

All-In-One Household Solar Energy Storage System **ESS Series**

AC Output:
3000W to 5100W

Battery Capacity:
3072Wh to 15360Wh



Flexible
investment



Solar/Grid Power/
Lithium battery
Three in One



Less Wiring
Work



Capable for
3-HP AC



Monitor real-time
data with WiFi



Li-ion batteries with up
to 6000 cycles and
a 10-year lifespan



TECHNICAL PARAMETERS



MODEL	ESS30-30	ESS30-50	ESS50-50	ESS50-100	ESS50-150
BATTERY PARAMETERS					
Battery Type	LiFePO ₄				
Nominal Battery Voltage (Vdc)	51.2				
Battery Capacity (WH)	3072	5120	10240	15360	
Maximum Charging Current/Output Current (A)	60	100			
Rated Charging/Discharging Power (W)	3000	3600	5100		
Charging Temperature(°C)	0~55				
Discharging Temperature(°C)	-20~55				
OUTPUT					
USBA*4	18W Maximum (QC Output:5V/2.4A or 9V/2A or 12V/1.5A) *4				
TYPE-C*2	100W Maximum (PD Fast Charge Output:5V/3A or 9V/3A or 12V/3A or 15V/3A or 20V/5A) *2				
5525DC Power Port*2	12V2A*2				
AC Socket*4	2000W*4				
Total AC Socket Power	3600	5600			
PHOTOVOLTAIC INPUT					
Maximum Input Power (W)	4000	6000			
Maximum Input Voltage (Vdc)	500Vdc				
MPPT Working Voltage Range (Vdc)	120-450				
Starting Voltage (Vdc)	120				
Single MPPT Input Current (A)	11	20			
Maximum Single MPPT Input Current (A)	13	22			
Number of MPPT Input Channels	1				
Number of Strings per MPPT Channel	2				
AC OUTPUT (ON-GRID)					
Nominal Grid-tied Output Power (VA)	3000	5000			
Maximum On-grid Output/Input Power (VA)	3600	5600			
Rated Output Voltage (Vac)	230				
Output Voltage Range (Vac)	180-270				
Rated Operating Frequency (Hz)	50/60(±0.2%)				
Maximum On-grid Output/Input Current (A)	17	26			
Switching Time (ms)	10				
Power Factor	0.8 leading to 0.8 lagging				
Total Harmonic Distortion	<3%				
AC OUTPUT (OFF-GRID)					
Nominal Off-grid Output Power (VA)	3000	5000			
Maximum Off-grid Output Power (VA)	3600	5600			
Maximum Off-grid Output Current (A)	17	26			
Rated Output Voltage (Vac)	230(±2%)				
Output Voltage Range (Vac)	180-270				
Rated Operating Frequency (Hz)	50/60(±0.2%)				
Total Harmonic Distortion	<3%				
EFFICIENCY					
Maximum Efficiency	>95%				
Maximum DC-AC Conversion Efficiency	>92%				
MPPT Efficiency	99.9%				
GENERAL DATA					
Operating Temperature Range (°C)	-15~55				
Relative Humidity	5%-95%				
Noise (dB)	< 60				
Communication Method	Wi-Fi				
Cooling Method	Fan cooling				
IP class	IP20				
Product Dimensions (LxWxH) (mm)	450*290*520	520*320*550	520*320*930		
Product Packaging Dimensions (LxWxH) (mm)	550*390*620	620*420*650	592*376*1000		
Net Weight (kg)	45	60	62	106	130
Gross Weight (kg)	55	70	72	126	150

PORTABLE POWER STATION **PPS300 Series**

AC Output:
300W-1000W

Battery Capacity:
1004.8Wh to 2009.6Wh



Safer LiFePO₄
Battery



Safe and
Reliable



Simple
design



Multiple
Sockets



LED light



Portable



PRODUCT DISCHARGE TIME (USING 1 KWH AS AN EXAMPLE)



Light 20W
50h



Fan 30W
33h



TV 100W
10h



Phone 2942mAh
90 Times



Laptop 60W
16h



Car refrigerator 60W
16h



Projector 100W
10h



Electric hair dryer 200W
5h



Radio
100h



Pet feeder 6W
166h

TECHNICAL PARAMETERS

MODEL	PPS300	PPS500	PPS1000
TECHNOLOGY			
Case shell	Metal		
BATTERY CAPACITY			
Capacity	3.2V,1004.8Wh(896Wh for optional)		6.4V,2009.6Wh(1792Wh for optional)
Battery	LiFePO ₄ , Single Cell 314/280Ah		LiFePO ₄ , 2* Cell 314/280Ah
Cycle life	6000 times/80%SOC		
AC OUTPUT			
Rated Power	300W, Pure sine wave	500W, Pure sine wave	1000W, Pure sine wave
Rated Voltage	230V, 50/60Hz		
AC Output port	Universal socket, optional		Universal socket*2, optional
DC OUTPUT			
USB-A *2 &Type-C *1	15W		
DC 5521 *3	12V3A,36W Max		/
CHARGING			
By Grid	3~4hours	2~3hours	
AC Input	100-270Vac, 50/60Hz, Max 300W	155-270Vac, 50/60Hz, Max 500W	155-270Vac, 50/60Hz, Max 1000W
By Solar	3~4hours		2~3hours
Solar Input	MPPT 12-55Vdc, Max 300W	MPPT 12-55Vdc, Max 350W	MPPT 12-55Vdc, Max 450W
OTHERS			
UPS	<20ms	<15ms	
Certificates	UN38.3, CE		
Operating Temperature	-10~40°C		
Protection rating	IP20		
Size	L294*W133*H194mm	L294*W140*H194mm	L
Net Weight	8.8Kg	9Kg	15.5Kg
Packing list	1*Power Station; 1*AC Power Cord;1* User's Manual		
Type of protection	Input overvoltage/undervoltage protection Output overvoltage/undervoltage/overload protection Battery overvoltage/low voltage protection Battery charging/discharge overcurrent protection short circuit/overtemperature protection		

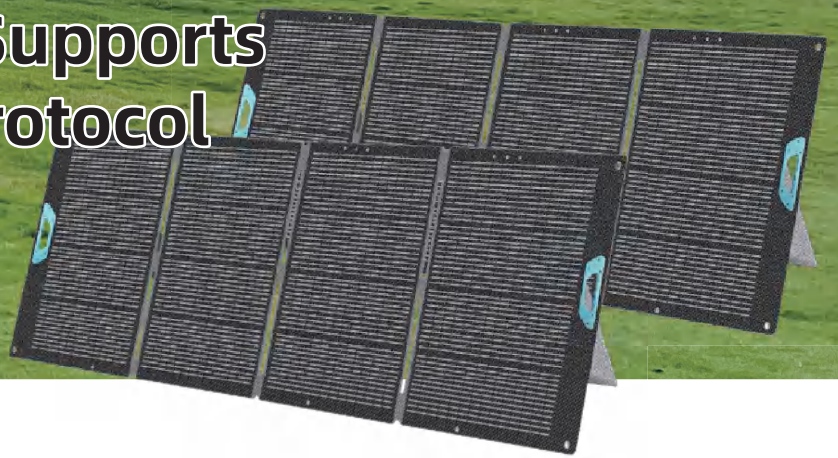
FOLDABLE SOLAR PANELS FSP Series

Maximum Rated Power

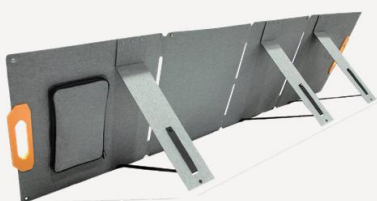
100W to 300W

Junction Box

**DC+USB+Type-C Supports
PD Fast Charge Protocol**



FEATURES



High Efficiency: 23%–25% conversion efficiency cells

Positive Tolerance: 5% positive tolerance for reliable peak power

Lightweight & Flexible: ETFE fluorine film encapsulation for high transmittance, fold toughness, and light weight

