

[www.mini-ups.com](http://www.mini-ups.com)

**MiniUPS**



## 1. Incorporation introduction

### 1) Brief introduction

Shenzhen mini ups technology co.,ltd is mainly specialized in developing, producing and marketing serial products to protect computerized data. We have an enterprising and experienced R&D team. Our R&D base is in the Research Institute of Tsinghua University in Shenzhen. After years'of efforts, we have succeeded in developing a series of products to protect computerized data. These products are leading in the world and have 10 **exclusive copyrights** , which are all recognized and recommended by experts and users in this field.

Our factory covers 40,000 square meters including 20,000 square meters of construction areas, and has workshops with antistatic cleanrooms. With more than 800 employees, we have already passed the ISO9001, CCC, UL and CE management and quality certificate. The production capacity is more than 300,000 sets per month. We always carry out the management regulations strictly so as to ensure good quality and high efficiency.

## Patent certificate



## Factory pictures







## Ni-mh/Li battery MINI UPS (AC-AC AC-DC)

World's first genuine high-performance MINI UPS 300W (not a power bank);

### 1.Genuine MINI

Lighter: weight reduced by up to 80% compared with traditional lead-acid battery UPS.

MINI volume: 195\*142\*45 mm, 75% smaller than traditional lead-acid battery UPS.

Energy-saving: long battery life with the adoption of latest environmentally-friendly Ni-mh battery and lithium battery.

### 2.Genuine high performance

Original CPU control, sensitive response, high-level automation, perfect protection mechanism.

Source code ownership, independent programming according to needs, customized service.

1.Sensitive response: electric supply/UPS switch within 8 milliseconds.

### 3.High-level automation

Mobile: activate without electric supply. (Support of outside using)

Timing function: scheduled shutdown according to needs. No manual attendance required.

### 4. 360° protection

Built-in overheat and overload protection

Built-in high-voltage/low-voltage sensitive device protection

Built-in surge protection circuit

### 5.Long Lifetime Durable In Use

Service life >10 years

## Application scenarios



Security monitor



Optical fiber interface power supply



Mobile power supply



Unattended power supply



Home communication backup power supply



Outdoor communication equipment



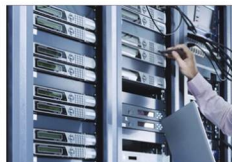
Computer backup power supply



Telecommunications equipment



Medical equipment



Small data center



Security system



Hospital & Government institution



Product Dimension (mm*mm*mm)	195*142*45
Product Weight	895g(±5g)
Ni-mh UPS	



## Leeer - 4B (AC-AC) Technical Parameter

Item		Specification
Rated Watts(W/VA)		200W(330VA)
		250W(410VA)
		300W(500VA)
Input	Nominal Voltage	85-265VAC
	Frequency	47-65Hz
Output	Nominal Voltage (on battery)	( optional ) 100V、110V、120V-AC( $\pm 10\%$ )X2; 220V、230V、240V-AC( $\pm 10\%$ )X2
	Frequency (on battery)	50/60Hz $\pm 1$ Hz
	Transfer Time	8ms $\pm$ 2ms
Battery	Nominal Voltage/ Capacity	14.4V/1.2AH-2.4AH (select according to the wattage of MINI UPS )
	Charge Time	10 hours (with the unit switched off) 13 hours (with the unit switched on)
	Backup Time	$\geq 5$ minutes (subject to the level of load)
	Type	Ni-Cd or Ni-MH (select according to the wattage of MINI UPS)
Protection	Low Voltage Protection of Battery	11.0V( $\pm 1$ V)
	Reuse	Restore via activation of AC
	Surge Protection	Built-in surge protection
	High-voltage Protection	Built-in high-voltage protection
	Low-voltage Protection	Built-in low-voltage protection
	Lightning Protection	Lightning protection
Size(mm*mm*mm)		195*142*45
Net Weight		1.11kg for Leeer-4B-200W
		1.17kg for Leeer-4B-250W
		1.23kg for Leeer-4B-300W
Operating Temperature		-18°C to 45°C
Operating Relative Humidity		10% to 95%





