Online UPS

ES-TU6K-RL series

Features

- DSP control technology
- Supports fuel generator input
- Input power factor ≥0.99
- Input current harmonic distortion <4%
- Output power factor of 1
- 50Hz/60Hz frequency conversion mode
- Emergency power-off function (EPO)
- USB/RS-232 communication interfaces
- LCD diaplay panel

Applications

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

Global Trade Item Identifier

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

Description

The ES-TU6K-RL is a 6KVA online UPS system. 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 producthas a full load efficiency of up to 91%, an input power factor of over 0.99, and acurrentharmonic of less than 4%, 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 accuratelymatch 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.

Model Encoding

ES - TU6K - RL

- RL: Exterior structure (Rack)
- TU6K: Power
- TU6K: Series Name
- ES: Product Categories (Energy Storage category)

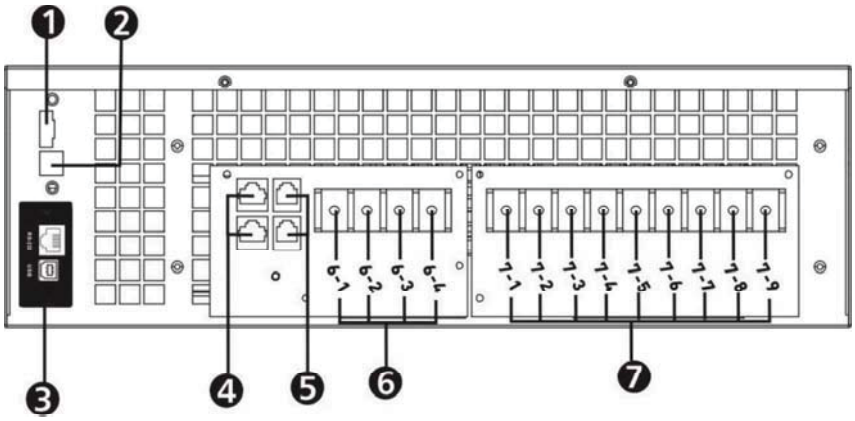
Specification		ES-TU6K-RL		
INPUT				
Nominal Voltage		100/200, 110/220, 120/208, 120/240, 127/220 VAC (2P+N+PE)		
Voltage Range		88-155VAC(L-N); 152-269VAC(L-L)		
Frequency Range		40~70Hz		
Power Factor		≥0.99@100%load		
THDi		<4%@full linear load		
Battery				
Battery Voltage		±12V/9AH		
Numbers		8~10pcs(adjustable)*2		
Nominal Voltage		±96V(12V*16pcs)		
Maximum Voltage		±120V(12V*20pcs)		
Minimum Voltage		±96V(12V*16pcs)		
Charging Voltage		±109V		
Charging Current		±4A		
OUTPUT				
Power		6KVA/6KW		
Output Voltage		100/200, 110/220, 120/208, 120/240, 127/220VAC(2Ph+N)		
AC Voltage Regulation		±1%		
Frequency	Synchronized Range	46~54Hz/56~64Hz		
	Battery Mode	50/60±0.1Hz		
Waveform	Battery Mode	Pure Sinewave		
Harmonic Distortion		≤2%THD(Linear Load); ≤3%THD(Non-linear Load)		
Transfer Time	AC to Battery Mode	0		
	Inverter to Bypass	0		
EFFICIENCY	AC Mode	91%		
	ECO Mode	97%		
	Battery Mode	91%		
SAFETY & EMC				
SAFETY STANDARDS		UL1778:2014 R10.17,CSA C22 No.107.3-14		
EMC EMISSION		Parameter	Standard	Test Level / Note
		Conducted emission	CFR47 FCC Part15 ICES-003 Issue 6 2017	Class A
		Radiated emission	FCC 47 CFR Part15 ICES-003 Issue 7 2020	Class A
OTHER				
Communication interface		RS232/USB		
Phase		2 phase in/2 phase out		
Display		LCD		
Operating temperature		0~40℃		
Humidity		0-95%(non-condensing)		
Weight		17.6kg		
Size		678*418*129mm(3U)		
NOTE				

