



# DREAMAX<sup>series</sup> VL-660W-210M/132 BIFACIAL

Bifacial Monocrystalline PERC Module

**2384×1303×35/30 210×105**

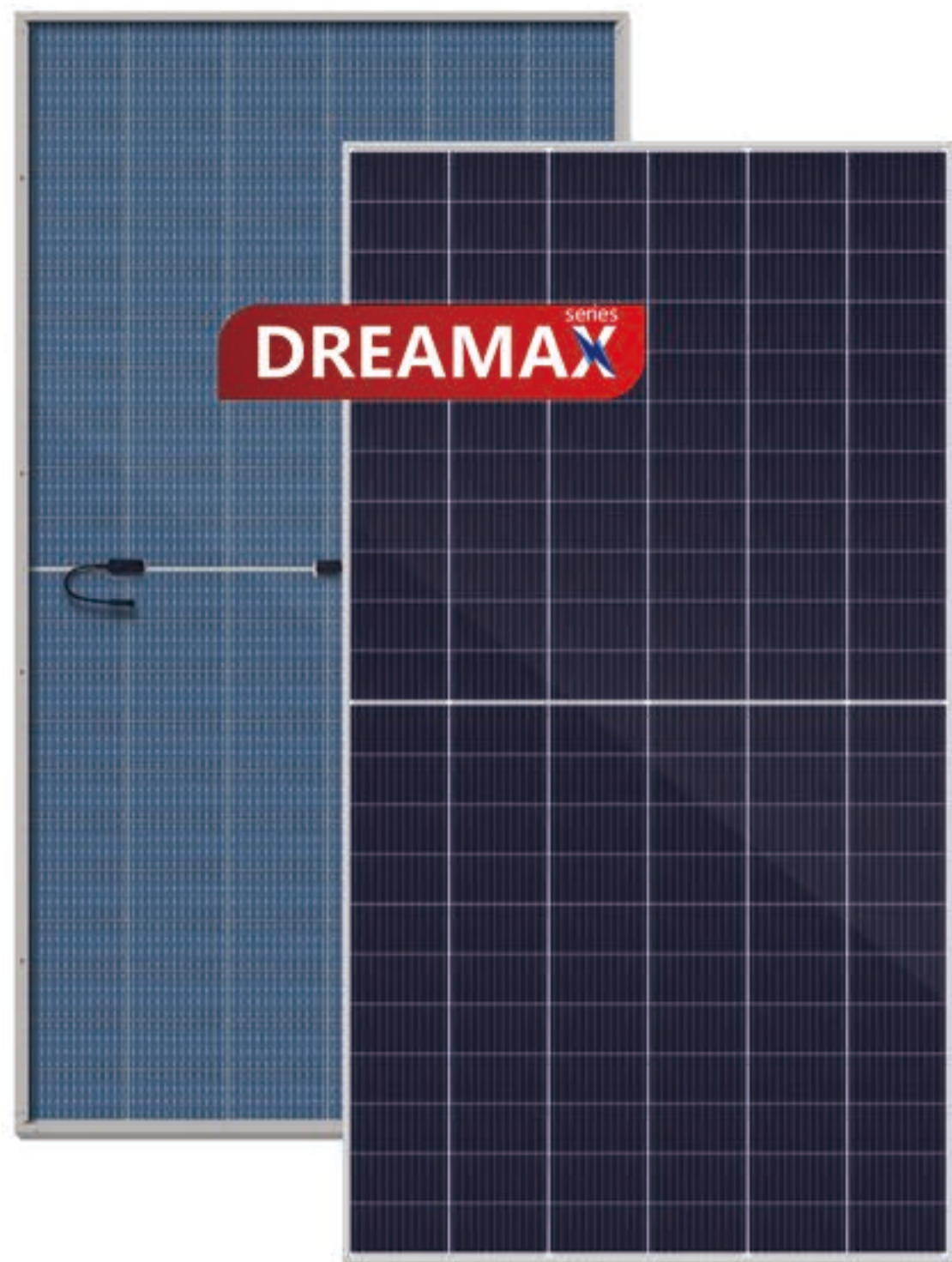
Module dimensions (mm)      Cell size (mm)

**132 CELL      635-660Wp**

Mono PERC module      Power output

**1500V DC      21.25%**

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.



### 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.



### 2 EL Full Inspection

Dual stage 100% EL Inspection warranting defect-free product.