PID Resistance: Premium cells and materials deliver outstanding anti-PID performance

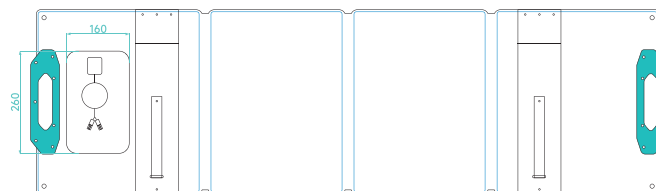
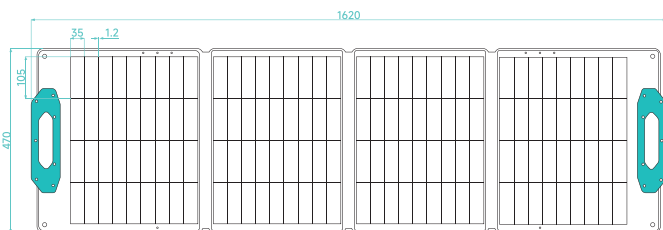
Versatile Use: Ideal for balconies, vessels, rooftops, RVs, carports, outdoors, and energy storage

TECHNICAL PARAMETERS

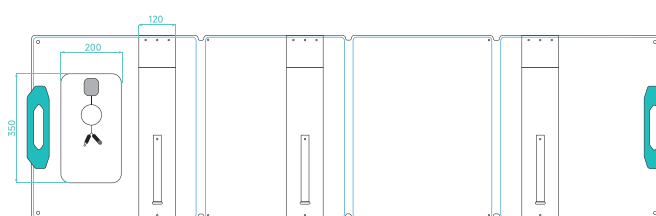
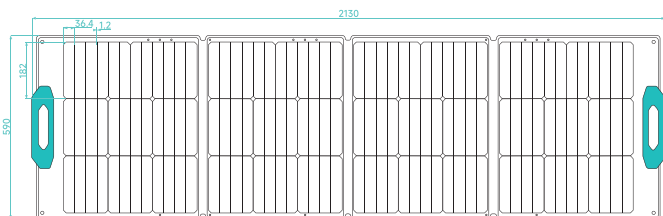


MODEL	FSP 100W	FSP 200W	FSP 300W
Maximum Power (Pmax)	100W	200W	300W
Max.-power Voltage (Vmp)	20.01V	20.43V	36.36V
Max.-power Current (Imp)	5.42A	10.13A	8.52A
Open-circuit Current (Voc)	24.48V	24.51V	44.74V
Short-circuit Current (Isc)	5.75A	10.61A	9.08A
Maximum System Voltage	1500Vdc		
*STC condition: 1000W/m², 1.5AM and 25C°cell temperature.			
Folded Size	410*460*47mm	570*590*47mm	665*735*47mm
Unfold Size	1620*470*5mm	2130*590*5mm	2510*735*5mm
Weight	4.26kg	7.54kg	9.82kg
Front Cover	High-transmittance ETFE		
Backsheet	Black epoxy		
Junction Box	DC+USB+Type-C Supports PD Fast Charge Protocol	\	DC+USB+Type-C Supports PD Fast Charge Protocol
Cable and Connector	1xMC4 connector, length 500mm		
Cell type	monocrystalline		
Operating temperature	-40~+85°C		

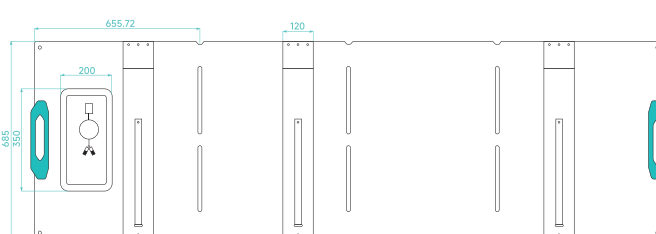
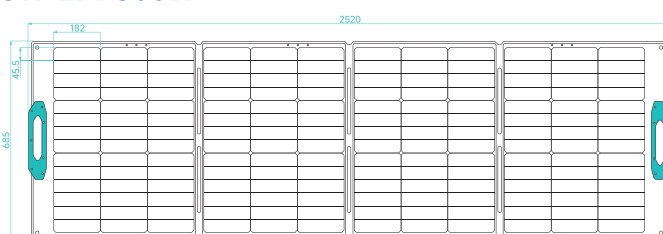
SW-EFD100W



SW-EFD200W



SW-EFD300W



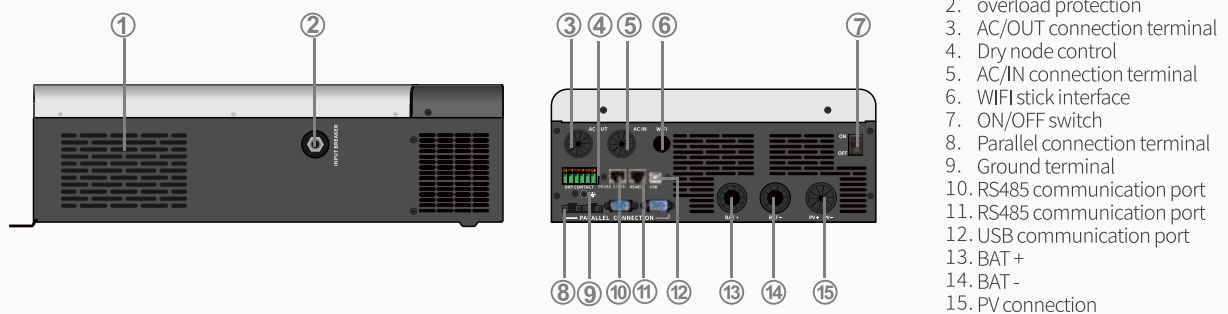
Solar Inverter TY Series

AC Output:
6KW to 12KW

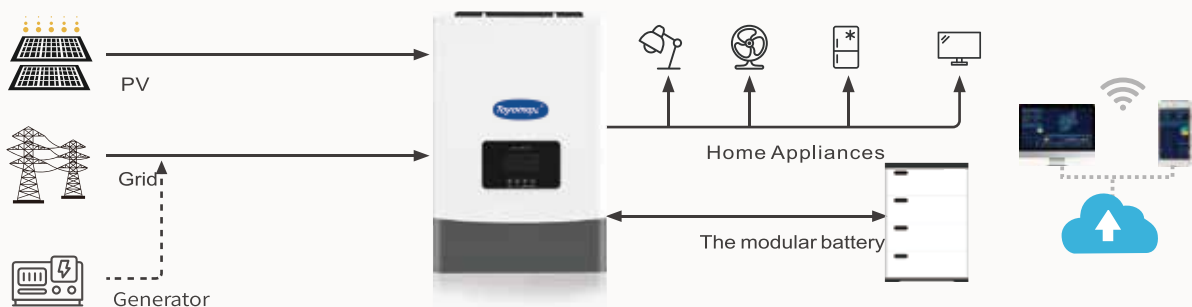
-  It has segmented charging and discharging function
-  Anti backflow grid connection function(photovoltaic mixed power supply), can set grid connection mode.
-  Equipped with energy-saving mode function, reducing no-load losses.
-  It has two output modes: mains bypass and inverter output, and has uninterrupted power supply function.
-  WiFi or GPRS: Remote monitoring and management can be achieved through a computer or mobile app.
-  Support for 6 parallel connctions.



