



## Mechanical Characteristics

Solar Cell	Monocrystalline silicon 166 mm
No. of Cells	144 (6 × 24)
Dimensions	2095 × 1039 × 35 mm (82.5 × 40.9 × 1.4 inches)
Weight	24.5 kgs (54.0 lbs.)
Front \ Back Glass	3.2 mm (0.126 inches) full tempered glass
Output Cables	4.0 mm <sup>2</sup> , (-) 350 mm and (+) 160 mm in length or customized length
Junction Box	IP68 rated (3 bypass diodes)
Operating Module Temperature	-40℃ to +85℃
Maximum System Voltage	1500 V DC (IEC)
Maximum Series Fuse Rating	20 A
Power Tolerance	0/+5 W
Refer. Bifaciality Factor	(70 ± 5)%
Packing Configuration	Packaging box dimensions (mm) : 2125 × 1130 × 1205 Packaging box weight (kg) : 814 31 Pieces per pallet 155 Pieces per container / 20' GP 682 Pieces per container / 40' HC

For tracker installation, please turn to Suntech for mechanical load information.

## Electrical Characteristics

Module Type	STP455S-B72/Pnhg		STP450S-B72/Pnhg		STP445S-B72/Pnhg		STP440S-B72/Pnhg		STP435S-B72/Pnhg	
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (P <sub>max</sub> /W)	455	<b>343.1</b>	450	339.4	445	335.8	440	332.7	435	328.9
Optimum Operating Voltage (V <sub>mp</sub> /V)	41.6	38.4	41.4	38.2	41.2	38.0	41.0	37.8	40.8	37.7
Optimum Operating Current (I <sub>mp</sub> /A)	10.94	8.94	10.87	8.89	10.81	8.84	10.74	8.78	10.67	8.73
Open Circuit Voltage (V <sub>oc</sub> /V)	49.4	46.3	49.2	46.2	49.0	46.0	48.8	45.8	48.6	45.7
Short Circuit Current (I <sub>sc</sub> /A)	11.67	9.42	11.61	9.37	11.54	9.31	11.47	9.25	11.40	9.20
Module Efficiency (%)	20.9		20.7		20.4		20.2		20.0	

STC: Irradiance 1000 W/m<sup>2</sup>, module temperature 25℃, AM=1.5; NMOT: Irradiance 800 W/m<sup>2</sup>, ambient temperature 20℃, AM=1.5, wind speed 1 m/s; Tolerance of P<sub>max</sub> is within +/- 3%;

## Different Rearside Power Gain Reference to 4455 Front

Rearside Power Gain	5%	15%	25%
Maximum Power at STC (P <sub>max</sub> )	467.3	511.8	556.3
Optimum Operating Voltage (V <sub>mp</sub> /V)	41.2	41.2	41.3
Optimum Operating Current (I <sub>mp</sub> /A)	11.35	12.43	13.51
Open Circuit Voltage (V <sub>oc</sub> /V)	49.0	49.0	49.1
Short Circuit Current (I <sub>sc</sub> /A)	12.12	13.27	14.43
Module Efficiency (%)	21.5	23.5	25.6

## Graphs Current-Voltage & Power-Voltage (4555)

## Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2℃
Temperature Coefficient of P <sub>max</sub>	-0.36%/℃
Temperature Coefficient of V <sub>oc</sub>	-0.304%/℃
Temperature Coefficient of I <sub>sc</sub>	0.050%/℃

