



SKYMAX^{series} VL-590W-182M/156 BIFACIAL

Bifacial Monocrystalline PERC Module

2465×1134×35/30 **182×91**

Module dimensions (mm) Cell size (mm)

156 CELL **560-590Wp**

Mono PERC module Power output

1500V DC **21.11%**

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

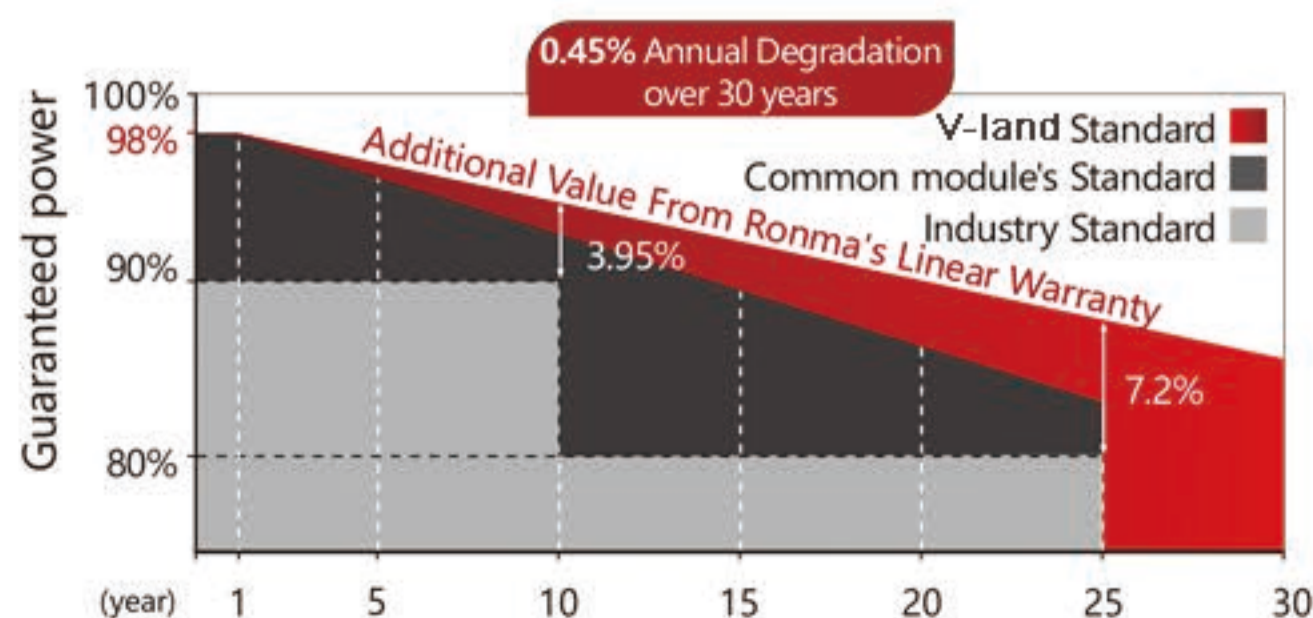
ISO 14001: Environmental Management System

