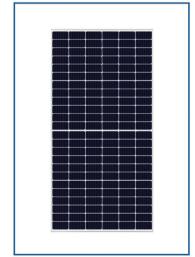


SOLAR POWER SYSTEM

- ON-GRID SOLAR POWER SYSTEMS
- OFF-GRID SOLAR POWER SYSTEMS
- HYBRID INVERTER SOLAR SYSTEM



















Solar Panels Power Distribution Box

Inverter

Energy Storage Battery Solar Panel Brackets

Cable



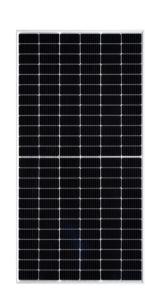
HALF-CELL MONOFACIAL MODULE

TYPE: STPXXXS - C72/Vmh

POWER OUTPUT

MAX EFFICIENCY

530-550W 21.3%



Features



High module conversion efficiency

Module efficiency up to 21.3% achieved through advanced cell technology and manufacturing process



Lower operating temperature

Lower operating temperature and temperature coefficient increases the power output



Zeoluff current sorting process

Up to 2 % power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output



Extended wind and snow load tests

Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal) *



Excellent weak light performance

More power output in weak light condition, such as cloudy, morning

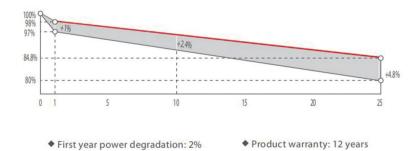


Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

Industry-leading Warranty ***

◆ Annual degradation: 0.55%



♦ linear warranty: 25 years

Certifications and Standards

CE IEC 61730 IEC 61215 SA 8000 Social Responsibility Standards ISO 9001 Quality Management System

ISO 14001 Environment Management System

ISO 45001 Occupational Henlth and Safety

IEC TS 62941 Guideline for module design qualification and type approval





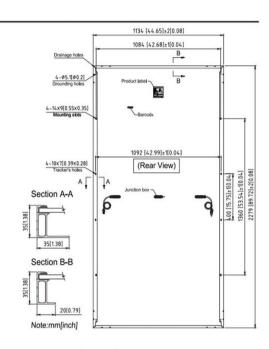


STPXXXS - C72/Vmh 530-550W

Mechanical Characteristics

Solar Cell	Monocrystalline silicon 182 mm	
No. of Cells	144 (6 × 24)	
Dimensions	2279 × 1134 × 35 mm (89.7 × 44.6 × 1.4 inches)	
Weight	27.5 kgs (60.6 lbs.)	
Front Glass	3.2 mm (0.126 inches) fully tempered glass	
Output Cables	4.0 mm², (-) 350 mm (+) 160 mm in length or customized length	
Junction Box	IP68 rated (3 bypass diodes)	
Operating Module Temperature	-40 °C to +85 °C	
Maximum System Voltage	1500 V DC (IEC)	
Maximum Series Fuse Rating	25 A	
Power Tolerance	0/+5 W	





Electrical Characteristics

Module Type	STP 550 S	-C72/Vmh	STP 545 S	-C72/Vmh	STP 540 S	-C72/Vmh	STP 535	-C72/Vmh	STP 530 S	-C72/Vmh
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	550	415.0	545	411.5	540	408.0	535	404.3	530	400.6
Optimum Operating Voltage (Vmp/V)	42.05	38.9	41.87	38.7	41.75	38.6	41.57	38.4	41.39	38.2
Optimum Operating Current (Imp/A)	13.08	10.67	13.02	10.63	12.94	10.58	12.87	10.53	12.81	10.47
Open Circuit Voltage (Voc/V)	49.88	46.9	49.69	46.7	49.54	46.5	49.39	46.4	49.24	46.3
Short Circuit Current (Isc/A)	14.01	11.22	13.96	11.18	13.89	11.13	13.83	11.08	13.76	11.02
Module Efficiency (%)	2	1.3	2	1.1	2	0.9	20	0.7	2	0.5

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s; Tolerance of Pmax is within +/- 3%:

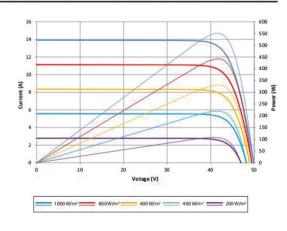
Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of Pmax	-0.34%/℃
Temperature Coefficient of Voc	-0.26%/℃
Temperature Coefficient of Isc	0.050%/℃

Packing Configuration

Container	40 'HC
Pieces per pallet	31
Pallets per container	20
Pieces per container	620
Packaging box dimensions	2310×1130×1255 mm
Packaging box weight	902 kg





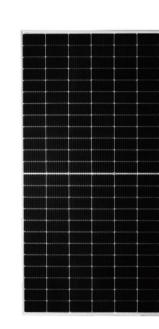
Information on how to install and operate this product is available in the installation instruction. All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences of the modules relative to the figures as well as discolorations of/in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.



TYPE: STPXXXS - C72/Pmh+

POWER OUTPUT MAX EFFICIENCY

21.3% 530-550W



Features



High module conversion efficiency

Module efficiency up to 21.3% achieved through advanced cell technology and manufacturing process



Lower operating temperature

Lower operating temperature and temperature coefficient increases the power output



Zeoluff current sorting process

Up to 2% power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output



Extended wind and snow load tests

Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal) *



Excellent weak light performance

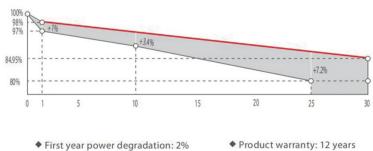
More power output in weak light condition, such as cloudy, morning



Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

Industry-leading Warranty **



- ◆ Annual degradation: 0.45%
 - linear warranty: 30 years

Certifications and Standards

CE IEC 61730 IEC 61215 SA 8000 Social Responsibility Standards ISO 9001 Quality Management System ISO 14001 Environment Management System ISO 45001 Occupational Henlth and Safety IEC TS 62941 Guideline for module design qualification and type approval





