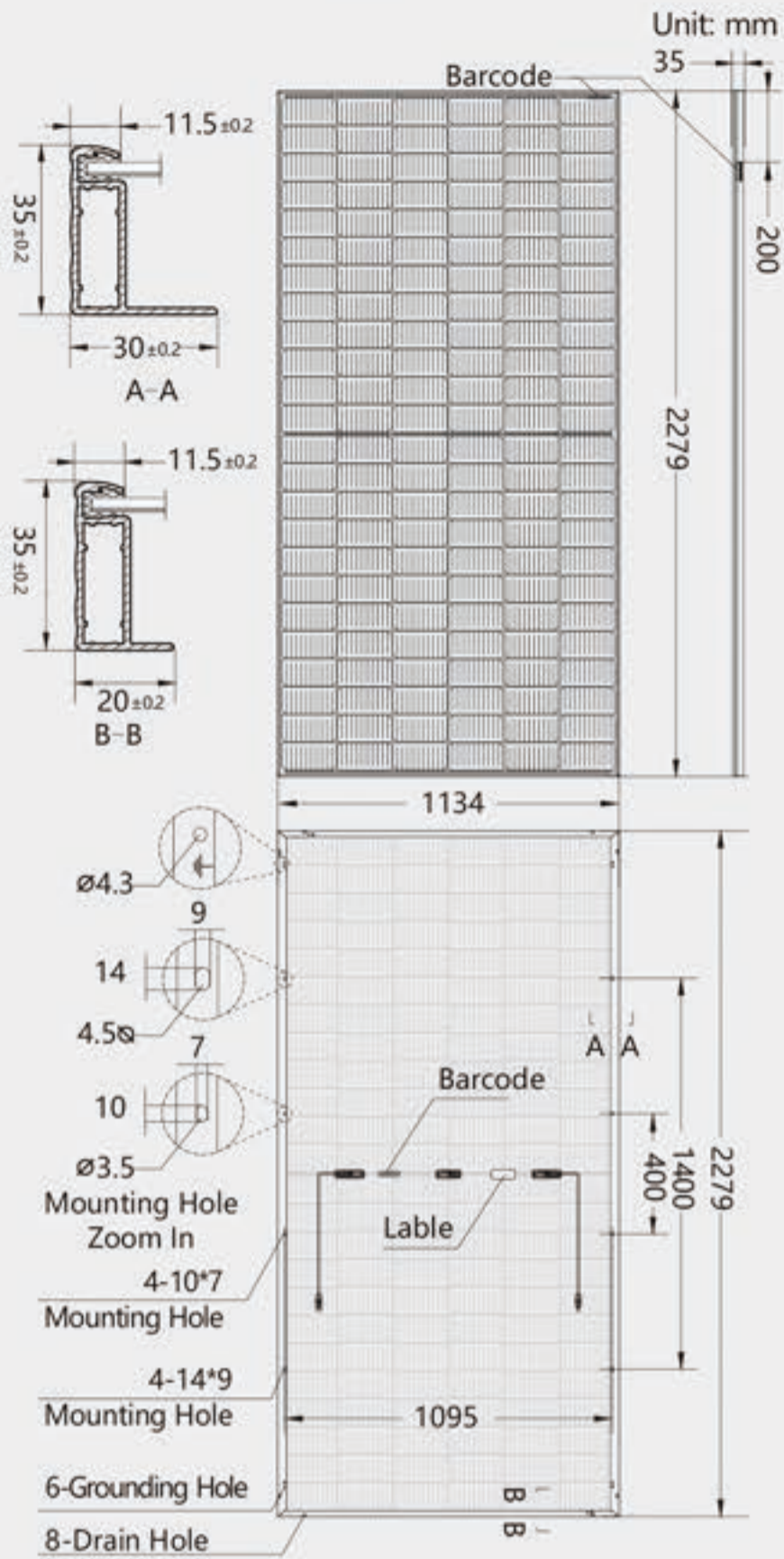
### LINEAR PERFORMANCE WARRANTY

12-year product warranty / 30-year linear power warranty



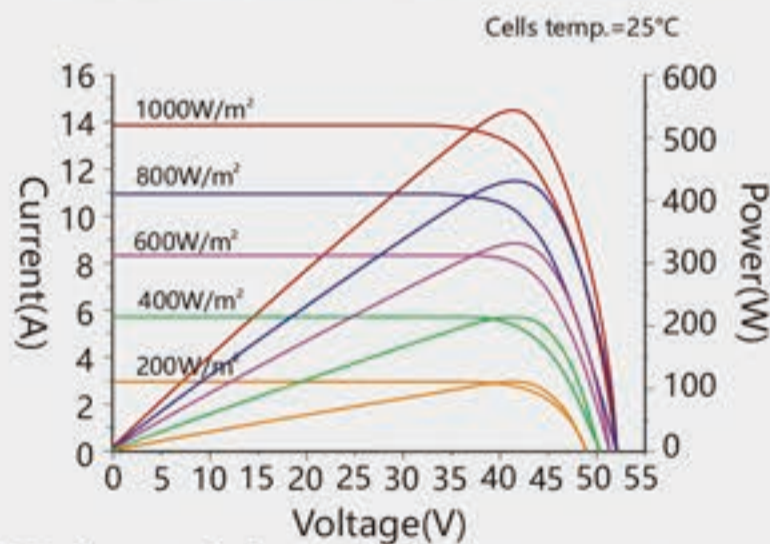


Dimensions of PV Module

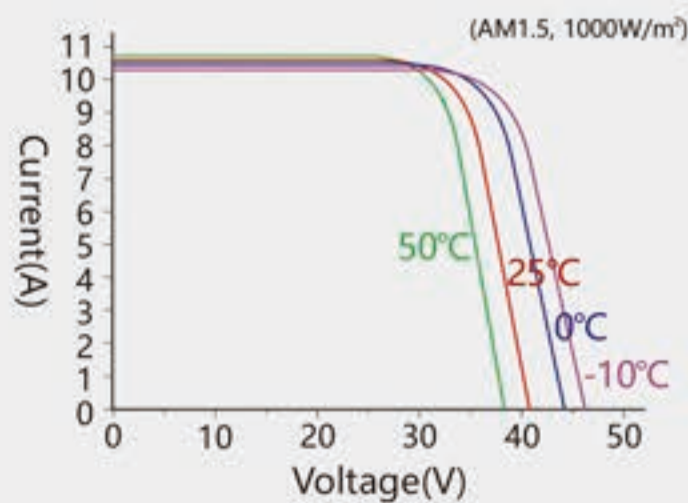


VL-550W-182M/144B

I-V characteristics at different irradiances



I-V characteristics at different temperatures



ELECTRICAL DATA(STC)

Model Number	VL-525W-182M/144B	VL-530W-182M/144B	VL-535W-182M/144B	VL-540W-182M/144B	VL-545W-182M/144B	VL-550W-182M/144B
Rated Power in Watts-Pmax(Wp)	525	530	535	540	545	550
Open Circuit Voltage-Voc(V)	49.12	49.32	49.52	49.69	49.90	50.10
Short Circuit Current-Isc(A)	13.63	13.70	13.78	13.86	13.90	13.95
Max. Power Voltage-Vmpp(V)	41.26	41.41	41.55	41.72	41.90	42.10
Max. Power Current-Impp(A)	12.73	12.81	12.88	12.95	13.02	13.07
Module Efficiency(%)	20.31	20.51	20.70	20.89	21.09	21.28

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM 1.5, NOCT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1m/s.

Electrical characteristics with different rear side power gain (reference to 550Wp front)

Bifacial Gain *	Pmax/W	Voc/V	Isc/A	Vmpp/V	Impp/A
5%	572	49.90	14.60	41.90	13.67
10%	600	49.90	15.29	41.90	14.32
