# **Power Supply Cabinet**





## Products description and application

For places where need the power supply for aviation obstruction lights on marking towers(Telecom,GSM, microwave), smokestacks (heat-engine plant,coking plant, chemical plant etc), tall buildings, bridges, port devices, construction machinery,wind power generators, etc.

### **Features**

- Industry standard design, fully adapt to the harsh industrial environment
- A variety of protection type design: output short circuit / over current / overvoltage protection.
- Built-in UPS, the main power failure, immediately switch to battery power, to achieve uninterrupted power supply
- · Power status indication
- Efficiency up to 86%

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Electrical parameters		Mechanical structure parameters		
Operating input voltage Operating output voltage	AC200V~AC240V DC48V	Body material Weight	Spray cold rolled plate (RAL7038) 20 kg	
Operating power frequency	50Hz/60Hz	Storage temperature	Ta-40°C <b>~</b> +60°C	
Max power consumption	500W	Operating temperature	Ta-40°C∼+55°C	
Battery capacity Lightning surge	48V/7AH IEC61000-4-5 L- L 3kV	IP rate Color	IEC60529 IP54 Gray (RAL7038)	

IEC61000-4-5 L- L 3KV Color Gray (RAL/03

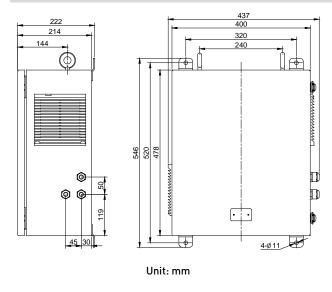
IEC61000-4-2 Air Discharge 4kV IEC61000-4-2 Contact Discharge 8kV

EMC SAE Class 2

### Mounting dimensions

Electrostatic discharge

General Specifications



### Installation method of use

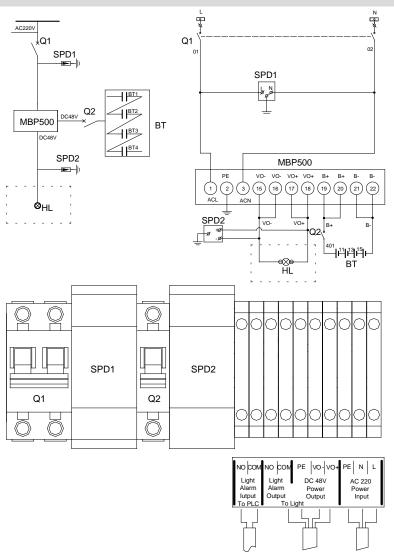
- Please choose a moounting surface or a mounting bracket with enough strength. There should be enough space of the mounting place where could open the cabinet door normally.
- · Use 4 sets of screws (M10 screw, flat pad, spring pad, M10 nut) to fix the cabinet on the mouting surface or bracket. Please use stainless steel screw to ensure enough strength.
- Connect the power line through the cable gland on the right of the cabinet. Then connect the wire according to the marks in the cabinet or the wiring diagram on the back of the cabinet door, using a small flathead screwdriver to push the wire into the spring terminal block. After connecting, tightly screw the cable gland to ensure the sealibility.
- · Please make sure the input voltage is the same as rated voltage.
- The wiring please refer to the leble under the terminals inside the cabinet.
- · Storage temperature: -40°C~60°C. Please keep the battery under room temperature.
- If the battery is under long term storage, please charge and discharge the battery every 6 months to keep the battery active.

# **ZD401**

# **Power Supply Cabinet**



# Wiring diagram



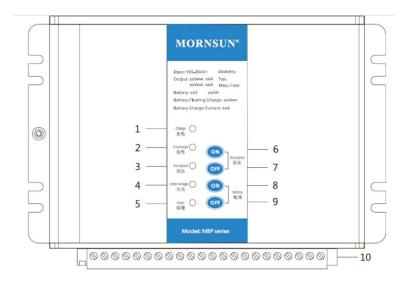
# Note:

BT1~BT4: 12V battery

SPD1: AC Lightning protection device SPD2: DC Lightning protection device

Q1: AC breaker Q2: DC breaker MBP500: MBP charger

# MBP500 Charging module power supply



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## MBP500 Charging module power supply

Power status indication

- Charging, green, battery charging indication, when the battery is charged, the battery is discharged or the battery is activated;
- Discharge, red, battery discharge indication, when the battery is discharged or when the battery is activated, the battery is charged and the battery discharge is off;
- Activated, red, when the battery is activated, otherwise it goes out
- Under voltage, red, battery or power output when the under voltage is on, otherwise off (under voltage alarm point 46V)

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Fault, red, output overvoltage, over current, short circuit and other fault cases, the output is turned off after the fault light, otherwise off

## **Battery maintenance**

When the battery is in a float state for a long time, activate the battery to activate the battery to avoid passivation of the battery plate.
 Activate the activated activation of the battery module by pressing the button. The battery is activated and the battery is discharged and the power is supplied to the load. Discharge to the activation completion point, the power automatically start the work to the load power supply and charge the battery;

### Judging Battery Life method

Battery capacity in the course of the use of anti-fog, the performance gradually decreased until the end of life, in order to ensure the battery operation of the reliable and safe, should promptly determine the battery is good or bad, the timely replacement of the battery.

- Appearance inspection, and some battery damage will appear after the drum package deformation, and some even leakage, the timely replacement of the battery;
- Open circuit check, the battery terminal or internal open circuit, will produce the battery can not charge into the power failure, charging
  the battery sub-voltage directly to the maximum output voltage of the charger, and remove the charger after measuring the battery
  terminals at both ends There is no voltage, such as no voltage is open, the battery is damaged;
- Short circuit check, the battery terminal or internal short circuit, the battery will produce a serious self-discharge and charging current failure;
- Capacity decline, the actual discharge capacity of the battery is less than about 60% of the rated capacity, no significant increase in maintenance, you can determine the scrapped;
- Battery charging heat, when the battery positive softening, resulting in active substances fall off, so that the internal resistance
  increases, a large number of impurities in the plate off, increased the rate of gas when charging, not only increased the battery charge
  when heated, but also increased the battery self-discharge, resulting in a very short period of time the battery has no electricity, and this
  time should replace the battery;

#### **How to Order**

Product Code	Model	Input Voltage	Output Voltage	Battery Capacity
1000303-001	ZD401	AC200V~AC240V	DC48V	48V/7AH

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Please use the product after reading and understanding the manual completely. Wrong installation and use may cause fire and electric shocks. Please note that due to product upgrade, we may change the specification and patern without notice in advance. ©NANHUA Electronics Co., Ltd. All rights reserved.www.nanhua.com