Model	HIBS 3.5KW	HIBS 5.5KW
Rated Power	3500VA/3500W	5500VA/5500W
Input		
Voltage	230VAC	
Selectable Voltage Range	170～280VAC(For Personal Computers)	
	90～280VAC(For Home Appliances)	
Frequency Range	50Hz/60Hz(Auto sensing)	
Output		
AC Voltage Regulation(Batt.Mode)	230VAC±5%	
Surge Power	7000VA	11000VA
Efficienc(Peak)PV to INV	97%	
Efficienc(Peak)Battery to INV	94%	
Transfer Time	10ms(For Pensonal Computers);20ms(For Home Appliances	
Battery & AC Charger		
Battery Voltage	24VDC	48VDC
Floating Charge Voltage	27VDC	54VDC
Overcharge Protection	33VDC	63VDC
Maximum Charge Current	80A	80A
Solar Charger		
Maximum PV Array Power	5000W	6000W
MPPT Range @ Operating Voltage	120～450VDC	
Maximum PV Array Open Circuit Voltage	500VDC	
Maximum Charging Current	100A	100A
Maximum Efficiency	98%	
Physical		
Dimension,D*W*H(mm)	100*300*440	
Net Weight(kgs)	11	12
Communication Interface	USB/RS232/GPRS/WIFI	
Operating Environment		
Mumidity	5% to 95% Relative Humidity(Non～condensing)	
Operating Temperature	0℃～55℃	
Storage Temperature	-15℃～60℃	

PYLONTECH Cube the force

Residential BESS

Rack Mounted type-LV

Safety
Multi-protection from self developed BMS

Optimal Electricity Cost
Long cycle life and superior performance

Compact Size & East Installation
Module design help for quick installation

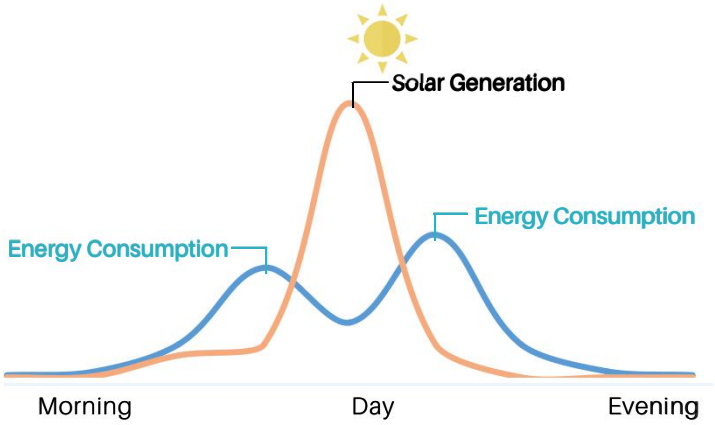
Easy to Scale Up
Be workable to be parallel based on 48V

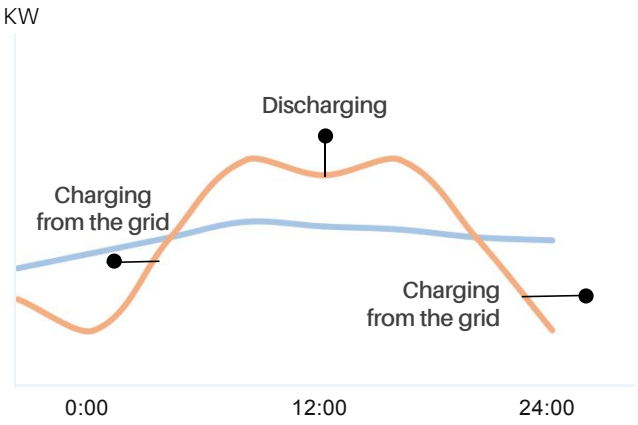
Compatibility
Compatible with Tier 1 inverter brands

How to save bill from Residential ESS?

1. Self-Consumption Optimization

High energy demand in the morning and evening but solar generation is most sufficient during the Mid-Day. Battery Storage system balance the feeding and demands. Realize your grid independence.





2. Benefits from Peak Shaving

House: Load Shifting

Store the power during low-peak and use the energy at peak-time. Save the money which happens arising from peak rate.

