



Single Phase
Hybrid Inverter

X1-Hybrid

High Voltage

**Simple.
Reliable.
Efficient**



6000W Charger/
Discharger Rate



3 Inverter
Models



IP65
Rated



Remote
Monitoring

3kW

3.7kW

X1-HYBRID-3.0T / X1-HYBRID-3.7T X1-HYBRID-4.6T / X1-HYBRID-5.0T

SolaX Power is delighted to announce the launch of the eagerly anticipated third generation of our market-leading solar battery storage product Hybrid inverter. The X-Hybrid battery storage inverter is compatible with the leading lithium-ion battery solutions available on the market today making it the most popular energy storage solution.



Version: E,C,I
E:with EPS function C:without EPS function
I:internal EPS function device



X1-HYBRID HV (SINGLE PHASE)

Version: E,C,I
 E:with EPS function
 C:without EPS function
 I:internal EPS function device

X1-HYBRID-3.0T

X1-HYBRID-3.7T

X1-HYBRID-4.6T

X1-HYBRID-5.0T

INPUT (DC)	X1-HYBRID-3.0T			X1-HYBRID-3.7T			X1-HYBRID-4.6T			X1-HYBRID-5.0T		
	C Version	E Version	I Version	C Version	E Version	I Version	C Version	E Version	I Version	C Version	E Version	I Version
Max.PV array power [Wp]		4500			5550			7500				
Max.DC voltage [V]		600			600			600				
Nominal DC operating voltage [V]		360			360			360				
Max. input current (input A/input B) [A]		12/12			12/12			12/12				
Max. short circuit current (input A/input B) [A]		14/14			14/14			14/14				
MPPT voltage range[V]		125-550			125-550			125-550				
Start operating voltage[V]		150			150			150				
No. of MPP trackers		2			2			2				
Strings per MPPT tracker		1/1			1/1			1/1				
INPUT (AC)												
Max. apparent AC power[VA]	3000	3000	7000	3680	3680	7680	4999	4999	9999			
Max. AC current[A]	14.4	14.4	36.1	16.0	16.0	37.7	21.7	21.7	47.7			
Nominal grid voltage(AC voltage range)[V]	220/230/240(180-270)			220/230/240(180-270)			220/230/240(180-270)					
Nominal grid Frequency/range[Hz]	50/60			50/60			50/60					
OUTPUT (AC)												
Nominal AC power [VA]	3000			3680			4999					
Max. apparent AC power [VA]	3300			4048(3680 for G98)			5500(4999 for AS4777;4600 for VDE4105)					
Nominal grid voltage(AC voltage range) [V]	220/230/240(180-270)			220/230/240(180-270)			220/230/240(180-270)					
Nominal grid frequency/range [Hz]	50/60			50/60			50/60					
Nominal AC current [A]	13			16			21.7					
Max. AC current [A]	14.3			17.6 (16 for G98)			23.9 (20 for VDE4105;21.7 for AS4777)					
Displacement power factor				0.8 leading ... 0.8 lagging								
THDi, rated power [%]				<2								
OUTPUT DC (BATTERY)												
Battery voltage range [V]				85-400								
Recommended battery voltage[V]				300								
Max.continuous charge/discharge current [A]				20								
Communication interfaces				CAN/RS485								
Reverse connect protection				Yes								
OFF-GRID OUTPUT (WITH BATTERY)												
MAX. continuous apparent power [VA]	4000			4000			5000					
Rated voltage[V],Frequency [Hz]	230, 50/60			230, 50/60			230, 50/60					
MAX.continuous current [A]	21.7			21.7			26.0					
Peak apparent power [VA] Duration [s]	6000 10			6000 10			8000 10					
Changeover time [ms]				<20 for I version / <500 for E version								
THDv, linear Load [%]				<2								
EFFICIENCY												
MPPT efficiency [%]				99.9								
Euro efficiency [%]				97.0								
Max. efficiency [%]				97.8								
Battery charge/discharge efficiency [%]				98.5 (PV-BAT) 97.0 (BAT-AC)								
POWER CONSUMPTION												
Standby consumption (Night) [W]				<15 for hot standby, <3 for cold standby								
STANDARD												
Safety				IEC62109-1/-2								
EMC				EN61000-6-1/EN61000-6-2/EN61000-6-3								
Certification				VDE 0126-1-1 A1:2012 / VDE-AR-N 4105 /G99 /G98 / AS4777 / EN50549/ CEI 0-21 /VDE 2510 / and so on								
ENVIRONMENT LIMIT												
Degree of protection(according to IEC60529)				IP65								
Operating temperature range [°C]				-20 ~ +60 (derating at+45)								
Max. operation altitude [m]				<2000								
Humidity [%]				0 ~ 100 (condensing)								
Storage temperature [°C]				-20 ~ +60								
Typical noise emission [dB]				40								
DIMENSION AND WEIGHT												
Dimensions(WxHxD) [mm]				476*464*180								
Weight[kg]				24								
Cooling concept				Natural								
Topology				Non-isolated								
Communication interfaces				Ethernet/Meter/Pocket WiFi(optional)/Pocket LAN(optional)/Pocket GPRS(optional)/DRM/USB/ISO alarm/CT								
LCD display				Backlight 20*4 character								
Standard warranty [years]				5-10								

