



SEAMAX^{series} VL-455W-166M/144

Monocrystalline PERC Module

2094×1038×35 **166×83**

Module dimensions (mm) Cell size (mm)

144 CELL **430-455Wp**

Mono PERC module Power output

1500V DC **20.93%**

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

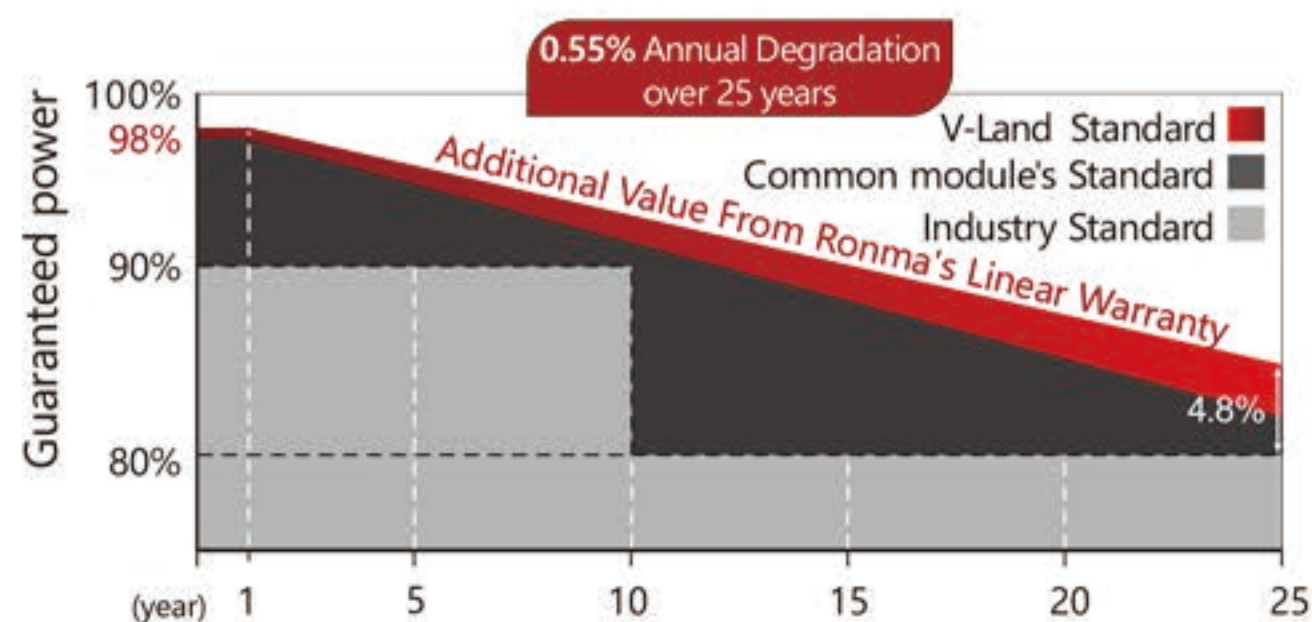
ISO 14001: Environmental Management System

