



# DREAMAX<sup>series</sup> VL-420W-210M/84 BIFACIAL

Bifacial Monocrystalline PERC Module

**1540×1303×35**      **210×105**

Module dimensions (mm)      Cell size (mm)

**84 CELL**      **395-420Wp**

Mono PERC module      Power output

**1500V DC**      **20.93%**

Max. system voltage      Max. efficiency



## KEY FEATURES

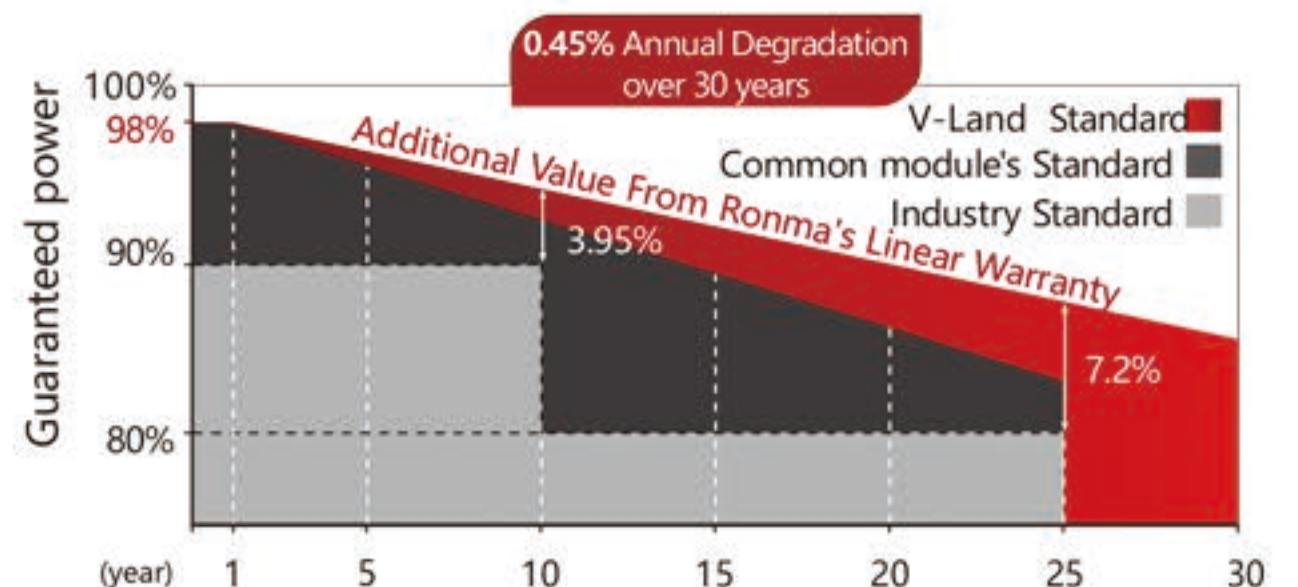
- Higher Power Output**  
Module power increases by 5-25% generally, bringing significantly lower LCOE and higher IRR. 0-5w positive tolerance output warranty.
- Most Advanced Production Technologies**  
Optimize module current profile, improve system-side power generation.
- Multi Busbar Technology**  
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 / 30-year linear power warranty

