

→ MBB HC Technology

# VOLT X N-type VXNH540-560N-72-B8 540-560 Watt

MONO-FACIAL MODULE  
SMBB Technology  
HOT 3.0 Technology

**N-Type**

## Outstanding Visual Appearance

- Lower LCOE (Levelized Cost Of Energy), reduced BOS (Balance of System) cost, shorter payback time
- Lowest guaranteed first year and annual degradation
- Designed for compatibility with existing mainstream system components

## Durability Against Extreme Environment

- High salt mist and ammonia resistance.

## SMBB Technology

- Better light trapping and current collection to improve module power output and reliability.

## Anti-PID Guarantee

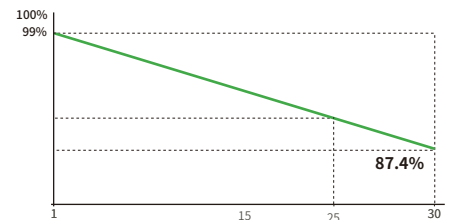
- Minimizes the chance of degradation caused by PID phenomena through optimization of cell production technology and material control.

## Ultra-low Degradation, longer warranty, higher output

- First-year degradation 1% and annual degradation at 0.4%
- Up to 12 years product warranty and 30 years power warranty
- Lower temperature coefficient (-0.29 %/°C) and operating temperature

## Universal solution for residential and C&I rooftops

- Easy for integration, designed for compatibility with existing mainstream inverters and diverse mounting systems
- Perfect size and low weight for handling and installation
- Most valuable solution on low load capacity rooftops (weight similar to backsheet version)
- Mechanical performance up to 5400 Pa positive load and 4000 Pa negative load



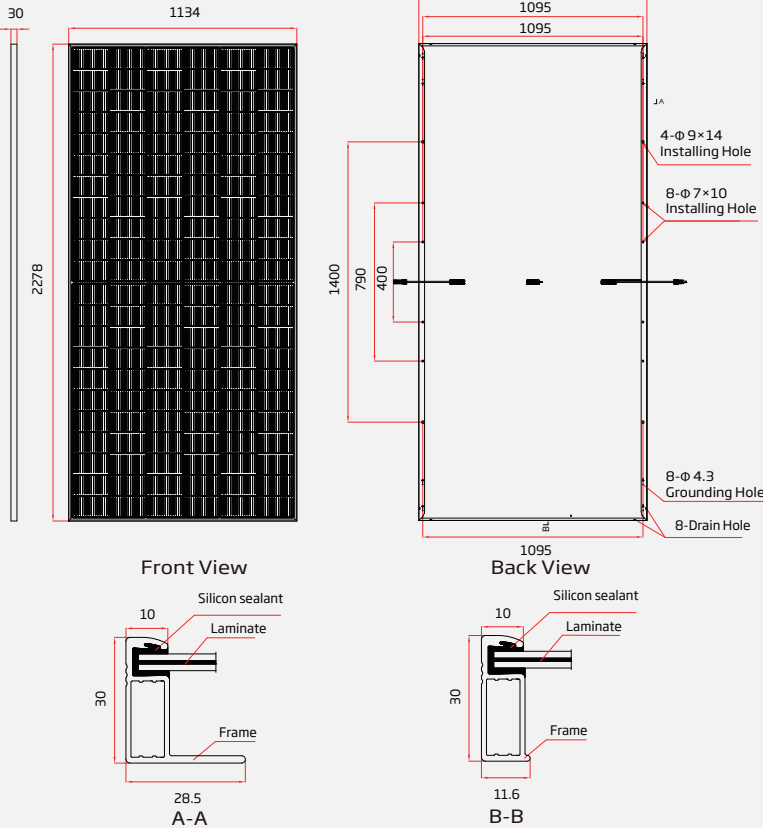
<b>12</b> Year Product Warranty	<b>30</b> Year Linear Power Warranty	<b>1%</b> First-year Degradation	<b>0.4%</b> Annual Degradation Over 30 Years
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- IEC61215 (2016) / IEC61730 (2016)
- IEC61701 / IEC62716 / IEC60068 / IEC62804
- ISO9001:2015: Quality Management System
- ISO14001:2015: Environment Management System
- ISO45001:2018: Occupational health and safety management systems