Interface Description



Solar System Connection



MODEL

TY-6.2K-48V-EU

TY-12K-48V-EU

PARALLEL MODE		
Permitted parallel number	1~6	1~6
AC MODE		
Rated input voltage	230Vac±5%	230Vac±5%
Input voltage range	(170Vac~280Vac)±2%	(90Vac~280Vac)±2%
Frequency	50Hz/60Hz (Auto detection)	
Frequency Range	47±0.3Hz~55±0.3Hz(50Hz); 57+0.3Hz~65±0.3Hz(60Hz);	
Overload/short circuit protection	Circuit breaker	
Efficiency	>95%	
Conversion time (bypass and inverter)	10ms (typical)	
AC reverse protection	Yes	
Maximum bypass overload current	50A	60A
INVERTER MODE		
Output voltage waveform	Pure sine wave	
Rated output power	6200VA/6200W	12000VA/12000W
Power factor	1	
Rated output voltage	230Vac	
Output voltage error	±5%	
Output frequency range	50Hz±0.3Hz/60Hz±0.3Hz	
Maximum Efficiency	>92%	>93%
Overload protection	(102% < load <125%)±10%: report error and turn off the output after 5 minutes;; (125% < load < 150%)±10%: report error and turn off the output after 10 seconds;; Load > 150%±10%: report error and turn off the output after 5 seconds;	
Peak power	13000VA	22000VA
Loaded motor capability	4HP	7HP
Output short circuit protection	Circuit breaker	
Bypass circuit breaker specification	50A	63A
Rated battery input voltage	48V (Minimum starting voltage 44V)	
Battery voltage range	40.0Vdc-60Vdc±0.6Vdc (Undervoltage alarm/shutdown voltage/overvoltage alarm /overvoltage recovery... settable on LCD screen)	
Power saving mode self-consumption	Load≤25W	Load≤50w
AC CHARGING		
Battery type	Lead acid or lithium battery	
Maximum charge current(can be set)	60A	120A
Charge current error	±5A _{dc}	
Charge voltage range	40-60V _{dc}	
Short circuit protection	Circuit breaker and blown fuse	
Circuit breaker specifications	50A	63A
PV CHARGING		
MPPT way	1	2
Maximum PV open circuit voltage	500V _{dc}	
PV operating voltage range	100V _{dc} ~500V _{dc}	80V _{dc} ~500V _{dc}
MPPT voltage range	120V _{dc} ~450V _{dc}	90V _{dc} ~450V _{dc}
Battery voltage range	40-60V _{dc}	
Maximum PV input power	6200W	6000WX2
Maximum PV input current	22A	22A+22A
Charging short circuit protection	Blown fuse	
Wiring protection	Reverse polarity protection	
HYBRID MAX CHARING CURRENT SPECIFICATIONS (AC +PV)		
Max charging current(can be set)	0-100A	0-150A
CERTIFIED SPECIFICATIONS		
Certification	CE(IEC62109-1.2), UL1741	
EMC certification level	EN61000-6-1,EN61000-6-3,FCC 15 class B	
Operating temperature range	-15°C to 55°C(>45°C Reduced operation)	
Storage temperature range	-25°C~55°C	
Humidity range	5% to 95% (Conformal coating protection)	
Noise	≤60dB	
Heat dissipation	Forced air cooling, variable speed of fan	
Communication interface	USB/RS485(/WiFi/GPRS)/ Dry node control	
Product Size/Packaging Size (L*W*D)	456x300x125/500x360x180mm	670x440x145mm
Net Weight	10	19.5
OPTIONAL FUNCTION		
Parallel function	☐ YES ☐ NO	
WIFI function	☐ YES ☐ NO	
Grid anti backflow CT	☐ YES ☐ NO	

Residential Energy Storage Battery TB Series



Capacity:
10KWh to 20KWh



Flexible investment



Safe and Reliable



10 Year Warranty



16 units in parallel



Outage backup supported



Safer LiFePO₄ Battery

Features

Longer Cycle Life: Offers up to 10 times longer cycle life and five times longer float/calendar life than lead acid battery, helping it minimize replacement cost and reduce total cost of ownership.

Lighter Weight: About 40% of the weight of a comparable leadacid battery. A 'drop in' replacement for lead acid batteries.

Higher Power: Delivers twice power of lead acid battery, even high discharge rate, while maintaining high energy capacity.

Parallel Capacity: Support for 16 parallel connections.

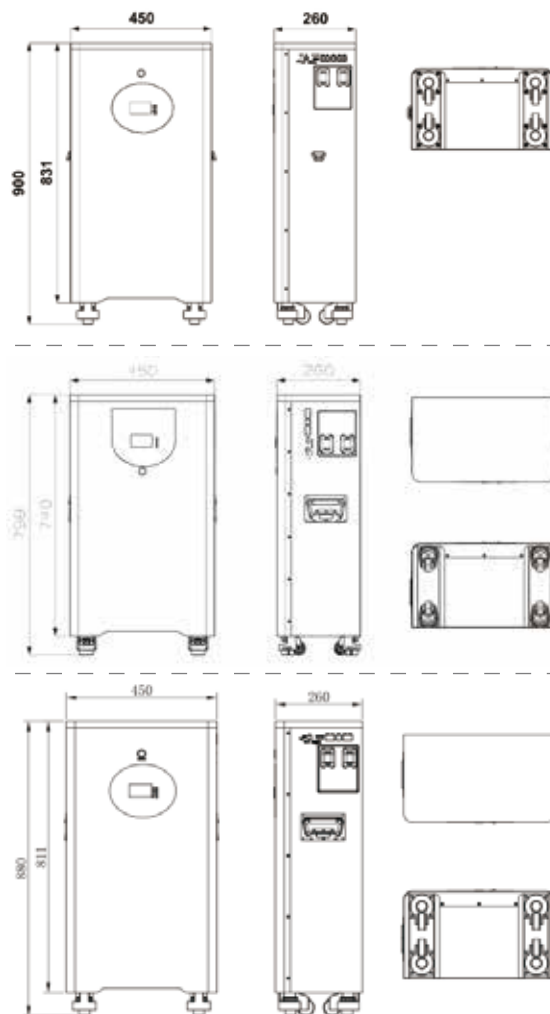
Superior Safety: Lithium Iron Phosphate chemistry eliminates the risk of explosion or combustion due to high impact, overcharging or short circuit situation.

Multi Protocol: The battery work well with multiple brands of inverters.

Application

- Indoor/outdoor telecom base stations
- UPS
- Household energy storage system
- Smart transportation backup power supply

Dimension-mm



MODEL	TB-48200		TB-48300		TB-48400	
BASIC PARAMETERS						
Rated Voltage	51.2V					
Rated Capacity	200 AH	300AH		400AH		
Rated Energy	10240Wh	15360Wh		20480Wh		
Combination Method	16S1P					
Cycle life	≥6000 cycles @80%DOD					
Self Discharge	1%/months					
Efficiency of Charge	≥97%					
Efficiency of Discharge	≥98%					
CHARGE						
Charge Voltage	57.6V					
Charge Current (Recomm.)	40A	60A		80A		
Charge Current (Max.)	100A	100A		200A		
DISCHARGE						
Discharge Cut-off Voltage	43.2V					
Discharge Current (Max.)	150A	200A		200A		
Pulse Current	220A(3s)					
ENVIRONMENT						
Charge Temperature	0°C~60°C					
Discharge Temperature	-20°C~60°C					
Humidity	5% to 95%					
IP Class	IP32	IP32		IP30		
PHYSICAL CHARACTERISTICS						
Case Materia	Metal					
Dimensions	740*450*260mm	880*448*260mm		900*450*260mm		
Weight	90kg	119kg		140kg		
Others (optional)	CAN communication LCD Display	CAN communication LCD Display		WIFI Bluetooth		

