

MODEL NO. PUPS106-24

DATE: 2022.06.13

1 Summary

24V 3A UPS is a high power on-line uninterruptible storage power supply.

UPS interior adopts the safe, eco-friendly and reliable 18650 lithium cells. The professional lithium battery protection circuit and intelligent circuit are used to control the charging. With constant current, constant voltage and recovering charging voltage limit, can adjust charging current according to the input voltage drop of the adapter.

The output voltage will drop and the output power will be limited when the output current is greater than rated current. Above all, makes the UPS has multiple protections such as hardware & software, and has perfect protection functions such as overcharge, over-discharge, over-current and short circuit.

Note: 12V 5A and 19V 3.5A versions also available, consult sales office.



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2 Features

Short switching time, small voltage fluctuation, <1V MS.

LED indicator to show UPS in different situations: with electricity mode, battery backup mode, being charging mode.

To prevent incorrect operation, UPS can automatically turn on/off when load applied or removed.

12 x 18650 2600mA cells giving 115.44 Wh battery capacity

3 Application

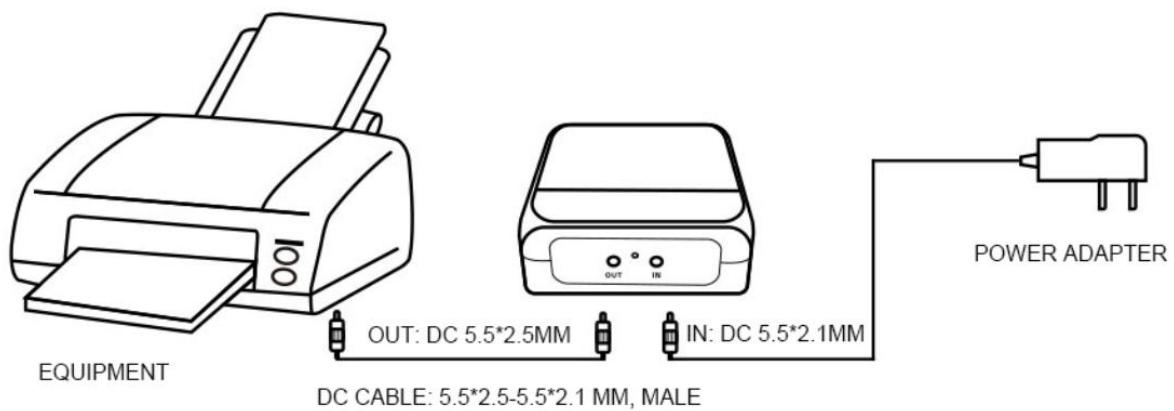
Communication system: Modem, router, ONU.

Security system: DVR, CCTV camera, door access control.

Alarm system: Smoke detector.

Office supplies: Billing system, printer, mini laptop.

Other: water pump, water purifier.



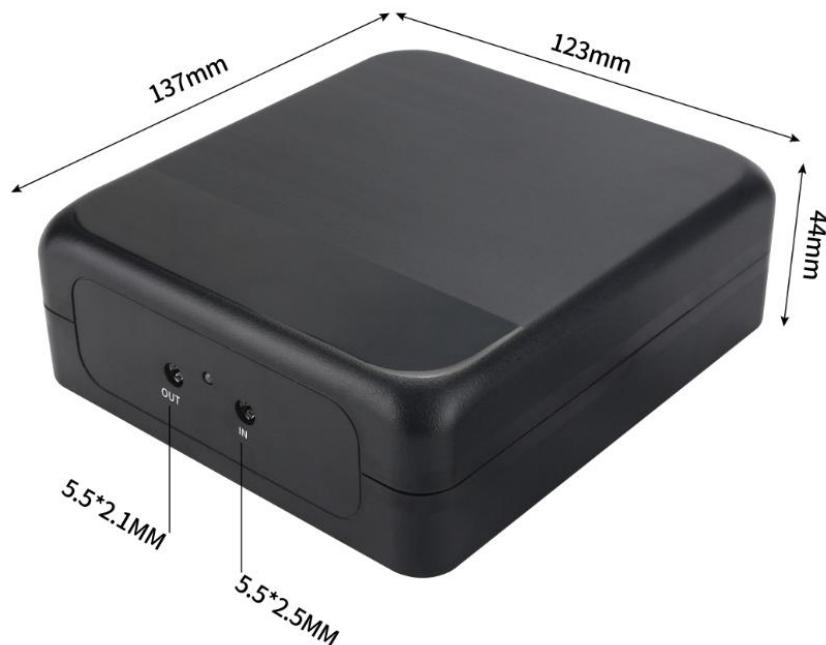
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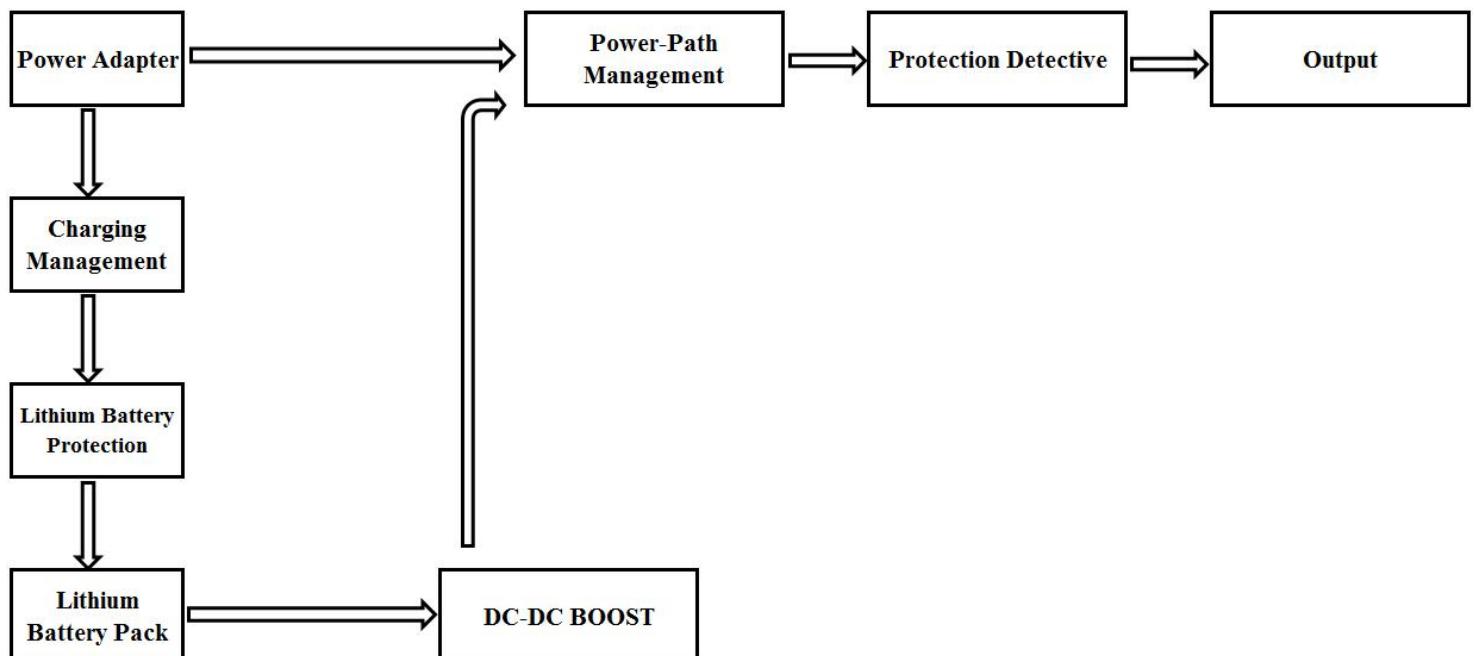
4 Structure