Derate capacity to 90% of capacity when the output voltage is adjusted to 208VAC

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

■ Rear panel View

■ ES-TU6K-RL



ES-TU6K-RL

1: Emergency power off function connector(EPO connector)
2: USB communication port
3: Intelligent slot
4: Parallel port (for parallel funcation)
5: Current sharing port (for parallel funcation)
6: Battery terminal
7: Input/Output terminal

■ Terminal Configuration

Battery Terminal Configuration

Model	Battery Terminal			
	6-1	6-2	6-3	6-4
ES-TU6K-RL	BAT +	BAT-N	BAT -	—

Input/Output Terminal Configuration

Model	Input/Output Terminal								
	7-1	7-2	7-3	7-4	7-5	7-6	7-7	7-8	7-9
ES-TU6K-RL	I/P-R	I/P-N	—	I/P-T	PE	OP-L1	—	OP-L3	OP-N

■ Single UPS Installation

Installation and wiring must be performed in accordance with the local electric laws/regulations and execute the following instructions by professional personnel.

1) Make sure the mains wire and breakers in the building are enough for the rated capacity of UPS to avoid the hazards of electric shock or fire.

NOTE: Do not use the wall receptacle as the input power source for the UPS, as its rated current is less than the UPS's maximum input current. Otherwise the receptacle may be bured and destroyed.

2) Switch off the mains switch in the building before installation.

3) Turn off all the connected devices before connecting to the UPS

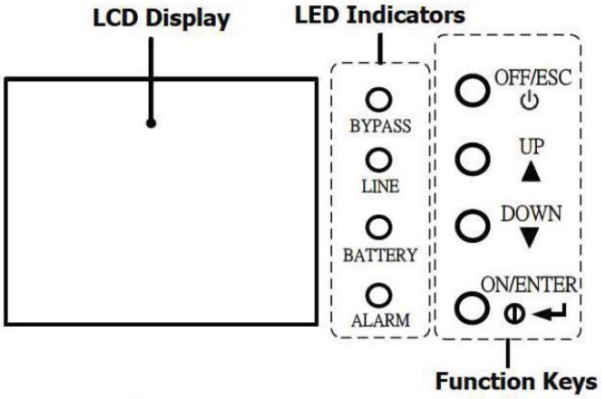
4)Prepare wires based on the following table:

Model	Wiring spec(AWG)			
	Input	Output	Battery	Ground
ES-TU6K-RL	10	10	10	10

NOTE 1: The cable should be able to withstand over 35A current, It is recommended to use10AWG or thicker wire for safety and efficiency.

NOTE 2: The selections for color of wires should be followed by the local electrical laws andregulations.

■ Button Operation



There are four buttons on the front panel.

Control Key	Description
ON/ENTER	· Press this button to turn on the UPS · Or press it to confirm the selection in the menu
OFF/ESC	· Press this button to turn off the UPS · Or press it to return to the last menu
UP	· Press this button to select the previous item in the menu · Or press this button to jump to previous page in the screen · Or press this button to increase the number in the setting
DOWN	· Press this button to select the next item in the menu · Or press this button to jump to next page in the screen · Or press this button to decrease the number in the setting
UP+DOWN	· To allow LCD display to rotate 90 automatically, press these two buttons at the same time. This operation is used to configure the UPS in rack or tower display

■ LED Indicators

There are 4 LEDs on front panel to show the UPS working status

Mode \ LED	BYPASS	LINE	BATTERY	ALARM
UPS Power On	●	●	●	●
standby mode	○	○	○	○
Bypass mode	●	○	○	○
Line mode / CVCF mode	○	●	○	○
Battery mode	○	○	●	○
Fault mode	○	○	○	●
Battery Test mode	○	●	●	○
ECO mode	●	●	○	○

■ Audible Alarm

UPS status	Buzzer status	Muted
Bypass mode	Beeping once every 2 minutes	Yes
Battery / Battery-test mode (normal battery voltage)	Beeping once every 4 seconds	
Battery/ Battery-test mode (low battery voltage)	Beeping once every second	
Fault	Beeping continuously	
Warnings(except overload)	Beeping once every second	No
Overload	Beeping twice every second	