

Mini UPS 12VDC 4000mAh



HatPol
kontrola dostępu

Mini UPS Product Specification Sheet

Mini UPS 12VDC 4000mAh

Mini UPS 12VDC 4000mAh

1. Summary:

This is an on-line uninterruptible storage power supply. UPS interior adopts the safe and environmental 18650 lithium cells, the professional IC, smart charging BMS IC, they could be provided the trickle, constant-current, constant-voltage charging etc function. The ups could be automatically adjusts the charging current which based on the external adapter input voltage changeful. The rated output is 12V 3.0A, the max output could be 12V 3.2A, The over-current protection is 3.2A~5.5A. The circuit adopts hardware and software etc multi-protective function steps, it has completed over-charged, over-discharged, over-current, short-circuit etc protective function.



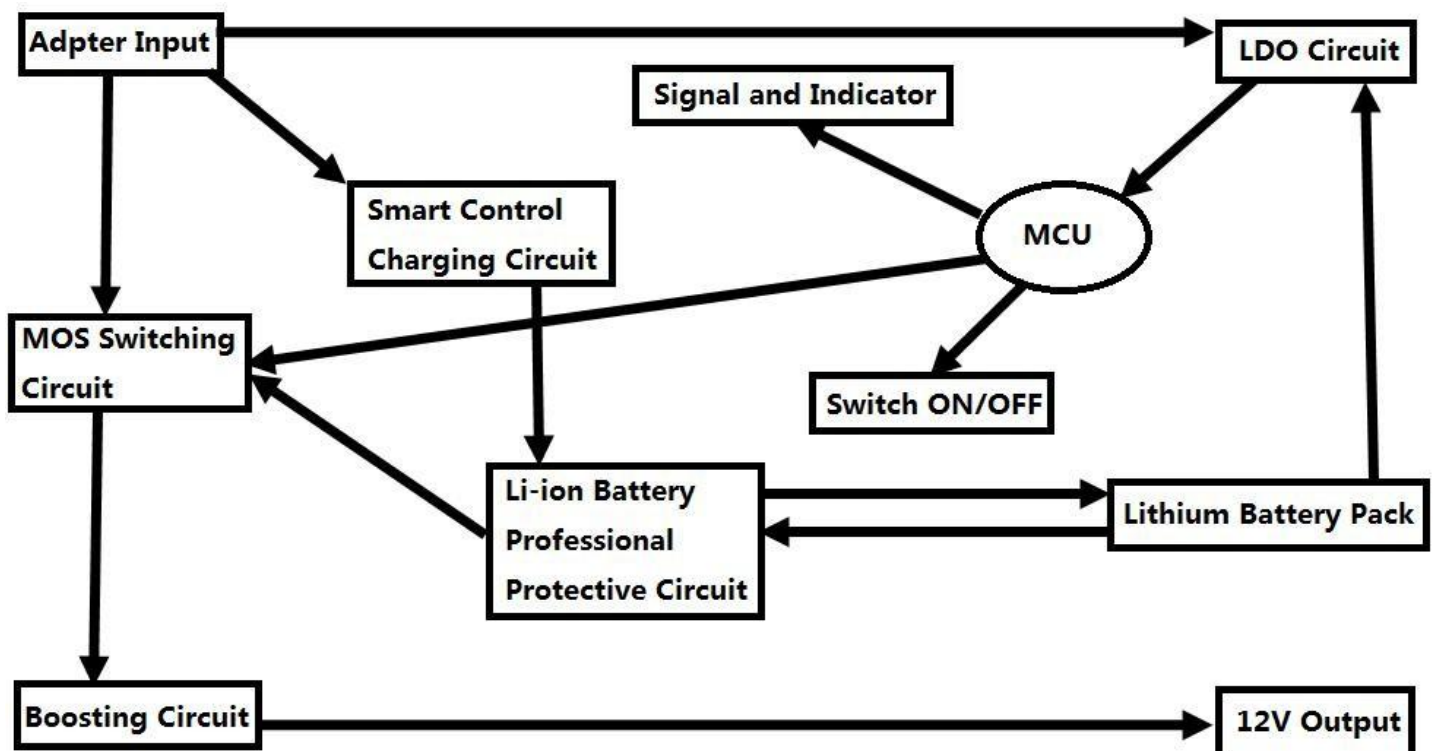
Mini UPS 12VDC 4000mAh

2. Main Spec:

● Feature

1. Small switching change, short transfer Time;
2. UPS max charging current is 0.8A, as automatically recognize the adapter charging ability, it based on voltage step-down to adjust the charging current;
3. Rated output 12V 3A, with over-current adjustable function;
4. Circuit adopts the hardware、 software etc multi-protective function steps;
5. UPS has low capacity indicator、 adapter input indicator、 battery working indicator、 charging indicator;
6. UPS interior has prefer over-charged、 over-discharged、 over-current、 short-circuit etc multi-protective function.
7. Light weight as around 257g、 small volume as only 138*60*24mm.

