



# DREAMAX<sup>series</sup> VL-685W-210M/132TB

**N-TOPCon**  
Bifacial Monocrystalline Module

**2384×1303×35**      **210×105**

Module dimensions (mm)      Cell size (mm)

**132 CELL**      **660-685Wp**

Mono TOPCon module      Power output

**1500V DC**      **22.05%**

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

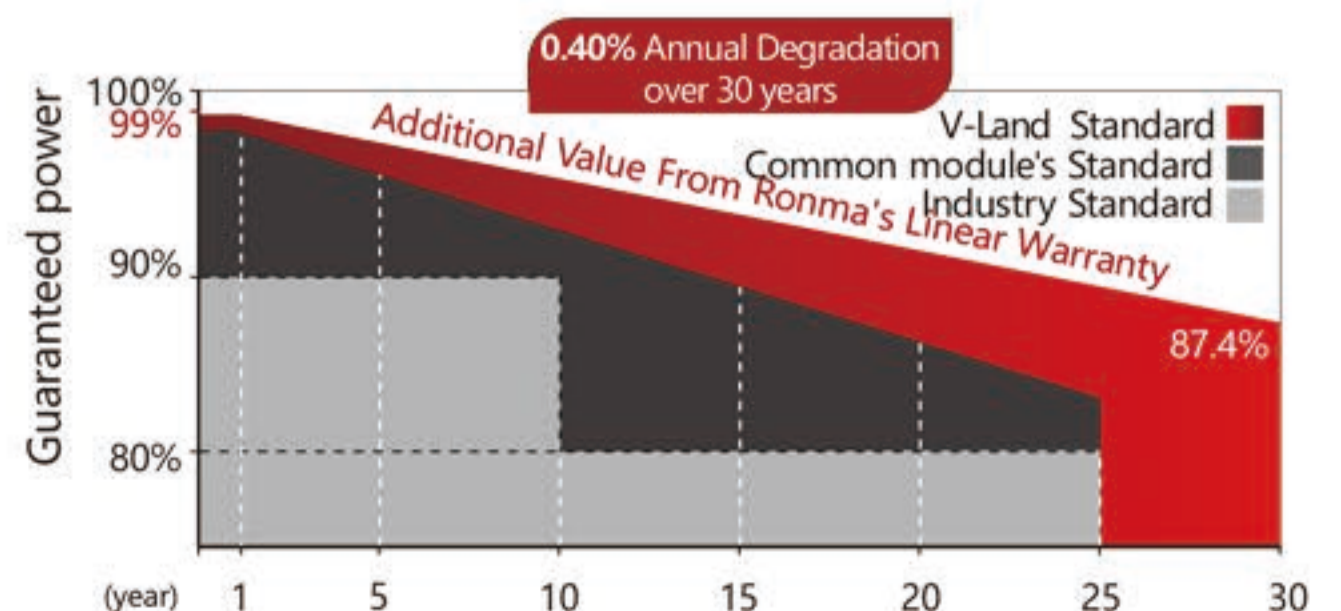
ISO 14001: Environmental Management System

