Online UPS

ES-SU3K series

Features

- Supporting connection to fuel generators
- Ultra-wide input voltage range: 110V to 300Vac
- Input power factor ≥ 0.99
- Input current harmonic distortion ≤ 5%
- Output power factor of 1
- 50Hz/60Hz frequency conversion mode
- Emergency power-off function (EPO)
- USB/RS-232 communication interfaces
- LCD display panel
- Intelligent charging mode, adjustable charging current
- 3-year warranty

Applications

- Data center
- Financial institution
- Smart Buildings
- Industrial automation

Global Trade Item Identifier

- MW Search：http://www.meanwell.com.cn/serviceGTIN.aspx

Description

ES-SU3K is a 3KVA online UPS power supply, providing rack type and tower type two appearance structures, using advanced digital control technology, combined with high integrated circuits and optimized design, enhance anti-interference ability, and ensure stable performance. The product has a full load efficiency of up to 94%, an input power factor of over 0.99, and a current harmonic of less than or equal to 5%, which can effectively prevent additional energy loss and reduce grid pollution. Its ultra-wide voltage input range is compatible with unstable power grids and fuel generators, which can easily cope with harsh power environments, reduce the need for frequent switching to battery power, and accurately match the needs of highly sensitive loads such as servers and medical equipment. In addition, the product has built-in EPO emergency power-off function and USB/RS-232 dual communication interfaces, which further strengthens the system security and remote control capabilities, It provides efficient, stable and flexible power protection solutions for key scenarios such as data centers, intelligent manufacturing, and communication base stations.

Drive Model Encoding

ES - SU3K - TH B

- B: Buit-in Battery / Blank: No Battery
- Exterior structure (TH: Tower, RH: Rack)
- Power
- Series Name
- Product Categories (ES: Energy Storage category)

Online UPS

ES-SU3K series

Specification		ES-SU3K-TH	ES-SU3K-THB	ES-SU3K-RH	ES-SU3K-RHB
INPUT					
Nominal Voltage		110~300Vac(Based on load at 50%); 160~300Vac(Based on load at 100%)			
Frequency Range		40~70Hz			
Power Factor		≥0.99@nominal voltage(100%load)			
THDi		≤5%@100% resistive load			
Battery					
Connection Type		external	built-in(12V/9AH*6)	external	built-in(12V/9AH*6)
Charging Voltage (FV)		72V			
Low-Voltage Protection Point		67.7V			
High-Voltage Protection Point		90V			
Charing Current (CC)		8A(1/2/4/6/8A adjustable through LCD)			
OUTPUT					
Power		3KVA/3KW			
Output Voltage(Note 1)		200/208/220/230/240Vac			
AC Voltage Regulation		±1%			
Frequency	AC Mode	47~53Hz/57~63Hz			
	Battery Mode	50/60±0.1Hz			
Waveform	Battery Mode	Pure Sinewave			
Harmonic Distortion		≤2%THD(Linear Load); ≤5%THD(Non-linear Load)			
Transfer Time	AC to Battery	0			
	Online to Bypass	4ms(Typical)			
	ECO to Battery	8ms(Typical),10ms(max)			
Efficiency	ECO Mode@full charged battery	97%			
	AC Mode @full charged battery	94%			
	Battery Mode	91%			
SAFETY & EMC					
SAFETY STANDARDS		EN IEC 62040-1:2019/A11:2021,YD/T1095-2018			
EMC EMISSION		Parameter	Standard	Test Level / Note	
		Conducted emission	EN IEC 62040-2:2018	C2	
		Radiated emission	EN IEC 62040-2:2018	C2	
		Harmonic current	EN IEC 61000-3-12:2011	Class A	
		Voltage flicker	EN IEC 61000-3-11:2019	Clause 5	
EMC IMMUNITY		Parameter	Standard	Test Level / Note	
		ESD	EN 61000-4-2:2008	Level 3, 4KV air ; Level 2: 4KV contact	
		RS	EN 61000-4-3:2006	Level 3	
		EFT	EN 61000-4-4:2012	Level 4,1KV	
		Surge	EN 61000-4-5:2014	Level 4,1KV/Line-Line 2KV/Line-Earth	
		Conducted	EN 61000-4-6:2013	Level 3	
		Magnetic Field	EN 61000-4-8:2009	Level 4	
		Voltage Dips and Interruptions	EN IEC 61000-4-11:2020	100% residual voltage for 0.5cycle; 100% residual voltage for 1cycle; 100% residual voltage for 250cycle; 30% residual voltage for 25cycle	
OTHER					
Communication interface		RS232/USB			
Phase		single phase with groud			
Display		LCD			
Operating temperature		0~40℃			
Humidity		20-90% relative humidity(non-condensing)			
Elevation(Note 2)		1000m			
Struture		Tower		Rack	
Weight		7.4kg	26.2kg	10.5kg	26.7kg
Size		426*190*338mm		630*438*88mm	

