



FEATURES

- Rated voltage: 24VDC
- Rated capacity: 12Ah
- Maximum output current: 50A
- High precision PT1000 temperature sampling, temperature compensation
- AGM valve-regulated sealed lead-acid, longer battery cache time

LUPS-BAT-12(NT) series with rated voltage 24VDC, rated capacity 12Ah, maximum output current 50A. It features temperature sampling, temperature compensation function, double fuse design, higher safety. It can be used with Mornsun UPS to provide customers with uninterruptible power supply module products with battery charge/discharge management. The product takes AGM valve-regulated sealed lead-acid batteries, with better buffer time, long cycle time, high cost-effectiveness and reliability. It is widely used in UPS, energy storage and other fields.

Selection Guide

Certification	Part No.	Rated voltage	Rated capacity
/	LUPS-BAT-12	24VDC	12Ah
	LUPS-BAT-12NT		

Note: The LUPS-BAT-12 is a model with a temperature sensor (PT1000), and the LUPS-BAT-12NT is a model without a temperature sensor (PT1000).

Input Specifications

Item		Min.	Typ.	Max.	Unit	
Rated Input Voltage		--	24	--	VDC	
Charging Voltage	Normal temperature	Floating charge		27		27.6
		Equalized charging		28.2		29.4
Charging Current	Normal temperature	--	--	3.6	A	
Maximum Charging Interval (battery only)		9 months (0°C to 20°C)				
		6 months (20°C to 30°C)				

Output Specifications

Item		Min.	Typ.	Max.	Unit
Rated Voltage	Normal temperature	--	24	--	VDC
Output Current		--	--	50	A
Buffer Time	10A	45	--	--	min
	20A	15	--	--	
	40A	5	--	--	
Connection In Parallel		Yes; Extends the buffer time			
Connection In Series		No			
Number of Batteries		Two pieces			
Output Fuse		25A (2 parallel)			

Battery Data

Item	Min.	Typ.	Max.	Unit
Battery Pack	Y			
Battery Manufacturer	Leoch			
Product Type	Rechargeable battery			

Energy Storage Module

LUPS-BAT-12(NT) series

MORNSUN®

Rechargeable Battery Type	DJW12-12
Battery Technology	VRLA-AGM
Battery Module Service Life	5 years @25℃
Note: Used batteries should never be discarded with household waste and should be disposed of with reference to applicable national regulations.	

Environmental condition

Item		Min.	Typ.	Max.	Unit
Operating Temperature	Electric discharge	-20	--	55	℃
	Charging	-20	--	40	
	Storage	-15	--	50	
Recommended Operating Temperature	25				
Mechanical Test	Sinusoidal vibration	5 - 200 Hz, 1.5 g, 1 oct/min, 120 min each in X, Y, and Z directions			

Mechanical Specifications

Shell Material	SPCC	
Colour	Gray	
Battery Size	151.00 x 98.00 x 101.00mm	
Product Size	LUPS-BAT-12(NT)	231.00 x 156.00 x 130.60mm
Weight Per Cell	3240g	
Overall Weight	LUPS-BAT-12(NT)	8500g (Typ.)

Battery Assembly Wire

Wiring Range (Positive Battery Terminal /Negative Battery Terminal)	0.5~6mm ²	
Wire and Battery Terminal Connector	FDFD5.5-250 Fully insulated cold pressed spring connector terminals	
Temperature Acquisition Line	LUPS-BAT-12	Lead UL1015 26AWG (Red, black)

