

## ESS Single phase All-in-one Unit

### Features:

- Toroidal transformer, low self-consumption
- Built in MPPT controller, higher charging efficiency
- Wide input voltage range and high-precision output
- Integrated USB and DC outputs for convenient uses
- Large battery cabinet compartment for different batteries
- Three working modes: AC priority, DC priority, ECO mode
- Settings for battery type, charging voltage and current are available
- Power frequency design, pure sine wave, suitable for various types of loads
- Protection: Battery over / low voltage, overload, short circuit, over-temp. and etc
- Lightning arrester (optional)
- 4G/WiFi monitoring (optional)
- Unattended function (optional)
- Touch screen, more accurate and intuitive, and easier operation(Optional)

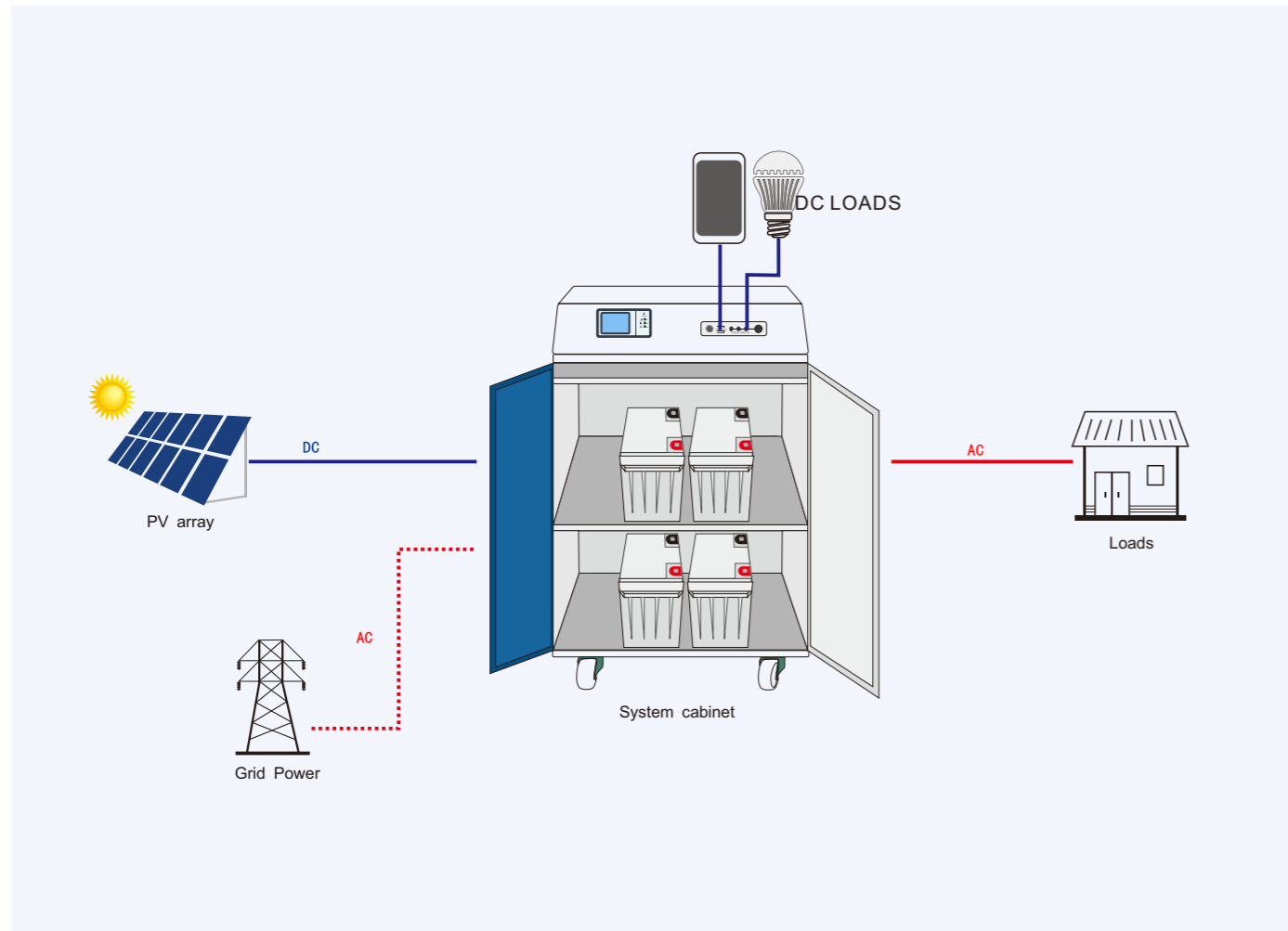


All-in-one Unit Design(ESS)

### Application



### Application diagram



### Technical Parameters

Model	ST050	ST100	ST150	ST200	ST300	ST400	ST500	ST600
Rated power	500W	1000W	1500W	2000W	3000W	4000W	5000W	6000W
Battery voltage	12V/24V		24V/48V			48V		
Size (L*W*Hmm)	580*350*605(12V)			590*340*940(24V)			590*560*940(48V)	
package size (L*W*Hmm)	730*500*775(12V)			700*430*1090(24V)			730*710*1090(48V)	
Battery type	1*12V200Ah		2*12V200Ah			4*12V200Ah		
N.W. (KG)	12V:24 24V:39	12V:25 24V:40	12V:26 24V:41	24V:47 48V:62	24V:49 48V:64	67	71	72
G.W.(KG)	12V:28 24V:51	12V:29 24V:52	12V:30 24V:53	24V:59 48V:77	24V:61 48V:79	82	86	87

#### Input

Phase	L+N+G
AC input range	110V:85-138VAC;220V:170-275VAC
Input frequency	45Hz~55Hz or 55Hz~65Hz

#### Output

Output voltage	Inverter mode: 110VAC/220V±5%; AC mode: 110VAC/220VAC±10%
Frequency range (AC mode)	Auto-detect
Frequency range (inverter mode)	50Hz/60Hz±1%
Over load capacity	AC mode:(100%~110%:10min;110%~130%:1min;>130%:1s;) inverter mode:(100%~110%:30s;110%~130%:10s;>130%:1s;)
Crest ratio	3:1max
Transfer time	<10ms(Typical loads)
Waveform	Pure sine wave
Efficiency	>85%(80% resistive loads)
Protection functions	Battery overvoltage protection, battery undervoltage protection, overload protection, short circuit protection, overtemperature protection, etc.
DC output (adjust)	USB 5VDC/1A*2 DC2.0 12VDC/5A*4

#### Built-in solar charge controller(Optional)

Max charge current	30A	50A	60A	100A	120A
Battery voltage	24V/48V	24V/48V	24V/48V	24V/48V	24V/48V
PV input voltage range	PWM:12V:16-36V 24V:30V-50V 48V:60V-80V MPPT:12V:20-100V 24V:38V-150V 48V:65V-150V				
Max PV input	24V:720W 48V:1440W	24V:1200W 48V:2400W	24V:1440W 48V:2880W	24V:2400W 48V:4800W	24V:2880W 48V:5760W
Cooling method	Fans cooling				

#### Environmental conditions

Operating temperature	0°C-40°C (Battery life decreases at ambient temperatures above 25 degrees Celsius)
Operation humidity	<95% (without condensing)
Operating altitude	<1000m(with increase of 100m,it will reduce output of 1%) max5000m
Noise	<58dB(distance to machine 1m)

#### Management

Display	LCD+LED
Communication interface	RS232(Optional)

\*The specifications, dimensions and materials are subject to change without further notice.