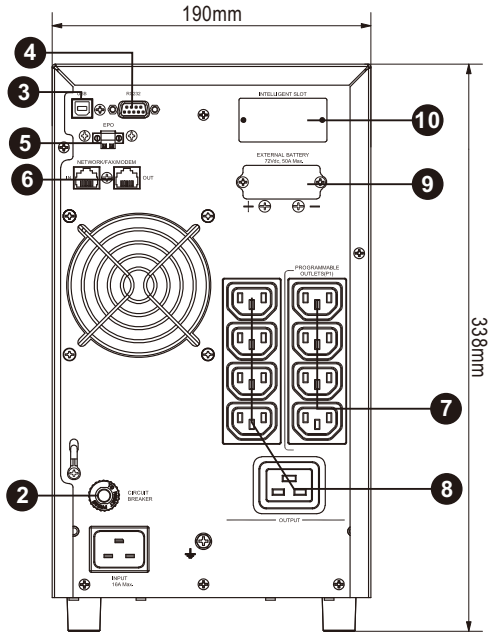
NOTE

1. Derate capacity to 80% when the output voltage is adjusted to 200VAC/208VAC
2. if the UPS is installed or used in a place where the altitude is above than 1000m. the outout power must be derated one percent per 100m.

※ Product Liability Disclaimer : For detailed information ,please refer to https://www.meanwell.com/serviceDisclaimer.aspx

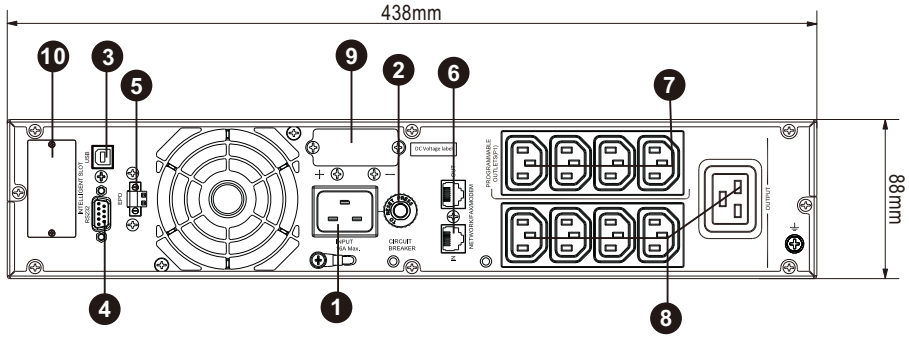
■ Mechanism Dimension

■ ES-SU3K-TH



(426*190*338mm)