STPXXXS - C72/Pmh+ 530-550W

Mechanical Characteristics

Solar Cell	Monocrystalline silicon 182 mm
No. of Cells	144 (6 × 24)
Dimensions	2279 × 1134 × 30 mm (89.7 × 44.6 × 1.2 inches)
Weight	32.0 kgs (70.5 lbs.)
Front \ Back Glass	2.0+2.0 mm (0.079+0.079inches) semi-tempered glass
Output Cables	4.0 mm², (-) 350 mm and (+) 160 mm in length or customized length
Junction Box	IP68 rated (3 bypass diodes)
Operating Module Temperature	-40 °C to +85 °C
Maximum System Voltage	1500 V DC (IEC)
Maximum Series Fuse Rating	25 A
Power Tolerance	0/+5 W
Refer. Bifaciality Factor	(70 ± 5)%
Packing Configuration	Packaging box dimensions (mm): 2310×1130×1255 Packaging box weight (kg): 1202 36 Pieces per pallet 720 Pieces per container / 40 'HC

1134 [44.6]±2[0.08] 1093 [43.0]±2[0.08] Section A-A 30[1.18] Section B-B 10.8[0.43]

Electrical Characteristics

Module Type	STP 550 S-	C72/Pmh+	STP 545 S-	C72/Pmh+	STP 540 S-	C72/Pmh+	STP 535 S-	C72/Pmh+	STP 530 S-	C72/Pmh+
Testing Condition	STC	NMOT								
Maximum Power (Pmax/W)	550	415.0	545	411.5	540	408.0	535	404.3	530	400.6
Optimum Operating Voltage (Vmp/V)	42.05	38.9	41.87	38.7	41.75	38.6	41.57	38.4	41.39	38.2
Optimum Operating Current (Imp/A)	13.08	10.67	13.02	10.63	12.94	10.58	12.87	10.53	12.81	10.47
Open Circuit Voltage (Voc/V)	49.88	46.9	49.69	46.7	49.54	46.5	49.39	46.4	49.24	46.3
Short Circuit Current (Isc/A)	14.01	11.22	13.96	11.18	13.89	11.13	13.83	11.08	13.76	11.02
Module Efficiency (%)	21	1.3	2	1.1	20	0.9	20).7	20	0.5

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s; Tolerance of Pmax is within +/- 3%;

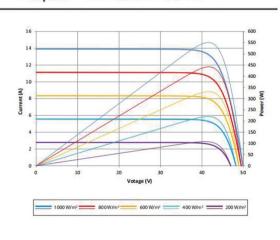
Different Rearside Power Gain Reference to 5405 Front

Rearside Power Gain	5%	15%	25%
Maximum Power at STC (Pmax)	567.0	621.0	675.0
Optimum Operating Voltage (Vmp/V)	41.8	41.8	41.9
Optimum Operating Current (Imp/A)	13.59	14.88	16.18
Open Circuit Voltage (Voc/V)	49.5	49.5	49.6
Short Circuit Current (Isc/A)	14.58	15.97	17.36
Module Efficiency (%)	21.9	24.0	26.1

Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of Pmax	-0.34%/°C
Temperature Coefficient of Voc	-0.26%/°C
Temperature Coefficient of Isc	0.050%/°C

Graphs Current-Voltage & Power-Voltage (550S)



20

Information on how to install and operate this product is available in the installation instruction. All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences of the modules relative to the figures as well as discolorations of/in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.

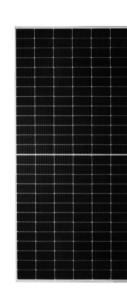


TYPE: STPXXXS - C78/Pmh+

POWER OUTPUT

MAX EFFICIENCY

570-590W 21.1%



Features



High module conversion efficiency

Module efficiency up to 21.1% achieved through advanced cell technology and manufacturing process



Lower operating temperature

Lower operating temperature and temperature coefficient increases the power output



Zeoluff current sorting process

Up to 2% power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output



Extended wind and snow load tests

Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal) *



Excellent weak light performance

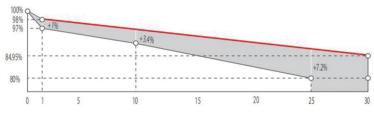
More power output in weak light condition, such as cloudy, morning



Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

Industry-leading Warranty *



- ♦ First year power degradation: 2%
- ♦ linear warranty: 30 years
- ◆ Annual degradation: 0.45%

◆ Product warranty: 12 years

Certifications and Standards

CE IEC 61730 IEC 61215 SA 8000 Social Responsibility Standards ISO 9001 Quality Management System ISO 14001 Environment Management System ISO 45001 Occupational Henlth and Safety IEC TS 62941 Guideline for module design qualification and type approval







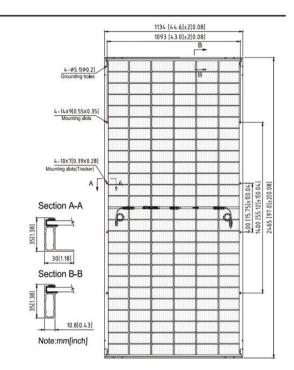




STPXXXS - C78/Pmh+ 570-590W

Mechanical Characteristics

Solar Cell	Monocrystalline silicon 182 mm
No. of Cells	156 (6 × 26)
Dimensions	2465 × 1134 × 35 mm (97.0 × 44.6 × 1.4 inches)
Weight	35.5 kgs (78.3 lbs.)
Front \ Back Glass	2.0+2.0 mm (0.079+ 0.079inches) semi-tempered glass
Output Cables	4.0 mm², (-) 350 mm and (+) 160 mm in length or customized length
Junction Box	IP68 rated (3 bypass diodes)
Operating Module Temperature	-40 °C to +85 °C
Maximum System Voltage	1500 V DC (IEC)
Maximum Series Fuse Rating	25 A
Power Tolerance	0/+5 W
Refer. Bifaciality Factor	(70 ± 5)%
Packing Configuration	Packaging box dimensions (mm): 2495×1130×1269 Packaging box weight (kg): 1176 31 Pieces per pallet 558 Pieces per container / 40 'HC



