



DC Power Supply

ATH-1265

User's Manual



1. INTRODUCTION

Regulated DC power supply are designed to provide the required in laboratory, university and production lines.

The output voltage is continuously adjustable between 0 to rating voltage. The load current may have any value from 0 to rating current. Voltage and Current are adjusted by means of a coarse and fine potentiometer. Both outputs can accurately read on voltmeter and ammeter.

Both stability and ripple are extremely good to meet the requirements of modern circuit design. Overload protection circuits.

2. SPECIFICATIONS

Main Supply: 110/220V±6%, 50/60Hz Switch selectable (customer optional)

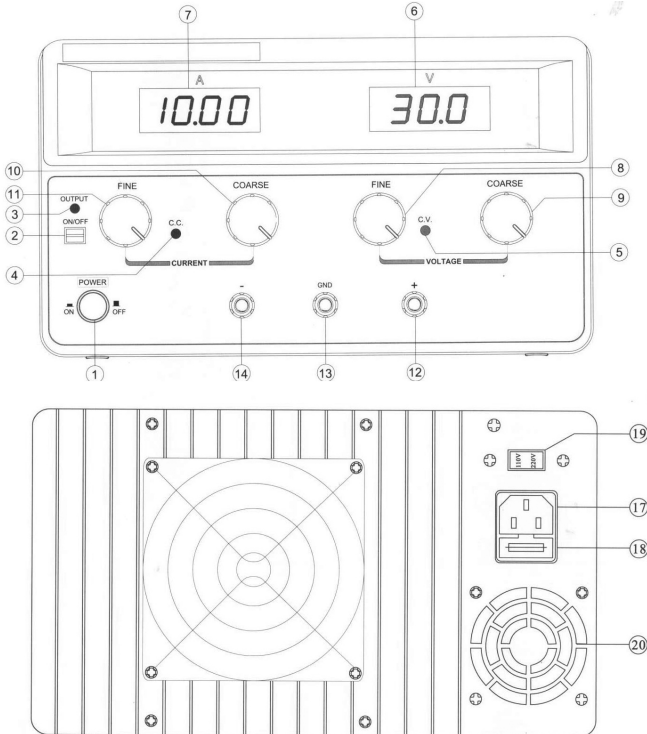
Operation Temperature & Humidity 0°C to 40°C, <80%, Storage Temperature & Humidity -10°C to 70°C, <70%

Accessories

- Power cord..... 1
- Operation Manual.....1

Constant Voltage Operation	
Line regulation	≤0.01%+5mV
Load regulation	≤0.02%+5mV
Ripple & Noise	≤3mV(rms)
Temperature coefficient	300ppm/°C
Constant Current Operation	
Line regulation	≤0.2%+3mA
Load regulation	≤0.2%+5mA
Temperature coefficient	500ppm/°C
Display accuracy	≤1%+2d (Out Off Accuracy (±0.5% of rdg + 8digits))

3. PANEL CONTROLS AND INDICATORS



3.1 Front Panel

1. **Power switch:** ON/OFF the power
2. **Output standby:** After power on, there are no voltage across the terminals. Press this button, output LED on, unit has power out. Repress this button, output LED off, output voltage across the terminals is zero, unit is on standby mode.
3. **Output standby indicator:** see above.
4. **C.C. indicator:** lights when the supply is in the constant current operation.
5. **C.V. indicator:** lights when the supply is in the constant voltage operation.
6. **Voltmeter:** Indicates the output voltage.
7. **Ammeter:** Indicates the output current.
8. **Voltage Coarse:** for coarse adjustment of the output voltage.
9. **Voltage Fine:** for fine adjustment of the output voltage.
10. **Current Coarse:** for coarse adjustment of the output current.
11. **Current Fine:** for fine adjustment of the output current.
12. **«+» Output terminal:** positive polarity
- 13 **«GND» terminal:** earth and chassis ground
14. **Output terminal:** negative polarity

3.2 Rear Panel

17. Power Socket
 18. Fuse holder
 19. AC selects switch: (customer optional)
- The power transformer is designed to permit operation in 110V (115V/120V) or 220V(230V/240V), 50/60Hz line voltage. To convert from one line voltage to another is done by change
20. Fan

4. OPERATION INSTRUCTIONS

4-1 Precaution

1. AC input of DC power supply should be within the range of line voltage $220 \pm 10\%$ 50Hz. $110 \pm 5\%$ 60Hz
2. To avoid electrical shock, the power cord protective grounding conductor must be connected to ground.
3. Do not use the unit in a place where ambient temperature exceeds 40 °C. The heat sink located at rear of the supply must have sufficient air space for radiation.
4. This unit is a float DC power supply. If the output have to be connected to ground, please short the «+» or «-» terminal to «GND» .

4-2 Setting Current Limit

1. Determine the maximum safe current for the device to be powered
2. Temporarily Short the «+» and «-» terminals of the power supply together with a test lead.
3. Rotated the COARSE VOLTAGE control away from zero sufficiently for the CC indicator to light.
4. Read the current value on the Ammeter, Adjust the CURRENT control for the desired current limit.
5. The current limit (overload protection) now has been preset. Do not change the CURRENT control setting after this step.
6. Remove the short lead between the «+» and «-» terminals.

4-3 Setting Constant Voltage

1. Turn the power switch on, the CV indicator light.
2. Rotating the Coarse and Fine voltage control to the desired volts.
3. Press Output standby button, the output standby indicator light, then the terminals have voltage output.
4. For the models which do not have output standby function, the output voltage will be supplied across terminals immediately after power on.

5. MAINTENANCE

WARNING

The following instructions are for use by qualified personnel only. To avoid electrical shock, do not perform any servicing other than contained in the operating instruction unless you are qualified to do so.

6-1 If the fuse blows, the CV or CC indicators will not light and the power supply will not operate. The fuse should not normally open unless a problem has developed in the unit. Try to determine and correct the cause of the blown fuse, then replace only with a fuse of the correct rating and type.

The fuse is located on the rear panel.

When line voltage are changed, replace the required fuse

6-2 In constant voltage mode, if the output voltage is less than the preset value and CC indicator light, it is over current protection. Unit automatically changed to constant current mode. Should check the load or increase current set value depends on the situation.

6-3 In constant current mode, if the output current is less than the preset value and CV indicator light, the unit automatically changed into constant voltage mode. Should check the load or increase the preset voltage value.

6-4 If the output voltage is unstable, please check the AC line it may be less than 207V/105V.