ISO14064: Greenhouse Gases Emissions Verification

OHSAS 18001: Occupational Health and Safety Management System

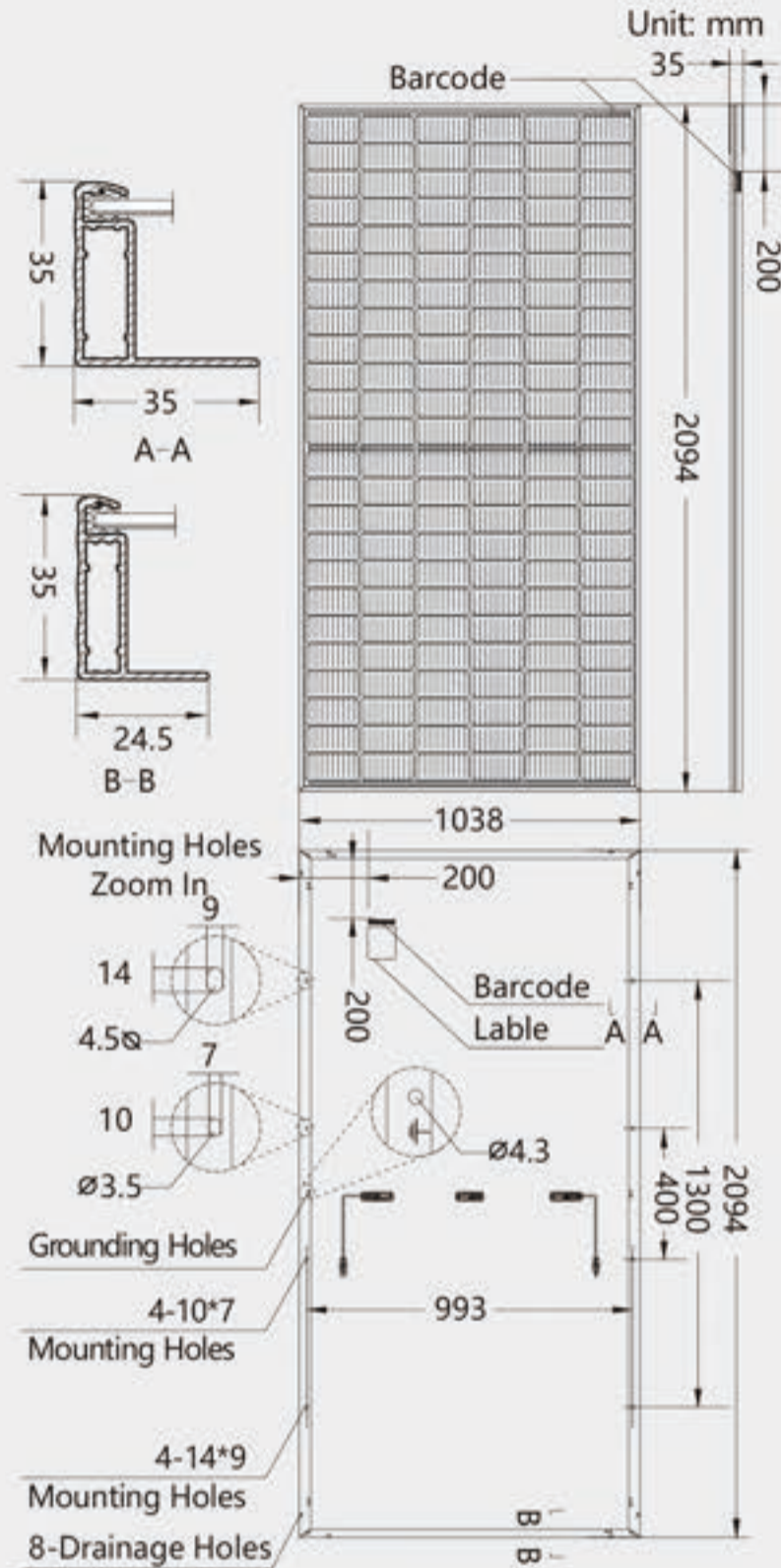
LINEAR PERFORMANCE WARRANTY

12-year product warranty / 25-year linear power warranty



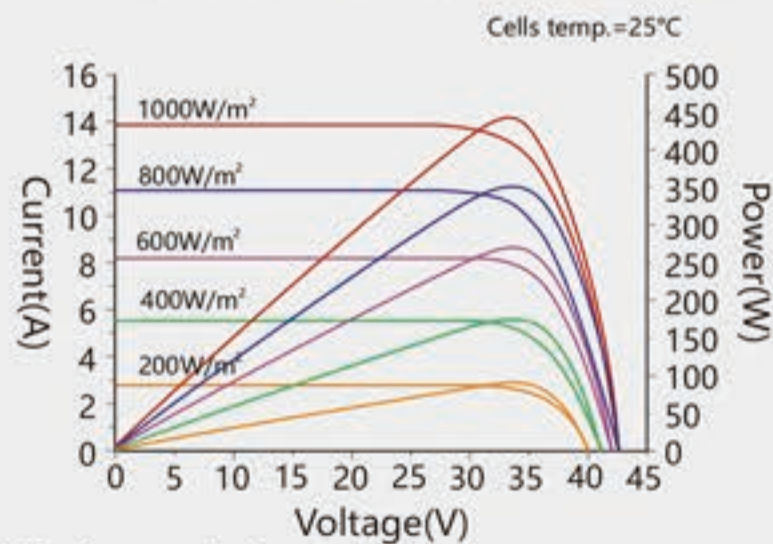


Dimensions of PV Module

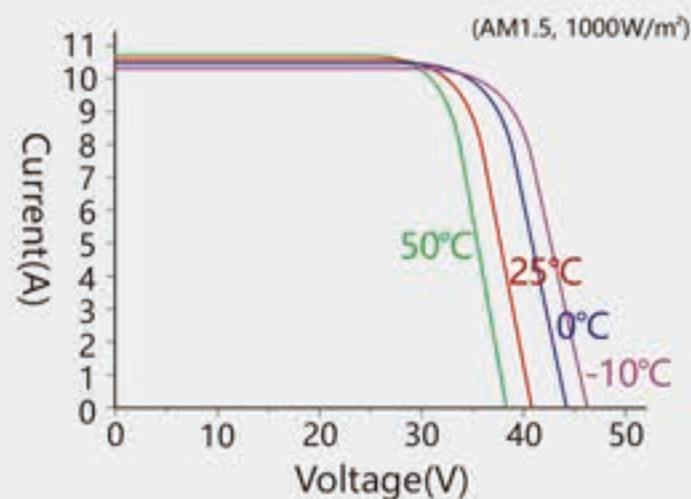


VL-455W-166M/144

I-V characteristics at different irradiances



I-V characteristics at different temperatures



ELECTRICAL DATA(STC)

Model Number	VL-430W-166M/144	VL-435W-166M/144	VL-440W-166M/144	VL-445W-166M/144	VL-450W-166M/144	VL-455W-166M/144
Rated Power in Watts-Pmax(Wp)	430	435	440	445	450	455
Open Circuit Voltage-Voc(V)	48.70	49.00	49.20	49.40	49.60	49.80
Short Circuit Current-Isc(A)	11.23	11.31	11.39	11.46	11.53	11.61
Max. Power Voltage-Vmpp(V)	40.30	40.50	40.70	40.80	41.00	41.20
Max. Power Current-Impp(A)	10.67	10.74	10.82	10.90	10.98	11.06
Module Efficiency(%)	19.78	20.01	20.24	20.47	20.70	20.93

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.

MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Size	166mm×83mm
Cell Configuration	144 cells (6×12+6×12)
Module Dimensions	2094×1038×35mm
Weight	24.0kg
Glass	High Transmission, Low Iron, Tempered ARC Glass 3.2mm
Back Sheet	White
Frame	Anodized Aluminium Alloy type 6005 T6, Silver/Black Color
J-box	PV-RM01, IP68, 1500V DC, 3 Diodes
Cables	4.0mm ² , (+) 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	20A

PACKAGING CONFIGURATION

	40ft (HQ)
Number of Modules Per Container	682
Number of Modules Per Pallet	31
Number of Pallets Per Container	22
Packaging Box Dimensions (l×w×h) (mm)	2120×1130×1180
Box Gross Weight (kg)	772