

UTP1310
DC Power Supply User Manual

1. Introduction

UTP1310 high-quality economical DC power supply has 4 digits voltage and current display, settable over voltage protection (OVP) and over current protection (OCP). It is an ideal tool for school, product line, appliance maintenance center, etc. with highly stable performance.

2. Specifications

Model	Adjustable voltage	Max. output current	LED display
UTP1310	0-32V	0-10.0A	4 digits

3. Technical Parameters

3.1 Rated Operating Conditions

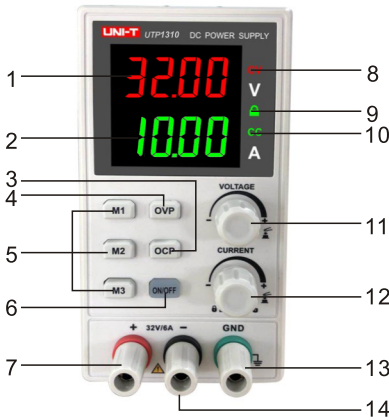
Operating voltage: AC 110V/220V $\pm$ 10% 50Hz
Temperature range for the best accuracy: 23°C $\pm$ 5°C

3.2 Technical specifications

Voltage	
Load regulation	$\leq 0.1\%+5\text{mV}$
Line regulation	$\leq 0.01\%+5\text{mV}$
Setting resolution	10mV
Setting accuracy	$\leq 0.1\%+1$ digits
Recall resolution	10mV
Recall accuracy	$\leq 0.1\%+1$ digits
Ripple	10mVrms
Current	
Load regulation	$\leq 0.2\%+3\text{mA}$
Line regulation	$\leq 0.2\%+3\text{mA}$
Setting resolution	1mA
Setting accuracy	$\leq 0.2\%+3\text{mA}$
Recall resolution	1mA
Recall accuracy	$\leq 0.2\%+3$ digits
Ripple	5mArms
OVP	0-32V $\pm 0.2\%$ FS
Max. voltage	32V $\pm 0.2\%$
OCP	0-10.0A $\pm 0.2\%$ FS
Max. current	10.0A $\pm 0.2\%$
Operating	0°C~40°C, $\leq 80\%$ RH
Storage	-20°C~60°C, $\leq 80\%$ RH
Cooling mode	Air cooling
Weight	1.9Kg
Size (W x H x D)	80x150x230(mm)

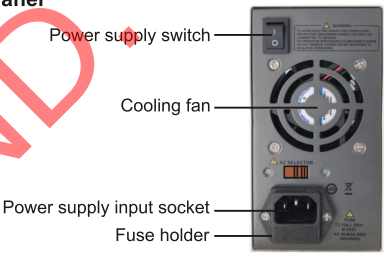
4. Panel Characteristics

4.1 Front Panel



- 1) Voltage display
- 2) Current display
- 3) OCP setting button: short press to turn on (backlight on)/off (backlight off) OCP function; long press to set OCP value. When the backlight is on and the actual output value is higher than the set value, OCP function will be triggered and "-ER OCP-" will appear on the screen, you can press "ON/OFF" button to clear it.
- 4) OVP setting button: short press to turn on (backlight on)/off (backlight off) OVP function; long press to set OVP value. When the actual output value is higher than the set value, OVP function will be triggered and "-ER OVP-" will appear on the screen, you can press "ON/OFF" button to clear it.
- 5) "M1-M3" storage/recall buttons: short press (indicator on) to recall the stored conditions of the group; long press until the indicator is on to store the conditions.
- 6) Output on/off button
- 7) Positive (red) output terminal
- 8) CV (constant voltage) indicator: this indicator is on under constant voltage operation.
- 9) Keypad lock indicator: long press the current adjustment knob to unlock/lock (indicator on) the keypads. Under the keypad lock mode, only the ON/OFF button is valid.
- 10) CC (constant current) indicator: This indicator is on under constant current operation.
- 11) Voltage output adjustment knob: press to enter the setting mode and the digit will flash. Turn clockwise to increase the output voltage and turn counterclockwise to decrease the output voltage. Press the knob to select different digits.
- 12) Current adjustment knob: press to enter the setting mode and the digit will flash. Turn clockwise to increase the output current and turn counterclockwise to decrease the output current. Press the knob to select different digits; long press to lock/unlock keypads.
- 13) Ground terminal (GND, green): This terminal is connected to the chassis and the ground wire of the power cord.
- 14) Negative (black) output terminal

4.2 Rear Panel



5. Instructions and Protective Measures

- 1) Turn the power switch to OFF and connect the power cord to the device. The L terminal of the power cord plug should be connected to the live wire of the power socket, and make sure the ground wire of the power cord has a good connection with the earth.
- 2) UTP1310 power supply must be grounded.
- 3) To ensure good ventilation, keep a gap of 10cm between the upside/downside/left side/right side and other objects. Do not expose this device to dusty environment or the environment of corrosive gases and other harmful substances.
- 4) Turn the device on for 15 minutes before performing measurements.
- 5) Before powering on, confirm the power supply voltage input switch is in compliance with the mains, otherwise it will cause serious malfunction.

6. Packing List

- 1) UTP1310 DC Power Supply ----- 1pc
- 2) Power cord ----- 1pc
- 3) User manual ----- 1pc
- 4) Test leads with alligator clips ----- 1 pair

7. Maintenance

- 1) If the power supply voltage is normal and the digits are not displayed after starting up, the fuse may be blown or there are other malfunctions. Turn off the power switch and unplug the power cord, then replace the fuse or seek professional advice.
- 2) At constant voltage state, if the output voltage is less than the preset value and the CC indicator is on (current protection), the device will automatically switch to the constant current working state. Users should check the load or increase the maximum current as required (adjust the CURRENT knob clockwise).
- 3) At constant current state, if the output current is less than the preset value and the CV indicator is on (open circuit voltage protection), the device will automatically switch to the constant voltage working state. Users should check the load or increase the maximum voltage as required (adjust the VOLTAGE knob clockwise)
- 4) If any malfunction is serious and cannot be resolved, please contact your local dealer.

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