TRIPLE POWER

- Safest LiFePO₄ battery
- 90% DOD
- Cycle life > 6000 times
- IP55 protection level
- Floor or wall mounting
- Less self consumption
- Quick installation
- No toxic heavy metals or caustic materials



TRIPLE
POWER

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T-BAT SYS-HV Configuration List

T-BAT H 5.8

Nominal Voltage [V]	115.2
Operating Voltage [V]	100-131
Battery Type	Li-on (LFP)
Nominal Capacity [kWh]	5.8
Faradic Charge Efficiency [%]	99
Battery Roundtrip Efficiency [%]	95
Standard Power [kW]	2.9
Max Power [kW]	4.0
Recommend Charge/Discharge Current [A]	25
Max Charge/Discharge Current [A]	35
Cycle Life [90% DOD]	>6000 Cycles
Warranty [Year]	10
Available Operating Temperature Range [C]	0 to 55
Full-load Operating Temperature Range [C]	5 to 48
Humidity [%]	4 to 100 (condensing)
Altitude [m]	Below 2000
Protection	IP55
System to Inverter	CAN2.0
Battery to Battery/BMS	RS485
Data Collection Port /FW UPDATE	CAN2.0
Master Control Working Mode Indicator	1 LED
Master Control Capacity Indicator	4LED (25%, 50%, 75%, 100%)
Battery Module LED	2 LED
Reset	Button
Switch ON/OFF	Button*1 + breaker*1
Safety	CE, RCM, TUV(IEC62619) UL1973,ROHS,REACH
UN Number	UN3840
Hazardous Materials Classification	Class 9
Transport Testing Requirement	UN38.3
Dimensions(LxWxH) [mm]	474*193*708 (T-BAT H 5.8) / 474*193*647 (HV11550)
Weight [kg]	72.2 (T-BAT H 5.8) / 68.5 (HV11550)

*The Triple Power battery could be scalable up to 4 modules, for a total of 23.2kWh.

HiPower Series

144-CELL HALF CUT MONOCRYSTALLINE
SOLAR MODULE

450 Watt

STPXXXS - B72H/Vnh



Features



High power output

Compared to 158.75mm module, the power output can increase 25W-30W



Suntech current sorting process

System output maximized by reducing mismatch losses up to 2% with modules sorted & packaged by amperage



Excellent weak light performance

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



Lower operating temperature

Lower operating temperature and temperature coefficient increases the power output



Extended load tests

Module certified to withstand front side maximum static test load (5400 Pascal) and rear side maximum static test loads (3800 Pascal) *



Withstanding harsh environment

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

Certifications and standards:
IEC 61215, IEC 61730, conformity to CE



Trust Suntech to Deliver Reliable Performance Over Time

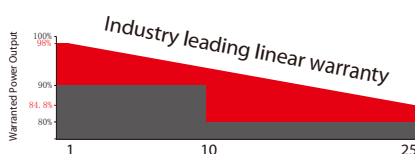
- World-class manufacturer of crystalline silicon photovoltaic modules
- Unrivaled manufacturing capacity and world-class technology
- Rigorous quality control meeting the highest international standards: ISO 9001, ISO 14001 and ISO17025
- Regular independently checked production process from international accredited institute/company
- Long-term reliability tests
- 2 × 100% EL inspection ensuring defect-free modules

Special Cell Design



The unique cell design leads to reduced electrodes resistance and smaller current, thus enables higher fill factor. Meanwhile, it can reduce losses of mismatch and cell wear, and increase total reflection.

Industry-leading Warranty based on nominal power



- 98% in the first year, thereafter, for years two (2) through twenty-five (25), 0.55% maximum decrease from MODULE's nominal power output per year, ending with the 84.8% in the 25th year after the defined WARRANTY STARTING DATE.****
- 15-year product warranty
- 25-year linear performance warranty

IP68 Rated Junction Box



The Suntech IP68 rated junction box ensures an outstanding waterproof level, supports installations in all orientations and reduces stress on the cables. High reliable performance, low resistance connectors ensure maximum output for the highest energy production.

