

# POWERTRONIK®

## SuperSolar

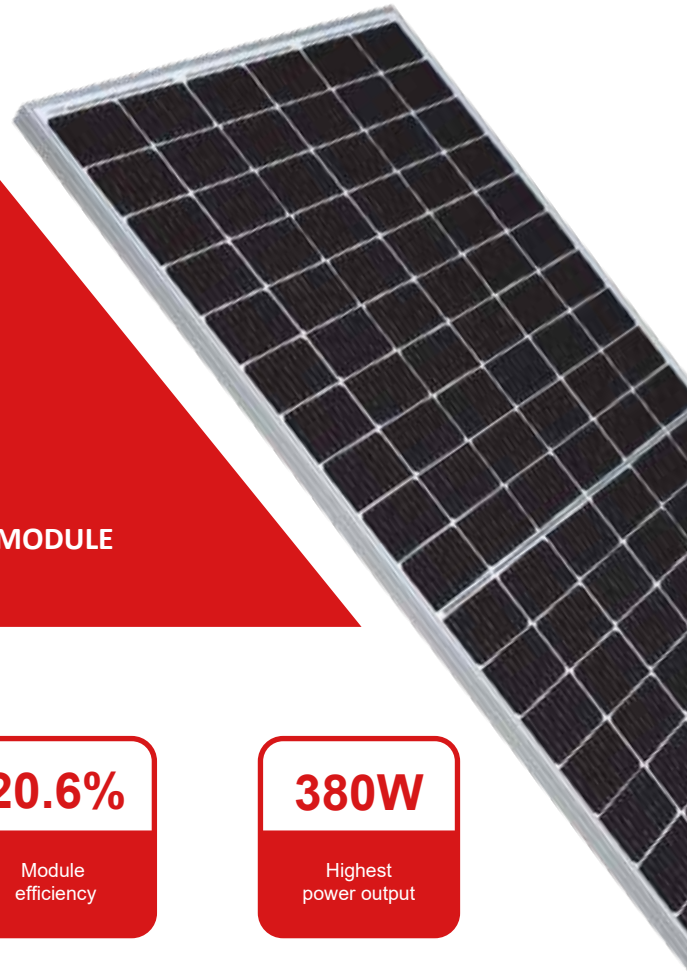
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### TPVS-120

### 166 Half Cell Series

# 355-380W

120-CELL HALF CUT MONOCRYSTALLINE SOLAR MODULE



#### Product Advantages



**High Power Output**  
Compared to 158.75mm module, the power output can increase 25W-30W



**High Reliability**  
Passed 3\*IEC standard test



**Low Hot-spot Risk**  
1/2 current, reducing the hot spot temperature



**Excellent loading capability**  
2400Pa wind loads, 5400Pa snow loads, 8000Pa extra support



**Low NMOT**  
As low as 43°C , improving the power generation efficiency

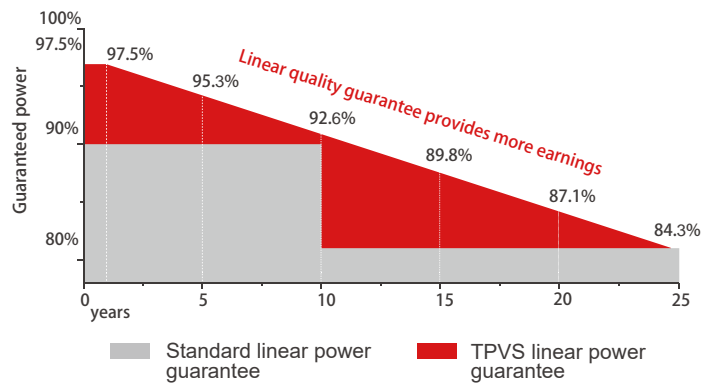


**Half Cell, MBB Technology**  
Series-then-parallel cell connection design, more reliable soldering technology

**20.6%**  
Module efficiency

**380W**  
Highest power output

#### Product Guarantee



**-2.50%**  
First year power degradation

**-0.55%**  
Annual degradation

**12**  
Years  
Materials and workmanship warranty

**25**  
Years  
Linear power warranty

#### Product Certification



### Electrical Characteristics

STC	380	375	370	365	360	355
Maximum Power at STC (Pmax)	380W	375W	370W	365W	360W	355W
Optimum Operating Voltage (Vmp)	34.7V	34.5V	34.3V	34.1V	33.9V	33.7V
Optimum Operating Current (Imp)	10.96A	10.87A	10.79A	10.71A	10.62A	10.54A
Open Circuit Voltage (Voc)	41.3V	41.1V	40.9V	40.7V	40.5V	40.3V
Short Circuit Current (Isc)	11.63A	11.56A	11.49A	11.42A	11.35A	11.28A
Module Efficiency	20.6%	20.3%	20.0%	19.7%	19.4%	19.2%
Operating Module Temperature	-40 °C to +85 °C					
Maximum System Voltage	1500 V DC (IEC)					
Maximum Series Fuse Rating	20 A					
Power Tolerance	0/+5W					

STC: Irradiance 1000 W/m<sup>2</sup>, module temperature 25 °C, AM=1.5; Tolerances of Pmax, Voc and Isc are all within +/- 5%.

NMOT	380	375	370	365	360	355
Maximum Power at NMOT (Pmax)	285.44W	281.75W	278.2W	274.3W	270.7W	266.8W
Optimum Operating Voltage (Vmp)	32.4V	32.2V	32.0V	31.8V	31.6V	31.5V
Optimum Operating Current (Imp)	8.81A	8.75A	8.69A	8.62A	8.56A	8.48A
Open Circuit Voltage (Voc)	39.1V	38.9V	38.7V	38.5V	38.4V	38.2V
Short Circuit Current (Isc)	9.29A	9.23A	9.17A	9.1A	9.04A	8.96A

NMOT: Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, AM=1.5, wind speed 1 m/s;

### Temperature Characteristics

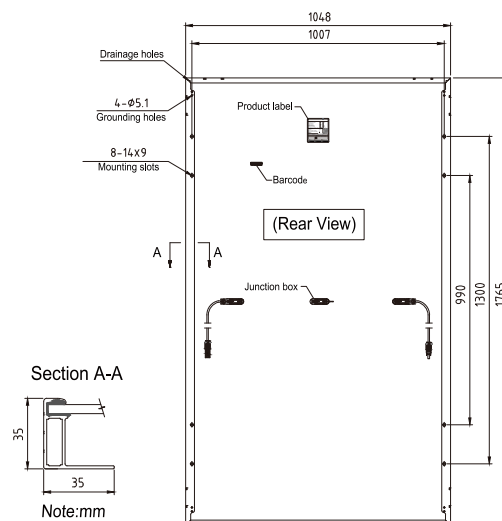
Nominal Module Operating Temperature(NMOT)	42±2°C
Temperature Coefficient of Pmax	-0.36 %/°C
Temperature Coefficient of Voc	-0.304 %/°C
Temperature Coefficient of Isc	0.058 %/°C

### Mechanical Characteristics

Solar Cell	Monocrystalline silicon 166 mm (9BB)
No. of Cells	120 (6 × 20)
Dimensions	1765 × 1048 × 35mm
Weight	20.0 kgs
Front Glass	3.2 mm tempered glass with AR coating
Frame	Anodized aluminium alloy
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	4.0 mm <sup>2</sup> , cable length 350mm or customized length

### Packing Configuration

Container	20' GP	40' HC
Pieces per pallet	31	31+1
Pallets per container	6	26
Pieces per container	186	832



Current-Voltage & Power-Voltage Curve (370)