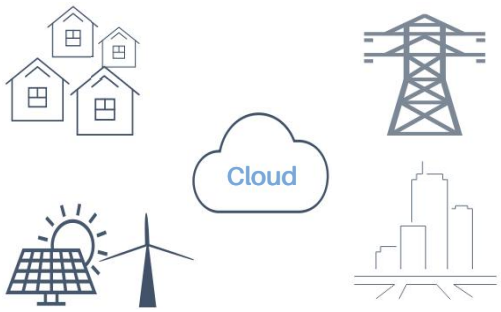
Transmission&Distribution: peak Shaving

Save on the electricity bills by reducing peak demand

3. VPP Revenue

VPP creates a network of renewable energy sources and battery storage systems, connected through a cloud-based technology that manages the stability of clean electricity to maximize your revenue.

Enabling a cost reduction, as well as boosting the system's efficiency



SPECIFICATION (48V)

Module		US2000C	US3000C	US5000
Basic Parameters				
Nominal Voltage (Vdc)		48	48	48
Nominal Capacity(Wh)		2400	3552	4800
Usable Capacity(Wh)		2280	3374	4560
Dimension(mm)		442*410*89	442*420*132	442*420*161
Weight(kg)		22.5	32	39.7
Charge/ Discharge Current(A)	(Recommend)	25	37	80*
	(Max. Continuous)	25	37	100*
	(Peak 1)	50~89@60sec	74~89@60sec	101~120@15min
	(Peak 2)	90~200@15sec	90~200@15sec	121~200@15sec
Communication Port			RS485,CAN	
Single string quantity(pcs)		16	16	16
Working Temperature/ ℃	Charge		0~50	
Working Temperature/ ℃	Discharge		-10~50	
Shelf Temperature/ ℃			-20~60	
Short current/duration time		<4000A/2ms	<4000A/2ms	<2000A/1ms
IP rating of enclosure			IP20	
Cooling type			Natural	
Humidity			5% ~ 95%(RH) No Condensation	
Altitude(M)			<4000	
Design life			15+ Years (25℃/77˚F)	
Cycle Life			>6,000 25℃	
Authentication Level		UL1642/ IEC62619 /ICE63056 /ICE61000-6-2/3 UN38.3	UL1973 /UL1642/UL9540A /VDE2510-50/IEC63056 /IEC62619/IEC62040/IEC62477-1 /ICE61000-6-2/UN38.3	UL1973/UL9540A IEC62619/IEC63056 /ICE61000-6-2/3 /UN38.3

*: The recommended and max. continuous operation current is for a battery cell temperature within 10~40°C to consider, out of such temp. range will cause a derating on operation current.

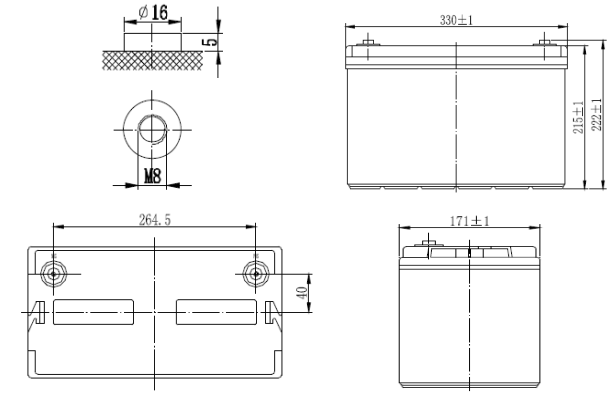
MKBL121000 12V 100Ah

The KAISE LONG LIFE Series 10 years has been designed for different applications, such as UPS, electric and telecommunications applications that require a long useful life.

Performance Characteristics

Nominal Voltage	12V	
Dimensions	Length (mm / inch)	330 / 12.99
	Width (mm / inch)	171 / 6.73
	Height (mm / inch)	215 / 8.46
	Total Height (mm / inch)	222 / 8.74
Approx. Weight	(Kg / lbs)	29 / 63.9
Design Life	10 years	
Terminal	M8	
Container Material	ABS	
Rated Capacity	104 Ah / 10.4A	(10hr ,1.70V / cell, 25ºC / 77ºF)
	85 Ah / 17.0A	(5hr, 1.70V / cell, 25ºC / 77ºF)
	59.7 Ah / 59.7A	(1hr, 1.70V / cell, 25ºC / 77ºF)
Max. Discharge Current	900A (5s)	
Internal Resistance	Approx 5.2 mΩ	
Operating Temp.Range	Discharge : -20 ~ 60ºC (-4 ~ 140ºF)	
	Charge : -10 ~ 60ºC (14 ~ 140ºF)	
	Storage : -20 ~ 60ºC (-4 ~ 140ºF)	
Nominal Operating Temp. Range	25 ± 3ºC (77 ± 5ºF)	
Cycle Use	Initial Charging Current less than 20A.	
	Voltage: 2.30VPC ~ 2.35VPC at 25ºC (77ºF)	
	Temp. Coefficient: -30mV/ºC	
Standby Use	Initial Charging Current less than 20A.	
	2.25VPC~2.30VPC at 25º C (77ºF)	
	Temp. Coefficient: -20mV/ºC	
Capacity affected by	40ºC (104ºF)	103%
	25ºC (77ºF)	100%
	0ºC (32ºF)	86%
Self Discharge	Fully charged Kaise Long Life Series batteries may be stored for up to 6 months at 25ºC (77ºF) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	

