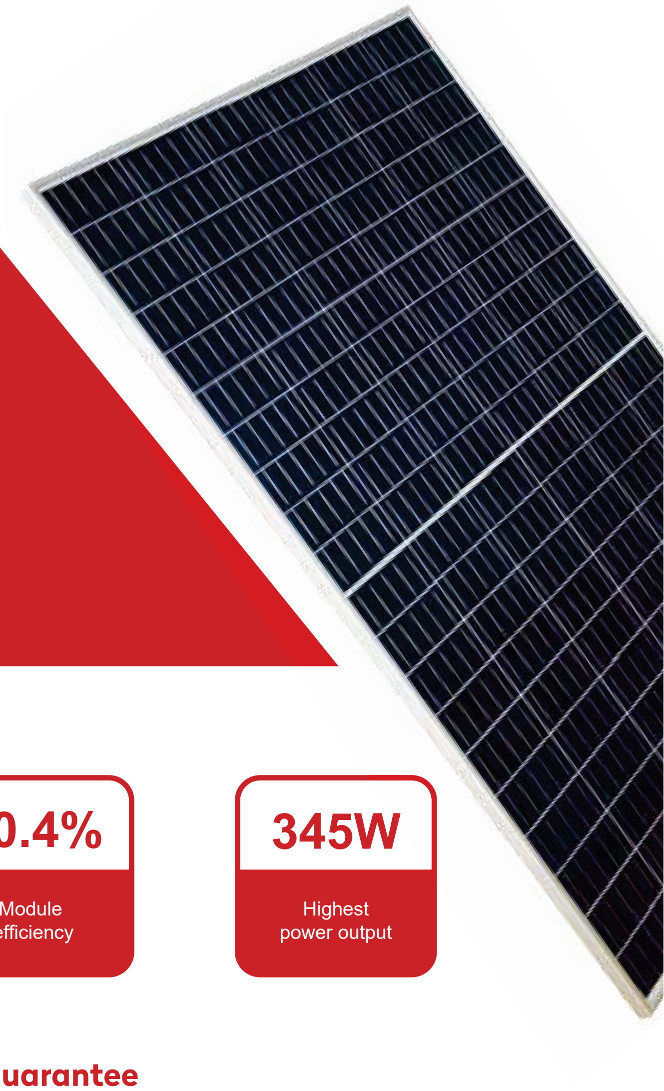
POWERTRONIK®

www.powertronik.ch

SuperSolar



TPVS-60

345-325W

120-CELL HALF CUT MONOCRYSTALLINE SOLAR MOUDLE

Product Advantages

High Efficiency
Module efficiency leading in industry, up to 20.4%

High Reliability
Passed 3*IECstandard 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

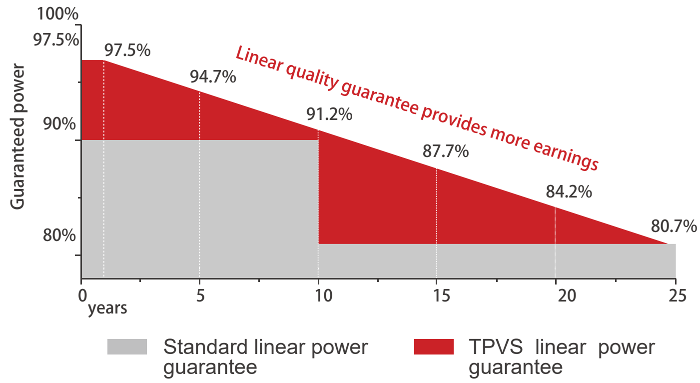
Low NMOT
As low as 43℃，improving the power generation efficiency

