



SKYMAX^{series} VL-440W-182M/108TB

N-TOPCon
Bifacial Monocrystalline Module

1762×1134×35 **182×91**
Module dimensions (mm) Cell size (mm)

108CELL **420-440Wp**
Mono TOPCon module Power output

1500V DC **22.02%**
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.
- Optimal Choice for Ultra-large Power Plants**
Contribute to Lower BOS cost and LCOE.
- ZERO LID**
N-Type cell is characterized by "0" LID, which generates more power
- PID Resistance**
Excellent Anti-PID performance guarantee via optimized mass-production process and material control.
- Durability Against Extreme Environmental Conditions**
High salt mist and ammonia resistance certified by TUV NORD. Lower temperature coefficient and operating temperature.
- More Outstanding Low-light Performance**
Higher power output even under low-light environments like on cloudy days
- Enhanced Mechanical Load**
Certified to withstand: wind load (2400 Pa) and snow load (5400 Pa).
- EL Full Inspection**
Dual stage 100% EL Inspection warranting defect-free product.

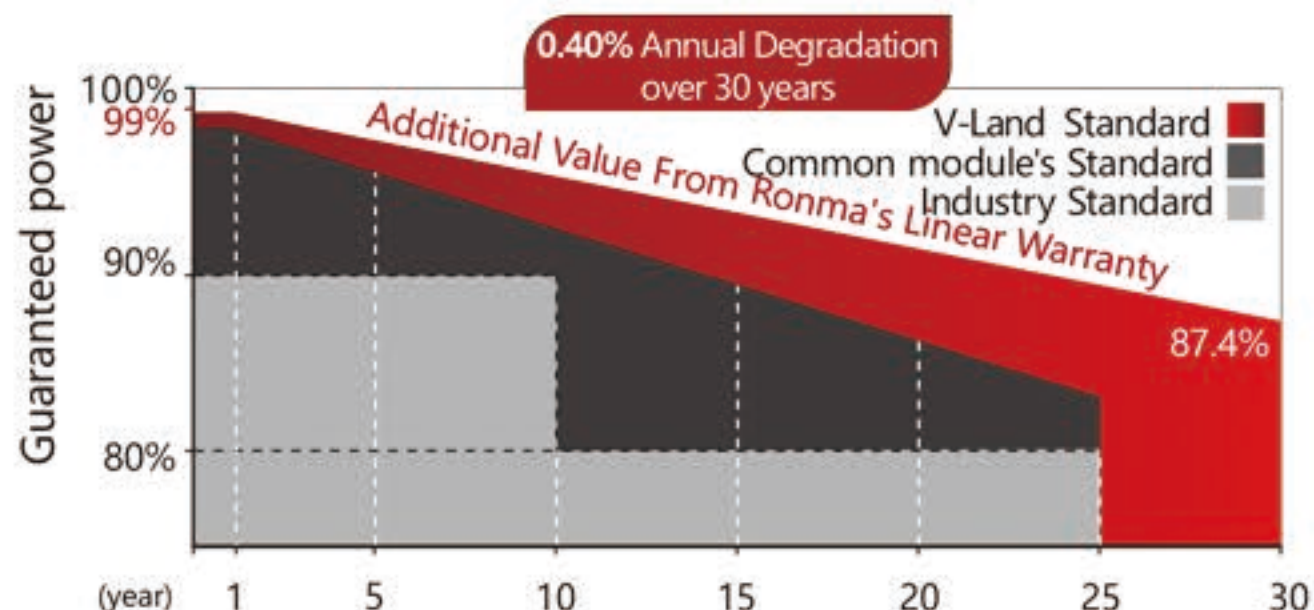


Comprehensive Products and System Certificates

- 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

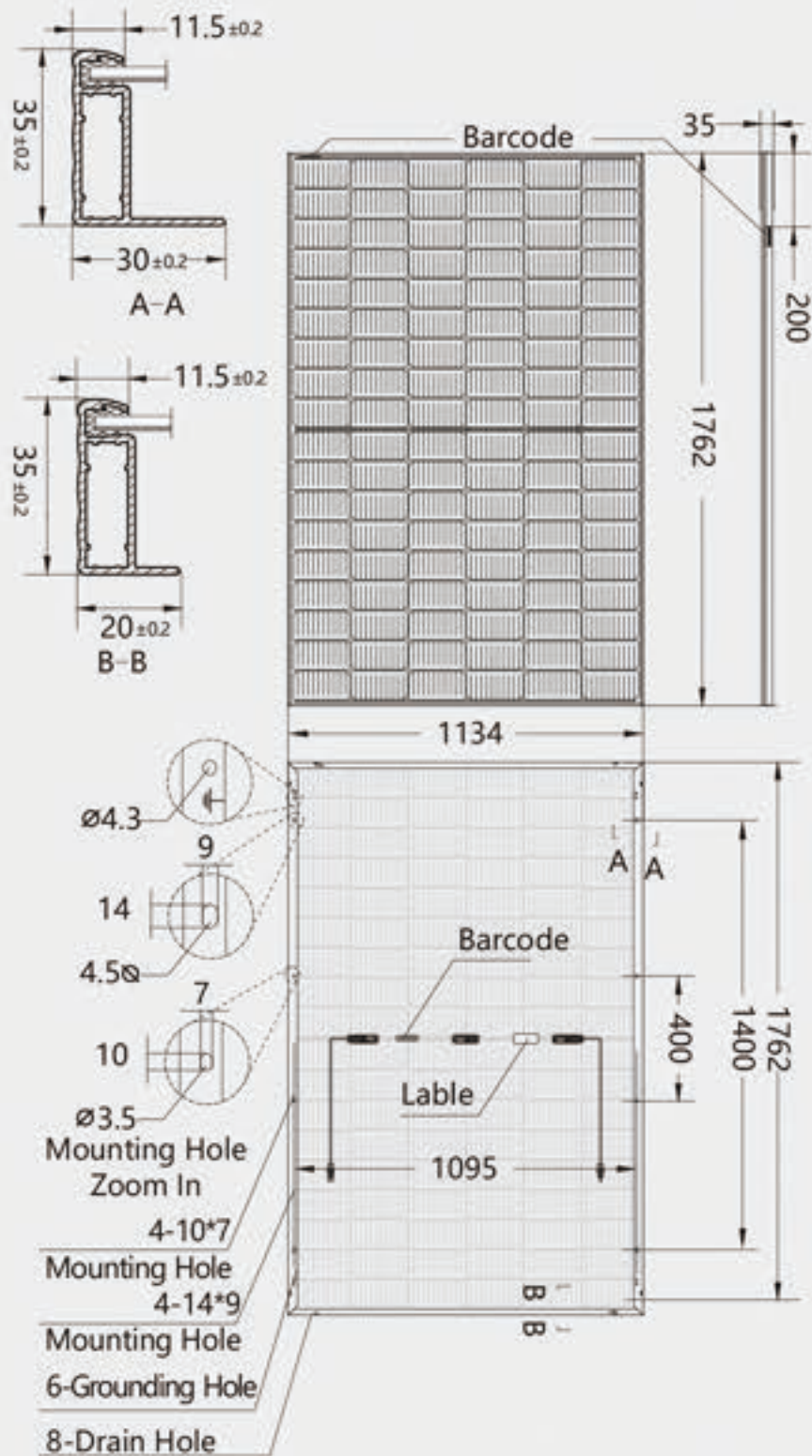
12-year product warranty / 30-year linear power warranty