Hybrid Solar Inverter TYH Series

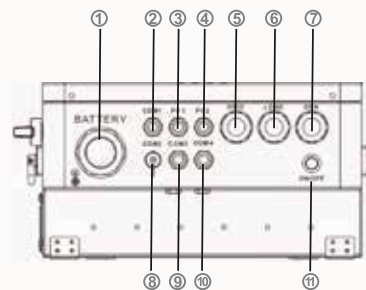
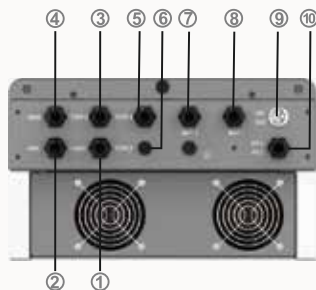
AC Output:
6KW to 12KW

- SUPPORT FOR 6 PARALLEL CONNECTIONS
- SUPPORT SELF- USE/HYBRID/ON- GRID OUTPUT MODE
- SUPPORT BMS COMMUNICATION
- MULTIPLE OF PROTECTION
- TIME- SLOT CHARGING & DISCHARGING FOR PEAK AND VALLEY PRICE
- SUPPORT REMOTE MONITORING AND MANAGEMENT THROUGH THE MOBILE APP



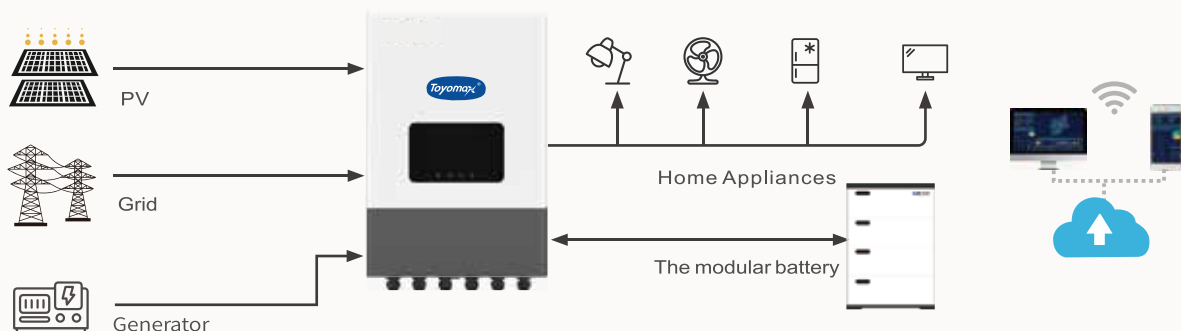
Interface Description

1. Load port
2. Generator
3. Communication port 1
4. Grid interface
5. Communication port 2
6. Communication port 3
7. BAT +
8. BAT -
9. ON/OFF Switch
10. PV 1/ PV 2



1. Battery
2. Communication port 1
3. PV 1
4. PV 2
5. Grid interface
6. Load port
7. Generator
8. Communication port 2
9. Communication port 3
10. Communication port 4
11. ON/OFF Switch

Solar System Connection



MODEL

TYH-6K-48V-EU

TYH-12K-48V-EU

AC OUTPUT			
Rated Output Power	6000W		12000W
Max. Peak Power	12000VA		24000VA
Rated Output Voltage	230Vac single phase		230Vac single phase / three phase (parallel)
Load Capacity of Motors	4HP		6HP
Output Frequency	50/60Hz		
Max. Output Current	28.6A		54.5A
THDI	<3%		
Power Factor	0.8 leading to 0.8 lagging		
Parallel Capacity	1~6 units		
BATTERY			
Battery Type	Li-ion/Lead-acid		
Rated Battery Voltage	48V		
Battery Voltage Range	40~60 Vdc		
Max. PV Charging Current	100A		120A
Max.Utility Charging Current	60A		200A
Max. Generator Charging Current	60A		200A
PV INPUT			
Num. of Mppt	2		
Max. Input Power	4500w+4500w		6600w+6600w
Max. Input Current	16A+16A		22A+22A
Max. Open-circuit Voltage	500 Vdc+500 Vdc		
Mppt Operating Voltage Range	120~450 Vdc		125~425 Vdc
MAINS/GENERATOR INPUT			
Input Voltage Range	90~280 Vac		
Frequency Range	50/60Hz		
Bypass Overload Current	40A		63A
EFFICIENCY			
MPPT Tracking Efficiency	99.9%		
Max. Efficiency	97.5%		
GENERAL			
Dimension	556*345*182mm		670*440*240mm
Weight	20kg		37kg
IP Class	IP 65		IP 65
Operating Temperature Range	-25~60°C (>45°C derating)		
Humidity Range	0%~100%		
Cooling Method	heatsink & intelligent air cooling		
Warranty	5 years		
COMMUNICATION			
Internal Interface	RS485/CAN/USB/Dry contact		
External Module (optional)	Wi-Fi/GPRS		
CERTIFICATION			
Safety	IEC62109-1, IEC62109-2		
EMC	EMC EN61000-6-1, EN61000-6-3, FCC 15 class B		
RoHS	Yes		
OPTIONAL FUNCTION			
Parallel function	☐ YES		☐ NO
WIFI function	☐ YES		☐ NO
Grid anti backflow CT	☐ YES		☐ NO

Stackable Home Energy Storage System ESS Series

AC Output:
12000W

Battery Capacity:
10240Wh to 61440Wh



11KW
HIGH OUTPUT POWER



Max. 6 battery
pack stacked



Solar/Grid Power/
Lithium battery
Three in One



Flexible
investment



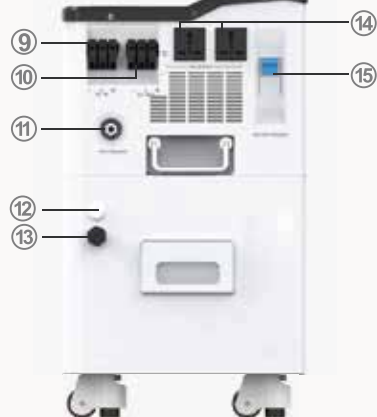
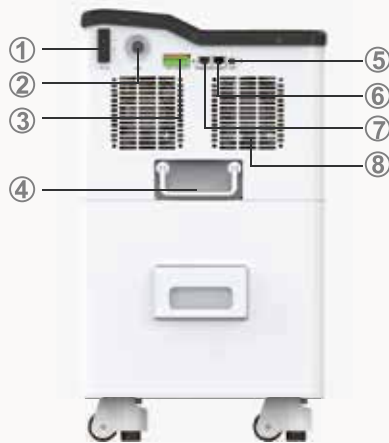
Monitor real-time
data with WiFi



Less Wiring
Work

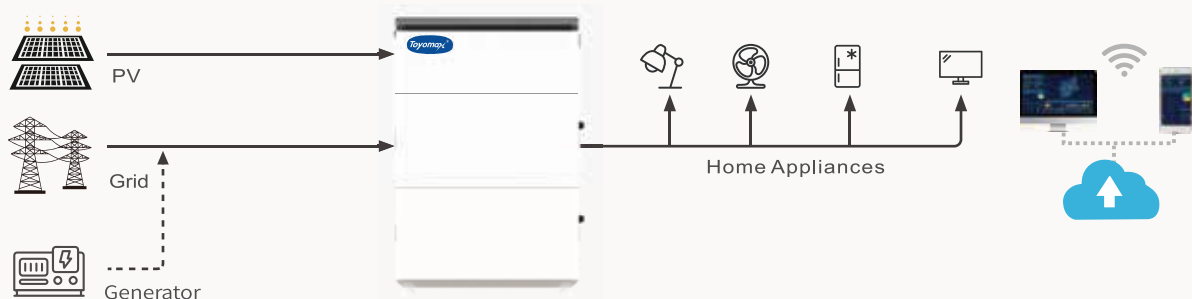


Interface Description



1. PV input
2. WIFI stick interface
3. Dry node control
4. Handle
5. USB communication port
6. RS485-1 communication port
7. RS485-2 communication port
8. Intelligent cooling fan
9. Mains input
10. AC output
11. Overload protection switch
12. BMS switch
13. Battery communication
14. AC output
15. Battery switch

