

Three Phase
Hybrid Inverter

X3-Hybrid

High Voltage



**Simple.
Reliable.
Efficient**



3-phase
Unbalance Output



High
Efficiency



IP65
Rated



Remote
Monitoring

5kW

6kW

X3-HYBRID-5.0T / X3-HYBRID-6.0T X3-HYBRID-8.0T / X3-HYBRID-10.0T

The new X-Hybrid 3-phase inverter from SolaX is the latest incarnation of the market leading range of hybrid inverters, offering a flexible and scalable solution for both domestic and commercial applications. The 3-phase series includes inverters ranging in size from 5 to 10kW, and with the ability to install multiple inverters in parallel, scalable battery storage for commercial applications is now a reality. The Inverter is equipped with EPS (Emergency Power Supply) function only when supported by extra changeover devices, had multiple communication options and can be controlled remotely.





X3-HYBRID (THREE PHASE)

X3-HYBRID-5.0T

X3-HYBRID-6.0T

X3-HYBRID-8.0T

X3-HYBRID-10.0T

INPUT (DC)

Max.PV array power [Wp]	7500	9000	12000	15000
Max.DC voltage [V]	1000	1000	1000	1000
Nominal DC operating voltage [V]	720	720	720	720
Max. input current (input A/input B) [A]	12/12	12/12	24/12	24/12
Max. short circuit current (input A/input B) [A]	14/14	14/14	28/14	28/14
MPPT voltage range[V]	180-950	180-950	180-950	180-950
Start operating voltage[V]	180	180	180	180
No. of MPP trackers	2	2	2	2
Strings per MPPT tracker	1/1	1/1	2/1	2/1

INPUT AC

Max. apparent AC power[VA]	5000	6000	8000	10000
Max. AC current[A]	8.0	9.6	12.8	15.9
Nominal grid voltage(AC voltage range)[V]	400/230;380/220	400/230;380/220	400/230;380/220	400/230;380/220
Nominal grid Frequency/range[Hz]	50/60	50/60	50/60	50/60

OUTPUT AC

Nominal AC power [VA]	5000	6000	8000	10000
Max. apparent AC power [VA]	5500	6600	8800	11000
Nominal grid voltage(AC voltage range) [V]	400/230;380/220			
Nominal grid frequency/range [Hz]	50/60			
Nominal AC current [A]	7.2	8.7	11.6	14.5
Max. AC current [A]	8.0	9.6	12.8	15.9
Displacement power factor	0.8 leading ... 0.8 lagging			
THDi, rated power [%]	<3			

OUTPUT DC (BATTERY)

Battery voltage range [V]	160-800			
Max.continuous charge/discharge current [A]	25			
Communication interfaces	CAN/RS485			
Reverse connect protection	Yes			

OFF-GRID OUTPUT (WITH BATTERY)

MAX. continuous apparent power [VA]	5000	6000	8000	10000
Rated voltage[V],Frequency [Hz]	400/230VAC;380/220VAC; 50/60			
MAX.continuous current [A]	7.2	8.7	11.6	14.5
Peak apparent power [VA] Duration[s]	<10000 60	<12000 60	<14000 60	<15000 60
Changeover time [s]	<1.5			
THDv, linear Load [%]	<2			

EFFICIENCY

MPPT efficiency [%]	99.9			
Euro efficiency [%]	97.0			
Max. efficiency [%]	97.8			
Battery charge/discharge efficiency [%]	97.0/96.0	97.0/96.0	97.5/96.5	97.5/96.5

POWER CONSUMPTION

Standby consumption (Night) [W]	<25 for hot standby, <3 for cold standby			
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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 / G98 / AS4777 / EN50549 / CEI 0-21 / 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]	457*654*228			
Weight[kg]	45			
Cooling concept	Natural			
Topology	Non-isolated			
Communication interfaces	Ethernet/Meter/Pocket WiFi(optional)/Pocket LAN(optional)/Pocket GPRS(optional)/DRM/USB/ISO alarm/CAN/BMS/NTC			
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

Global: +86 571-56260011

Email: info@triple-power.com

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

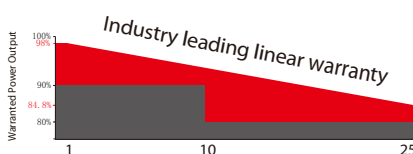
- World-class manufacturer of crystalline silicon photovoltaic modules
- Unrivaled manufacturing capacity and world-class technology
- Rigorous quality control meeting the highest international standards: ISO 9001, ISO 14001 and ISO17025
- Regular independently checked production process from international 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

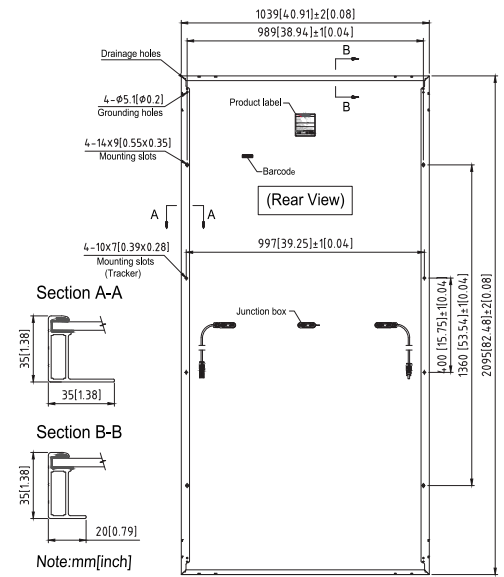
Electrical Characteristics

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

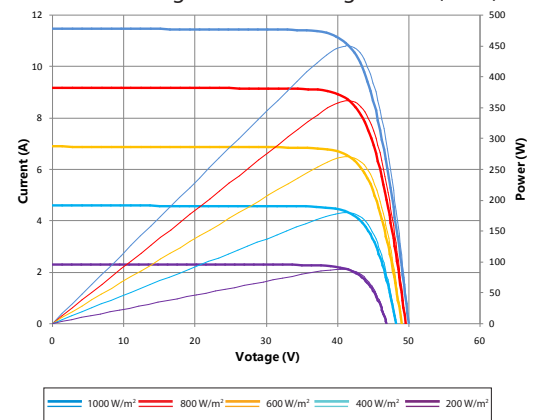
Solar Cell	Monocrystalline silicon 166 mm
No. of Cells	144 (6 × 24)
Dimensions	2095 × 1039 × 35 mm (82.5 × 40.9 × 1.4 inches)
Weight	24.5 kgs (54.0 lbs.)
Front Glass	3.2 mm (0.13 inches) tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	4.0 mm ² , Portrait: (-)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