● Function Diagram:



Mini UPS 12VDC 4000mAh

3. Electrical characteristics:

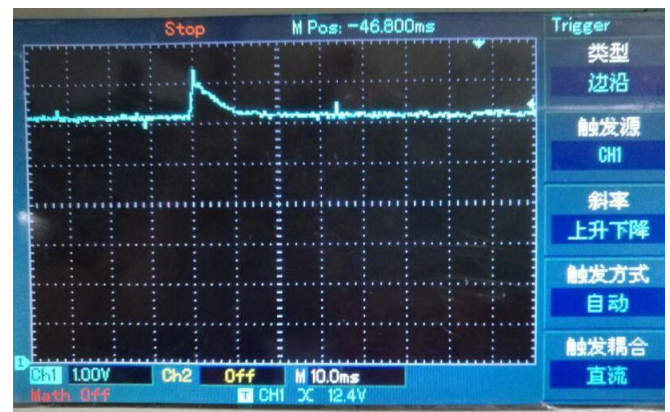
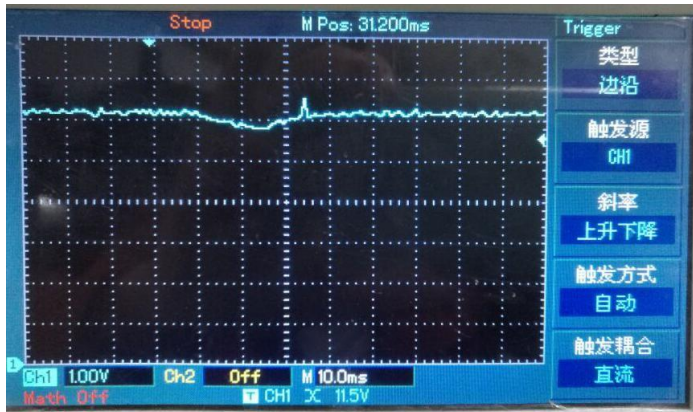
No.	Item	Mini Value	Standard	Max Value
1	Input voltage	11.8V	12.3V	12.5V
2	Input current	--	0.65A	--
3	Charging current	--	0.8A	--
4	No-load voltage range	--	12.2V	--
5	Output current range	--	3A	3.2A
6	Discharging transfer efficiency	--	≥88%	--

4. Li-ion Battery with PCB characteristics:

Item	Symbol	Content	Standard
Over Charged Protection	V_{DET1}	Over charge detected voltage	4.30±0.025V
	tV_{DET1}	Over charge detection delay time	500~1500ms
	V_{REL1}	Over charge release voltage	4.15±0.08V
Over discharge protection	V_{DET2}	Over discharge detection voltage	2.7±0.2V
	tV_{DET2}	Over discharge detection delay time	50~150ms
Over current protection	V_{DET3}	Over current detection voltage	0.20±0.025V
	I_{DP}	Over current detection current	12A~20A
	tV_{DET3}	Detection delay time	5~15ms
		Release condition	Cut load
Short protection		Detection condition	Exterior short circuit
	T_{SHORT}	Detection delay time	≤12us
		Release condition	Cut short circuit
Interior resistance	R_{DS}	Main loop electrify resistance	$V_C=3.7V$; $R_{DS}≤60mΩ$
Current consumption	I_{DD}	Current consume in normal operation	$I_{DD}≤30.0μA$

Mini UPS 12VDC 4000mAh

5. Output voltage oscillogram when switching



Using 12V/3A router to test, when pull out adapter, almost have no change; when plug adapter, there will be 5ms the voltage at 13V.

6. Applications:

This smart 12V mini ups widely use for fingerprint attendance machine, Fire safety system, security monitoring system, wireless camera, CCTV camera ,personal treatment system, Door security system, personal data assistant, emergency lighting, Alarm system, personal communication systems, radio, digital cameras, camcorders, video camera, Bluetooth devices, CD players, MD players, portable DVD, MP3 players, smart cards.

Mini UPS Working Condition:

- Charging : 0°C~55°C
- Discharging: -20~65
- Storage 30days : -20°C~~45°C
- Storage 90days : -20°C~35°C
- Should store the mini UPS under the pleasantly cool and arid place if long time don't use it.

Otherwise poor performance may occur due to the poor connection with the equipment.

Mini UPS 12VDC 4000mAh

Storage:

When stored, the UPS will self-discharge at a rate that is greatly affected by the ambient temperature. UPS should therefore be fully charged before being put into storage and if they are to be stored for a long period they should be recharged periodically to prevent them from losing their original capacity. As a guide, the UPS should not be stored for longer than the periods shown below without being recharged:

- 6 months at 20°C
- 3 months at 30°C
- 2 months at 35°C
- If long time did not use this mini UPS, suggest to charge it once every 3~5months

Safety Warning:

- Do not expose the mini UPS in the rain or snow;
- Do not use or leave the mini UPS near a heating source as fire or heater;
- Do not connect the DC cable in wrong way;
- Do not use the wrong voltage adapter;
- Devices voltage must matching with the mini UPS voltage
- Please leave away this mini UPS from children