Electrical Characteristics

Module Type	STP 590 S-	C78/Pmh+	STP 585 S-	C78/Pmh+	STP 580 S-	C78/Pmh+	STP 575 S-	C78/Pmh+	STP 570 S-	C78/Pmh+
Testing Condition	STC	NMOT								
Maximum Power (Pmax/W)	590	445.4	585	441.7	580	438.0	575	434.3	570	430.5
Optimum Operating Voltage (Vmp/V)	45.36	41.9	45.18	41.7	45.00	41.6	44.82	41.4	44.64	41.2
Optimum Operating Current (Imp/A)	13.01	10.63	12.95	10.58	12.89	10.54	12.83	10.49	12.77	10.44
Open Circuit Voltage (Voc/V)	53.79	50.5	53.61	50.4	53.44	50.2	53.26	50.0	53.08	49.9
Short Circuit Current (Isc/A)	13.91	11.18	13.85	11.13	13.79	11.09	13.73	11.04	13.67	10.99
Module Efficiency (%)	2	1.1	20	0.9	20	0.7	20	0.6	20	0.4

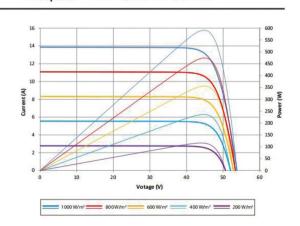
STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s; Tolerance of Pmax is within +/- 3%;

Different Rearside Power Gain Reference to 5405 Front

Rearside Power Gain	5%	15%	25%
Maximum Power at STC (Pmax)	609.0	667.0	725.0
Optimum Operating Voltage (Vmp/V)	45.0	45.0	45.1
Optimum Operating Current (Imp/A)	13.53	14.82	16.11
Open Circuit Voltage (Voc/V)	53.4	53.4	53.5
Short Circuit Current (Isc/A)	14.48	15.86	17.24
Module Efficiency (%)	21.8	23.9	25.9

Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of Pmax	-0.34%/℃
Temperature Coefficient of Voc	-0.26%/°C
Temperature Coefficient of Isc	0.050%/°C



Current-Voltage & Power-Voltage (5905)

Graphs

Information on how to install and operate this product is available in the installation instruction, All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences of the modules relative to the figures as well as discolorations of/in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.



HALF-CELL N-TOPCon MONOFACIAL MODULE

TYPE: STPXXXS - C72/Vmh

POWER OUTPUT

MAX EFFICIENCY

555-575W 22.2%



Features



High module conversion efficiency

Module efficiency up to 22.2% achieved through advanced cell technology and manufacturing process



Lower operating temperature

Lower operating temperature and temperature coefficient increases the power output



Zeoluff current sorting process

Up to **2** % power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output



Extended wind and snow load tests

Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal) *



Excellent weak light performance

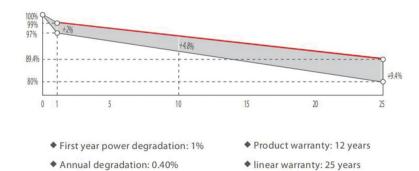
More power output in weak light condition, such as cloudy, morning and sunset



Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

Industry-leading Warranty *



Certifications and Standards

CE IEC 61730 IEC 61215

SA 8000 Social Responsibility Standards

ISO 9001 Quality Management System

ISO 14001 Environment Management System
ISO 45001 Occupational Henlth and Safety

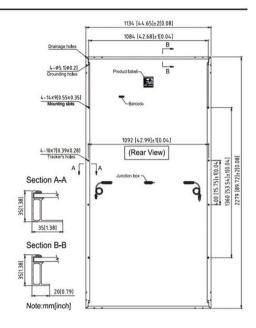
IEC TS 62941 Guideline for module design qualification and type approval



STPXXXS - C72/Vmh 555-575W

Mechanical Characteristics

Solar Cell	N-type Monocrystalline silicon 182 mm	
No. of Cells	144 (6 × 24)	
Dimensions	2279 × 1134 × 35 mm (89.7 × 44.6 × 1.4 inches)	
Weight	27.5 kgs (60.6 lbs.)	
Front Glass	3.2 mm (0.126 inches) fully tempered glass	
Output Cables	4.0 mm², (-) 350 mm (+) 160 mm in length or customized length	
Junction Box	IP68 rated (3 bypass diodes)	
Operating Module Temperature	-40 °C to +85 °C	
Maximum System Voltage	1500 V DC (IEC)	
Maximum Series Fuse Rating	25 A	
Power Tolerance	0/+5 W	



Electrical Characteristics

Module Type	STP 575 S	-C72/Vmh	STP 570 S	-C72/Vmh	STP 565 S	-C72/Vmh	STP 560 S	-C72/Vmh	STP 555 S	-C72/Vmh
Testing Condition	STC	NMOT								
Maximum Power (Pmax/W)	575	437.6	570	433.8	565	430.3	560	426.7	555	422.8
Optimum Operating Voltage (Vmp/V)	42.88	39.8	42.72	39.7	42.56	39.5	42.40	39.3	42.24	39.2
Optimum Operating Current (Imp/A)	13.41	10.99	13.34	10.94	13.28	10.89	13.21	10.84	13.14	10.79
Open Circuit Voltage (Voc/V)	50.68	48.0	50.55	47.8	50.39	47.7	50.23	47.5	50.07	47.4
Short Circuit Current (Isc/A)	14.33	11.55	14.26	11.50	14.20	11.45	14.14	11.40	14.07	11.35
Module Efficiency (%)	22	2.2	2:	2.1	2	1.9	2	1.7	2	1.5

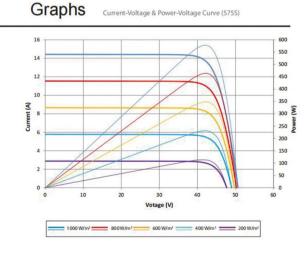
STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s; Tolerance of Pmax is within +/- 3%;

Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of Pmax	-0.30%/°C
Temperature Coefficient of Voc	-0.25%/℃
Temperature Coefficient of Isc	0.046%/℃

Packing Configuration

Container	40' HC
Pieces per pallet	31
Pallets per container	20
Pieces per container	620
Packaging box dimensions	2310×1130×1255 mm
Packaging box weight	902 kg



Information on how to install and operate this product is available in the installation instruction. All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences of the modules relative to the figures as well as discolorations of/in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.