Dimensions and Terminal (Unit: mm (inches))



Applications

UPS
Telecomunications equipment
Solar energy systems
Cable TV
Power station
Marine equipment
Military equipment
Emergency power systems
Railway systems

Certifications

ISO 9001:2008 ISO 14001:2008

Discharge Current vs. Discharge Voltage

Final discharge voltage V/CELL	1,8	1,75	1,7	1,6
Discharge current (A)	I ≤ 0,1CA	0.25CA ≥ I > 0.1CA	0.55CA ≥ I > 0.25CA	I > 0.55CA

Constant Current Discharge (Amperes) at 77ºF (25ºC)

Volts/cell	15min	30min	1h	3h	5h	10h	20h
1.80V	136	87.4	57.1	22.8	16.3	10.0	5.30
1.75V	145	89.3	58.9	23.5	16.6	10.2	5.35
1.70V	156	92.2	59.7	24.1	17.0	10.4	5.40
1.65V	164	95.0	60.6	24.6	17.3	10.6	5.45
1.60V	173	98.9	61.0	25.1	17.6	10.8	5.50

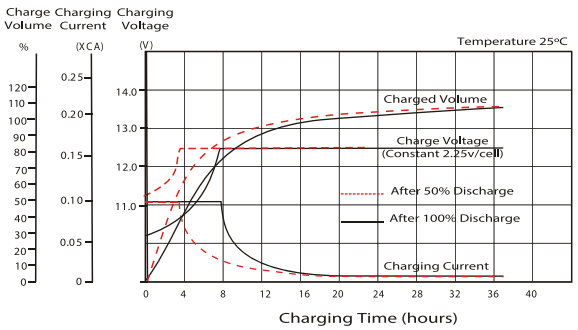
Constant Power Discharge (Watts per cell) at 77ºF (25ºC)

Volts/cell	15min	30min	1h	3h	5h
1.80V	270	164	109	45.9	32.9
1.75V	279	170	112	46.7	33.2
1.70V	290	176	116	47.3	33.3
1.65V	299	180	117	47.8	33.6
1.60V	304	186	119	48.4	33.8

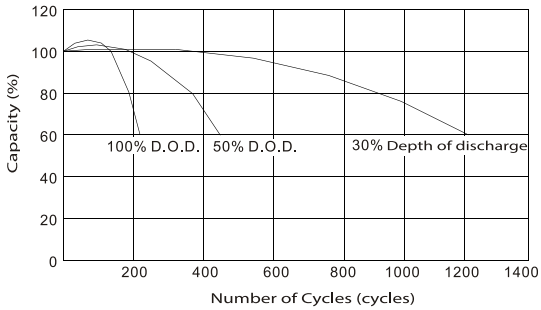
(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the mimimum values.

MKBL121000 12V 100Ah

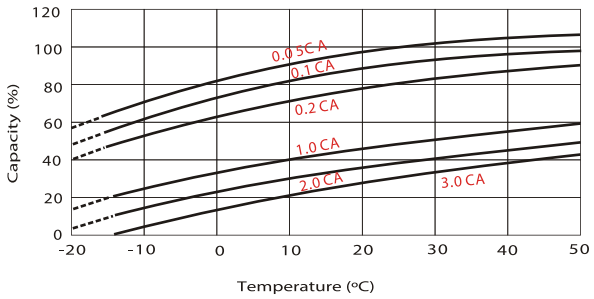
Charging Characteristics (float use)