## User Manual of Leeer - 4B

**Thanks for purchasing the MINI UPS (Leeer-4B). Please refer to the User Manual carefully before use:**

1. Installation: connect the MINI UPS with the AC power socket (under circumstance of power disconnection), then connect the unit with your device. After that, turn on the AC power (MINI UPS will be charged automatically) and press the ON/OFF button to power the unit on and keep it switched on all the time. The green LED indicator will illuminate to confirm the MINI UPS is on and ready to provide protection.
2. Please use this unit within suggested maximum level of voltage and wattage. Suggest: The unit performs most safely when the load wattage is below 60% of Rated Watts.
3. This unit must be fully charged before the first use.
4. If the battery power is used up during a power shortage, the unit will turn off automatically to enter into the mode of protection, and you must recharge it before the next use.
5. MINI UPS is guaranteed for one year under the premise that they are used in accordance with this manual.
6. Provided being charged for long time, temperature of this unit may go up to 60°C. It is considered as a normal phenomenon.
7. After intermittence during the use, we can have the unit (remnant power is available) go on working normally via turning on the switch, in case of such function in need of customer. Furthermore, we are able to design product with special functions (such as time power supply, intermittent power supply, etc.) according to customer's requirement.
8. Please place the MINI UPS to avoid excessive heat and moisture. Also, turn off the unit provided no necessary for constant use.
9. Do not open the back cover as you may get a shock from the high voltage power.

### Status Indications

Power on (green)	DC/AC (red)	Buzzer (choose)	Conditions
on	off	off	MINI UPS is charged (ready state)
on	flash	alarm	MINI UPS is supplying power to the connected device
on	off	off	MINI UPS will be off automatically because its power is not enough for the device or it's switched off.



## LEEER - 4D (AC-DC) Technical Parameter

Item		Specification
Rated Watts(W)		60 (limit 70)
Input	Nominal Voltage	75-265V-AC
	Frequency	47-63Hz
Output	Nominal Voltage	DC 12V $\pm$ 2%
	Frequency	0
	Transfer Time	<1 $\mu$ s
	Output Control	manual or automatic option
	Manually power turn-on	1 second Delay
Battery	Nominal Voltage/ Capacity	14.4V/1.2AH-2.4AH (depend on the wattage of MINI UPS )
	Charge Time	10 hours (with the unit switched off)
		12-15 hours (with the unit switched on)
	Backup Time	$\geq$ 20 minutes (depend on the level of load)
	Type	Ni-Cd or Ni-MH(select according to the wattage of MINI UPS)
Protection	Low Voltage Protection of Battery	11.0V( $\pm$ 1V)
	Reuse	Restore via activation of AC
	Surge Protection	Built-in surge protection
	High-voltage Protection	Built-in high-voltage protection
	Low-voltage Protection	Built-in low-voltage protection
	Lightning Protection	Lightning protection
Size(mm*mm*mm)		195*142*45
Net Weight		1.314 kg
Operating Temperature		-18°C to 45°C
Operating Relative Humidity		10% to 95%

### Precautions and Quality Assurance:

1. The DC UPS shall be placed in the cool area with good ventilation to avoid humidity and overheated situation. When not in use, please immediately switch it off.
2. In order to avoid high voltage electric shock, please DO NOT dismantle the back cover without authorization.
3. There is approximately 1s delay to start up the move mode; please check whether the load permits.
4. This DC UPS is precise device; please don't repair it without authorization in case of failure.
5. This DC UPS can be damaged due to improper use.
6. Under the precondition of proper using, one-year quality warranty is awarded



## LEEER-4D Instruction Manual

**Product Name: Portable Mini DC UPS**

**Product Model No: LEEER-4D**

### **Product Features:**

The world's first portable mini standby DC power supply.

It could be taken to anywhere after recharging; once switch on, it may immediately provide DC power without startup by the AC power.

This DC UPS is specially designed for the small scale equipment powered by DC.

Applicable to the outdoor power supply for the equipment powered by DC (such as mobile phone recharging, portable appliance etc. during traveling or camping).

### **Product Descriptions:**

User(s) may choose to/not to use the DC UPS supply via the switch when utility power is available;

During mobile use, recommend to adopt soft-startup to better protect load from current impact;

Wide input voltage (75-265V);

Environment-friendly batteries (Ni-MH) are adopted;

Free from minimum load limitation;

Audio and visual alarm (optional);

Battery low voltage protection;

Battery high voltage protection;

Overload protection;

Output short circuit protection;

Lightning protection;

Surge protection;

Fault-triggered auto shutdown;

Two lines of AC socket output; simultaneously switch to the utility power if it is available.