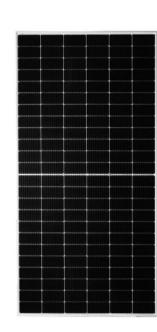


HALF-CELL N-TOPCon BIFACIAL MODULE

TYPE: STPXXXS - C72/Nmh+

MAX EFFICIENCY **POWER OUTPUT**

550-570W 22.1%



Features



High module conversion efficiency

Module efficiency up to 22.1% achieved through advanced cell technology and manufacturing process



Lower operating temperature

Lower operating temperature and temperature coefficient



Zeoluff current sorting process

Up to 2 % power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output



Extended wind and snow load tests

Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal) *



Excellent weak light performance

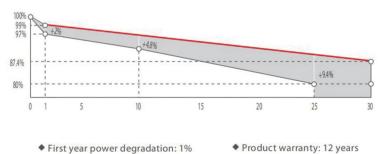
More power output in weak light condition, such as cloudy, morning and sunset+



Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

Industry-leading Warranty



- Product warranty: 12 years
- ◆ Annual degradation: 0.40% ♦ linear warranty: 30 years

Certifications and Standards

CE IEC 61730 IEC 61215 SA 8000 Social Responsibility Standards ISO 9001 Quality Management System ISO 14001 Environment Management System ISO 45001 Occupational Henlth and Safety IEC TS 62941 Guideline for module design qualification and type approval











STPXXXS - C72/Nmh+ 550-570W

Mechanical Characteristics

Solar Cell	N-type Monocrystalline silicon 182 mm
No. of Cells	144 (6 × 24)
Dimensions	2279 × 1134 × 30 mm (89.7 × 44.6 × 1.2 inches)
Weight	32.0 kgs (70.5 lbs.)
Front \ Back Glass	2.0+2.0 mm (0.079+0.079inches) semi-tempered glass
Output Cables	4.0 mm², (-) 350 mm and (+) 160 mm in length or customized length
Junction Box	IP68 rated (3 bypass diodes)
Operating Module Temperature	-40 °C to +85 °C
Maximum System Voltage	1500 V DC (IEC)
Maximum Series Fuse Rating	25 A
Power Tolerance	0/+5 W
Refer. Bifaciality Factor	(80 ± 5)%
Packing Configuration	Packaging box dimensions (mm): 2310×1130×1255 Packaging box weight (kg): 1202 36 Pieces per pallet 720 Pieces per container / 40'HC

30[1.18] Section B-B

Electrical Characteristics

Module Type	STP 570 S-0	C72/Nmh+	STP 565 S-	C72/Nmh+	STP 560 S-	C72/Nmh+	STP 555 S-	C72/Nmh+	STP 550 S-	C72/Nmh+
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	570	433.8	565	430.3	560	426.7	555	422.8	550	419
Optimum Operating Voltage (Vmp/V)	42.72	39.7	42.56	39.5	42.40	39.3	42.24	39.2	42.05	39
Optimum Operating Current (Imp/A)	13.34	10.94	13.28	10.89	13.21	10.84	13.14	10.79	13.08	10.74
Open Circuit Voltage (Voc/V)	50.55	47.8	50.39	47.7	50.23	47.5	50.07	47.4	49.88	47.2
Short Circuit Current (Isc/A)	14.26	11.50	14.20	11.45	14.14	11.40	14.07	11.35	14.01	11.30
Module Efficiency (%)	22	2.1	2	1.9	2	1.7	2	1.5	2	1.3

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5: NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s: Tolerance of Pmax is within +/- 3%:

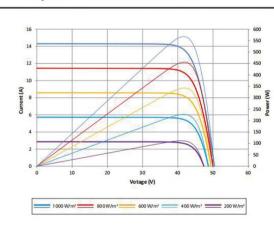
Different Rearside Power Gain Reference to 560S Front

Rearside Power Gain	5%	15%	25%
Maximum Power at STC (Pmax)	588.0	644.0	700.0
Optimum Operating Voltage (Vmp/V)	42.4	42.4	42.5
Optimum Operating Current (Imp/A)	13.87	15.19	16.51
Open Circuit Voltage (Voc/V)	50.2	50.2	50.3
Short Circuit Current (Isc/A)	14.85	16.26	17.68
Module Efficiency (%)	22.8	24.9	27.1

Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of Pmax	-0.30%/°C
Temperature Coefficient of Voc	-0.25%/℃
Temperature Coefficient of Isc	0.046%/°C

Graphs Current-Voltage & Power-Voltage (5705)



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Information on how to install and operate this product is available in the installation instruction. All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences of the modules relative to the figures as well as discolorations of in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.



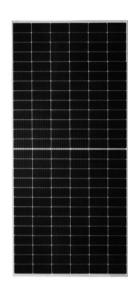
HALF-CELL N-TOPCon BIFACIAL MODULE

TYPE: STPXXXS - C78/Nmh+

POWER OUTPUT

MAX EFFICIENCY

22.4% 600-620W



Features



High module conversion efficiency

Module efficiency up to 22.4% achieved through advanced cell technology and manufacturing process



Lower operating temperature

Lower operating temperature and temperature coefficient



Zeoluff current sorting process

Up to 2% power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output



Extended wind and snow load tests

Module certified to withstand extreme wind (2400 Pascal) and



Excellent weak light performance

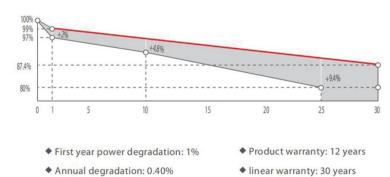
More power output in weak light condition, such as cloudy, morning



Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

Industry-leading Warranty ***



Certifications and Standards

CE IEC 61730 IEC 61215 SA 8000 Social Responsibility Standards ISO 9001 Quality Management System ISO 14001 Environment Management System ISO 45001 Occupational Henlth and Safety IEC TS 62941 Guideline for module design qualification and type approval







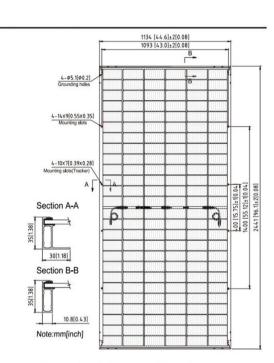




STPXXXS - C78/Nmh+ 600-620W

Mechanical Characteristics

Solar Cell	N-type Monocrystalline silicon 182 mm
No. of Cells	156 (6 × 26)
Dimensions	2441 × 1134 × 35 mm (96.1 × 44.6 × 1.4 inches)
Weight	35.1 kgs (77.4 lbs.)
Front \ Back Glass	2.0+2.0 mm (0.079+ 0.079inches) semi-tempered glass
Output Cables	4.0 mm², (-) 350 mm and (+) 160 mm in length or customized length
Junction Box	IP68 rated (3 bypass diodes)
Operating Module Temperature	-40 °C to +85 °C
Maximum System Voltage	1500 V DC (IEC)
Maximum Series Fuse Rating	25 A
Power Tolerance	0/+5 W
Refer. Bifaciality Factor	(80 ± 5)%
Packing Configuration	Packaging box dimensions (mm): 2470×1130×1269 Packaging box weight (kg): 1163 31 Pieces per pallet 558 Pieces per container / 40 ' HC



Electrical Characteristics STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s; Tolerance of Pmax is within +/- 3%;

Module Type	STP 620 S-	C78/Nmh+	STP 615 S-	C78/Nmh+	STP 610 S-	C78/Nmh+	STP 605 S-	C78/Nmh+	STP 600 S-	C78/Nmh+
Testing Condition	STC	NMOT								
Maximum Power (Pmax/W)	620	473.2	615	469.3	610	465.6	605	461.6	600	457.8
Optimum Operating Voltage (Vmp/V)	46.43	43.0	46.25	42.8	46.07	42.6	45.89	42.4	45.71	42.3
Optimum Operating Current (Imp/A)	13.36	11.02	13.30	10.97	13.25	10.93	13.19	10.88	13.13	10.83
Open Circuit Voltage (Voc/V)	54.86	51.9	54.68	51.7	54.50	51.5	54.32	51.4	54.14	51.2
Short Circuit Current (Isc/A)	14.37	11.59	14.31	11.54	14.25	11.50	14.19	11.45	14.13	11.40
Module Efficiency (%)	22	2.4	2.	2.2	2	2.0	2	1.9	2	1.7

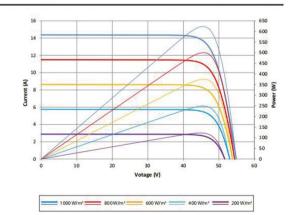
For tracker installation, please turn to Suntech for mechanical load information

Different Rearside Power Gain Reference to 6105 Front

Rearside Power Gain	5%	15%	25%
Maximum Power at STC (Pmax)	640.5	701.5	762.5
Optimum Operating Voltage (Vmp/V)	46.1	46.1	46.2
Optimum Operating Current (Imp/A)	13.91	15.24	16.56
Open Circuit Voltage (Voc/V)	54.5	54.5	54.6
Short Circuit Current (Isc/A)	14.96	16.39	17.81
Module Efficiency (%)	23.1	25.3	27.5

Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of Pmax	-0.30%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	0.046%/°C



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Graphs Current-Voltage & Power-Voltage (620S)

Information on how to install and operate this product is available in the installation instruction. All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences of the modules relative to the figures as well as discolorations of/in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.



HALF-CELL MONOFACIAL MODULE

TYPE: STPXXXS - D60/Wmh

POWER OUTPUT

MAX EFFICIENCY

21.2% 580-600W



Features



High module conversion efficiency

Module efficiency up to 21.2% achieved through advanced cell technology and manufacturing process



Lower operating temperature

Lower operating temperature and temperature coefficient increases the power output



Zeoluff current sorting process

Up to 2% power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output



Extended wind and snow load tests

Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal) *



Excellent weak light performance

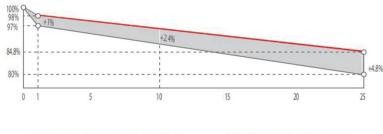
More power output in weak light condition, such as cloudy, morning



Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

Industry-leading Warranty ***



- ♦ First year power degradation: 2% ♦ linear warranty: 25 years
- ◆ Annual degradation: 0.55%
- ◆ Product warranty: 12 years

qualification and type approval



Certifications and Standards

ISO 14001 Environment Management System ISO 45001 Occupational Henlth and Safety IEC TS 62941 Guideline for module design

CE IEC 61730 IEC 61215 SA 8000 Social Responsibility Standards ISO 9001 Quality Management System



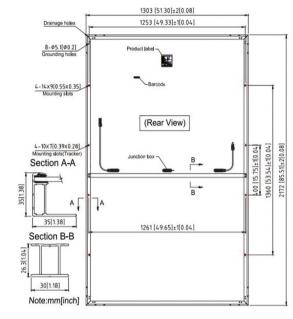




STPXXXS - D60/Wmh 580-600W

Mechanical Characteristics

Solar Cell	Monocrystalline silicon 210 mm	
No. of Cells	144 (6 × 24)	
Dimensions	2172 × 1303 × 35 mm (85.5 × 51.3 × 1.4 inches)	
Weight	31.5 kgs (69.4 lbs.)	
Front Glass	3.2 mm (0.126 inches) fully tempered glass	
Output Cables	4.0 mm², (-) 350 mm (+) 160 mm in length or customized length	
Junction Box	IP68 rated (3 bypass diodes)	
Operating Module Temperature	-40 °C to +85 °C	
Maximum System Voltage	1500 V DC (IEC)	
Maximum Series Fuse Rating	30 A	
Power Tolerance	0/+5 W	