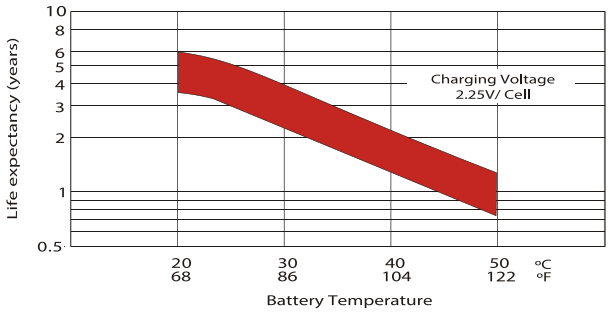
Cycle Life in Relation to Depth of Discharge



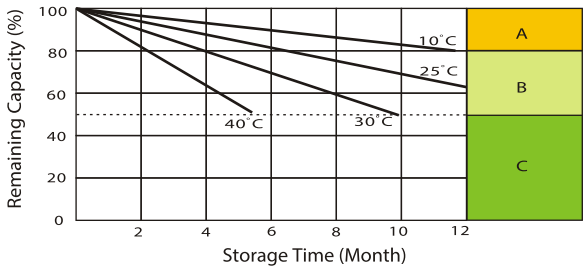
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Self Discharge Characteristics



A No supplementary charge required
(carrry out supplementary charge before use if 100% capacity is required)

B Supplementary charge required before use . Optional charging way a below:
1. Charged for above 3 days at limited current 0.25 CA and constant voltage 2.25V / cell.
2. Charged fo above 20 hours limited current 0.25CA and constant voltage 2.45V / cell.
3. Charged for 8-10 hours ar limited current 0.05 CA.

C Supplementary charge often fail to recover the capacity.
The battery should never be left standing till this is reached.

IMPORTANT NOTE: The specifications presented herein are subject to revision without notice.

SUNTECH

HIPower Series

144-CELL HALF CUT MONOCRYSTALLINE SOLAR MODULE

450 Watt

STP*XXX*S - 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) *

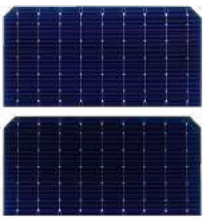
Withstanding harsh environment
Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

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

Trust Suntech to Deliver Reliable Performance Over Time

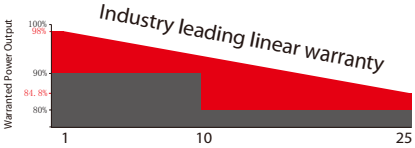
- World-class manufacturer of crystalline silicon photovoltaic modules
- Unrivaled manufacturing capacity and world-class technology
- Rigorous quality control meeting the highest international standards: ISO 9001, ISO 14001 and ISO17025
- Regular independently checked production process from international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

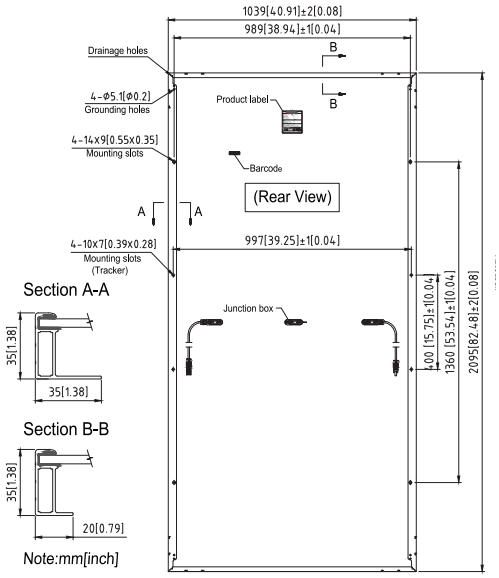
Electrical Characteristics

STC	STPXXXS-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	STPXXXS-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

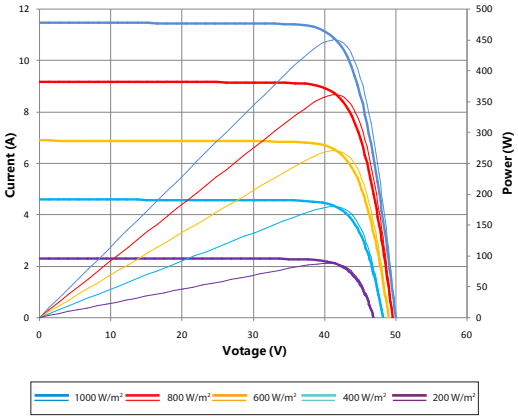
NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s.



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

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



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 mm², 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	

Dealer information

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.