15%	627	49.90	15.99	41.90	14.97
20%	654	49.90	16.68	41.90	15.61
25%	681	49.90	17.38	41.90	16.28
30%	708	49.90	18.07	41.90	16.93

\* Bifacial Gain: The additional gain from the rear side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Size	182mm×91mm
Cell Configuration	144 Cells (6×12+6×12)
Module Dimensions	2279×1134×35mm
Weight	34.0kg
Front Glass	High Transmission, Low Iron, Tempered Arc Glass 2.0mm
Back Glass	High Transmission, Low Iron, Tempered Arc Glass 2.0mm
Frame	Anodized Aluminium Alloy Type 6005 T6 , Silver Color
J-box	PV-RM01, IP68, 1500V DC, 3 Diodes
Cables	4.0mm <sup>2</sup> , (+) 300mm, (-) 300mm (connector Included)
Connector	MC4-compatible

TEMPERATURE & MAXIMUM RATINGS

Nominal Operating Cell Temperature (NOCT)	44°C ± 2°C
Temperature Coefficient of Voc	-0.27%/°C
Temperature Coefficient of Isc	0.04%/°C
Temperature Coefficient of Pmax	-0.36%/°C
Operational Temperature	-40°C ~ +85°C
Max. System Voltage	1500V DC
Max. Series Fuse Rating	25A

PACKAGING CONFIGURATION

	40ft (HQ)
Number of Modules Per Container	620
Number of Modules Per Pallet	31
Number of Pallets Per Container	20
Packaging Box Dimensions (l×w×h) (mm)	2300×1120×1260
Box Gross Weight (kg)	1084