Solar System Connection



MODEL

ESS12000-H

BATTERY DATA						
Battery type	LiFePO ₄					
Battery nominal voltage	51.2 Vdc					
Battery capacity	10240 Wh					
Maximum quantity of battery packs	6					
Single charging current/maximum charging current	100/150A					
Single discharge current/maximum discharge power	100A/12000W					
Charging temperature	0~55°C					
Discharging temperature	-20~55°C					
Number of battery modules	1	2	3	4	5	6
Battery usable energy	10kWh	20kWh	30kWh	40kWh	50kWh	60kWh
Max. output power	12kW					
OUTPUT						
USBA*4	MAX18W (QC Output: 5V/2.4A or 9V/2A or 12V/1.5A)*4					
TYPE-C*2	MAX100W (PD Output:5V/3A or 9V/3A or 12V/3A or 15V/3A or 20V/5A)*2					
5525DC power socket*2	12V2A*2					
AC socket* 4	2000W*2					
Total power of AC terminal block	12000W					
INPUT DATA(PV)						
Max.input Power	6000+6000W					
Max. input voltage	500Vdc					
MPPT Operating Voltage Range	90-450Vdc					
Start voltage	120Vdc					
Max. input current of single MPPT	22+22A					
Number of MPPTs	2					
AC OUTPUT (GRID CONNECTED)						
Grid connected output nominal power	12000VA					
Max. power output/input for grid connection	12000VA					
Rated output voltage	230Vac					
Output voltage range	180-270Vac					
Rated operating frequency	50/60(±0.2%)Hz					
Max. output/input current for grid connection	47A					
Conversion time	10ms					
THD	<3%					
AC OUTPUT (OFF GRID)						
Off-grid output nominal power	12000VA					
Max. output power of off-grid	12000VA					
Max. off-grid output current	47A					
Rated output voltage	230Vac(±2%)					
Output voltage range	UPS mains power mode: (170Vac~280Vac) APL generator mode: (90Vac~280Vac)					
Rated operating frequency	50/60Hz(±0.2%)					
THD	<3%					
EFFICIENCY						
Max. Efficiency	>95%					
Max. DC-AC transformation efficiency	>92%					
MPPT Efficiency	99.9%					
GENERAL DATA						
Operating Temperature	-15~55°C					
Relative Humidity	5%-95%					
Noise (Normal)	<60dB					
Communication	Wi-Fi/GPRS					
Cooling Method	Fan cooling					
Ingress Protection	IP21					
Inverter+Base Size (LxWxH)	730*490*400mm					
Battery Pack Size (LxWxH)	735*495*430mm					
OPTIONAL FUNCTION						
WIFI function			☐ YES	☐ NO		
Grid anti backflow CT			☐ YES	☐ NO		

Stackable Home Energy Storage System **ESS Series**

AC Output:
6200W

Battery Capacity:
5120Wh to 15360Wh

Toyomax®

Max. 3 battery
pack stacked

Solar/Grid Power/
Lithium battery
Three in One

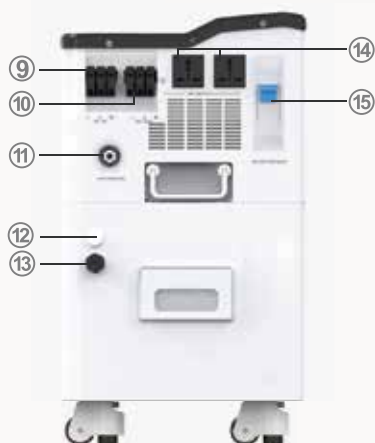
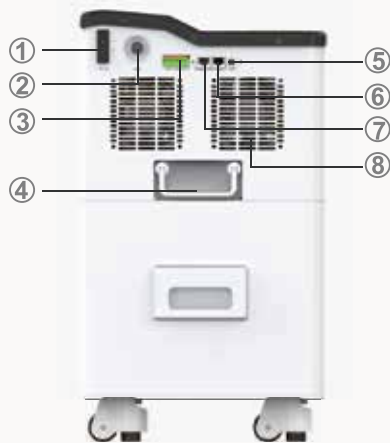
Less Wiring
Work

Capable for
3-HP AC

Monitor real-time
data with WiFi

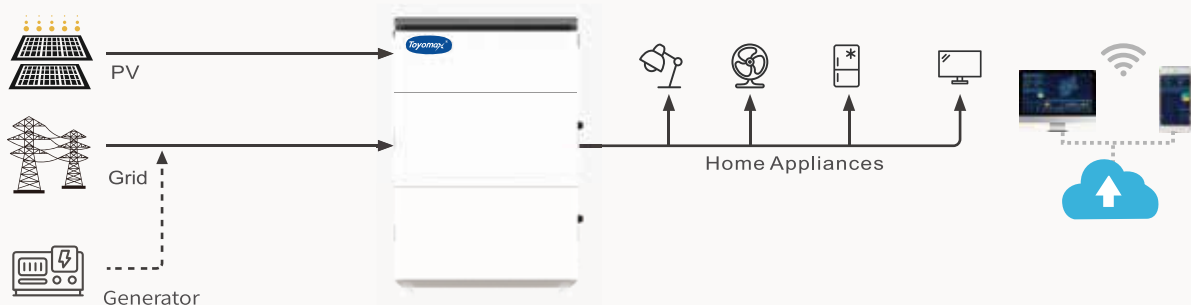
Flexible
investment

Interface Description



1. PV input
2. WIFI stick interface
3. Dry node control
4. Handle
5. USB communication port
6. RS485-1 communication port
7. RS485-2 communication port
8. Intelligent cooling fan
9. Mains input
10. AC output
11. Overload protection switch
12. BMS switch
13. Battery communication
14. AC output
15. Battery switch