### **Use Instructions:**

1. For the first use, the DC UPS should be fully recharged; switch off and continuous charging for 10 hours with connecting AC power supply.
2. Take the portable Mini DC UPS to the required places, connect to the load appliance and switch on to initiate the mode of mobile power supply.
3. This DC UPS can also be used as the fixed power supply device.
4. In case of flat battery, Mini DC UPS shall auto shut down to initiate the protection mode; please make sure to get battery recharged again before use.
5. During use, the rated power shall not be exceeded.
6. The ideal load is supposed to be resistive. With inductive and capacitive load, please take caution during use to avoid unexpected consequences.
7. The protection mode is initiated due to overload or erroneous operation.





Li Battery series

Product Dimension (mm*mm*mm)	195*142*45	
Product Weight	LEEER-4B (L)	895g(±5g)
	LEEER-4B (H)	1085g(±5g)
	LEEER-4D (L)	935g(±5g)
	LEEER-4D (H)	1125g(±5g)
Li battery UPS		



## LEEER - 4B - L (AC-AC) Technical Parameter

Item		Specification
Rated Power		LEEER-4B (L) Max 150W
Input	Rated Voltage	65-265 VAC
	Frequency	47-65 Hz
Output	Optional Voltage (battery is under inverter power supply)	100—240V-AC( $\pm 10\%$ )
	Frequency (battery is under inverter power supply)	50/60 Hz $\pm 1$ Hz
	Handover Delay	8ms $\pm$ 2ms
Battery	Rated Voltage and Capacity	14.8V Nominal Voltage LEEER-4B(L) 3.4AH
	Charging Time (Switch off)	3.5 hours (LEEER-4B-L)
	Battery Life	Depending on the load power
	Battery Type	Lithium Battery
Protection	Battery Low Voltage Cut-off	11.0V( $\pm 0.5$ V)
	Restart	Automatic restart on AC recovery
	Overload Protection	Build- in thermal overload protection
	High Voltage Protection	Build- in pressure sensitive device protection
	Low Voltage Protection	Build- in low voltage automatic detection
	Lighting Protection	Build- in surge protection circuit
Product Dimension (mm*mm*mm)		195*142*45
Product Weight		LEEER-4B (L) 895g( $\pm 5$ g)
Working Temperature		-18°C to 45°C
Working Humidity		10% to 95%



## LEEER-4B (L) Instruction Manual

1. Thank you for purchasing Mini UPS LEEER-4B(L/H). Please read carefully the instruction manual before use.
2. The mini UPS adopts environmentally harmless, large capacity lithium-ion batteries which have the characteristic of Light Weight, Small Volume and Long Endurance. It can guarantee more than 500 times of charge- discharge.
3. Installation: Connect the mini UPS to the power socket, at this time, the battery will automatically charge whether the switch is on or off. When the product is in use or on standby, the switch should be on.
4. Please use mini UPS within the allowed maximum voltage and power range. Suggestion: The mini UPS performs best when the load power is less than 60% of the rated power.
5. The mini UPS must be fully charged before use.
6. When the battery reaches the safe capacity, the mini UPS will automatically shut down and enter protected mode; it must be charged before the next use.
7. Use mini UPS according to the parameters of this manual, and enjoy one- year warranty.
8. The mini UPS is set as automatic intelligent charging the charging will stop automatically when it reaches the maximum capacity of the battery. When the battery capacity is insufficient, the charging will start automatically.
9. The mini UPS is only suitable for indoor use, it cannot be used in damp places and places with temperature over 45°C.
10. Do not open the rear cover, as this may result in life-threatening high-voltage electric shock.
11. The mini UPS is designed as broad width adaptive voltage.
12. Two channel AC output.
13. The mini UPS is equipped with surge protection, high voltage protection, overload protection and the function of automatic stop when fully charged.
14. Buzzer and indicator light can be removed according to customer's request it has no impact on the overall performance.
15. The min UPS has two types: fixed type and mobile type. Please specify when ordering
16. The corresponding batteries of each model are as follows:  
LEEER-4B Ni-Cd/Ni-MH Battery    Marked voltage 14.4V    Maximum Capacity 2.4AH  
LEEER-4B(L) Lithium Battery    Marked voltage 14.8V    Maximum Capacity 3.4AH  
LEEER-4B(H) Lithium Battery    Marked voltage 14.8V    Maximum Capacity 6.8AH