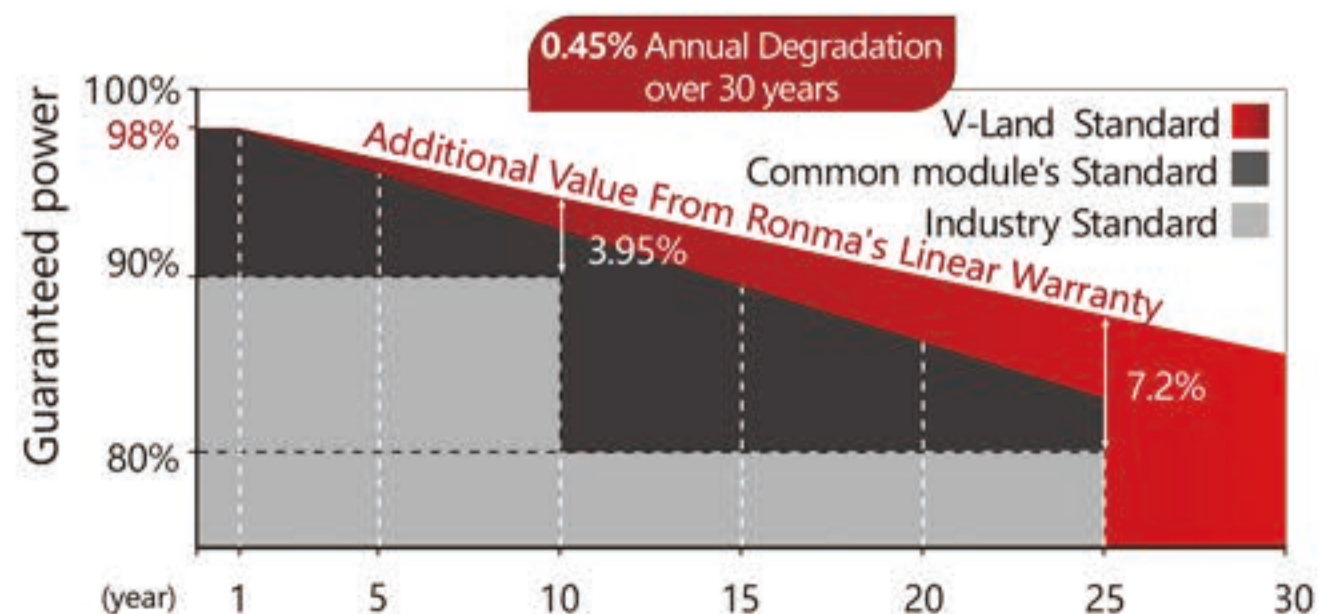


### Comprehensive Products and System Certificates

- 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

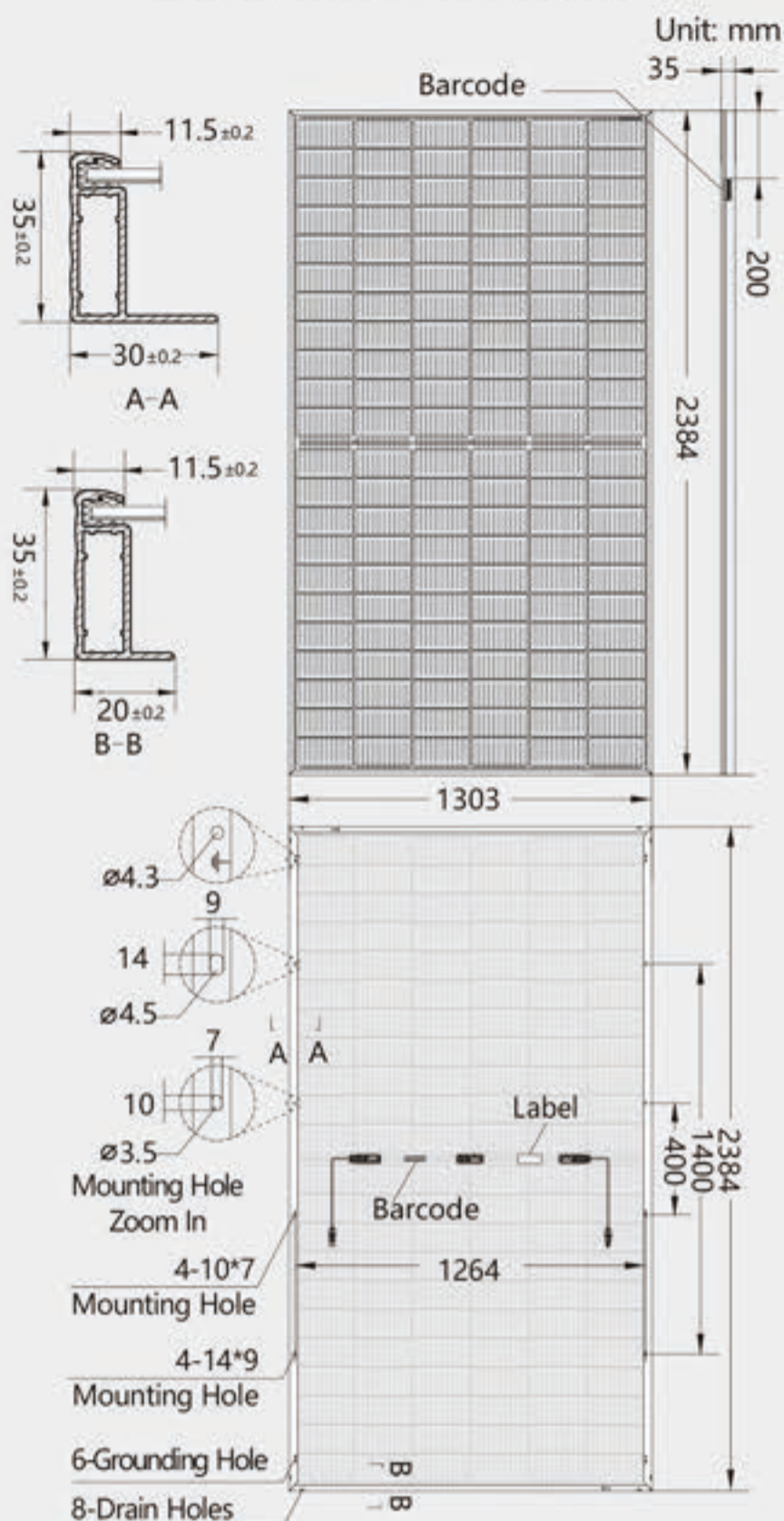
### LINEAR PERFORMANCE WARRANTY

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



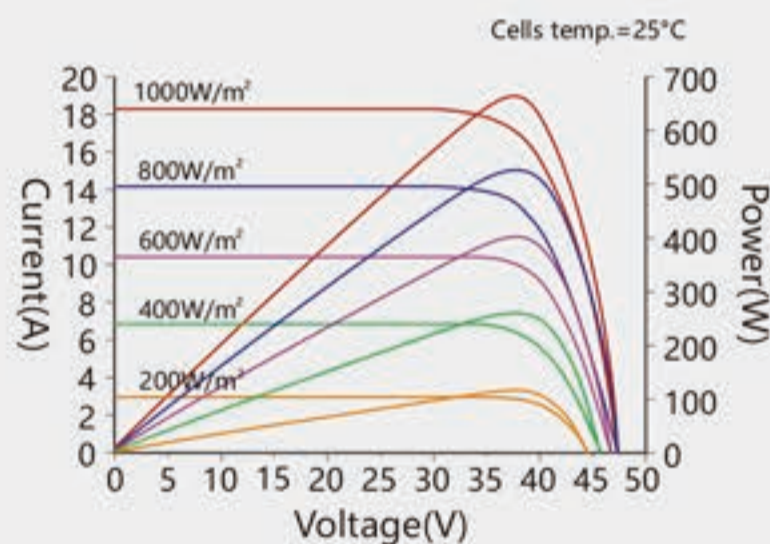


Dimensions of PV Module

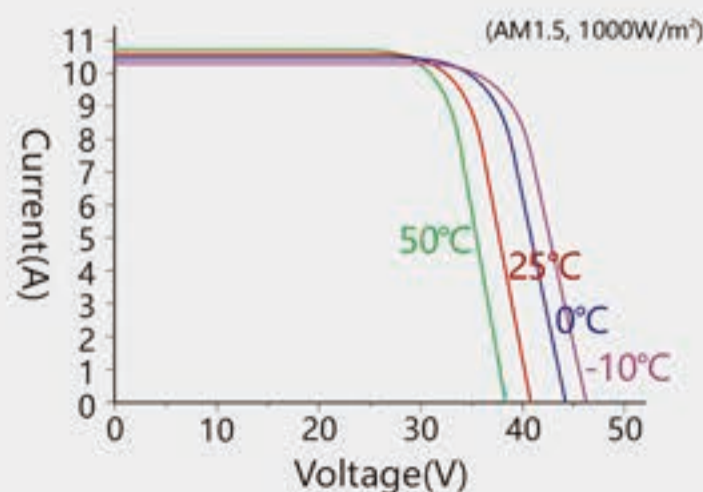


VL-660W-210M/132B

I-V characteristics at different irradiances



I-V characteristics at different temperatures



ELECTRICAL DATA(STC)

Model Number	VL-635W-210M/132B	VL-640W-210M/132B	VL-645W-210M/132B	VL-650W-210M/132B	VL-655W-210M/132B	VL-660W-210M/132B
Rated Power in Watts-Pmax(Wp)	635	640	645	650	655	660
Open Circuit Voltage-Voc(V)	44.90	45.10	45.30	45.50	45.70	45.90
Short Circuit Current-Isc(A)	18.16	18.21	18.26	18.31	18.36	18.42
Max. Power Voltage-Vmpp(V)	37.10	37.30	37.50	37.70	37.90	38.10
Max. Power Current-Impp(A)	17.12	17.16	17.21	17.25	17.30	17.34
Module Efficiency(%)	20.44	20.60	20.76	20.92	21.09	21.25

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 660Wp front)

Bifacial Gain *	Pmax/W	Voc/V	Isc/A	Vmpp/V	Impp/A
5%	693	45.87	19.17	38.29	18.10
10%	726	45.87	20.09	38.29	18.96
15%	759	45.87	21.00	38.29	19.83
20%	792	45.87	21.91	38.29	20.69
25%	825	45.87	22.83	38.29	21.55
30%	858	45.87	23.74	38.29	22.41

\* 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	132 Cells (6×11+6×11)
Module Dimensions	2384×1303×35mm
Weight	40.8kg
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	558
Number of Modules Per Pallet	31
Number of Pallets Per Container	18
Packaging Box Dimensions (l×w×h) (mm)	1325×1120×2510
Box Gross Weight (kg)	1296