Weight: Approx 0.72kg

Size & connection see below.



5 Function Diagram



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6 Electrical Characteristics

6.1 INPUT				
No.	Item	Min	Standard	Max
1.1	Rate Input Voltage (DC)	-	24V	-
1.2	Input Voltage Range (DC)	22V	24V	26V
1.3	Transfer Efficiency	-	≥85%	-
1.4	Max Input Current	-	3.8A	6A
1.5	Max Charging Current	-	500mA	-

6.2 24V OUTPUT				
No.	Item	Min	Standard	Max
2.1	24V Output Voltage	23.5V	24V	24.4V
2.2	24V Output Ripple Voltage	-	0.15V	-
2.3	24V Output Current	-	3A	-
2.4	24V Output Over-Current Protection Value	-	3.2A	-
2.5	24V Output Transfer Efficiency	-	85	-

6.3 LITHIUM BATTERY PROTECTION				
No.	Item	Symbol	Content	Standard
3.1	Over Charged Protection	VDET1	Over charged detected voltage	16.7±0.025V
		tVDET1	Over charged detection delay time	1000ms
		VREL1	Over charge release voltage	16.4±0.025V
3.2	Over Discharge Protection	VDET2	Over discharged detection voltage	12.1±0.1V
		tVDET2	Over discharged detection delay time	1mS
3.3	Over Current Protection	VDET3	Over current detection voltage	0.0375±0.025V
		IDP	Over current protection current	12.5A
		tVDET3	Detection delay time	5~15ms
			Protection release condition	Cut load
3.4	Short Protection		Protection condition	Exterior short circuit
		TSHORT	Detection delay time	≤12us
			Protection release condition	Cut short circuit
3.5	Interior resistance	RDS	Main loop electrify resistance	VC=14.8V; RDS≤60mΩ
3.6	Current consumption	IDD	Current consume in normal operation	IDD≤30.0μA

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7 Display

Status	Description
LED Green ON/ Switch ON	When connect load to the output only
LED Flashing/ Switch ON	When connect the power supply to the input only
LED OFF/ Switch OFF	When the output current less than 50mA
LED OFF/ Switch OFF	Once the output without load within 30s while no input
LED Flashing/ Charging	RED and GREEN light flash alternately and slowly when charging
LED Red ON/ Charging	When the ups battery is fully charged
LED Green ON/ Normal Working	UPS battery with output 24v
LED Flashing/ Overload	LED GREEN and RED flashing fastly

8 UPS Working Condition

Battery Charging and Discharging Work Environment : 0°C~45°C

PCBA Charging Work Environment : -20°C~65°C

Battery Capacity between 40%~60%, storage 30days: -20°C~45°C

Battery Capacity between 40%~60%, storage 90days: -20°C~35°C

Every 3~5 months charge the UPS once

9 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 be matching with the mini UPS voltage.

Please leave away this mini UPS from children.