### State Display of Indicator Light and Buzzer

Normal Power Supply (Green LED)	Invert Output (Red LED)	Buzzer (Discontinuous Buzz)	Conditions
Turn on	Turn off	No Buzz	Mini UPS is on standby
Turn on	Flicker	Discontinuous Buzz	Mini UPS is in working state
Turn on	Turn off	No Buzz	Mini UPS is off, Or run out of battery. Or the switch is off





## LEEER - 4B - H (AC-AC) Technical Parameter

Item		Specification
Rated Power		LEEER-4B (H) Max 300W
Input	Rated Voltage	65-265 VAC
	Frequency	47-65 Hz
Output	Optional Voltage (battery is under inverter power supply)	100—240V-AC(±10%)
	Frequency (battery is under inverter power supply)	50/60 Hz ±1Hz
	Handover Delay	8ms ± 2ms
Battery	Rated Voltage and Capacity	16.8V(full charged) LEEER-4B(H) 6.8AH
	Charging Time (Switch off)	7.0 hours (LEEER-4B-H)
	Battery Life	Depending on the load power
	Battery Type	Lithium Battery
Protection	Battery Low Voltage Cut-off	11.0V(±0.5V)
	Restart	Automatic restart on AC recovery
	Overload Protection	Build- in thermal overload protection
	High Voltage Protection	Build- in pressure sensitive device protection
	Low Voltage Protection	Build- in low voltage automatic detection
	Lighting Protection	Build- in surge protection circuit
Product Dimension (mm*mm*mm)		195*142*45
Product Weight		LEEER-4B (H) 1085g(±5g)
Working Temperature		-18℃ to 45℃
Working Humidity		10% to 95%



## LEEER-4B (H) Instruction Manual

1. Thank you for purchasing Mini UPS LEEER-4B(L/H). Please read carefully the instruction manual before use.
2. The mini UPS adopts environmentally harmless, large capacity lithium-ion batteries which have the characteristic of Light Weight, Small Volume and Long Endurance. It can guarantee more than 500 times of charge- discharge.
3. Installation: Connect the mini UPS to the power socket, at this time, the battery will automatically charge whether the switch is on or off. When the product is in use or on standby, the switch should be on.
4. Please use mini UPS within the allowed maximum voltage and power range. Suggestion: The mini UPS performs best when the load power is less than 60% of the rated power.
5. The mini UPS must be fully charged before use.
6. When the battery reaches the safe capacity, the mini UPS will automatically shut down and enter protected mode; it must be charged before the next use.
7. Use mini UPS according to the parameters of this manual, and enjoy one- year warranty.
8. The mini UPS is set as automatic intelligent charging the charging will stop automatically when it reaches the maximum capacity of the battery. When the battery capacity is insufficient, the charging will start automatically.
9. The mini UPS is only suitable for indoor use, it cannot be used in damp places and places with temperature over 45°C.
10. Do not open the rear cover, as this may result in life-threatening high-voltage electric shock.
11. The mini UPS is designed as broad width adaptive voltage.
12. Two channel AC output.
13. The mini UPS is equipped with surge protection, high voltage protection, overload protection and the function of automatic stop when fully charged.
14. Buzzer and indicator light can be removed according to customer's request it has no impact on the overall performance.
15. The min UPS has two types: fixed type and mobile type. Please specify when ordering
16. The corresponding batteries of each model are as follows:  
LEEER-4B Ni-Cd/Ni-MH Battery    Marked voltage 14.4V    Maximum Capacity 2.4AH  
LEEER-4B(L) Lithium Battery    Marked voltage 14.8V    Maximum Capacity 3.4AH  
LEEER-4B(H) Lithium Battery    Marked voltage 14.8V    Maximum Capacity 6.8AH

### State Display of Indicator Light and Buzzer

Normal Power Supply (Green LED)	Invert Output (Red LED)	Buzzer (Discontinuous Buzz)	Conditions
Turn on	Turn off	No Buzz	Mini UPS is on standby
Turn on	Flicker	Discontinuous Buzz	Mini UPS is in working state
Turn on	Turn off	No Buzz	Mini UPS is off, Or run out of battery. Or the switch is off



