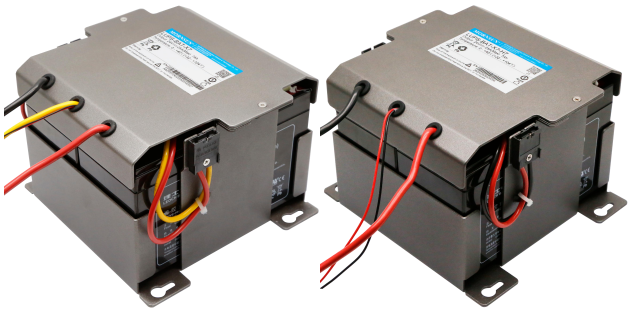
Energy Storage Module

LUPS-BAT-X7(-H7) series

MORNSUN®



RoHS

FEATURES

- Rated voltage: 24VDC
- Rated capacity: 7Ah
- Maximum output current: 25A
- High precision PT1000 temperature sampling, temperature compensation
- AGM valve-regulated sealed lead-acid, longer battery cache time

LUPS-BAT-X7(-H7) series with rated voltage 24VDC, rated capacity 7Ah, maximum output current 25A. It features temperature sampling, temperature compensation function, double fuse design, higher safety. It can be used with Mornsun LUPS20-24F-N 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-X7	24VDC	7Ah
--	LUPS-BAT-X7-H7	24VDC	7Ah

Input Specifications

Item			Min.	Typ.	Max.	Unit
Rated Input Voltage			--	24	--	VDC
Charging Voltage	Normal temperature	Floating charge	27.2	--	27.6	
		Equalization	28.2	--	28.8	
Charging Current	Normal temperature		--	--	2.1	A
Maximum Charging Interval (battery only)			9 months (0℃ to 20℃)			
			6 months (20℃ to 30℃)			

Output Specifications

Item		Min.	Typ.	Max.	Unit
Rated Voltage	Normal temperature	--	24	--	VDC
Output Current		--	--	25	A
Buffer Time	10A	--	19	--	min
	20A	--	7	--	
Connection In Parallel		Yes; Extends the buffer time			
Connection In Series		No			
Number of Batteries		Two pieces			
Output Fuse		25A (2 pieces in series)			

Battery Data

Item	Min.	Typ.	Max.	Unit
Battery Pack	Y			
Battery Manufacturer	Leoch			
Product Type	Rechargeable battery			
Rechargeable Battery Type	DJW12-7.0			
Battery Technology	VRLA-AGM			
Battery Module Service Life	5 years@25℃			

MORNSUN Guangzhou Science & Technology Co., Ltd. reserves the copyright and right of final interpretation

Note: Used batteries should never be discarded with household waste and should be disposed of with reference to applicable national regulations.

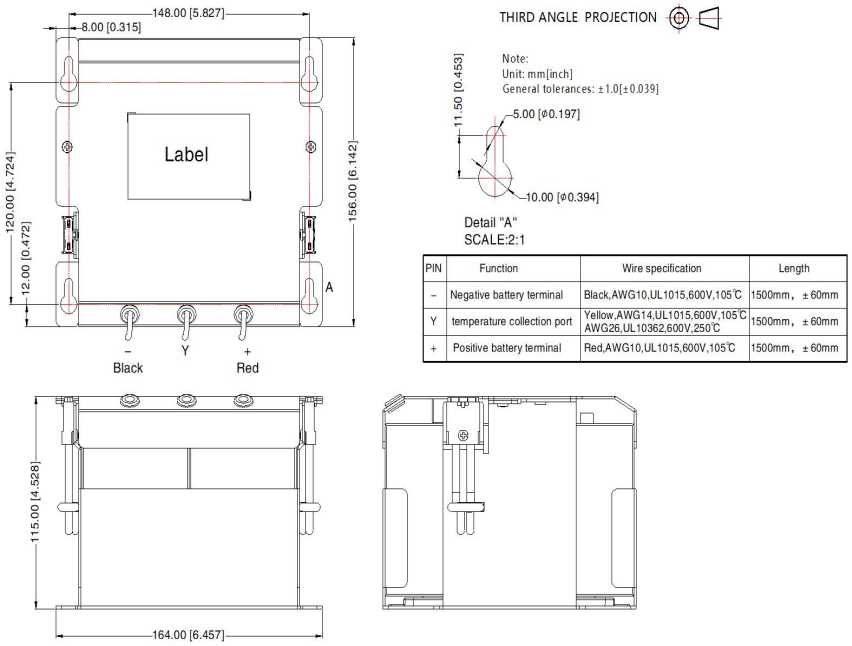
Environmental condition

Item		Min.	Typ.	Max.	Unit
Operating Temperature	Electric discharge	-20	--	55	℃
	Charging	0	--	40	
	Storage	-15	--	50	
Recommended Operating Temperature	25				
Mechanical Test	Sinusoidal vibration	10-150Hz, 10m/s², 8 min/ cycle, X/Y/Z, 20 cycles			
	Sinusoidal impact	49 m/s², 11ms, ±X, ±Y, ±Z direction, 3 times/direction			
	Sinusoidal collision	98 m/s², 16ms, ±Z direction, 1000 times/direction			
	Random vibration	5-10Hz, ASD: 10, 10-200Hz, ASD: 1,200-2000Hz, ASD: 0.3, Z-axis, 30min			
	Sinusoidal vibration	<15Hz, amplitude ±2.5mm, 15-150Hz: 0.7g/2.3g (according to IEC60068-2-8 standard)			
	strike	-/30g (according to IEC60068-2-8 standard)			

