

Mini DC Power Supply User Manual

I. Overview

The Mini Programmable DC Voltage Stabilizer is a high-quality, stable, and cost-effective DC power supply. Featuring LED four-digit voltage and current display with overvoltage protection (OVP) and overcurrent protection (OCP), the device allows customizable settings for both functions. Boasting exceptional stability and reliability, it serves as an ideal solution for academic institutions, industrial production lines, and home appliance repair shops. Additionally, this series offers optional programming interfaces to enable remote or automated control systems.

II. Product Specifications

Specifications (rated)	Output voltage (0-Umax)	Output current (0-Imax)	Output power (0-Pmax)
15V/2A	0-15V	0-2A	0-30W
15V/5A	0-15V	0-5A	0-75W
15V/20A	0-15V	0-20A	0-300W
30V/5A	0-30V	0-5A	0-150W
30V/10A	0-30V	0-10A	0-300W
60V/5A	0-60V	0-5A	0-300W
100V/3A	0-100V	0-3A	0-300W
150V/2A	0-150V	0-2A	0-300W

III. Technical Parameters

1.Rated Working Conditions

Working voltage: AC220V±10% 50Hz (optional AC110V±10% 60Hz)

Working conditions: temperature 0~40℃ relative humidity: ≤80%RH

Storage conditions: temperature-20~60℃ relative humidity: ≤80%RH

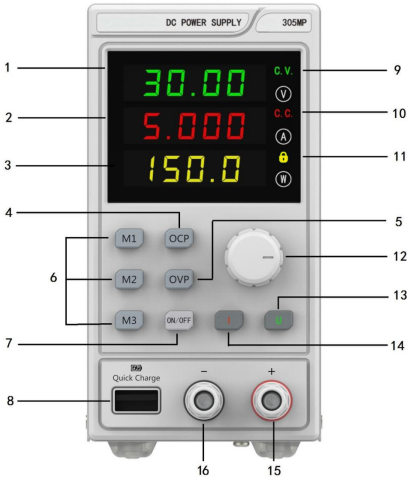
Temperature range to ensure accuracy: 23℃±5℃

2. Technical Order

Specifications	15V/2A	15V/5A	15V/20A	30V/5A	30V/10A	60V/5A	100V/3A	150V/2A
Voltage								
Set resolution	≤100V: 10mV; ≥100V: 0.1V							
Set precision	≤0.1%+5digits							
Reading resolution	≤100V: 10mV; ≥100V: 0.1V							
Reading precision	≤0.1%+5digits							
Temperature coefficient	≤0.02%+3mV							
Ripple	≤10Vrms					≤15Vrms	≤18Vrms	≤20Vrms
Current								
Set resolution	≤10A: 1mA; ≥10A: 10mA							
Set precision	≤0.2%+10digits							
Reading resolution	≤10A: 1mA; ≥10A: 10mA							
Reading precision	≤0.2%+10digits							
Temperature coefficient	≤0.02%+3mA							
Ripple	≤10Arms					≤15Arms	≤18Arms	≤20Arms
Load regulation	≤10A: ≤0.1%Umax+5mV; ≥10A: ≤0.2%Umax+5mV							
Line Regulation								
OVP	0-16V	0-16V	0-16V	0-33V	0-33V	0-65V	0-103V	0-151V
OCP	0-2.5A	0-5.5A	0-20.5A	0-5.5A	0-10.5A	0-5.5A	0-3.5A	0-2.5A
Maximum voltage	15.5V	15.5V	15.5V	32V	32V	64V	102V	150.5V
Maximum current	2.1A	5.1A	20.1A	5.1A	10.1A	5.1A	3.1A	2.1A
Cooling Mode	风冷							
Weight	约2.0KG							
Bare Machine Dimensions	230*80*150（MM）							

IV. Panel Features

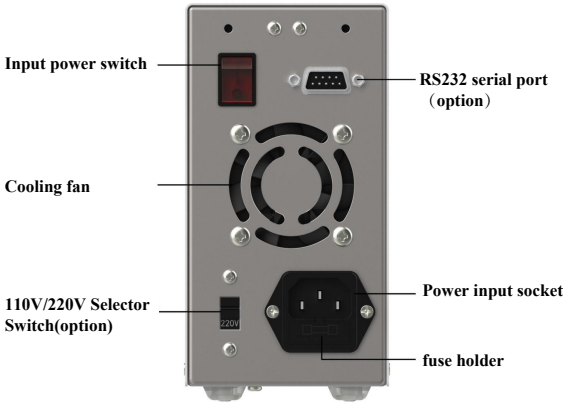
Front panel



- Voltage value display** : shows the preset voltage value in standby state; shows the actual output voltage value when output is on. Unit: volts (V).
- Current value display** : shows the preset current value in standby state; shows the actual output current value when output is on. Unit: amp (A).
- Power value display** : displays the output power value (the product of the output voltage value and the current value). Unit: watt (W).

