

HOW POWER SUPPLY WORKS

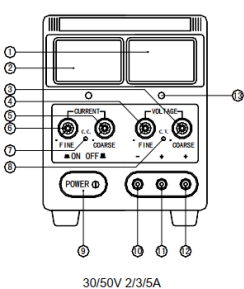
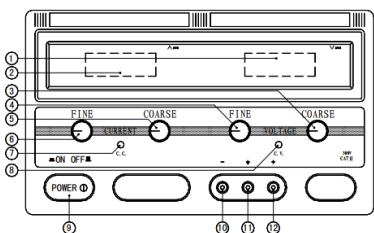
Presented By
Jannatul Ferdaws Amrin & Tabia Tanzin Prama

POWER SUPPLY

A **power supply** is a device that converts one voltage to another more convenient voltage while delivering power. Power supplies are designed from the output back to the input.

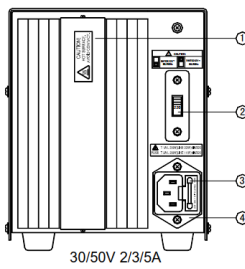
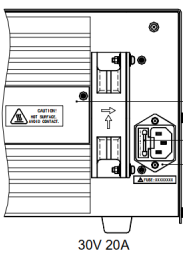
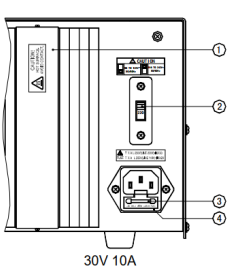


FRONT SIDE OF POWER SUPPLY



- 1 - Output Voltage Indicator
- 2 - Output Current Indicator
- 3 - Coarse (main) Voltage Regulator
- 4 - Fine Voltage Regulator
- 5 - Coarse (main) Current Regulator
- 6 - Fine Current Regulator
- 7 - C.C Indicator
- 8 - C.V Indicator
- 9 - Power ON/OFF Switch
- 10 - Negative Output Terminal
- 11 - Ground Output Terminal
- 12 - Positive Output Terminal
- 13 - Point Meter Zero

BACK SIDE OF POWER SUPPLY



- 1 - Heat Sink
- 2 - Power Select Switch
- 3 - Fuses
- 4 - AC Power Input

DOS

- Use only a properly grounded AC power source.
- This unit is for indoor use only.
- This unit must be used within the specified rating.
- The AC power cord must be at least 18AWG, and not exceed 3m in length.
- Maximum supply voltage fluctuation: $\pm 10\%$

DON'TS

- Do not use this power supply near water.
- Do not operate or place this unit in a humid or dusty environment, in direct sunlight or near any heat source.
- Do not block ventilation openings on the unit



SAFETY PRECAUTIONS

Before applying power to your DC power supply, make sure that power select switch is correctly setting for you applicable AC

Do not connect a voltage that is greater than the current output voltage to the terminals of the instrument.

Keep your body isolated from ground by using dry clothing; rubber shoes, rubber mat, or any approved insulating material

Avoid shorting circuit the output of DC power supply.

Set the voltage and current adjustment knobs as you desire

The unit should be stored in a dry and well ventilated place and the power cord removed if storing for long periods

WARNINGS

AC Power Voltage must be checked before connecting the switch



Switch must be disconnected & test leads be removed before replacing the power fuses

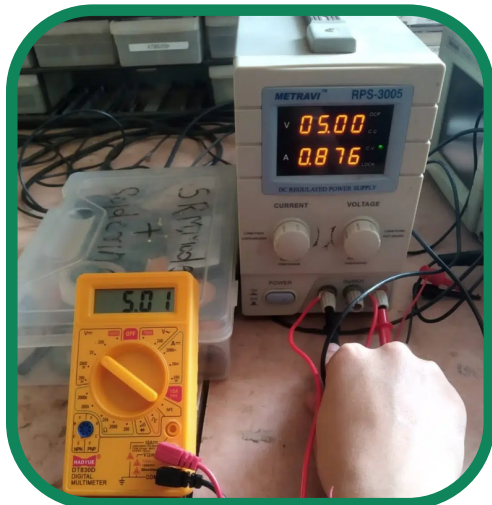


OPERATIONS

⚡ CONSTANT VOLTAGE MODE

- Turn the voltage regulator anti-clockwise to minimum position and the current regulator clockwise to maximum position.
- Press the power ON / OFF switch to ON.
- Turn the voltage regulator clockwise to that you are desirous of output voltage value.
- Connect the positive output terminal and negative output terminal with a load or similar component.

* The **voltage regulator** controls the output voltage indicator. The **current regulator** controls the output current indicator. **Indicator** shows that output voltage and current of the output terminals.



⚡ CONSTANT CURRENT MODE

- Turn the voltage regulator clockwise to maximum position and the current regulator anti - clockwise to minimum position.
- Press the power ON/ OFF switch to ON.
- Connect the positive output terminal and negative output terminal with a load or similar component.
- Turn the current regulator clockwise to be desirous of output value.

Group No: 25