## LEEER - 4D - L(AC-DC) Technical Parameter

Item		Specification
Rated power (W)		60 (short- time 70)W
Input	Rated Voltage	AC 65-265 v
	Frequency	47-63Hz
Output	Rated voltage	DC 12V $\pm$ 2%
	Frequency	0Hz
	Switching time	less than 10 millisecond
	Output control	Manual and automatic are optional
	Manual output delay	Start less than 0.5 seconds after switch closed
Battery	Battery voltage	Nominal voltage 14.8V
	Battery capacity	3.4AH(L)
	Charge time	3.5H(L) (Switch is off)
	Standby support time	Over 30mins(L) (under the maximum load)
	Material	lithium ion battery
Protection	Battery protection	low-voltage 11.0V( $\pm$ 0.5V)
	Reuse	AC activation or manual activation
	Surge protection	Interior surge protection
	High voltage protection	Interior high voltage protection
	Low voltage protection	Interior low voltage protection
	Lightning protection	Prevention of lightning
Size(mm*mm*mm)		195*142*45
Net weight		935g (L)
Working environment temperature		-18°C to 45°C
Working environment humidity		Below 95%

## Specification of LEEER-4D (L)

Thanks for purchasing Mini UPS LEEER-4D(L). Please read the operating manual carefully before use.

### Product Feature:

- 1·First movable mini reserve DC power supply in the world.
- 2·It could be taken to anywhere after full-charged, it does not need AC start-up but only turn on the switch.
- 3·DC power output.
- 4·Specially designed for small devices that require DC power.
- 5·Suitable for power supply of the equipment that needs DC power supply when traveling tourism, camping,





outdoor communication equipment, portable electrical appliances etc

- 6·This product choose environment friendly, large capacity lithium-ion battery which has the characteristic of light weight, small size and long battery life. It can be guaranteed to charge and discharge more than 500 times.
- 7·Installation: Connect the mini UPS to the power socket, the battery will be charged automatically regardless of whether the switch is on or off. But be sure to turn on the switch when using or on standby.
- 8·This product is set to be automatic intelligent charging. When the charging reaches the maximum capacity of the battery, the charging stops automatically. When the battery capacity is insufficient, the charging will start automatically.
- 9·The mini UPS is only suitable for indoor use, it cannot be used in damp places and places with temperature over 45°C

### **Product Description:**

- 1·When using commercial power, the switch can be used to control output or do not output DC power.
- 2·Use soft start technology when used in moving state, which better protect the load from current impact.
- 3·Wide input voltage (65-265V)
- 4·Environment friendly lithium ion battery
- 5·No minimum load limitation
- 6·With buzzer and light alarm (could be canceled or equipped)
- 7·Battery low voltage protection
- 8·Power supply high voltage protection
- 9·Load and overload protection
- 10·Output short circuit protection
- 11·Lightning protection design
- 12·Surge protection
- 13·Fault automatic shutdown design
- 14·Two AC outlet outputs. When the commercial power is available, it can be connected to the commercial power at the same time

PS: Corresponding battery of each LEEER-4D model

LEEER-4D Ni-MH battery nominal voltage 14.4V maximum capacity 2.4AH

LEEER-4D (L) Lithium ion battery nominal voltage 14.8V maximum capacity 3.4AH

LEEER-4D (H) Lithium ion battery nominal voltage 14.8V maximum capacity 6.8AH

### **Operating instruction:**

- 1·First use must be fully charged. Charging for 4 hours (L) / 8 hours (H) with switch off.
- 2·Take the movable mini DC UPS to the desired location, connect it to the load electrical appliance, open the switch and the product is in the moving power supply mode.
- 3·This product could also be used as fixed power supply.
- 4·When the battery is exhausted, Mini DC UPS will automatically shut down and enter the protection mode. Please recharge before use.
- 5·Do not exceed the rated power when using.
- 6·Ideal load is resistive. Be careful to use with inductive load and capacitance load, unintended consequences may occur.
- 7·Overload use or operation errors may make the product enter into protection mode. It could automatically restore after eliminating improper operation.

### **Notice and warranty:**

- 1·Please keep the product in a cool and ventilated place, avoid heat or moisture. Turn off the switch immediately when not in use.
- 2·Do not privately unwrap the back cover to avoid high voltage shock.
- 3·It has a delay about 0.5 second when start in moving mode, please check if it is permitted by the load.
- 4·This product is precision equipment, please do not repair yourself when it goes wrong.
- 5·Improper use will cause the damage of the equipment.
- 6·Enjoy one-year warranty under the premise of correct use of the product.