Solar System Connection



MODEL

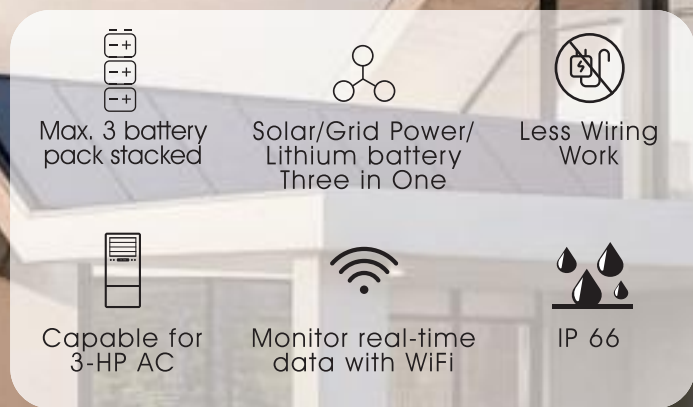
ESS5050-H

BATTERY PARAMETERS			
Battery Type	LiFePO ₄		
Nominal Battery Voltage	51.2Vdc		
Battery capacity	5120Wh	5120Wh*2	5120Wh*3
Maximum quantity of battery packs	1	2	3
Max. charging/discharging current	100A		
Rated charging power/Rated discharge power	6200W		
Charging temperature	0~55°C		
Discharging temperature	-20~55°C		
OUTPUT			
USBA*4	MAX18W(QC Output: 5V/2.4A or 9V/2A or 12V/1.5A)*4		
TYPE-C*2	MAX100W(PD Output:5V3A or 9V/3A or 12V/3A or 15V/3A or 20V/5A)*2		
5525DC power socket*2	12V2A*2		
AC socket*4	2000W*2		
Total power of AC socket	6200W		
INPUT(PV)			
Max. input Power	6200W		
Max. input voltage	500Vdc		
MPPT Operating Voltage Range	120-450Vdc		
Start voltage	120Vdc		
Single MPPT input current	20A		
Max. input current of single MPPT	22A		
Number of MPPTs	1		
AC OUTPUT(ON-GRID)			
Grid connected output nominal power	6200Va		
Max. power output/input for grid connection	6200Va		
Rated output voltage	230Vac		
Output voltage range	180-270Vac		
Rated operating frequency	50/60Hz(±0.2%)		
Max. output/input current for grid connection	26A		
Conversion time	10ms		
Power factor	0.8 leading...0.8 lagging		
THD	<3%		
AC OUTPUT(OFF-GRID)			
Off-grid output nominal power	6200Va		
Max.output power of off-grid	6200Va		
Max. off-grid output current	26A		
Rated output voltage	230Vac(±2%)		
Output voltage range	180-270Vac		
Rated operating frequency	50/60Hz(±0.2%)		
THD	<3%		
EFFICIENCY			
Max. Efficiency	>95%		
Max. DC-AC transformation efficiency	>92%		
MPPT Efficiency	99.9%		
GENERAL DATA			
Operating Temperature	-15~55°C		
Relative Humidity	5%-95%		
Noise(Normal)	<60dB		
Communication	Wi-Fi/GPRS		
Cooling Method	Fan cooling		
Ingress Protection	IP21		
Inverter+Base Size (LxWxH)	605*385*350mm		
Battery pack Size (LxWxH)	630*380*370mm		
Inverter Weight	18kg		
Battery pack Weight	Around 50kg		
OPTIONAL FUNCTION			
WIFI function	☐ YES ☐ NO		
Grid anti backflow CT	☐ YES ☐ NO		

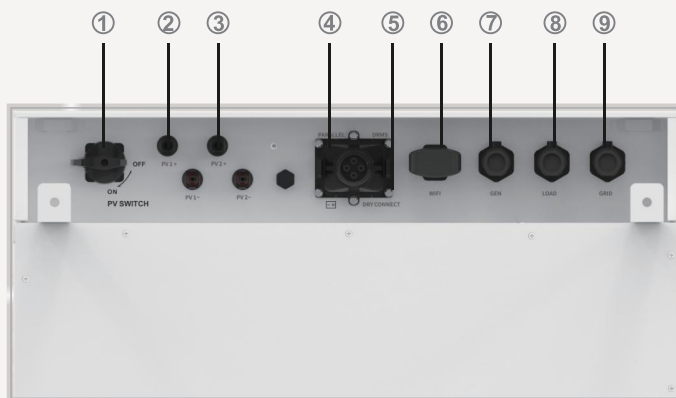
Stackable Home Energy Storage System **ESS PRO Series**

AC Output:
5000W

Battery Capacity:
5000Wh to 15000Wh

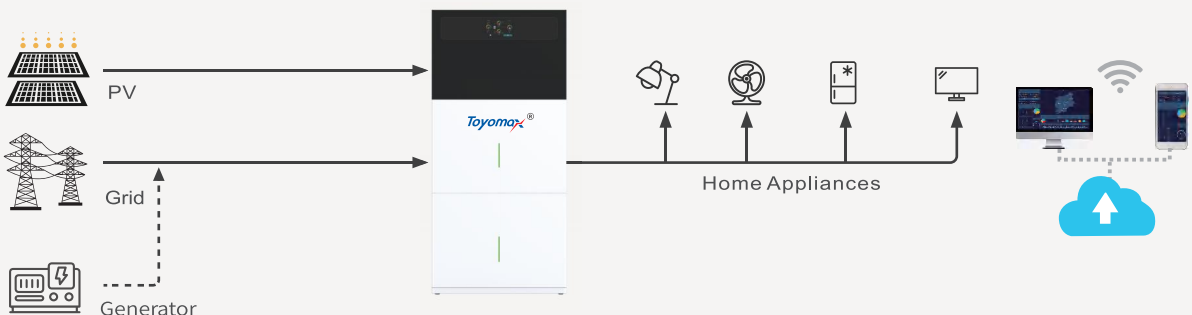


Interface Description



1. PV Switch
2. PV 1
3. PV 2
4. Parallel connection terminal
5. Dry contact control
6. Wi-Fi dongle interface
7. Generator
8. Load port
9. Grid interface

Solar System Connection



MODEL

ESS PRO5050

ESS PRO 50100

ESS PRO50150

BATTERY DATA			
Battery type	LiFePO ₄		
Battery nominal voltage (Vdc)	51.2		
Battery capacity (Wh)	5120	5120X2	5120X3
Number of Batteries	1	2	3
Max. charging current/output current (A)	100		
Max. Rated discharge power(W)	5000		
Charging temperature(°C)	0~55		
Discharging temperature(°C)	-20~55		
OUTPUT DATA (OFF-GRID)			
Rated Output Power	5000W		
Max. Peak Power	12000VA		
Rated Output Voltage	230Vac, single phase		
Load Capacity of Motors	4HP		
Output Frequency Range	50Hz±0.3Hz/60Hz±0.3Hz		
Transfer time	≥10ms		
OUTPUT DATA (ON-GRID)			
Rated Output Power	5000W		
Max. Apparent Power	12000VA		
Rated. Output Current	24.2A		
Max. Output Current	26.6A		
THD	<3%		
Power Factor	0.8 leading to 0.8 lagging		
Rated Voltage	230Vac, single phase		
Frequency	50Hz/60Hz		
PV INPUT			
Number of MPPT	2		
Max. Input Power	4500W+4500W		
Max. Input Current	18A+18A		
Max. Short-circuit Current	27A+27A		
Max. Open-circuit Voltage	500Vdc+500Vdc		
MPPT Operating Voltage Range	120~450Vdc		
UTILITY /GENERATOR INPUT			
Input Voltage Range	90~280Vac		
Input Frequency Range	50Hz/60Hz		
Bypass Overload Current	40A		
EFFICIENCY			
MPPT Tracking Efficiency	99.9%		
Max. Efficiency	97.5%		
GENERAL			
Number of Parallel	1~6units		
Operating Temperature Range	-25~60°C		
Humidity Range	0%~100%		
Noise	<60dB		
Cooling method	heatsink & intelligent air cooling		
IP Rating	IP 66		
Inverter Size/Package Size (LxWxH) (MM)	600X200X400/695X310X560		
Battery pack Size/Package Size (LxWxH) (MM)	600X200X420/680X280X510		
Inverter Net Weight/Gross Weight (kg)	33/35KG		
Battery pack Net Weight/Gross Weight (kg)	55/56.5KG		
COMMUNICATION			
Internal Interface	RS485/CAN/USB/Dry contact control		
External Module (optional)	Wi-Fi/4G		
CERTIFICATION			
On-grid Certification	EN50549-1,G99,NRS-097,VDE-ARN-4105,CEI021,UNE217002		
Safety	IEC62109-1,IEC62109-2		
EMC	EN61000-6-1,EN61000-6-3,FCC15 classB		
RoHS	Yes		
OPTIONAL FUNCTION			
Parallel function	☐ YES		☐ NO
Wi-Fi function	☐ YES		☐ NO
Grid anti-backflow CT	☐ YES		☐ NO