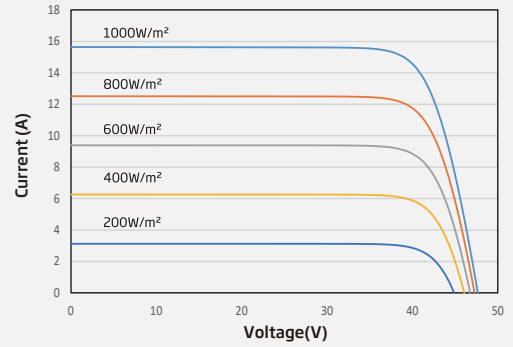


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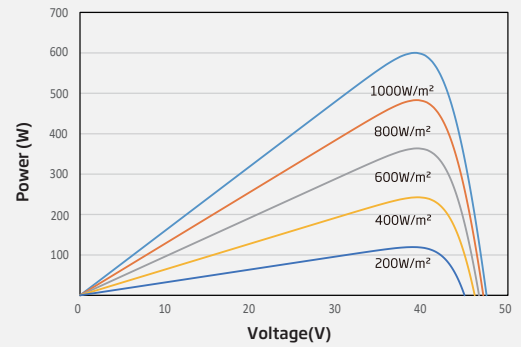
## DIMENSIONS OF PV MODULE(mm)



## I-V CURVES OF PV MODULE (600 W)



## P-V CURVES OF PV MODULE (600 W)



## ELECTRICAL DATA (STC)

Peak Power Watts-P <sub>MAX</sub> (Wp)*	540	545	550	555	560
Power Tolerance-P <sub>MAX</sub> (W)	0 ~ +5				
Maximum Power Voltage-V <sub>MPP</sub> (V)	40.70	40.80	40.90	40.99	41.09
Maximum Power Current-I <sub>MPP</sub> (A)	13.27	13.36	13.45	13.54	13.63
Open Circuit Voltage-V <sub>oc</sub> (V)	49.42	49.52	49.62	49.72	49.82
Short Circuit Current-I <sub>sc</sub> (A)	13.85	13.94	14.03	14.12	14.21
Module Efficiency η <sub>m</sub> (%)	20.90	21.10	21.29	21.48	21.68

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM=1.5. \*Measuring tolerance: ±3%.

## Specifications (NOCT)

Maximum Power-P <sub>MAX</sub> (Wp)	402	405	409	413	417
Maximum Power Voltage-V <sub>MPP</sub> (V)	38.08	38.25	38.42	38.59	38.69
Maximum Power Current-I <sub>MPP</sub> (A)	10.55	10.60	10.65	10.70	10.77
Open Circuit Voltage-V <sub>oc</sub> (V)	46.65	46.74	46.84	46.93	47.02
Short Circuit Current-I <sub>sc</sub> (A)	11.19	11.26	11.33	11.40	11.48

NOCT: Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, AM=1.5, Wind Speed 1m/s

## MECHANICAL DATA

Solar Cells	Monocrystalline
No. of cells	144 cells
Module Dimensions	2278×1134×30 mm (89.69×44.65×1.18 inches)
Weight	27.0kg (59.52 lb)
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission
Encapsulant material	GLASS POE/EVA
Back Glass	None
Frame	30mm (1.18 inches) Anodized Aluminium Alloy
J-Box	IP 6B rated
Cables	Photovoltaic Technology Cable 4.0mm <sup>2</sup> (0.006 inches <sup>2</sup> ), Portrait: 350/280 mm(13.78/11.02 inches) Length can be customized
Connector	MC4 EVO2 / TS4 PLUS / TS4*

\*Please refer to regional datasheet for specified connector.

## TEMPERATURE RATINGS

NOCT(Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of P <sub>MAX</sub>	-0.29%/°C
Temperature Coefficient of V <sub>oc</sub>	-0.24%/°C
Temperature Coefficient of I <sub>sc</sub>	0.04%/°C

## MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC)
Max Series Fuse Rating	25A

## WARRANTY

12year Product Workmanship Warranty  
30 year Power Warranty  
1% first year degradation  
0.4% Annual Power Attenuation  
(Please refer to product warranty for details)

## PACKAGING CONFIGURATION

Modules per box: 36 pieces  
Modules per 40' container: 720pieces

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NOTE: Please read the safety and installation manual before using the product. We reserve the right of final interpretation. The specifications in this datasheet are subject to change without notice.