Electrical Characteristics

Module Type	STP 600 S-	D60/Wmh	STP 595 S-	-D60/Wmh	STP 590 S-	D60/Wmh	STP 585 S-	D60/Wmh	STP 580 S-	D60/Wmh
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	TOMN
Maximum Power (Pmax/W)	600	452.5	595	448.9	590	445.0	585	441.4	580	437.5
Optimum Operating Voltage (Vmp/V)	34.65	32.4	34.45	32.2	34.25	32.0	34.05	31.9	33.85	31.7
Optimum Operating Current (Imp/A)	17.32	13.97	17.28	13.94	17.23	13.89	17.19	13.86	17.14	13.81
Open Circuit Voltage (Voc/V)	41.85	39.4	41.65	39.2	41.45	39.1	41.25	38.9	41.05	38.7
Short Circuit Current (Isc/A)	18.31	14.73	18.27	14.70	18.22	14.66	18.18	14.63	18.13	14.59
Module Efficiency (%)	2	1.2	2	1.0	20	0.8	20	0.7	2	0.5

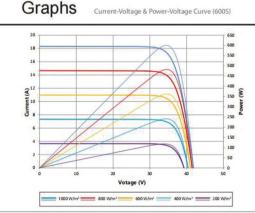
STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s; Tolerance of Pmax is within +/- 3%;

Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of Pmax	-0.34%/°C
Temperature Coefficient of Voc	-0.26%/°C
Temperature Coefficient of Isc	0.050%/°C

Packing Configuration

racking configuration	
Container	40 ′HC
Pieces per container	558





TYPE: STPXXXS - D60/Pmh+

POWER OUTPUT MAX EFFICIENCY

580-600W 21.2%



Features



High module conversion efficiency

Module efficiency up to **21.2%** achieved through advanced cell technology and manufacturing process



Lower operating temperature

Lower operating temperature and temperature coefficient increases the power output



Zeoluff current sorting process

Up to 2% power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output



Extended wind and snow load tests

Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal) *



Excellent weak light performance

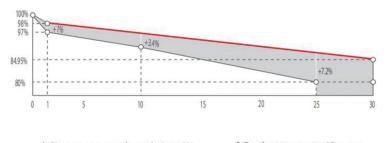
More power output in weak light condition, such as cloudy, morning and sunset $\,$



Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

Industry-leading Warranty **



- First year power degradation: 2%
- ◆ Annual degradation: 0.45%
- ◆ Product warranty: 12 years
- ♦ linear warranty: 30 years

Certifications and Standards

CE IEC 61730 IEC 61215
SA 8000 Social Responsibility Standards
ISO 9001 Quality Management System
ISO 14001 Environment Management System

180 45001 Occupational Henlth and Safety IEC TS 62941 Guideline for module design qualification and type approval



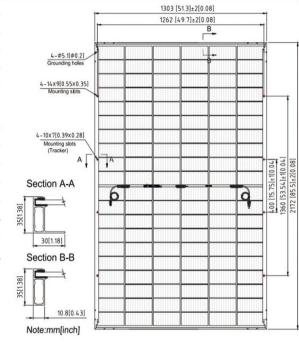


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STPXXXS - D60/Pmh+ 580-600W

Mechanical Characteristics

Solar Cell	Monocrystalline silicon 210 mm
No. of Cells	120 (6 × 20)
Dimensions	2172 × 1303 × 35 mm (85.5 × 51.3 × 1.4 inches)
Weight	37.1 kgs (81.8 lbs.)
Front \ Back Glass	2.0+2.0 mm (0.079+0.079inches) semi-tempered glass
Output Cables	4.0 mm², (-) 350 mm and (+) 160 mm in length or customized length
Junction Box	IP68 rated (3 bypass diodes)
Operating Module Temperature	-40 °C to +85 °C
Maximum System Voltage	1500 V DC (IEC)
Maximum Series Fuse Rating	30 A
Power Tolerance	0/+5 W
Refer. Bifaciality Factor	(70 ± 5)%
Packing Configuration	558 Pieces per container / 40 ' HC



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

Electrical Characteristics

Module Type	STP 600 S-	D60/Pmh+	STP 595 S-	D60/Pmh+	STP 590 S-	D60/Pmh+	STP 585 S-	D60/Pmh+	STP 580 S-	D60/Pmh+
Testing Condition	STC	NMOT								
Maximum Power (Pmax/W)	600	452.5	595	448.9	590	445.0	585	441.4	580	437.5
Optimum Operating Voltage (Vmp/V)	34.65	32.4	34.45	32.2	34.25	32.0	34.05	31.9	33.85	31.7
Optimum Operating Current (Imp/A)	17.32	13.97	17.28	13.94	17.23	13.89	17.19	13.86	17.14	13.81
Open Circuit Voltage (Voc/V)	41.85	39.4	41.65	39.2	41.45	39.1	41.25	38.9	41.05	38.7
Short Circuit Current (Isc/A)	18.31	14.73	18.27	14.7	18.22	14.66	18.18	14.63	18.13	14.59
Module Efficiency (%)	2	1.2	2	1.0	2	0.8	20	0.7	2	0.5

