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# VRV 320P-72 300 - 320 Watt

## POLY CRYSTALLINE MODULE

Positive Power Tolerance of 0/+5w

ISO 9001:2015, ISO 14001:2015, OHSAS18001 certified factory

### KEY FEATURES



#### 4 Busbar Solar Cell

4 busbar solar cell adopts new technology to improve the efficiency of modules, offers a better aesthetic appearance, making it perfect for rooftop installation.



#### High Efficiency

Poly Crystalline 72 cell High module conversion efficiency (up to 16.50%), through



#### Low-Light Performance

Advanced glass and solar cell surface texturing allow for excellent performance in low-light environments.



Manufactured in India on leading edge module production line using world class processes.



#### Severe Weather Resistance

Manufactured to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).



Peace of mind guaranteed by VRV Energies 25 year module warranty.



Stringent quality standards in materials, quality and manufacturing processes.



Durability against extreme environmental conditions  
High salt mist and ammonia resistance.

### PRODUCT FEATURES

- ▶ 72 cell configuration with wattage ranging from 300 to 320
- ▶ High fill factor for improved energy conversion efficiency
- ▶ Cell sorted by power and current to minimize mismatch losses in the field
- ▶ Electroluminescence tested for microcracks
- ▶ MC4 compatible cable connectors
- ▶ Torsion and corrosion resistant with anodized aluminium frame
- ▶ Enhanced reliability through use of distinctive encapsulant and back sheet
- ▶ Ultra-soft interconnect with stress relief for enhanced reliability
- ▶ Optimized edge clearance for high quality rugged design

### WARRANTY

Product warranty : 10 year warranty on material and workmanship  
Power warranty : 10 year 90% / 25 year 80% step power output warranty



ISO 9001:2015  
ISO 14001:2015  
OHSAS  
18001:2007



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ID 9105076545

## Electrical parameters at standard test conditions ( STC )

Module Type	300	310	320
Maximum Power ( Pmax )	300Wp	310Wp	320WP
Maximum Power Voltage ( Vmp )	36.6V	37.3V	37.4V
Maximum Power Current ( Imp )	8.20A	8.33A	8.56A
Open-circuit Voltage ( Voc )	44.8V	45.1V	46.4V
Short-circuit Current ( Isc )	8.71A	8.91A	9.05A

## Electrical parameters at ( NOCT )

Module Type	300	310	320
Maximum Power ( Pmax )	216WP	223.2WP	238WP
Maximum Power Voltage ( Vmp )	32.2V	32.8V	34.7V
Maximum Power Current ( Imp )	6.71A	6.83A	6.86A
Open-circuit Voltage ( Voc )	39.4V	40.3V	43.7V
Short-circuit Current ( Isc )	7.24A	7.41A	7.30A

## Temperature coefficient characteristics

Module Type	300	310	320
Temperature coefficients of Pmax	-0.40%/°C	-0.40%/°C	-0.40%/°C
Temperature coefficients of Voc	-0.30%/°C	-0.30%/°C	-0.30%/°C
Temperature coefficients of Isc	0.06%/°C	0.06%/°C	0.06%/°C
Normal operating cell temperature ( NOCT )	45± 2°C	45± 2°C	45± 2°C

## Operating Conditions

Maximum system voltage	1000 VDC
Maximum series fuse rating	15A
Operating Temperature ( °C )	-40°C-+85°C
Power tolerance	0-+5w

## Mechanical Characteristics

Cell Type	Poly-crystalline 156x156mm ( 6 inch )
No.of cells	72 cells (156mm)
Dimensions(mm)	1984x992x40mm ( LxBxH )
Weight	24.0 kg ( 52.91 lbs )
Front Glass	3.2mm , High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP67 Rated
Output Cables	TUV 1x4.0mm <sup>2</sup> , Length : 900mm or Customized Length

## Packaging Information

25pcs/ box, 50pcs/pallet, 600 pcs/40'HQ Container

STC : Irradiance 1000W/m<sup>2</sup>

Cell Temperature 25°C

NOCT : Irradiance 800W/m<sup>2</sup>

Ambient Temperature 20°C

AM = 1.5

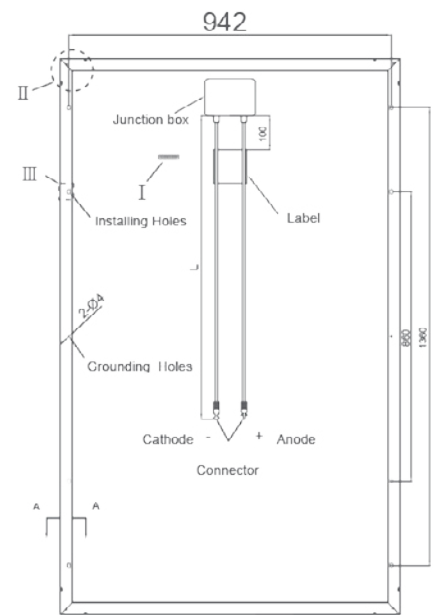
Am = 1.5

Wind Speed 1m/s

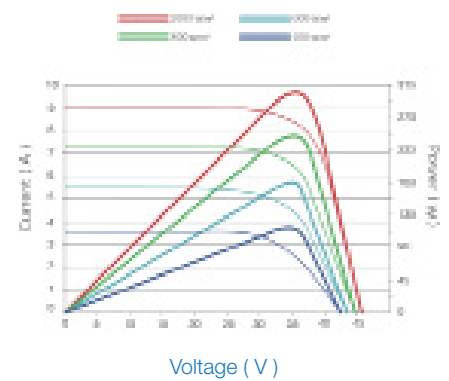
\*\*Listed Specifications are subject to change without notice

The company reserves the final right for explanation on any of the information presented hereby. VRV-320P-V\_1.0\_rev2015

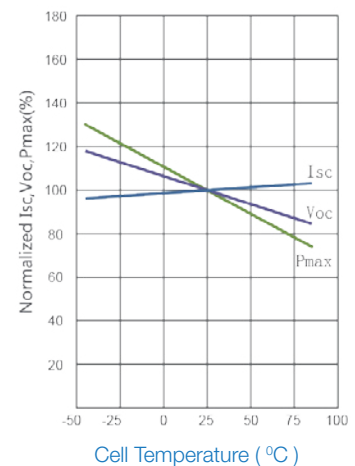
## Engineering Drawing\*\*



## Current-Voltage & Power-Voltage Curves ( 300W )\*\*



## Temperature Dependence of Isc, Voc, Pmax \*\*



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