

## AAT5-C50 V1.2

### LED Emergency Power Supply



#### Product Features:

- Input voltage: 100-264Vac
- Overcharge and over-discharge protection for the battery pack
- Manual simulation testing
- Battery fault detection
- Light source fault detection
- Compatible with external lighting drivers
- Manages charging/discharging of the emergency battery pack and provides open-circuit protection under main power supply mode
- Automatically switches to emergency lighting mode upon main power failure

#### Technical data

Product Model	Output Power (W)	Input voltage (Vac)	Output Voltage (Vdc)	Output Current (mA)	Efficiency
AAT5-C50-T180	5	100-264	12-120	15-50	80%
AAT5-C50-T90	5	100-264	12-120	15-50	80%

※If you have other parameter requirements, you can consult the corresponding sales staff

"T180": Emergency time is 180 minutes

"T90": Emergency time is 90 minutes

Product datasheet

Technical data

Electrical Specifications

category	Item	Technical Indicators
Input	Input voltage	100-264Vac
	Operating Frequency	47-63Hz
	Power Factor	> 0.5
	Charging Power	3W
	Efficiency	80%
Output	Voltage Range	12-120Vdc
	Emergency Current	15-50mA ±5%
	Emergency Power	5W
Emergency	Emergency Switching Time	<2s
	Emergency Charging Time	<24H (Constant voltage/current charging at 120mA)
	Emergency Time	3.7V/2500mAH(Li-ion)&3H, 3.7V/1500mAH(Li-ion)&1.5H,
Protection	Light Source Fault Detection	In emergency mode, automatically shuts off if the light source is disconnected
	Battery Fault Detection	Yellow LED stays lit
	Charge/Discharge Protection	Over-discharge protection (>80%), Overcharge protection (4.2V)
	Short-Circuit Protection	Hiccup mode (auto-recovery after fault clearance)
	Low-Voltage Protection	Output cutoff (auto-recovery when voltage normalizes)
Environment	Operating Temperature	-15°C to +55°C
	Operating Humidity	20-60% RH
	Storage Conditions	-15°C to +60°C, 10-85% RH
	Vibration Resistance	10-500Hz, 2G (10 min/cycle, X/Y/Z axes, 60 min each)
	Battery material	Li-ion battery
Other	Dimensions	123×40×30mm
	Weight	320g

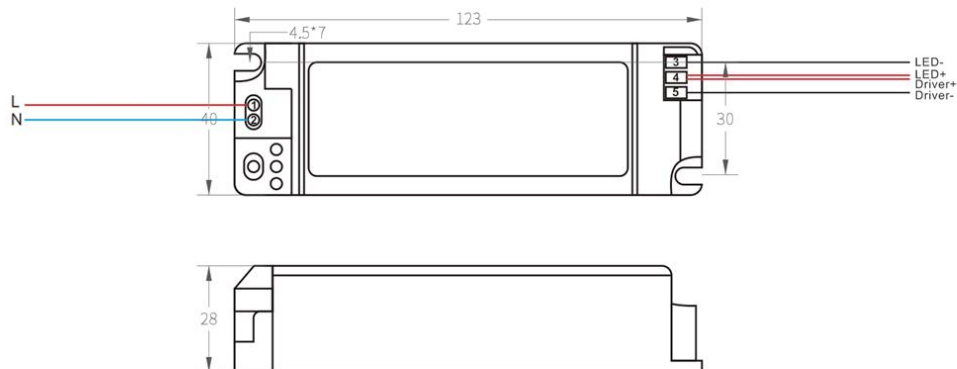
Indicator Status	Function Description	Operating Mode
Yellow light steady on	Battery fault	Mains power supply
Red light steady on	Battery charging in progress	
Red light off	Battery charging stopped	
Green light steady on	Operating in mains power supply mode	

Key State	Function Description	Operating Mode
Key press ≤1S	Press to enter emergency simulation mode, release to exit	Mains power supply

Built-in Battery Specifications :  
The device utilizes a 3.6V lithium battery pack for emergency backup, with an XH-2P connector. The overcharge voltage is 4.2V, and the discharge cutoff threshold is set at 80% of capacity. If the battery pack is connected for the first time or enters an over-discharged state, the emergency power supply will not function normally until the main power is connected to reactivate it. Please use only the original emergency battery pack provided by the manufacturer.