ISO14064: Greenhouse Gases Emissions Verification

OHSAS 18001: Occupational Health and Safety Management System

## LINEAR PERFORMANCE WARRANTY

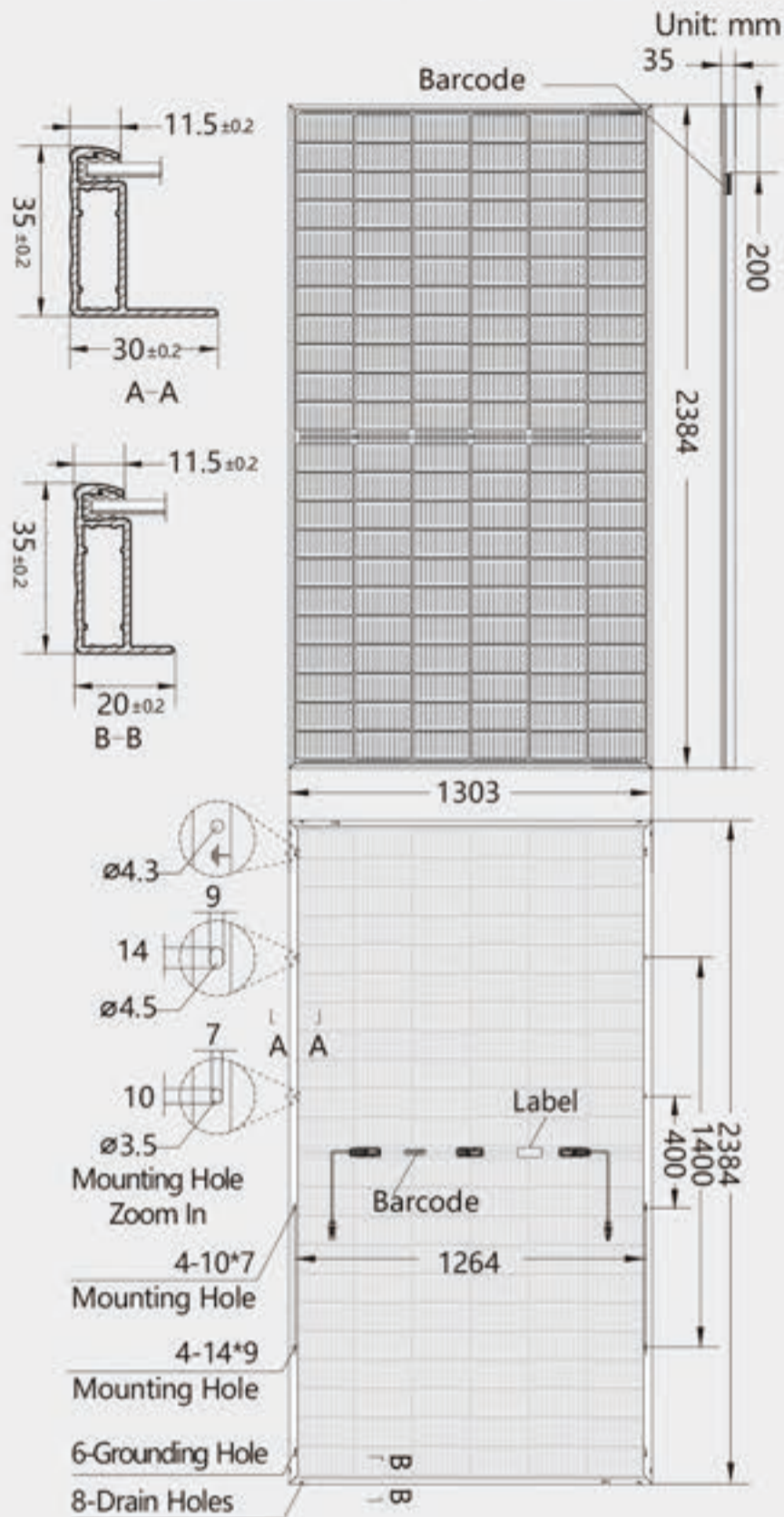
12-year product warranty / 30-year linear power warranty





