



**PSU24-5**  
**Intelligent PSU**  
**PSU24-5A**  
**Intelligent Network PSU**



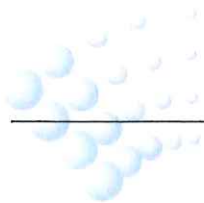
**Installation and Operation Manual**

*Issue 1.04 June 2012*  
ERP:30307352



## CONTENTS

|  |   |
|--|---|
| 1 Introduction .....                         | 1 |
| 2 Technical Specifications .....             | 1 |
| 3 Construction, Installation and Wiring..... | 1 |
| 4 Indicators and Keys .....                  | 3 |
| 5 Maintenance .....                          | 3 |
| 6 Troubleshooting.....                       | 3 |
| 7 Caution.....                               | 4 |



## 1 Introduction

PSU24-5 Intelligent Power Supply Unit (PSU) and PSU24-5A Intelligent Network Power Supply Unit (PSU) can receive mains power ranged 230VAC, 50Hz. They are built in with maintenance-free sealed lead acid batteries as standby power. It's able to output 26.5VDC/5A power with the following features:

- ✧ Seamless transfer between mains and standby power supply.
- ✧ Battery rechargeable with temperature compensation. Charging current is 1A. Maximum battery capacity is 12Ah sealed lead acid battery.
- ✧ Battery over-discharge protection.
- ✧ Indication of output voltage, output current, mains fault, battery fault, output fault and charger fault.
- ✧ Sound indication (beep sound) on fault condition, which is silenceable.
- ✧ Self-test on audible and visual indications.

In addition to the above features, PSU24-5A is also able to remotely connect with fire alarm control panel. It can be programmed with an address using handheld programmer. When it's connected to the loop of the control panel, it will be able to report fault with mains supply, battery or output to the panel through special protocol.

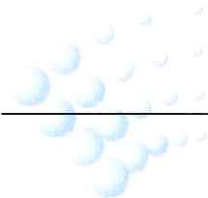
## 2 Technical Specifications

- ✧ Power Supply:
  - Mains Power: 230VAC<sup>+10%</sup><sub>-15%</sub>, 50Hz
  - Battery: 24VDC /12Ah sealed lead battery
- ✧ Rated Output Capacity at Mains Power: 26.5VDC, 5A
- ✧ Rated Output Capacity at Battery Power: 21VDC~26.5VDC, 5A
- ✧ Operating Environment:
  - Temperature: 0°C ~+40°C
  - Relative humidity ≤95%, non condensing
- ✧ Dimension: 400mm×318mm×128mm

## 3 Construction, Installation and Wiring

### 3.1 Appearance

The appearance of the PSU is shown in Fig.1 (taking PSU24-5A as an example).



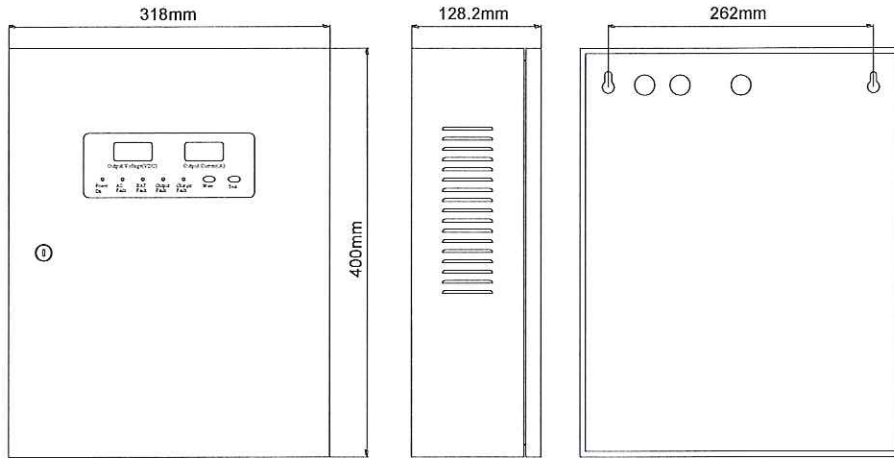


Fig.1

### 3.2 Installation

The PSU is wall-mounted.

- ✧ Drill two  $\phi 14$  holes on the wall with hole distance 262mm.
- ✧ Fix the PSU on the wall using M10 expansion bolts. The installation method is shown in Fig. 2.