PORTABLE POWER STATION PPS Series

AC Output:
800W to 1800W

Battery Capacity:
512Wh to 1024Wh



UPS
function



PEAK POWER
2000W



SUPPORT
PV INPUT



Flexible
investment



Portable



LED
light



MODEL	PPS 800		PPS 1800	
	100 Vac	230 Vac	100 Vac	230 Vac
BATTERY				
Cell Type	LiFePO ₄			
Battery Capacity	512Wh		1024Wh	
Battery Input Nominal Voltage	25.6V		51.2V	
Battery Input Voltage Range	40~60V			
Rated Charging Current	20A			
Rated Discharging Current	40A			
Max. Discharging Current	50A			
Life Cycles (@25°C, 0.5C Discharge, DOD80%)	4000+			
AC INPUT				
AC Charging Power	600W		1200W	
Rated Voltage	100Vac	230Vac	100Vac	230Vac
Voltage Range	85~130Vac	180~260Vac	85~130Vac	180~260Vac
Rated Frequency	60Hz	50Hz	60Hz	50Hz
Power Factor (@Max. Charging Power)	>0.99			
DC INPUT				
Max. Car Charging Input Power	120W			
Max. Solar Charging Input Power	300W		500W	
DC Input Voltage Range	12~60V		10~52V	
Max DC/PV Input Current	10A		11A	
AC OUTPUT				
Rated AC Power	800W		1800W	
Peak Power	1600W		3600W	
Rated Grid Voltage	100Vac	230Vac	100Vac	230Vac
Rated Grid Frequency	60Hz	50Hz	60Hz	50Hz
Rated AC Current	8A	3.5A	18A	7.8A
THDI	<1.5%			
DC OUTPUT				
TYPE-C1	100W(5V=3A 9V=3A 12V=3A 15V=3A 20V=5A)			
TYPE-C2/TYPE-C3	30W(5V=3A 9V=3A 12V=2.5A 15V=2A 20V=1.5A)			
USB-A1/USB-A2	30W(5V=3A 9V=3A 12V=3A)			
TYPE-C2 and USB-A2 connected simultaneously	Two ports fixed 5V/3A output			
TYPE-C3 and USB-A1 connected simultaneously	Two ports fixed 5V/3A output			
Car charger and 5525 DC port Total Max.Output Power	132W			
Car Port (x1)	13.2V=10A			
5525 DC Port (x2)	13.2V=8A			
EFFICIENCY				
Battery to AC Max	94%		95%	
AC to Battery Max	94%		95%	
Protection	AC output over current; AC output short circuit; AC charging over current; AC output over/under voltage; AC output over/under frequency; inverter over temperature, AC charging over/under voltage; Battery temperature high/low; Battery over/under voltage;			
GENERAL DATA				
Dimension	299*191.4*196.6mm		361.5*269.5*232.6mm	
Weight	6.55kg		12.7kg	
Cooling	Forced Air Cooling			
Operation Temperature Range	0~40°C(Charging), -15~+40°(Discharging)			
Operation Relative Humidity	0~95%, Non Condensation			
IP Class	IP 20			
Noise	<60dB			
Communication Interface	Wi-Fi/Bluetooth			
LED Light	3W			



Portable Power Stations PS Series

AC Output:
3500W

Capacity:
2405Wh to 5325Wh



LITHIUM
BATTERY



INDUSTRY
GRADE



INTELLIGENT
BMS



EMERGENCY
RESCUE



CONSTRUCTION



PEAK POWER
7000W



RUGGED
CONSTRUCTION



FAST CHARGING
2HRS FROM 0%~80%



SUPPORT
PV INPUT



CAMPING



PORTABLE POWER STATION



PS-4800

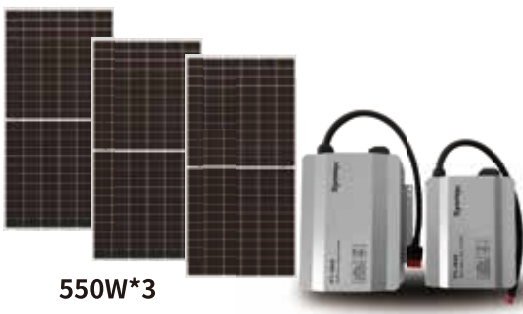


PS-5800MAX

A/C Output	220-230V/50-60Hz	
Rated Output Power	3500W	
Peak Output power	7000W	
Battery Capacity	2405WH	5325WH
Battery Cell	Ternary Lithium	LiFePO ₄
AC Charge Time	3 hours	
AC Charger	AC 220V/15A	AC 220V/30A
Expand MPPT Controller	✓	
UPS Function	—	✓
Communication	Bluetooth	
Operating Temperature	-20°C~45°C	
Protection Function	OVERLOAD,UNDERVOLTAGE,SHORT CIRCUIT,LEAKAGE,OVERCHARGING,OVER DISCHARGING,OVER TEMPERATURE	
IP Class	IP21	IP 21S
Output Socket	AC220V 10A*2(customisable) AC220V 16A*1,Anderson plug*1 Double USB sockets(Optional)	AC220V 10A*1(customisable), AC220V 16A*1,Anderson plug*1
Dimension	560X310X410MM	660X505X510MM
Weight	29KG	58KG

• RUN TIMES

MODEL									
PS 4800T	5.4h	6.5h	10h	53h	2.5h	16h	22h	53h	20h
PS 4800	5.4h	6.5h	10h	53h	2.5h	16h	22h	53h	20h
PS 5800PRO	12h	14.5h	22h	125h	5h	39h	49h	125h	47h



550W*3

MPPT CONTROLLER	
Battery Voltage	48V
Max Solar Power	3200W
Solar Voltage Range	60-180V
Max Charging Current	60A

Industrial Grade Portable Power Stations ES Series



AC Output:

3500W to 4000W

Capacity:

5627Wh to 13690Wh



Welding



Cutting
Machine



Electric
Drilling



Electric
Pick



Free
Maintenance



Outdoor
Construction



Zero
Pollution



Zero
Noise



PS-5800PRO

ES-5000

ES-5000PLUS

Output voltage	220-230V/50-60Hz		
Power	3500W	4000W	
Battery type	Ternary Lithium		
Energy storage capacity	5627Wh	8510Wh	13690Wh
Electrode diameter	φ2.5mm-φ5.0mm		
Working temperature	-20°C~40°C		
AC Charger	AC 220V/30A		
Welding current	10-150A	10-200A	
Full battery life Welding capacity	2.5 mm : 196 pcs	2.5 mm : 298 pcs	2.5 mm : 486 pcs
	3.2 mm : 97 pcs	3.2 mm : 148 pcs	3.2 mm : 242 pcs
	4.0 mm : 60 pcs	4.0 mm : 91 pcs	4.0 mm : 143 pcs
Expand AK-170 DC welding machine	√	——	——
Dimension	580x467x500mm	740x635x625mm	878x726x718mm
Weight	48kg	89.4kg	145kg



LW-170 DC WELDING MACHINE

Output Power	3700W
Input Voltage	DC 39V-54.6V
Current	10-150A
Recommend material	STAINLESS STEEL / CARBON STEEL / LOW ALLOY STEEL

APPLICATION SCENARIO



Charging the car



Household electricity



Ship equipment



RV camping



Interior decoration



Field exploration



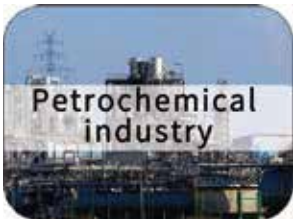
Railway construction



Garden trimming



Office electricity



Petrochemical industry



Mine construction

SELECTED USE CASES



Tunnel welding



Maintenance workshop construction



State Grid Jiangsu Power Guarantee



Pipe welding(TIG welding)