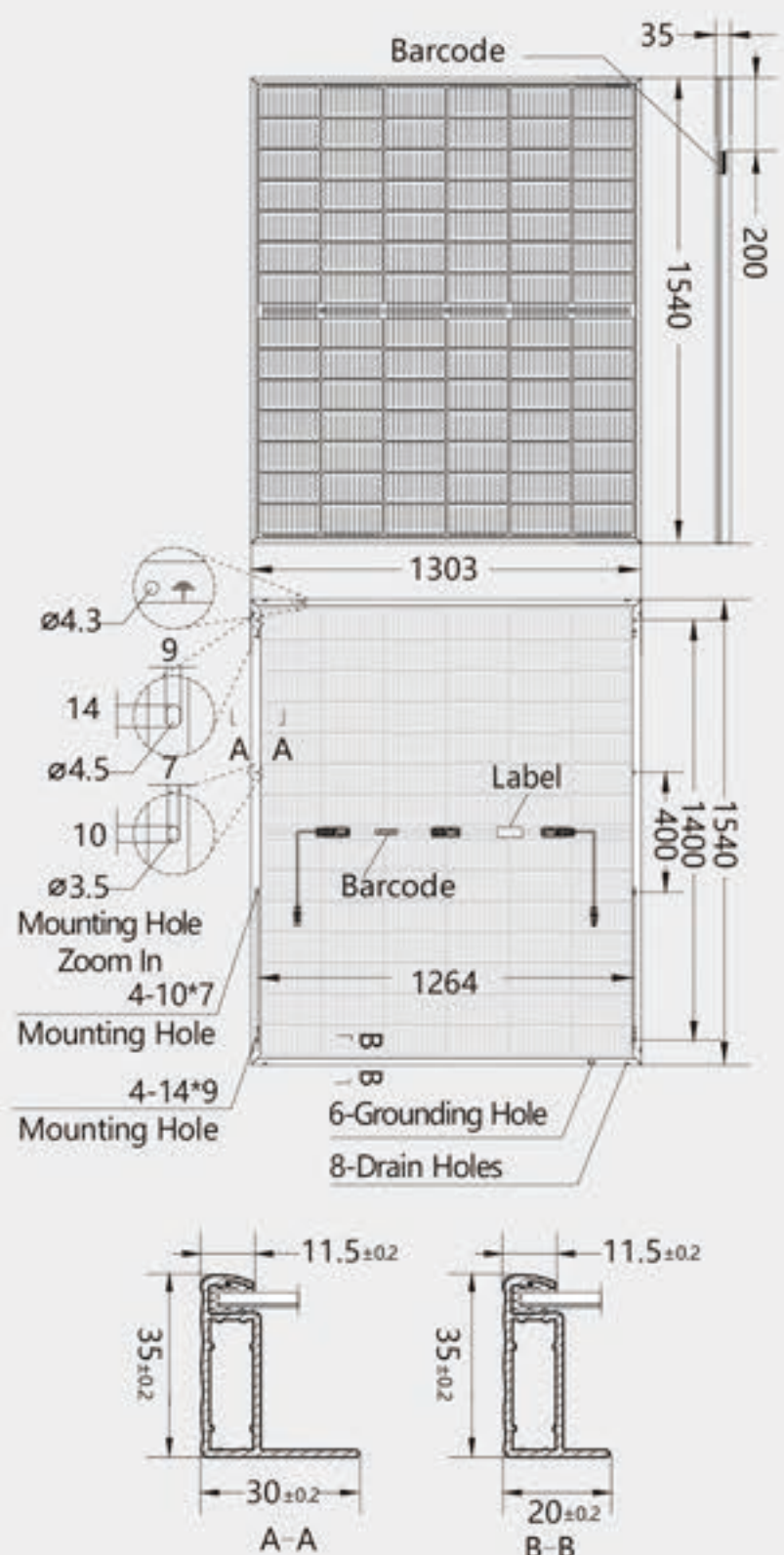






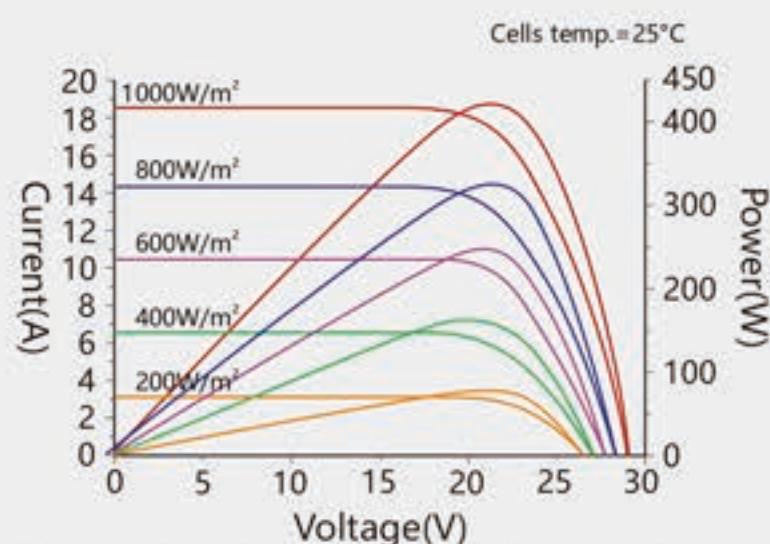
### Dimensions of PV Module

Unit: mm

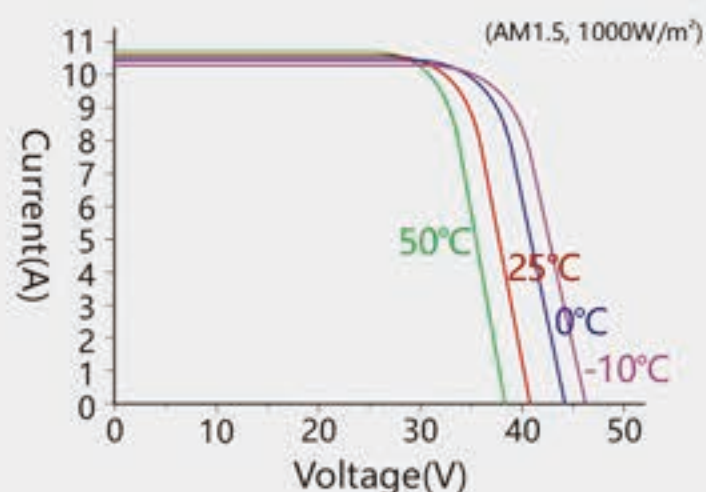


### VL-420W-210M/84B

#### I-V characteristics at different irradiances



#### I-V characteristics at different temperatures



### ELECTRICAL DATA(STC)

Model Number	VL-395W-210M/84B	VL-400W-210M/84B	VL-405W-210M/84B	VL-410W-210M/84B	VL-415W-210M/84B	VL-420W-210M/84B
Rated Power in Watts-Pmax(Wp)	395	400	405	410	415	420
Open Circuit Voltage-Voc(V)	28.10	28.30	28.50	28.70	28.90	29.14
Short Circuit Current-Isc(A)	18.01	18.06	18.11	18.16	18.21	18.26
Max. Power Voltage-Vmpp(V)	23.30	23.50	23.70	23.90	24.10	24.32
Max. Power Current-Impp(A)	17.00	17.05	17.11	17.16	17.22	17.27
Module Efficiency(%)	19.68	19.93	20.18	20.43	20.68	20.93

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM 1.5,  
 NMOT: 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 420Wp front)

Bifacial Gain *	Pmax/W	Voc/V	Isc/A	Vmpp/V	Impp/A
5%	441	29.14	19.17	24.32	18.13
10%	462	29.14	20.09	24.32	19.00
15%	483	29.14	21.00	24.32	19.86
20%	504	29.14	21.90	24.32	20.72
25%	525	29.14	22.83	24.32	21.59
30%	546	29.14	23.74	24.32	22.45

\* 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	210mm×105mm
Cell Configuration	84 Cells (6×7+6×7)
Module Dimensions	1540×1303×35mm
Weight	26.4kg
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	30A

### PACKAGING CONFIGURATION

	40ft (HQ)
Number of Modules Per Container	420
Number of Modules Per Pallet	30
Number of Pallets Per Container	14
Packaging Box Dimensions (l×w×h) (mm)	1570×1120×1445
Box Gross Weight (kg)	680