ISO14064: Greenhouse Gases Emissions Verification

OHSAS 18001: Occupational Health and Safety Management System

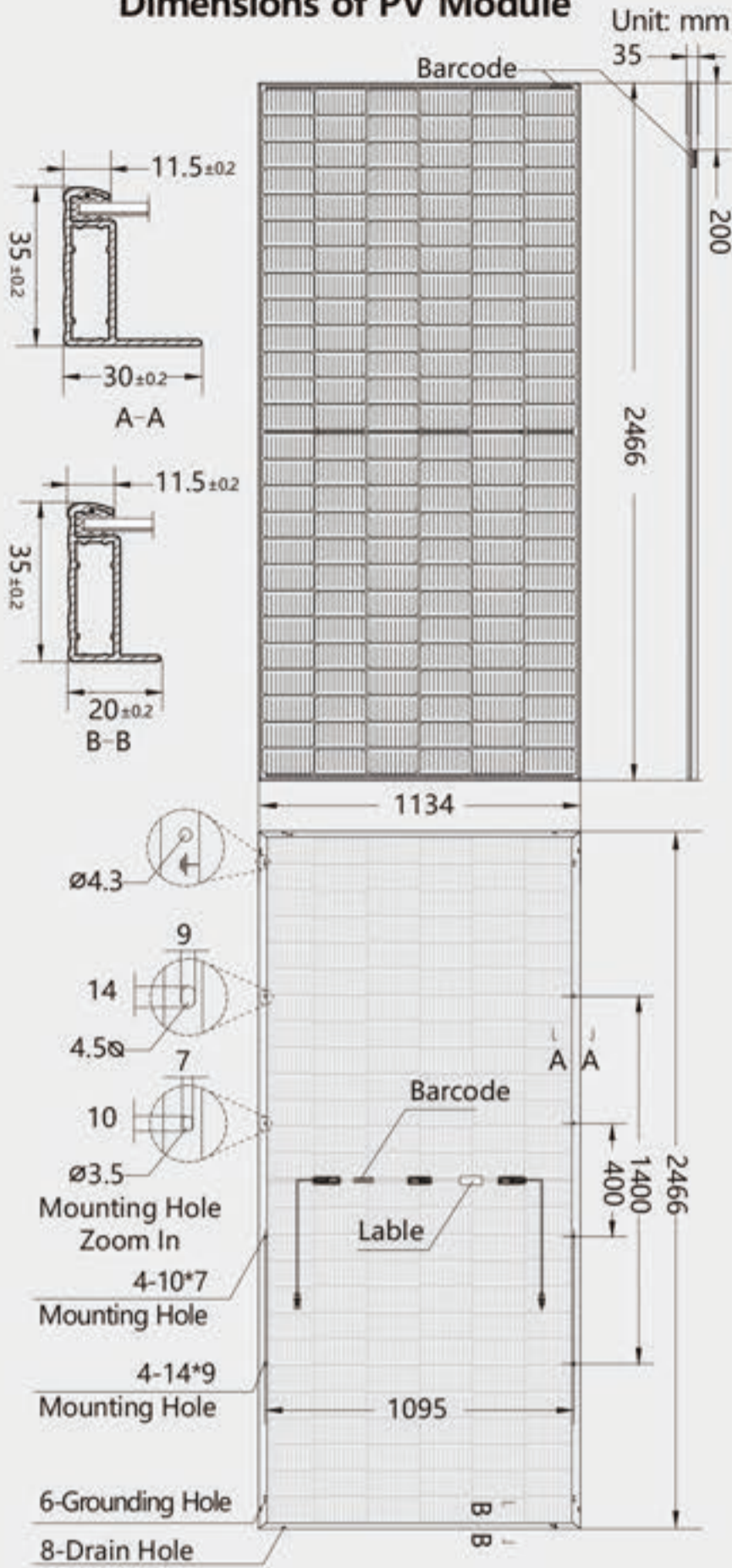
LINEAR PERFORMANCE WARRANTY

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





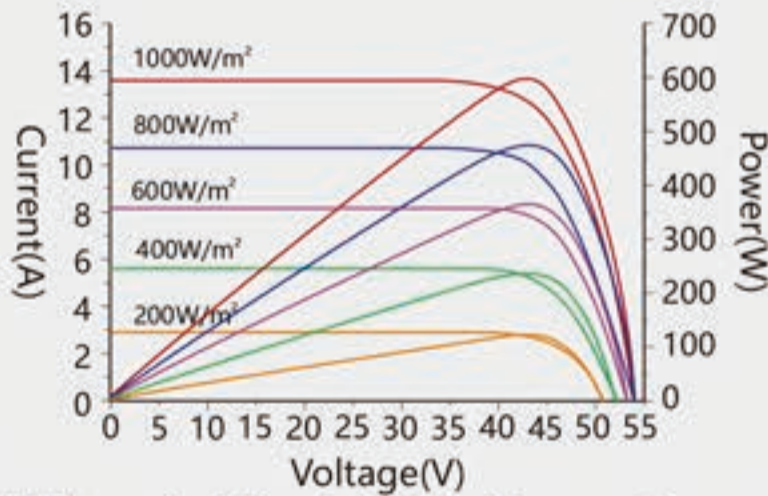
Dimensions of PV Module



VL-585W-182M/156B

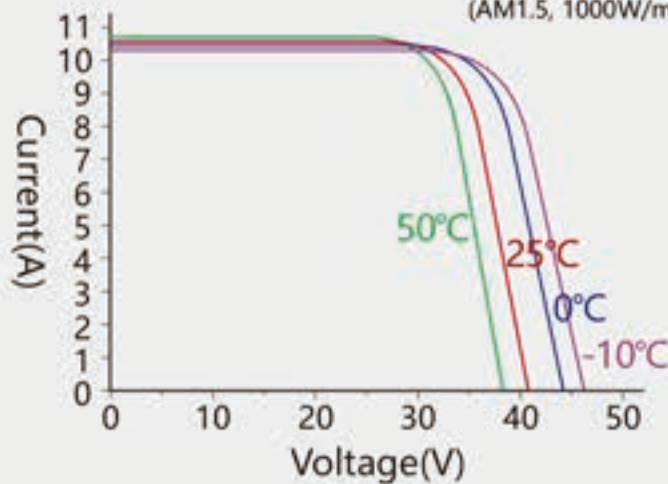
I-V characteristics at different irradiances

Cells temp.=25°C



I-V characteristics at different temperatures

(AM1.5, 1000W/m²)



ELECTRICAL DATA(STC)

Model Number	VL-560W-182M/156B	VL-565W-182M/156B	VL-570W-182M/156B	VL-575W-182M/156B	VL-580W-182M/156B	VL-585W-182M/156B	VL-590W-182M/156B
Rated Power in Watts-Pmax(Wp)	560	565	570	575	580	585	590
Open Circuit Voltage-Voc(V)	52.75	53.00	53.25	53.50	53.75	54.00	54.20
Short Circuit Current-Isc(A)	13.48	13.53	13.58	13.63	13.68	13.73	13.80
Max. Power Voltage-Vmpp(V)	44.05	44.25	44.50	44.70	44.90	45.15	45.30
Max. Power Current-Impp(A)	12.72	12.77	12.82	12.87	12.92	12.97	13.03
Module Efficiency(%)	20.03	20.21	20.39	20.57	20.75	20.93	21.11

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM 1.5,
NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

Electrical characteristics with different rear side power gain (reference to 585Wp front)

Bifacial Gain *	Pmax/W	Voc/V	Isc/A	Vmpp/V	Impp/A
5%	615	54.00	14.42	45.15	13.62
10%	644	54.00	15.10	45.15	14.27
15%	673	54.00	15.79	45.15	14.92
20%	703	54.00	16.48	45.15	15.56
25%	732	54.00	17.16	45.15	16.21
30%	761	54.00	17.85	45.15	16.86

* 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	156 Cells (6×13+6×13)
Module Dimensions	2465×1134×35/30mm
Weight	34.5/34.0kg
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	4.0mm², (+) 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

Height of Modules (mm)	35	30
Number of Modules Per Pallet	31	36
Packaging Box Dimensions (l×w×h) (mm)	2485×1120×1260	2485×1120×1260
Box Gross Weight (kg)	1080	1250
Number of Modules Per 40ft (HQ) Container	496	576
Number of Pallets Per 40ft (HQ) Container	16	16