■ ES-SU3K-RH

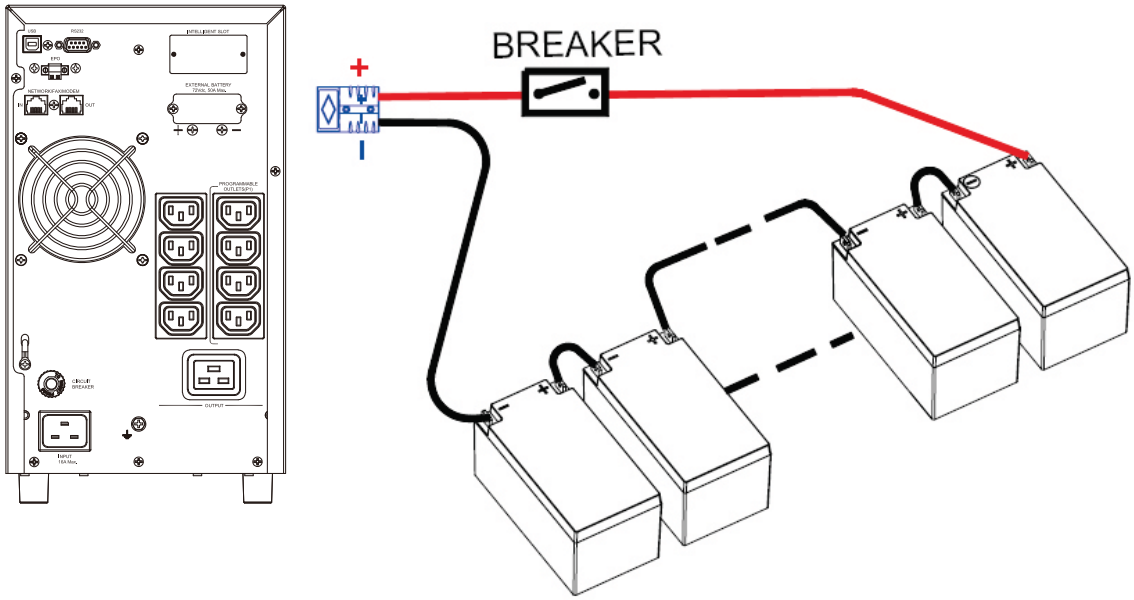


(630*438*88mm)

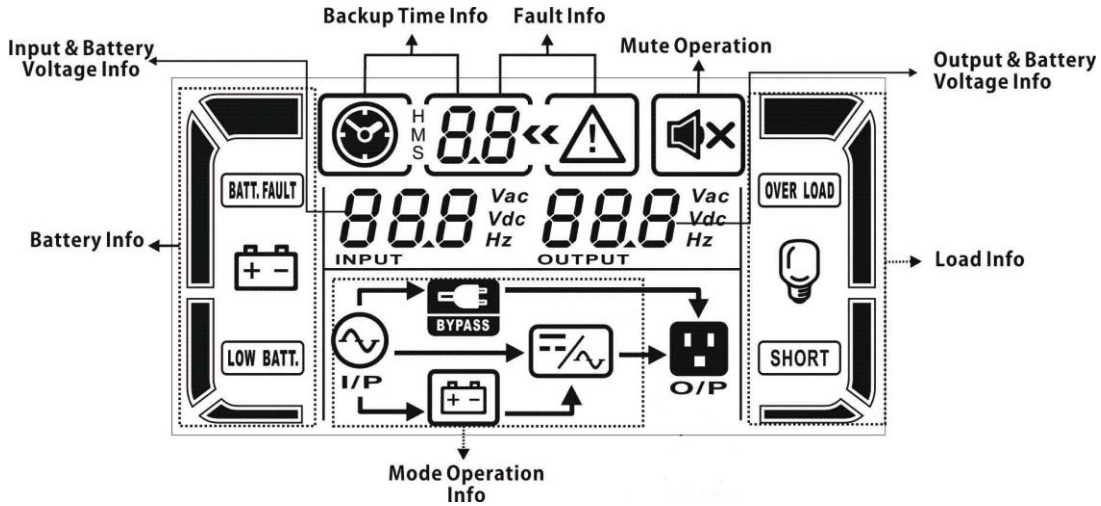
1. AC input
2. Input circuit breaker
3. USB communication port
4. RS-232 communication port
5. EPO port
6. Modem/Phone/Network surge protection
7. Programmable outlets: connect to non-critical loads
8. Output receptacles
9. External battery interface(battery-free model)
10. Control Card Slot

■ External Battery

Connecting the battery: When connecting the battery box, be sure to confirm that the polarity of the battery is correctly connected.
Required specifications of circuit breaker: voltage ≥ 1.25x battery voltage / number of groups, current≥ 50A
Please select the appropriate battery specifications and number of connections based on the discharge time requirements and UPS specifications..