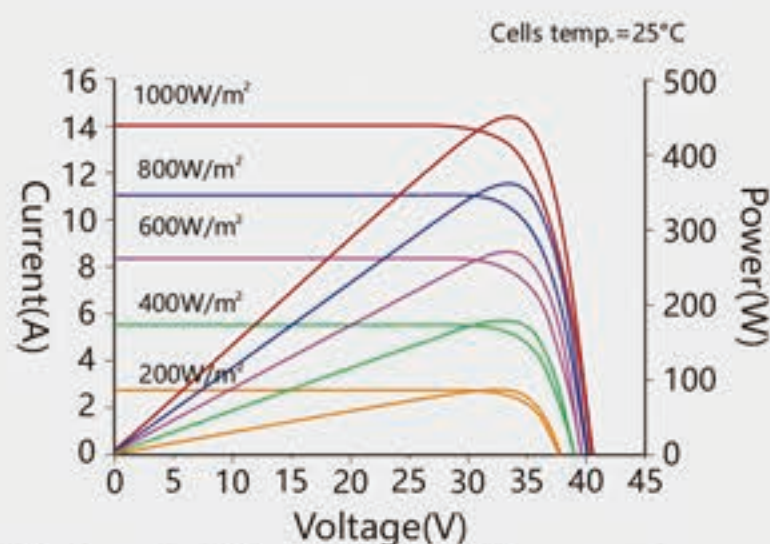


Dimensions of PV Module

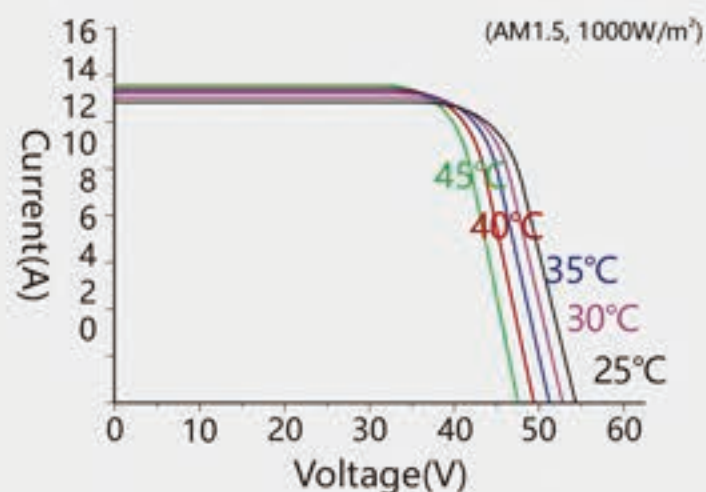
Unit: mm



VL-430W-182M/108TB
I-V characteristics at different irradiances



I-V characteristics at different temperatures



ELECTRICAL CHARACTERISTICS (STC*)

Model Number	VL-420W-182M/108TB	VL-425W-182M/108TB	VL-430W-182M/108TB	VL-435W-182M/108TB	VL-440W-182M/108TB
Rated Power in Watts-Pmax(Wp)	420	425	430	435	440
Open Circuit Voltage-Voc(V)	38.74	38.95	39.16	39.36	39.57
Short Circuit Current-Isc(A)	13.51	13.58	13.65	13.72	13.80
Max. Power Voltage-Vmpp(V)	32.16	32.37	32.58	32.78	32.99
Max. Power Current-Imp(A)	13.06	13.13	13.20	13.27	13.34
Module Efficiency(%)	21.02	21.27	21.52	21.77	22.02
Maximum system voltage	1500V DC				
Fuse Rating(A)	30				
Temperature coefficient Pmax	-0.29%/°C				
Temperature coefficient Isc	0.045%/°C				
Temperature coefficient Voc	-0.25%/°C				
Refer. Bifacial Factor	80±5%				

*STC: Irradiance 1000W/m², module temperature 25°C, AM=1.5

WORKING CHARACTERISTICS (NOCT*)

Model Number	VL-420W-182M/108TB	VL-425W-182M/108TB	VL-430W-182M/108TB	VL-435W-182M/108TB	VL-440W-182M/108TB
Rated Power in Watts-Pmax(Wp)	316	320	323	327	331
Open Circuit Voltage-Voc(V)	36.80	37.00	37.20	37.39	37.59
Short Circuit Current-Isc(A)	10.91	10.96	11.02	11.08	11.14
Max. Power Voltage-Vmpp(V)	29.95	30.19	30.30	30.50	30.73
Max. Power Current-Imp(A)	10.55	10.60	10.66	10.72	10.77
Power tolerance	0~+3%				
NOCT	45°C±2°C				
Operating Temperature	-40°C~85°C				

*NOCT: Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s

Electrical characteristics with different rear side power gain

5%	Pmax(Wp)	441	446	452	457	462
	Efficiency(%)	22.07	22.33	22.60	22.86	23.12
15%	Pmax(Wp)	483	488.75	494.5	500.25	506
	Efficiency(%)	24.17	24.46	24.75	25.04	25.32
25%	Pmax(Wp)	525	531.25	537.5	543.75	550
	Efficiency(%)	26.27	26.59	26.90	27.21	27.53

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 CHARACTERISTICS

Number of cells	108pcs	Type of frame	Anodized Aluminum Alloy
Size of cell(mm)	182×91	Size of module(mm)	1762×1134×35
Type of cell	N-TOPCon Mono	Weight(kg)	25.8
Thickness of glass(mm)	2.0	Cables/connectors	4.0mm², MC4 compatible
Junction box	IP68	Length of Cable	+300mm/-300mm(connector included)

PACKAGING CONFIGURATION

	40ft (HQ)
Number of Modules Per Container	806
Number of Modules Per Pallet	31
Number of Pallets Per Container	26
Packaging Box Dimensions (l×w×h) (mm)	1790×1120×1260
Box Gross Weight (kg)	824