## LEEER - 4D - H(AC-DC) Technical Parameter

Item		Specification
Rated power (W)		60 (short- time 70)W
Input	Rated Voltage	AC 65-265 v
	Frequency	47-63Hz
Output	Rated voltage	DC 12V $\pm 2\%$
	Frequency	0Hz
	Switching time	less than 10 millisecond
	Output control	Manual and automatic are optional
	Manual output delay	Start less than 0.5 seconds after switch closed
Battery	Battery voltage	fully charged 16.8V
	Battery capacity	6.8AH(H)
	Charge time	7 H(H) (Switch is off)
	Standby support time	60mins(H)(under the maximum load)
	Material	lithium ion battery
Protection	Battery protection	low-voltage 11.0V( $\pm 0.5V$ )
	Reuse	AC activation or manual activation
	Surge protection	Interior surge protection
	High voltage protection	Interior high voltage protection
	Low voltage protection	Interior low voltage protection
	Lightning protection	Prevention of lightning
Size(mm*mm*mm)		195*142*45
Net weight		1125g (H) $\pm 5g$
Working environment temperature		-18°C to 45°C
Working environment humidity		Below 95%

## Specification of LEEER-4D (H)

Thanks for purchasing Mini UPS LEEER-4D(H). Please read the operating manual carefully before use.

### Product Feature:

- 1·First movable mini reserve DC power supply in the world.
- 2·It could be taken to anywhere after full-charged, it does not need AC start-up but only turn on the switch.
- 3·DC power output.
- 4·Specially designed for small devices that require DC power.
- 5·Suitable for power supply of the equipment that needs DC power supply when traveling tourism, camping,





outdoor communication equipment, portable electrical appliances etc

- 6·This product choose environment friendly, large capacity lithium-ion battery which has the characteristic of light weight, small size and long battery life. It can be guaranteed to charge and discharge more than 500 times.
- 7·Installation: Connect the mini UPS to the power socket, the battery will be charged automatically regardless of whether the switch is on or off. But be sure to turn on the switch when using or on standby.
- 8·This product is set to be automatic intelligent charging. When the charging reaches the maximum capacity of the battery, the charging stops automatically. When the battery capacity is insufficient, the charging will start automatically.
- 9·The mini UPS is only suitable for indoor use, it cannot be used in damp places and places with temperature over 45°C

### **Product Description:**

- 1·When using commercial power, the switch can be used to control output or do not output DC power.
- 2·Use soft start technology when used in moving state, which better protect the load from current impact.
- 3·Wide input voltage (65-265V)
- 4·Environment friendly lithium ion battery
- 5·No minimum load limitation
- 6·With buzzer and light alarm (could be canceled or equipped)
- 7·Battery low voltage protection
- 8·Power supply high voltage protection
- 9·Load and overload protection
- 10·Output short circuit protection
- 11·Lightning protection design
- 12·Surge protection
- 13·Fault automatic shutdown design
- 14·Two AC outlet outputs. When the commercial power is available, it can be connected to the commercial power at the same time

PS: Corresponding battery of each LEEER-4D model

LEEER-4D Ni-MH battery nominal voltage 14.4V maximum capacity 2.4AH

LEEER-4D (L) Lithium ion battery nominal voltage 14.8V maximum capacity 3.4AH

LEEER-4D (H) Lithium ion battery nominal voltage 14.8V maximum capacity 6.8AH

### **Operating instruction:**

- 1·First use must be fully charged. Charging for 4 hours (L) / 8 hours (H) with switch off.
- 2·Take the movable mini DC UPS to the desired location, connect it to the load electrical appliance, open the switch and the product is in the moving power supply mode.
- 3·This product could also be used as fixed power supply.
- 4·When the battery is exhausted, Mini DC UPS will automatically shut down and enter the protection mode. Please recharge before use.
- 5·Do not exceed the rated power when using.
- 6·Ideal load is resistive. Be careful to use with inductive load and capacitance load, unintended consequences may occur.
- 7·Overload use or operation errors may make the product enter into protection mode. It could automatically restore after eliminating improper operation.