Tunnel Maintenance



Pavement repairs



Petrochemical pipeline welding site



SOLAR WATER PUMP(DC)

RATED POWER

900W to 1500W

MAX FLOW

18-35m³/h



Flexible investment



Eco-friendly



Agricultural Applications



Free Maintenance



Long Service Life



Easy Installation



SW-BL Brushless Motor

MODEL	VOC MAX	POWER (W)	MAX. FLOW (M ³ /H)	MAX. HEAD (M)	INLET/OUTLET (INCH)	SUCTION (M)	CABLE (M)	SOLAR PANELS SUGGESTION	
								POWER (W)	CONNECTION
SW-BL-20-96/900	96V	900W	18	16M	2*2	8M	1M	400W	
								600W	
SW-BL-20-96/1200	96V	1200W	19	18M	2*2	8M	1M	330W	
								600W	
SW-BL-20-110/1200	110V	1200W	20	19M	2*2	8M	1M	500W	
								480W	
SW-BL-20-110/1500	110V	1500W	22	21M	2*2	8M	1M	380W	
								500W	
								680W	
SW-BL-30-96/900	96V	900W	28	12M	3*3	8M	1M	400W	
								600W	
SW-BL-30-96/1200	96V	1200W	31	12M	3*3	8M	1M	330W	
								600W	
SW-BL-30-110/1200	110V	1200W	32	13M	3*3	8M	1M	500W	
								480W	
SW-BL-30-110/1500	110V	1500W	35	16M	3*3	8M	1M	380W	
								500W	
								680W	

SOLAR WATER PUMP(DC)

RATED POWER

1200W to 2200W

MAX FLOW

20-70m³/h



Direct Solar Connection



Long usage lifecycle



100% Copper Wire Coil



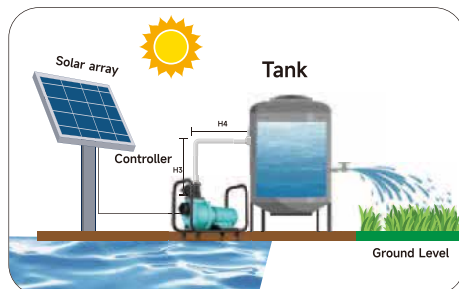
Extremely robust and durable



Newly upgraded waterproof casing



High Energy Efficiency

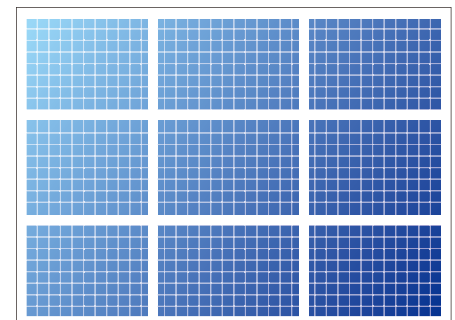


How to calculate TotalHead(surface water):

L the horizontal distance from the water source to the water tank
H2 vertical height from water source to water tank

$$H=h3/10+h4$$

How to dimension the solar Panels



The power of the solar photovoltaic panel array is recommended to be 1.5 times or more than the power of the water pump. The voltage of the solar photovoltaic panel array needs to meet the voltage range of the water pump.

Step1 : Pump power x1.5 : Solar panels' power = Nr of Solar panels

Step2 : Number of solar panels * Open circuit voltage < Controller maximum voltage (series mode is selected)
(If greater than the maximum voltage, consider paral

Step3 : Number of solar panels * Operating voltage
Within MPPT voltage range of the controller

SW Brush Motor

MODEL	VOC MAX	POWER (W)	MAX. FLOW (M ³ /H)	MAX. HEAD (M)	INLET/OUTLET (INCH)	SUCTION (M)	CABLE (M)	SOLAR PANELS SUGGESTION	
								POWER (W)	CONNECTION
SW-20-160/1200	110V-160V	1200W	20	12M	2*2	8M	1M	330W	
SW-30-200/1500	150V-200V	1500W	42	19M	3*3	8M	1M	330W	
SW-40-220/2200	180V-220V	2200W	70	16M	4*4	8M	1M	330W	

SOLAR DEEP-WELL PUMP(DC)

RATED POWER

300W to 1500W

MAX FLOW

3.5-16m³/h



DSP & MPPT
Integrated



Overload &
Speed Control



Wide DC
Voltage



IP65
Protection



Temp & Reverse
Polarity Protection



Flexible
Investment



3SC/4SC/4SSC

MPPT Built-in

MODEL	POWER		MAX. FLOW	MAX. HEAD	OUTLET	CABLE	 SOLAR PANELS SUGGESTION	
	KW	HP						
3SC3.5-35-24-300	0.3	0.4	3.5	35	1.25"	2	POWER (W)	CONNECTION
3SC3.8-80-48-600	0.6	0.8	3.8	80	1.25"	2	550W*1	
3SC3.8-95-72-750	0.8	1.0	3.8	95	1.25"	2	550W*2	
3SC3.8-125-110-1100	1.1	1.5	3.8	125	1.25"	2	550W*3	
3SC7-46-48-750	0.8	1.0	7.0	46	1.25"/1.5"	2	550W*2	
3SC8-62-110-1100	1.1	1.5	8.0	62	1.25"/1.5"	2	550W*3	
3SC8-90-180-1500	1.5	2.0	8.0	90	1.25"/1.5"	2	550W*5	
4SC7-45-48-600	0.6	0.8	7.0	45	1.25"/1.5"/2"	2	550W*2	
4SC7-86-110-1100	1.1	1.5	7.0	86	1.25"/1.5"/2"	2	550W*3	
4SC7-112-110-1300	1.3	1.8	7.0	112	1.25"/1.5"/2"	2	550W*3	
4SC12-50-48-750	0.8	1.0	12.0	50	2"	2	550W*2	
4SC12-100-110-1500	1.5	2.0	12.0	100	2"	2	550W*4	
4SC16-70-180-1500	1.5	2.0	16.0	70	2"	2	550W*5	
4SSC6.5-67-72-750	0.8	1.0	6.5	67	1.25"	2	550W*3	
4SSC6.5-146-110-1300	1.3	1.8	6.5	146	1.25"	2	550W*3	
4SSC6.5-203-180-1500	1.5	2.0	6.0	203	1.25"	2	550W*5	

SOLAR DEEP-WELL PUMP(DC)

RATED POWER

2200W to 3000W

MAX FLOW

7.0-18m³/h



Direct Solar
Connection



Overload &
Speed Control



Wide DC
Voltage



IP65
Protection



Temp & Reverse
Polarity Protection



Flexible
Investment



3SC/4SC/4SSC

MPPT External

MODEL	POWER		MAX. FLOW	MAX. HEAD	OUTLET	CABLE	 SOLAR PANELS SUGGESTION	
	KW	HP						
4SC7-185-280-2200	2.2	3.0	7.0	185	1.25"/1.5"/2"	2	550W*7	
4SC7-230-300-3000	3.0	4.0	7.0	230	1.25"/1.5"/2"	2	550W*8	
4SC12-150-280-2200	2.2	3.0	12.0	150	2"	2	550W*7	
4SC12-175-300-3000	3.0	4.0	12.0	175	2"	2	550W*8	
4SC18-95-280-2200	2.2	3.0	18.0	95	2"	2	550W*7	
4SC18-112-300-3000	3.0	4.0	18.0	112	2"	2	550W*8	
4SSC6.5-255-280-2200	2.2	3.0	6.5	255	1.25"	2	550W*7	
4SSC6.5-300-300-3000	3.0	4.0	6.5	300	1.25"	2	550W*8	