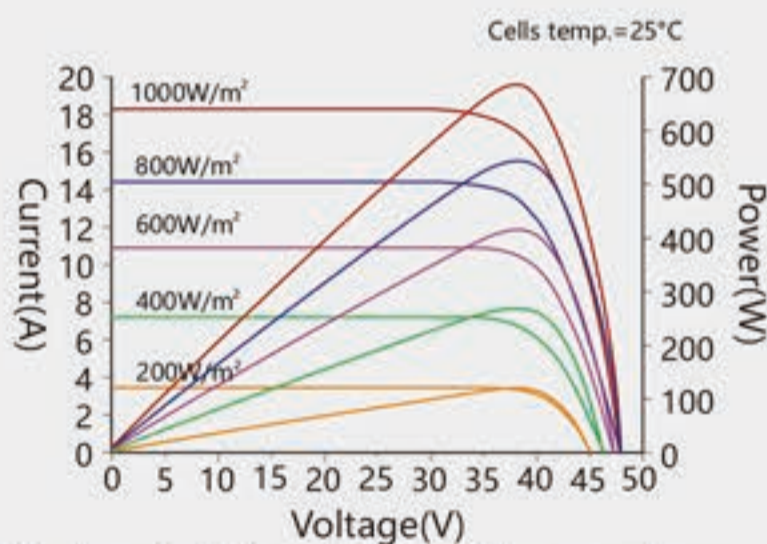


Dimensions of PV Module

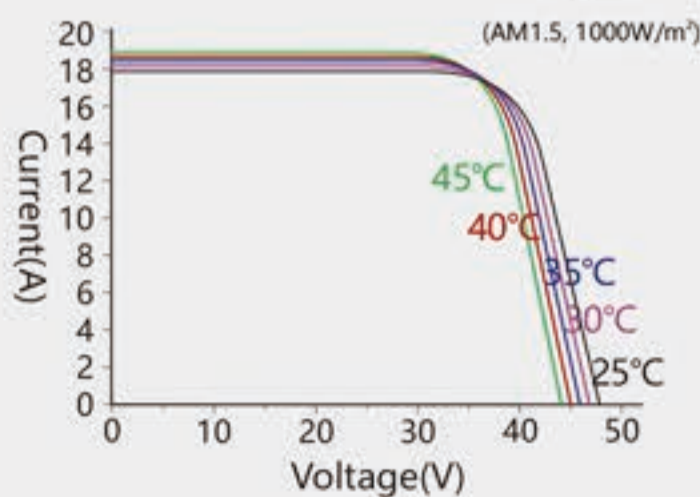


VL-685W-210M/132TB

I-V characteristics at different irradiances



I-V characteristics at different temperatures



ELECTRICAL CHARACTERISTICS

Model Number	VL-660W-210M/132TB	VL-665W-210M/132TB	VL-670W-210M/132TB	VL-675W-210M/132TB	VL-680W-210M/132TB	VL-685W-210M/132TB
Rated Power in Watts-Pmax(Wp)	660	665	670	675	680	685
Open Circuit Voltage-Voc(V)	48.10	48.32	48.53	48.75	48.97	49.19
Short Circuit Current-Isc(A)	18.03	18.07	18.10	18.14	18.18	18.22
Max. Power Voltage-Vmpp(V)	38.78	38.99	39.21	39.43	39.63	39.85
Max. Power Current-Imp(A)	17.02	17.06	17.09	17.12	17.16	17.19
Module Efficiency(%)	21.24	21.40	21.56	21.72	21.89	22.05
Maximum system voltage(V)	1500					
Fuse Rating(A)	35					
Temperature coefficient Pmax(%/°C)	-0.30					
Temperature coefficient Isc(%/°C)	0.04					
Temperature coefficient Voc(%/°C)	-0.25					

STC: Irradiance 1000W/m<sup>2</sup>, module temperature 25°C, AM=1.5

Bifacial Output-Backside Power Gain

	Pmax(W)	726	731	737	742	748	753
10%	Module efficiency(%)	23.37	23.53	23.73	23.89	24.08	24.24
20%	Pmax(W)	792	798	804	810	816	822
	Module efficiency(%)	25.50	25.69	25.88	26.08	26.27	26.46

WORKING CHARACTERISTICS

Power level	660	665	670	675	680	685
Pmax(W)	502	506	509	512	516	520
Vmp(V)	36.41	36.62	36.76	36.92	37.10	37.30
Imp(A)	13.79	13.82	13.85	13.88	13.91	13.95
Voc(V)	44.11	44.28	44.41	44.63	44.82	45.00
Isc(A)	14.53	14.56	14.59	14.62	14.65	14.68
Power tolerance(%)	0~+3					
NOCT(°C)	44±2					

NOCT: Irradiance 800W/m<sup>2</sup>, ambient temperature 20°C, wind speed 1m/s

MECHANICAL CHARACTERISTICS

Number of cells	132pcs	Type of frame	Anodized Aluminum Alloy
Size of cell(mm)	210×105	Size of module(mm)	2384×1303×35
Type of cell	N-TOPCon Mono	Weight(kg)	40.8
Thickness of glass(mm)	2.0	Cables/connectors	4.0mm <sup>2</sup> , MC4 compatible
Junction box	IP68	Length of Cabel	+300mm/-300mm(connector included)

MAXIMUM RATINGS

Operating Temperature(°C)	-40~85
Operating humidity(°C)	5~85
Allowable Hail Load	25mm ice-ball with velocity of 23m/s

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