- 4. OCP Setting Key**: A brief press activates the OCP threshold editing mode. In this mode, pressing the OCP key selects the function detection status. When detection is enabled, the indicator light turns red. If the actual output value exceeds the OCP threshold, triggering the protection function will disconnect the output and display "OCP" in the power value window. To reset this setting, briefly press the "ON/OFF" button.
- 5. OVP Setting Key**: Short-press this key to enter the OVP threshold editing mode. In this mode, short-pressing the OVP key enables function detection status selection. When detection is activated, the indicator light turns red. If the actual output value exceeds the OVP threshold, triggering the protection function will disconnect the output. The power display window will show "OVP". To reset this setting, short-press the "ON/OFF" key immediately.
- 6. "M1-M3" parameter save/recall key**: short press the button to illuminate the indicator light, and retrieve the voltage and current parameters stored in this group; long press the button to illuminate the indicator light, and save the current preset voltage and current parameters into this group.
- 7. ON/OFF button**: short press to switch the output state of the power supply. Red light means that the output is disconnected; green light means that the output is opened.
- 8. USB charging output interface**: QC18W (5V-3A,9V-2A,12V-1.5A).
- 9. Constant Voltage (CV) Indicator**: This light is lit in the stable voltage state, bright green.
- 10.Constant Current (CC) Indicator**: This light is lit in the stable current state, bright red.
- 11. The keyboard lock indicator**: Long press the knob to unlock/lock the keyboard. The yellow indicator shows the locked state. In the locked state of the keyboard, only ON/OFF keys are valid.
- 12. Adjustment knob**: In the setting and editing state, the editing bit is shown in flashing. Turn clockwise to increase the value, turn counterclockwise to decrease the value, and short press the knob to change the digital flashing editing bit.
- 13. Voltage setting selection key**: short press to enter the voltage setting mode, voltage preset value editing bit flashes.
- 14. Current setting selection key**: short press to enter the current setting mode, the preset current value editing bit flashes.
- 15. Positive output terminal (red)**
- 16. Output terminal negative (black)**

Back panel



V. Instructions for Use and Protective Measures

- When the power switch is in the off state, connect the power cord attached to this power supply.The "L" end of the power cord plug should be connected to the live wire of the power supply.and the grounding wire in the power cord should be well connected to the ground.
- Power supply must be grounded.
- The power supply should be ventilated when in use. The upper, lower, left and right should keep a gap of 10cm with other objects to ensure smooth ventilation. Do not expose the power supply to dust, corrosive gas and other harmful substances.
- The technical index measurement of the power supply should be carried out after 15 minutes of preheating.
- Check whether the power input switch is compatible with the mains before power on, otherwise serious faults may occur.

VI. Packing List

- Power supply*1
- Power line*1
- User manual*1
- Test line*1
- Serial communication cable (optional)

VII. Maintenance

- The input alternating voltage is normal, and the digital display window does not show after starting up. It may be due to fuse burnout or other faults. Disconnect the power switch, unplug the power cord, replace the fuse or ask a professional to check.
- When the power supply is used as a voltage regulator, if the output voltage is less than the predetermined value and the CC light is on, the output is limited current. The power supply automatically switches to the steady flow working state. At this time, the load should be checked or the set current value should be increased according to the use (press "I" key and then adjust the knob clockwise).
- When the power supply is used as a steady current source, if the output current is less than the predetermined value and the CV light is on, the voltage output is limited, and the power supply automatically switches to the steady voltage working state. At this time, the load should be checked or the set voltage value should be increased according to the use (press "U" key and then adjust the knob clockwise).
- If the fault is serious and cannot be solved, please contact the dealer or our company.

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Certificate of Qualification/guarantee Card

[Detailsof after-sales service]

1. Free upgrade of software version. Free replacement and maintenance for quality problems caused by design, manufacturing and installation process, materials, etc.
2. Any damage caused by force majeure (such as flood, fire, earthquake, war, etc.) and user's human factors (such as construction, cleaning and other unintentional human factors) shall be settled by both parties through coordination.
3. "One year warranty, lifetime maintenance", after the end of the warranty period, the system will be maintained for life, and only the material cost will be charged for replacing accessories.
4. The Company shall not be liable for any other loss arising from the use.
5. Free warranty service is available for 12 months (excluding accessories), and the freight will be paid by the sender (only for mainland customers).
6. The following conditions are not covered by the warranty:
 - (1) The internal circuit of the power supply is damaged due to the harsh environment (such as electroplating and other highly corrosive environments).
 - (2) The product has been repaired or modified by non-company technicians or non-company approved service stations.
 - (3) The product has been damaged by misoperation, negligent use and other incidents.
 - (4) Do not operate or maintain according to the instructions provided by the original factory.
 - (5) This product has been discontinued for five years or more.

product certificate	
specifications and models	
identification of product	
date of manufacture	
Inspector	
This product is approved for delivery after passing the inspection and meeting the prescribed quality standards	

warranty card	
product model	
date of purchase	
Vendors	
customer name	
Customer address	
Customer phone	
Fault description	
Note: This card is the product warranty certificate, please be sure to keep it properly	