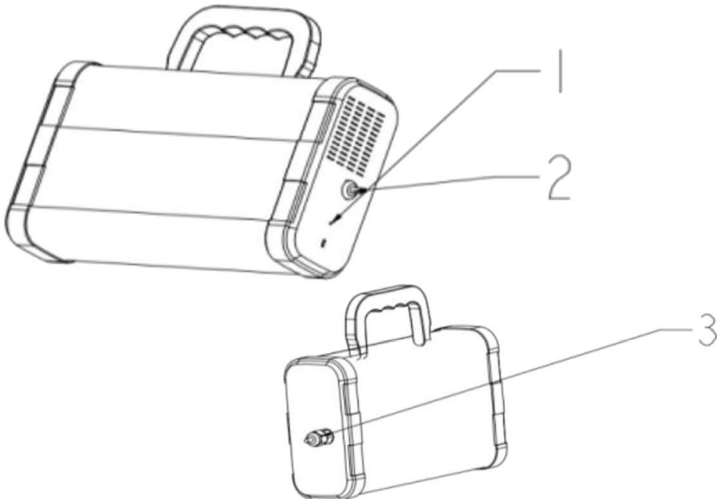
### **Notice and warranty:**

- 1·Please keep the product in a cool and ventilated place, avoid heat or moisture. Turn off the switch immediately when not in use.
- 2·Do not privately unwrap the back cover to avoid high voltage shock.
- 3·It has a delay about 0.5 second when start in moving mode, please check if it is permitted by the load.
- 4·This product is precision equipment, please do not repair yourself when it goes wrong.
- 5·Improper use will cause the damage of the equipment.
- 6·Enjoy one-year warranty under the premise of correct use of the product.





## MU-48-300

		Overview	
		1、 LED Indicators	
		2、 DC Output Port	
		3、 AC Input Port	
		Size: 300*185*86mm	
		Weight: 3.5±0.2Kg	
LED Indicators	LED	1pc, D=5mm	
	Charging and AC/DC Mode	LED is Red	
	Fully charge and AC/DC Mode	LED is Green	
	Battery failure	LED Flashing In Red	
	DC Mode/On Battery	LED is Orange	
Specification			
Input			
Input Voltage Range		90-264	V
Input Frequency Range		47-63	Hz
Power Factor		≥0.9 (PFC)	**
Input current		5.0A Max	A
Leakage current		1.0mA Max @230VAC	mA
Output			
AC-DC Transfer Time		≤8	ms
Output Voltage		48 (Linear compensation)	V
Output voltage accuracy		1%	**
Output Current		6.25	A
Output Current range		0-6.25 A	A
Rated power		300	W
Ripple		480	mVp-p
Output Ground Reference		Virtual ground	**
Battery			
Batteries in series and parallel		8Series-2Parallel	**
Battery Type		26650 Li-ion Battery	**
Single cell voltage		3.2	V

Capacity cell capacity	4000	mAh
Discharging performanc	≥3C	**
Battery capacity	25.6V/8000mAh 204.8Wh	Wh
Backup Time(Full load)	≥30	min
Backup Time(Half load)	≥60	min
Typical Recharge Time 10 H	10	H

## Protection

<b>Overload Protection</b>	Turn off the output Once the output current exceeds 110%- 130% of the rating
<b>High Voltage Protection</b>	Turn off the output Once the output voltage exceeds 52.8V
<b>Overheat Protection</b>	Turn off the output Once the cover temperature over 70 degrees
<b>Surge Protection</b>	80A@230VAC IEC61000-4-5

## Environmental

	Min	Standard	Max
Operating Temperature	0°C	25°C	40°C
Storage Temperature	-20°	**	60°C
Operating Humidity	10%	**	90%
Storage Humidity	0%	**	95%

## Certifications

<b>Product Warranty</b>	IEC/EN 62368-1
	EN55032
	IEC/EN 61000

## Warranty

Product Warranty	One-Year Limited
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## Price

MU-48-300	
<b>Samples</b> ≤5 PCS	
5PCS to 100PCS	
≥100PCS	



Thank you for purchasing our products, please send any comments or suggestions to [mini-ups@mini-ups.com](mailto:mini-ups@mini-ups.com), we will reply as soon as possible.

Panama Office

Engineering Manager Leo Lin 507-62829206

Sales Manager Michelle Zhang 507-63998984

[mini-ups@mini-ups.com](mailto:mini-ups@mini-ups.com)



address: HONGFAJIATELI GAOXINYUAN building 7,  
The second floor, SHIYAN, BAOAN district, SHENZHEN

E-mail: [mini-ups@mini-ups.com](mailto:mini-ups@mini-ups.com)