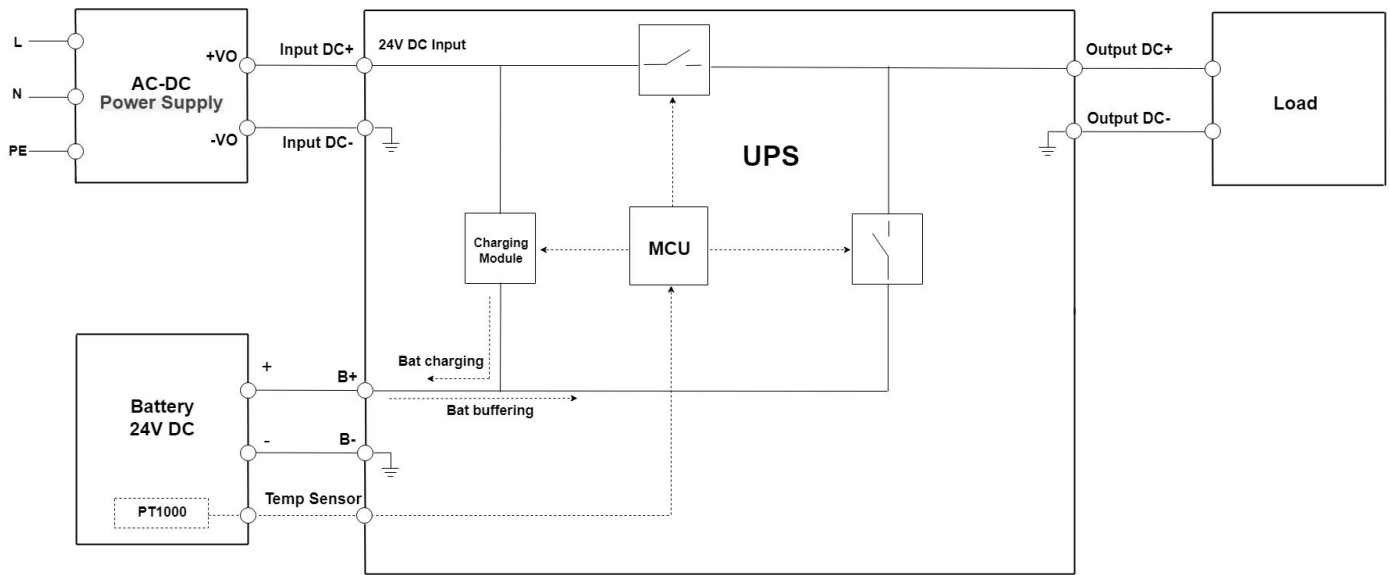
Temperature Sensor

Model	PT1000
Specifications	1000Ω/5mA
Direction For Use	The positive temperature coefficient temperature sensor has a resistance of 1000Ω at 0℃. The variation of resistance R with temperature T can be referred to the formula: $R = 1000 + T * 3.9\Omega$, with an accuracy of ±1%.

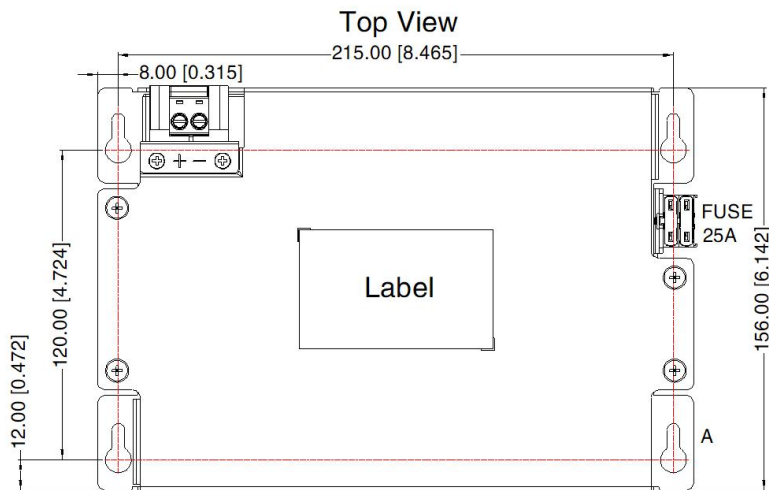
Fuse Information

Fuse wire	25A/32V
	19.10 x 5.00 x 18.80mm
Note: When the product works in conjunction with a UPS power supply, the fuse must be connected, and the fuse should be inserted only after the product is wired to the UPS power supply. When the product is stored with UPS power supply, it is recommended to unplug the fuse and store it to prevent the UPS power supply from losing battery energy.	

Application block diagram

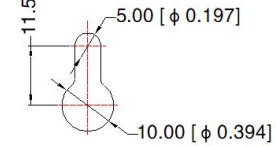


Dimensions

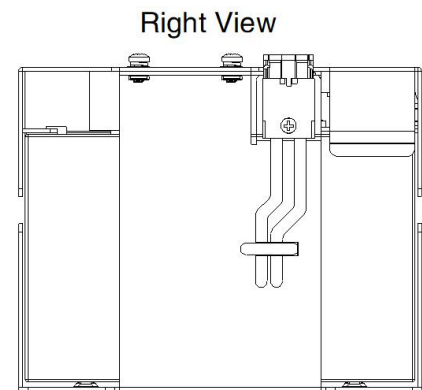
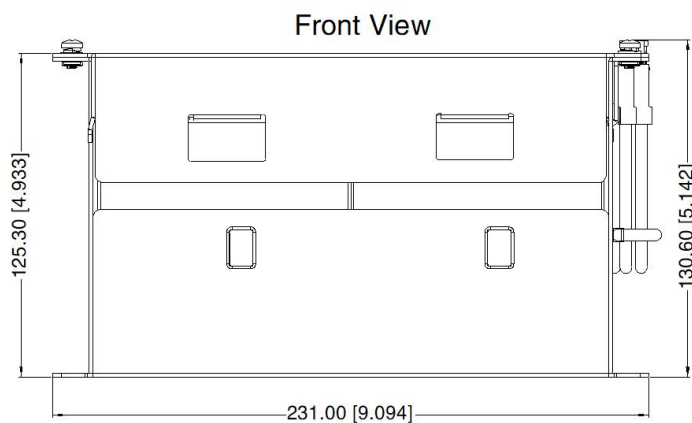


THIRD ANGLE PROJECTION

Note:
Unit: mm[inch]
General tolerances: $\pm 1.00 [\pm 0.039]$



Detail "A"
SCALE:2:1



Note:

1. For additional information on Product Packaging please refer to www.mornsun-power.com. Packaging bag number:58220815;
2. Unless otherwise specified, parameters in this data sheet were measured under the conditions of $T_a=25^{\circ}\text{C}$, humidity<75%RH ;
3. All index testing methods in this datasheet are based on our company corporate standards;
4. After scrap, products shall be classified in accordance with Article 6 of GB/T22424-2008 and relevant environmental laws and regulations, and handed over to qualified units for disposal;

Mornsun Guangzhou Science & Technology Co., Ltd.

Address: No.8 Nanyun 4th Road, Huangpu District, Guangzhou, China

Tel: 86-20-38601850

Fax: 86-20-38601272

E-mail: info@mornsun.cn

www.mornsun-power.com