 $STC: Irradiance\ 1000\ W/m^2, module\ temperature\ 25\ ^\circ C,\ AM=1.5;\ NMOT: Irradiance\ 800\ W/m^2,\ ambient\ temperature\ 20\ ^\circ C,\ AM=1.5,\ wind\ speed\ 1\ m/s;\ Tolerance\ of\ Pmax\ is\ within\ +/-\ 3\%;\ Ambient\ temperature\ 20\ ^\circ C,\ AM=1.5,\ wind\ speed\ 1\ m/s;\ Tolerance\ of\ Pmax\ is\ within\ +/-\ 3\%;\ Ambient\ temperature\ 20\ ^\circ C,\ AM=1.5,\ wind\ speed\ 1\ m/s;\ Tolerance\ of\ Pmax\ is\ within\ +/-\ 3\%;\ Ambient\ temperature\ 20\ ^\circ C,\ AM=1.5,\ wind\ speed\ 1\ m/s;\ Tolerance\ of\ Pmax\ is\ within\ +/-\ 3\%;\ Ambient\ temperature\ 20\ ^\circ C,\ AM=1.5,\ wind\ speed\ 1\ m/s;\ Tolerance\ of\ Pmax\ is\ within\ +/-\ 3\%;\ Ambient\ temperature\ 20\ ^\circ C,\ AM=1.5,\ wind\ speed\ 1\ m/s;\ Tolerance\ of\ Pmax\ is\ within\ +/-\ 3\%;\ Ambient\ temperature\ 20\ ^\circ C,\ AM=1.5,\ wind\ speed\ 1\ m/s;\ Tolerance\ of\ Pmax\ is\ within\ +/-\ 3\%;\ Ambient\ temperature\ 20\ ^\circ C,\ AM=1.5,\ wind\ speed\ 1\ m/s;\ Tolerance\ of\ Pmax\ is\ within\ +/-\ 3\%;\ Ambient\ temperature\ 20\ ^\circ C,\ AM=1.5,\ wind\ speed\ 1\ m/s;\ Tolerance\ of\ Pmax\ is\ within\ +/-\ 3\%;\ Ambient\ temperature\ 20\ ^\circ C,\ AM=1.5,\ wind\ speed\ 1\ m/s;\ Tolerance\ of\ Pmax\ is\ within\ +/-\ 3\%;\ Ambient\ temperature\ 20\ ^\circ C,\ AM=1.5,\ wind\ speed\ 1\ m/s;\ Tolerance\ 1\ m/s;\ Tole$

Different Rearside Power Gain Reference to 590S Front

Rearside Power Gain	5%	15%	25%
Maximum Power at STC (Pmax)	619.5	678.5	737.5
Optimum Operating Voltage (Vmp/V)	34.25	34.25	34.35
Optimum Operating Current (Imp/A)	18.09	19.81	21.54
Open Circuit Voltage (Voc/V)	41.5	41.5	41.6
Short Circuit Current (Isc/A)	19.13	20.95	22.78
Module Efficiency (%)	21.9	24.0	26.1

14 C) 12 T 15 10 6 4 4 2

== 1000 W/m² ==== 800 W/m² ==== 400 W/m² ==== 200 W/m

Graphs Current-Voltage & Power-Voltage (600S)

Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C	
Temperature Coefficient of Pmax	-0.34%/°C	
Temperature Coefficient of Voc	-0.26%/°C	
Temperature Coefficient of Isc	0.050%/°C	

Information on how to install and operate this product is available in the installation instruction. All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences of the modules relative to the figures as well as discolorations of/in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.



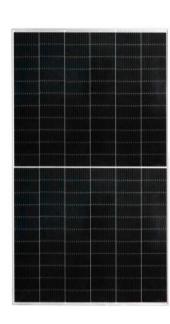
HALF-CELL MONOFACIAL MODULE

TYPE: STPXXXS - D66/Wmh

POWER OUTPUT

MAX EFFICIENCY

21.6% 650-670W



Features



High module conversion efficiency

Module efficiency up to 21.6% achieved through advanced cell technology and manufacturing process



Lower operating temperature

Lower operating temperature and temperature coefficient increases the power output



Zeoluff current sorting process

Up to 2% power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output



Extended wind and snow load tests

Module certified to withstand extreme wind (2400 Pascal) and



Excellent weak light performance

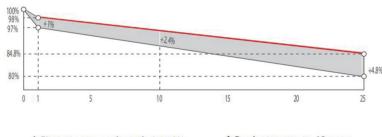
More power output in weak light condition, such as cloudy, morning



Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

Industry-leading Warranty *



First year power degradation: 2%

◆ Annual degradation: 0.55% ♦ linear warranty: 25 years

◆ Product warranty: 12 years

Certifications and Standards

CE IEC 61730 IEC 61215 SA 8000 Social Responsibility Standards ISO 9001 Quality Management System ISO 14001 Environment Management System ISO 45001 Occupational Henlth and Safety IEC TS 62941 Guideline for module design qualification and type approval







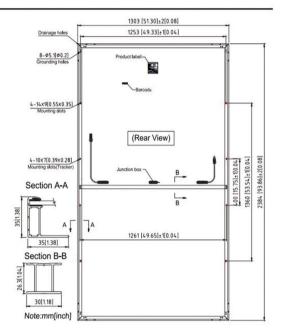




STPXXXS - D66/Wmh 650-670W

Mechanical Characteristics

Solar Cell	Monocrystalline silicon 210 mm	
No. of Cells	132 (6 × 22)	
Dimensions	2384 × 1303 × 35 mm (85.5 × 51.3 × 1.4 inches)	
Weight	34.5 kgs (69.4 lbs.)	
Front Glass	3.2 mm (0.126 inches) fully tempered glass	
Output Cables	4.0 mm², (-) 350 mm (+) 160 mm in length or customized length	
Junction Box	IP68 rated (3 bypass diodes)	
Operating Module Temperature	-40 °C to +85 °C	
Maximum System Voltage	1500 V DC (IEC)	
Maximum Series Fuse Rating	30 A	
Power Tolerance	0/+5 W	



Electrical Characteristics

Module Type	STP 670 S-	D66/Wmh	STP 665 S-	D66/Wmh	STP 660 S-	D66/Wmh	STP 655 S-	D66/Wmh	STP 650 S-	D66/Wmh
Testing Condition	STC	NMOT								
Maximum Power (Pmax/W)	670	505.5	665	501.7	660	497.9	655	494.1	650	490.3
Optimum Operating Voltage (Vmp/V)	38.45	35.8	38.25	35.7	38.05	35.6	37.85	35.4	37.65	35.2
Optimum Operating Current (Imp/A)	17.43	14.1	17.39	14.07	17.35	13.99	17.31	13.96	17.27	13.92
Open Circuit Voltage (Voc/V)	46.45	43.7	46.25	43.5	46.05	43.4	45.85	43.2	45.65	43
Short Circuit Current (Isc/A)	18.43	14.87	18.39	14.84	18.35	14.76	18.31	14.73	18.27	14.7
Module Efficiency (%)	2	1.6	2	1.4	2	1.2	2	1.1	2	0.9