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

20.4%
Module efficiency

345W
Highest power output

Product Guarantee



-2.50%
First year power degradation

-0.50%
Annual degradation

12 Years
Materials and workmanship warranty

25 Years
Linear power warranty

Product Certification

POWERTRONIK®

TPVS-60 SuperSolar

Electrical Characteristics

STC	345	340	335	330	325
Maximum Power at STC (Pmax)	345 W	340 W	335 W	330 W	325 W
Optimum Operating Voltage (Vmp)	35.3 V	35.1 V	34.9 V	34.7 V	34.5 V
Optimum Operating Current (Imp)	9.78 A	9.68 A	9.60 A	9.52 A	9.43 A
Open Circuit Voltage (Voc)	41.3 V	41.1 V	40.9 V	40.7 V	40.5 V
Short Circuit Current (Isc)	10.37 A	10.29 A	10.21 A	10.13 A	10.04 A
Module Efficiency	20.4%	20.1%	19.8%	19.5%	19.2%
Operating Module Temperature	-40 °C to +85 °C				
Maximum System Voltage	1000/1500 V DC (IEC)				
Maximum Series Fuse Rating	20 A				
Power Tolerance	0/+5W				

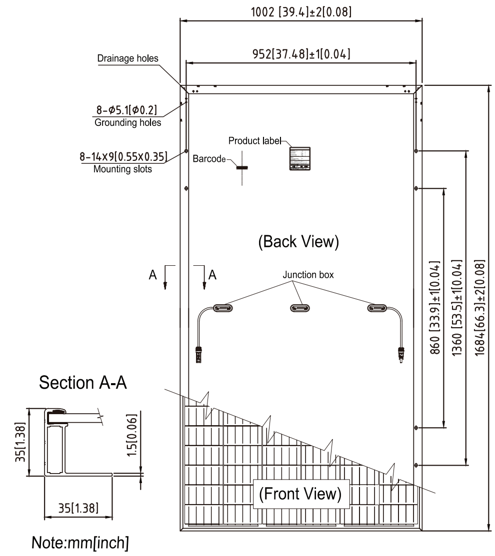
STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; Tolerances of Pmax, Voc and Isc are all within +/- 5%.

NMOT	345	340	335	330	325
Maximum Power at NMOT (Pmax)	259.3 W	255.5 W	252.1 W	248.6 W	244.9 W
Optimum Operating Voltage (Vmp)	32.5 V	32.3 V	32.1 V	31.9 V	31.7 V
Optimum Operating Current (Imp)	7.98 A	7.92 A	7.85 A	7.79 A	7.72 A
Open Circuit Voltage (Voc)	38.7 V	38.5 V	38.3 V	38.1 V	37.9 V
Short Circuit Current (Isc)	8.37 A	8.31 A	8.24 A	8.18 A	8.11 A

NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s;

Temperature Characteristics

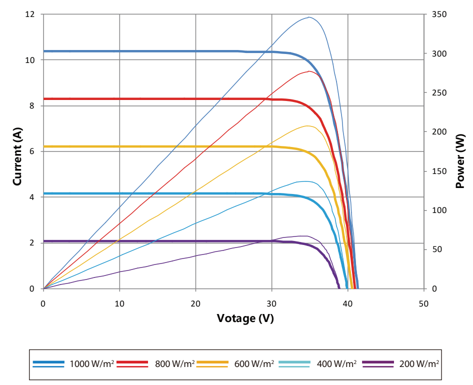
Nominal Module Operating Temperature(**NMOT**)	42±2°C
Temperature Coefficient of Pmax	-0.37 %/°C
Temperature Coefficient of Voc	-0.304 %/°C
Temperature Coefficient of Isc	0.050 %/°C



Mechanical Characteristics

Solar Cell	Monocrystalline 158.75mm
No. of Cells	120 (6 × 20)
Dimensions	1684 × 1002 × 35mm
Weight	19.0 kgs
Front Glass	3.2 mm tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	4.0 mm², symmetrical lengths (-) 1200mm and (+) 1200 mm
Connectors	MC4 compatible

Current-Voltage & Power-Voltage Curve (345S)



Packing Configuration

Container	20' GP	40' HC
Pieces per pallet	30	32
Pallets per container	12	26
Pieces per container	360	832