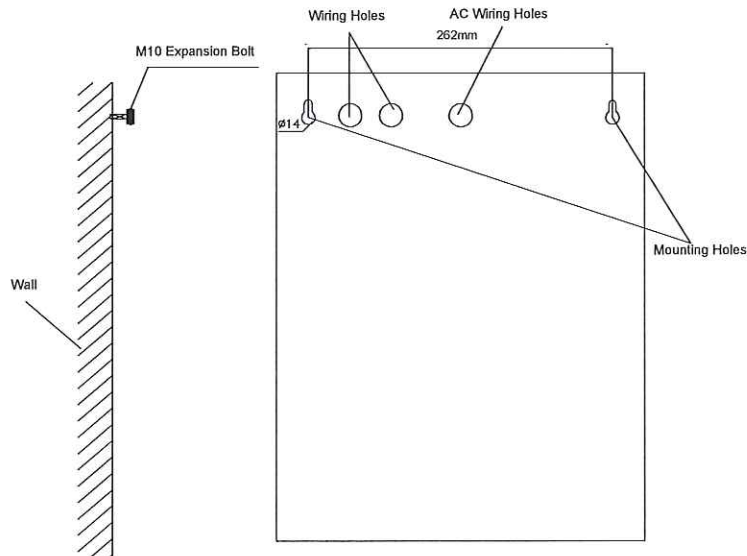


Fig. 2

### 3.3 Wiring

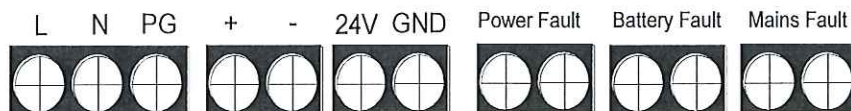


Fig. 3

L, N, PG: AC input.  
 +, -: Battery input.

24V, GND: 24VDC output.

Z1, Z2: Polarity-insensitive loop output for PSU24-5A.

Power Fault: Power fault output terminal, contact capacity 30VDC/2A.

Battery Fault: Battery fault output terminal, contact capacity 30VDC/2A.

Mains Fault: Mains fault output terminal, contact capacity 30VDC/2A.

## 4 Indicators and Keys

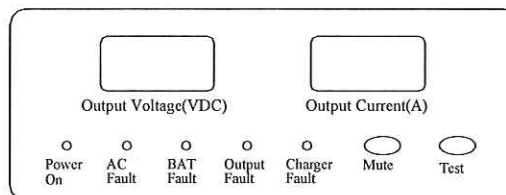


Fig. 4

### 4.1 Indicators

- ◇ Output Voltage(VDC): Displaying the value of output voltage.
- ◇ Output Current(A): Displaying the value of output current.
- ◇ Power On: Green. It illuminates when the PSU is working.
- ◇ AC Fault: Yellow. It illuminates when the mains supply is in fault condition.
- ◇ BAT Fault: Yellow. It illuminates when the battery voltage is less than 20V or when there is fault with battery charger.
- ◇ Output Fault: Yellow. It illuminates when there is no output voltage.
- ◇ Charger Fault: Yellow. It illuminates when there is fault with battery charger.

### 4.2 Keys

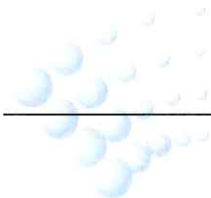
- ◇ Mute: For silencing the alarm sound.
- ◇ Test: For self-testing the indicators and alarm sound.

## 5 Maintenance

If the battery is protected from over-discharge, please try to charge it within 24 hours to avoid reduction of its capacity due to long time in feeding state. Please replace the battery if the battery voltage is lower than 15V.

## 6 Troubleshooting

- ◇ If the PSU indicates output fault, please check if the fuse is blown. The specification of the fuse is: dimension  $\phi 5.2 \times 20\text{mm}$ , 7A fast-blow.
- ◇ If the PSU indicates AC fault or battery fault, please check cable connection.
- ◇ If the PSU indicates charger fault, please contact the manufacturer for repair.
- ◇ Please contact the manufacturer for any other troubles.





## 7 Caution

- ✧ Before powering up, check if there is problem with the cables, such as short circuit, open circuit or incorrect connection.
- ✧ Please do not touch areas with high-voltage marks.