# Product datasheet

Exterior dimensions (unit: mm)



Terminal Identification :

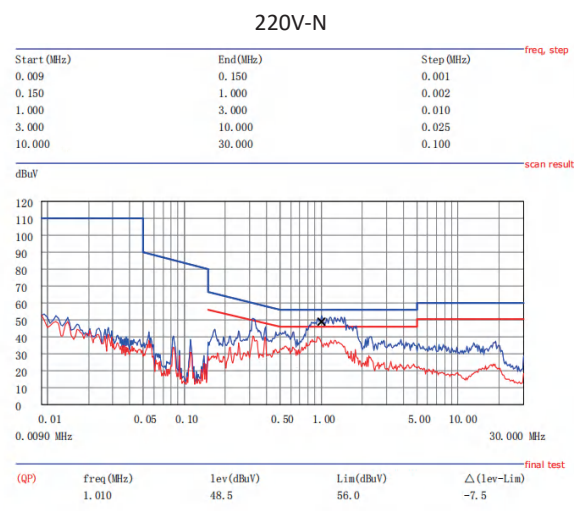
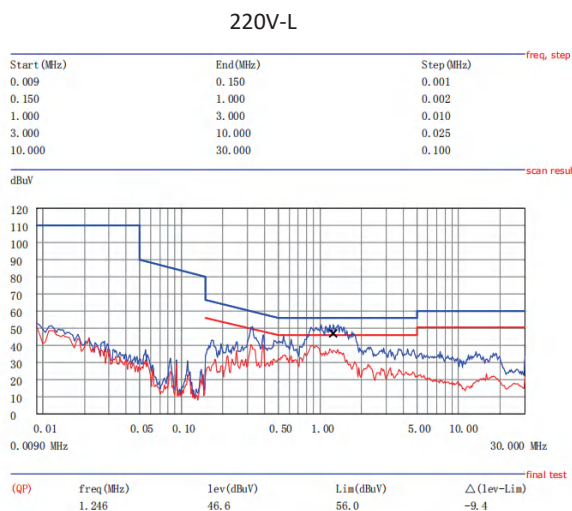
- ① L: Live wire (AC input)
- ② N: Neutral wire (AC input)
- ③ LED-: Negative terminal for LED panel
- ④ LED+/Driver+: Positive terminal for LED panel & lighting power supply
- ⑤ Driver-: Negative output for lighting power supply

Important Notes :

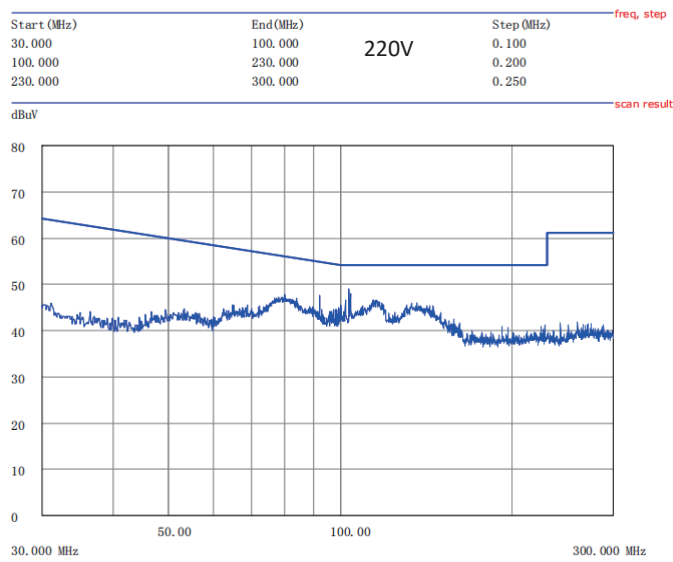
- 1.Charge before initial use.
- 2.Total power loss includes:  
Battery charging power + Control circuit operating power.
- 3.Emergency power supply features AC/DC isolation. Ensure correct wiring before powering on.
- 4.Do not perform live-wire operations.
- 5.External lighting driver output current must not exceed 1.5A.
- 6.Unauthorized disassembly of the enclosure is strictly prohibited.

## EMC testing

### EMI Test Data Reference



EMC Test Data Reference



Product datasheet

Revision History

Version	Description of Change	Date	Remarks
V1.1	Operating & Storage Temperature Parameter Changes	Aug 12, 2025	Operating Temperature -25°C to +55°C Change to -15°C to +55°C
	Add description of battery materials		Li-ion battery
	Emergency Battery Specifications		3.6V/2500mA Change to 3.7V/2500mA
	Battery Runtime Analysis		
V1.2	Adjusted the product model and extended the emergency time.	Aug 19, 2025	AAT5-C50-Txx