Mechanical Specifications

Shell Material		SPCC
Colour		Gray
Battery Size		151mm x 65mm x 93.5mm
Product Size	LUPS-BAT-X7	164mm x 156mm x 115mm
	LUPS-BAT-X7-H7	174mm x 156mm x 115mm
Weight Per Cell		2080g
Overall Weight	LUPS-BAT-X7(-H7)	6000g (Typ.)

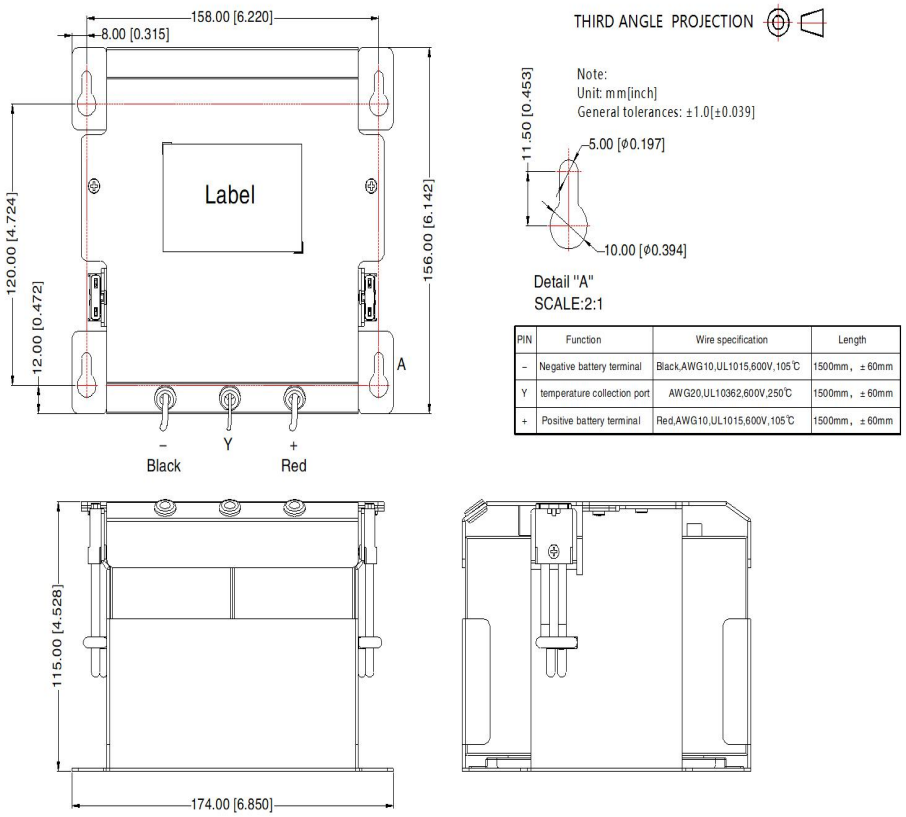
LUPS-BAT-X7 Dimensions



PIN	Function	Wire specification	Length
-	Negative battery terminal	Black,AWG10,UL1015,600V,105℃	1500mm, ±60mm
Y	temperature collection port	Yellow,AWG14,UL1015,600V,105℃ AWG26,UL10362,600V,250℃	1500mm, ±60mm
+	Positive battery terminal	Red,AWG10,UL1015,600V,105℃	1500mm, ±60mm

MORNSUN Guangzhou Science & Technology Co., Ltd. reserves the copyright and right of final interpretation

LUPS-BAT-X7-H7 Dimensions



PIN	Function	Wire specification	Length
−	Negative battery terminal	Black,AWG10,UL1015,600V,105℃	1500mm，±60mm
Y	temperature collection port	AWG20,UL10362,600V,250℃	1500mm，±60mm
+	Positive battery terminal	Red,AWG10,UL1015,600V,105℃	1500mm，±60mm

Battery Assembly Wire

Positive End of Battery		Lead UL1015 10AWG 1500mm (Red)
Negative Battery Terminal		Lead UL1015 10AWG 1500mm (black)
Battery Center Line	LUPS-BAT-X7	Lead UL1015 14AWG 1500mm (yellow)
Wire and Battery Terminal Connector		FDFD5.5-250 Fully insulated cold pressed spring connector terminals
Temperature Acquisition Line	LUPS-BAT-X7	Lead UL1015 26AWG（Red, black）
	LUPS-BAT-X7-H7	Lead UL1015 20AWG（Red, black）

Temperature Sensor

Model	PT1000

Fuse Information

Fuse wire	25A/32V
	19.1mmx5mmx18.8mm
Note: 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.	

Note: 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

MORNSUN Guangzhou Science & Technology Co., Ltd. reserves the copyright and right of final interpretation