■ LCD Panel

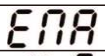
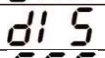
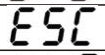
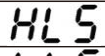
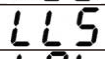
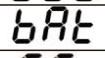
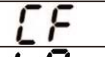
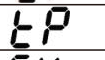
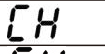
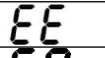


Diaplay	Function
Backup time information	
	Indicates battery diacharge time in munber H:hours, M: mintes, S: seconds
Fault information	
	Indicates that the warning and fault occurs
	Indicates the fault codes
Mute operation	
	Indicates that the UPS alarm is disabled
Output & Battery voltage information	
	Indicates the output voltage, frequency or battery voltage Vac: output voltage, Vdc: battery voltage, Hz: frequency
Load information	
	Indicates the load level by 0-25%、26-50%、 51-75%、and 76-100%。
	Indicates overload
	Indicates the load or the output is short
Load information	
	Indicates that programmable management outlets are working
Mode operation information	
	Indicates the UPS connected to the mains
	Indicates thebattery is working
	Indicates the bypass circuit is working
	Indicates the ECO mode is enabled
	Indicates the Inverter circuit is working
	Indiactes the output is working
Battery information	
	Indicates the battery capacity by 0-25%、26-50%、 51-75%、和 76-100%。
	Indicates the battery is not connected
	Indicates low battery level and low battery voltage
Input & Battery voltage information	
	Indicates the input voltage or frequency or battery voltage Vac: Input voltage, Vdc: battery voltage, Hz: input frequency

■ Audible Alarm

Description	Buzzer status
Battery Mode	Sounding every 4 seconds
Low Battery	Sounding every second
Overload	Sounding twice every second
Fault	Continuosly sounding
Bypass Mode	Sounding every 10 seconds

■ LCD diaplay wording index

Abbreviation	Display content	Meaning
ENA		Enable
DIS		Disable
ESC		Escape
HLS		High loss
LLS		Low loss
BAT		battery
CF		Converter
TP		Temperature
CH		Charger
FU		Bypass frequency untable
EE		EEPROM error
EP		EPO

■ Accessories List

	Object	Number
1	User Manual	1
2	Monitoring software CD-ROMs	1
3	USB cable	1
4	Computer cables	1
5	Battery cable(battery-free model)	1
6	Vertical tripod (only Rack)	2
7	Cabinet mounting brackets (only Rack)	2

■ Optional accessories(Need to be ordered separately)

Model	Item	Description	Funcation
PSWG-ES-SU-SNMP		SNMP Communication Card	・Multiple UPS systems can be controlled and monitored via the RJ-45 interface. ・UPS data (voltage, frequency, load level, battery capacity) is displayed in a real-time and dynamic graphical interface. ・Warning notifications can be sent via audible and visual alarms, broadcasts, mobile messengers, SNMP traps, and emails. ・Historical data can be stored in the database of the terminal computer. ・Simple firmware update. ・It has the functions of password security protection and remote access management.
PSWG-ES-SU-MOD		Modbus Card	・Multiple UPS systems can be controlled and monitored via the RS-485 interface. ・It supports the MODBUS RTU communication protocol. ・Data reading and writing operations can be performed via registers. ・It provides surge protection.
PSWG-ES-SU-AS9P		Relay Card(9-Pin wire-locking terminal)	・It provides contact signals to enable remote monitoring of the UPS. ・To meet different environmental requirements, the signal status (open circuit or closed circuit) of the dry contacts can be set via jumpers.
PSWG-ES-SU-ASDB9		Relay Card(DB9 connector)	