* Please refer to Suntech Standard Module Installation Manual for details. **WEEE only for EU market.

*** Please refer to Suntech Product Warranty for details.
made in China & Vietnam

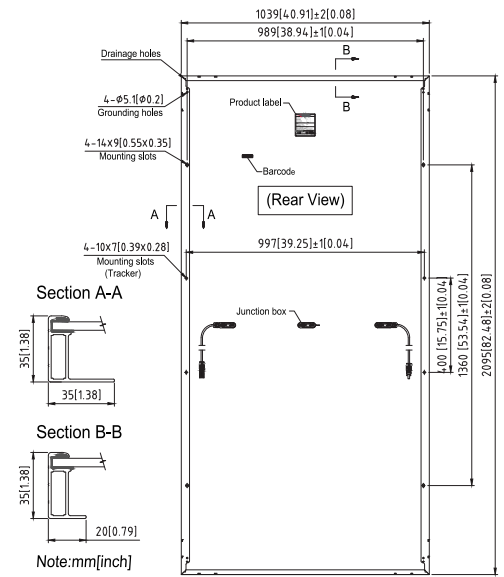
Electrical Characteristics

STC	STPXXS-B72H/Vnh				
Maximum Power at STC (Pmax)	450 W	445 W	440 W	435 W	430 W
Optimum Operating Voltage (Vmp)	41.4 V	41.2 V	41.0 V	40.8 V	40.6 V
Optimum Operating Current (Imp)	10.87 A	10.81 A	10.74 A	10.67 A	10.60 A
Open Circuit Voltage (Voc)	49.2 V	49.0 V	48.8 V	48.6 V	48.4 V
Short Circuit Current (Isc)	11.61 A	11.54 A	11.47 A	11.40 A	11.32 A
Module Efficiency	20.7%	20.4%	20.2%	20.0%	19.8%
Operating Module Temperature	-40 °C to +85 °C				
Maximum System Voltage	1500 V DC (IEC)				
Maximum Series Fuse Rating	20 A				
Power Tolerance	0/+5 W				

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

NMOT	STPXXS-B72H/Vnh				
Maximum Power at NMOT (Pmax)	339.4 W	335.8 W	332.7 W	327.7 W	324.6 W
Optimum Operating Voltage (Vmp)	38.2 V	38.0 V	37.8 V	37.6 V	37.5 V
Optimum Operating Current (Imp)	8.89 A	8.84 A	8.78 A	8.73 A	8.67 A
Open Circuit Voltage (Voc)	46.2 V	46.0 V	45.8 V	45.5 V	45.4 V
Short Circuit Current (Isc)	9.37 A	9.31 A	9.25 A	9.20 A	9.13 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	-0.36%/°C
Temperature Coefficient of Voc	-0.304%/°C
Temperature Coefficient of Isc	0.050%/°C

Mechanical Characteristics

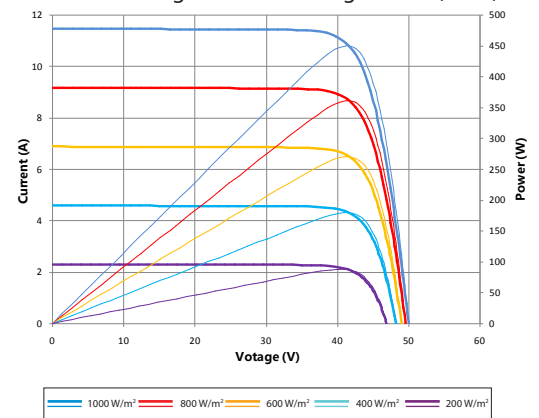
Solar Cell	Monocrystalline silicon 166 mm
No. of Cells	144 (6 × 24)
Dimensions	2095 × 1039 × 35 mm (82.5 × 40.9 × 1.4 inches)
Weight	24.5 kgs (54.0 lbs.)
Front Glass	3.2 mm (0.13 inches) tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	4.0 mm ² , Portrait: (-)350 mm and (+)160 mm in length Landscape: (-)1400 mm and (+)1400 mm in length or customized length
Connectors	Genuine MC4 EVO2, TL-Cable01S
Fire Class Rating	C in accordance with UL 790

Packing Configuration

Container	20' GP	40' HC
Pieces per pallet	31	31
Pallets per container	5	22
Pieces per container	155	682
Packaging box dimensions	2125×1130×1205 mm	
Packaging box weight	812 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.

Current-Voltage & Power-Voltage Curve (450S)



Dealer information