 $STC: Irradiance\ 1000\ W/m^2, module\ temperature\ 25\ ^{\circ}C,\ AM=1.5;\ NMOT: Irradiance\ 800\ W/m^2,\ ambient\ temperature\ 20\ ^{\circ}C,\ AM=1.5,\ wind\ speed\ 1\ m/s;\ Tolerance\ of\ Pmax\ is\ within\ +/-\ 3\%;\ Tolerance\ of\ Pmax\ is\ within\ +/-\ 13\%;\ Tolerance\ of\ Pmax\ is\ pma$

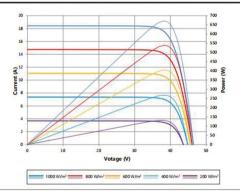
Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of Pmax	-0.34%/°C
Temperature Coefficient of Voc	-0.26%/°C
Temperature Coefficient of Isc	0.050%/°C

Packing Configuration

acking configuration	
Container	40 ′HC
Pieces per container	558





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Information on how to install and operate this product is available in the installation instruction. All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences of the modules relative to the figures as well as discolorations of/in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.



TYPE: STPXXXS - D66/Pmh+

POWER OUTPUT

MAX EFFICIENCY

650-670W 21.6%



Features



High module conversion efficiency

Module efficiency up to 21.6% achieved through advanced cell technology and manufacturing process



Lower operating temperature

Lower operating temperature and temperature coefficient increases the power output



Zeoluff current sorting process

Up to 2% power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output



Extended wind and snow load tests

Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal) *



Excellent weak light performance

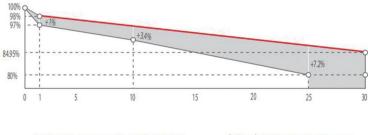
More power output in weak light condition, such as cloudy, morning



Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

Industry-leading Warranty *



- ◆ First year power degradation: 2%
- ◆ Product warranty: 12 years
- ◆ Annual degradation: 0.45% ♦ linear warranty: 30 years

Certifications and Standards

CE IEC 61730 IEC 61215 SA 8000 Social Responsibility Standards ISO 9001 Quality Management System ISO 14001 Environment Management System ISO 45001 Occupational Henlth and Safety

IEC TS 62941 Guideline for module design qualification and type approval

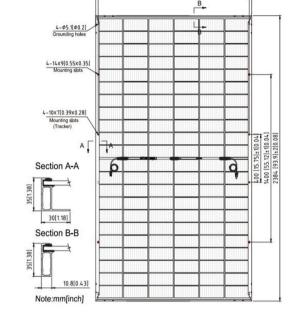




STPXXXS - D66/Pmh+ 650-670W

Mechanical Characteristics

Solar Cell	Monocrystalline silicon 210 mm	
No. of Cells	132 (6 × 22)	
Dimensions	2384 × 1303 × 35 mm (93.9 × 51.3 × 1.4 inches)	
Weight	39.9 kgs (88.0 lbs.)	
Front \ Back Glass	2.0+2.0 mm (0.079+ 0.079inches) semi-tempered glass	
Output Cables	4.0 mm², (-) 350 mm and (+) 160 mm in length or customized length	
Junction Box	IP68 rated (3 bypass diodes)	
Operating Module Temperature	-40 °C to +85 °C	
Maximum System Voltage	1500 V DC (IEC)	
Maximum Series Fuse Rating	30 A	
Power Tolerance	0/+5 W	
Refer. Bifaciality Factor	(70 ± 5)%	
Packing Configuration	558 Pieces per container / 40 ' HC	



Electrical Characteristics

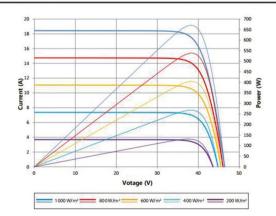
Module Type	STP670S-	D66/Pmh+	STP 665 S-	D66/Pmh+	STP 660 S-	D66/Pmh+	STP 655 S-	D66/Pmh+	STP 650 S-	D66/Pmh+
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	670	505.5	665	501.7	660	497.9	655	494.1	650	490.3
Optimum Operating Voltage (Vmp/V)	38.45	35.8	38.25	35.7	38.05	35.6	37.85	35.4	37.65	35.2
Optimum Operating Current (Imp/A)	17.43	14.10	17.39	14.07	17.35	13.99	17.31	13.96	17.27	13.92
Open Circuit Voltage (Voc/V)	46.45	43.7	46.25	43.5	46.05	43.4	45.85	43.2	45.65	43.0
Short Circuit Current (Isc/A)	18.43	14.87	18.39	14.84	18.35	14.76	18.31	14.73	18.27	14.70
Module Efficiency (%)	2	1.6	2	1.4	2	1.2	2	1.1	20	0.9

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5: NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s: Tolerance of Pmax is within +/- 3%

Different Rearside Power Gain Reference to 660S Front

Rearside Power Gain	5%	15%	25%	
Maximum Power at STC (Pmax)	693. 0	759. 0	825. 0	
Optimum Operating Voltage (Vmp/V)	38. 1	38. 1	38. 2	
Optimum Operating Current (Imp/A)	18. 22	19. 95	21. 69	
Open Circuit Voltage (Voc/V)	46. 1	46. 1	46. 2	
Short Circuit Current (Isc/A)	19. 27	21. 10	22. 94	
Module Efficiency (%)	22.3	24. 4	26. 6	

Graphs Current-Voltage & Power-Voltage (670S)



Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of Pmax	-0.34%/°C
Temperature Coefficient of Voc	-0.26%/℃
Temperature Coefficient of Isc	0.050%/℃