PHYSICS | CHEMISTRY BIOLOGY | ENGINEERING

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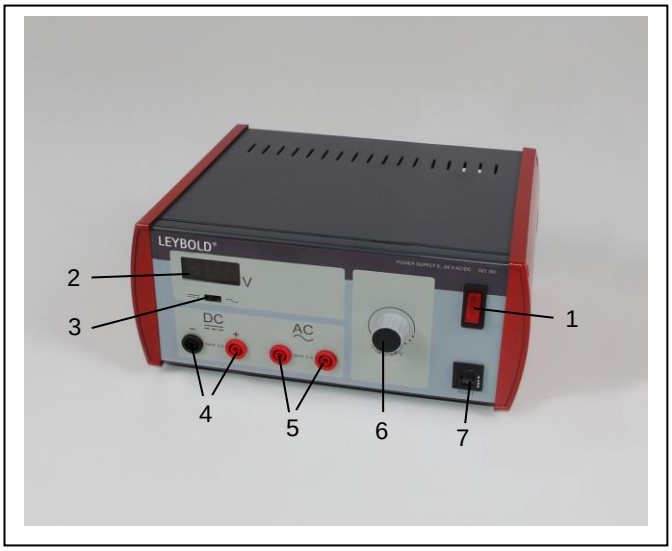

Instruction Sheet 521 391

AC/DC power supply 0...24 V / 5 A

1 ON/OFF switch (with operation indicator lamp)
2 Digital display for AC/DC voltage
3 Button to switch between AC and DC voltmeter
4 DC output
5 AC output
6 Regulator for voltage (infinitely adjustable)
7 Circuit breaker

Safety Note

The device complies with the safety requirements for electrical measuring, control and laboratory equipment in accordance with DIN EN 61010 part 1, and it is constructed in compliance with safety class I. The device is intended for use in dry rooms that are suited for the operation of electrical equipment and devices.

If the device is used as prescribed, its safe operation is guaranteed. However, safety is not guaranteed if the device is improperly used or carelessly handled. If it has to be assumed that safe operation is no longer possible (e.g. in the case of visible damage), shut the device down immediately.

- When putting the device into operation for the first time, check whether the value for the mains voltage indicated on the rating plate (back of housing) agrees with the local value.
- Before putting the device into operation, examine the housing for damage. In case of malfunction or visible damage shut the device down and make sure that it is not used inadvertently.
- Connect the device only to socket-outlets with grounded neutral wire.
- Before connecting check connecting leads for defective insulation and bare wires.
- Replace a defective fuse only with a fuse that corresponds to the original value (see fuse plate on the back of the housing).
- Never short the fuse or the fuse holder.
- Always keep the ventilation slots free in order to ensure sufficient air circulation for the cooling of internal components.

Allow only skilled persons to open the device.

1. Description

Power supply unit with high load capacity for infinitely adjustable DC and AC voltage and digital display. All outputs are overload protected by circuit breakers and are therefore particularly suited for practical experiments. All outputs galvanically isolated from the mains, floating.

From a safety standpoint, particularly suited for student experiments at all age levels thanks to safe separation in accordance with BG/GUV-SI 8040 (conforms to german RiSU).

2. Technical Data

Output voltages	0-24 V AC and DC, infinitely adjustable
DC voltage	bridge rectification, smoothed
Load capacity	5 A, aggregated
Display	switchable between AC and DC
Connector	two 4 mm connector pairs for AC and DC
DC and AC may be used simultaneously, but are not galvanically isolated	
Electrical isolation	Isolating transformer in accordance with DIN EN 61558-2-6, (compliant to german RiSU)
Input voltage	230 V, 50/60 Hz or 115 V, according to rating plate
Fuse	T 2 A at 230 V T 4 A at 115 V
Dimensions	256 mm x 225 mm x 117 mm
Weight	6 kg

3. Scope of Delivery

Power supply, connecting cord.

4. Operating Principle

The power supply can deliver both direct current (DC) and alternating current (AC).
The voltage can be varied continuously between 0 and 24 V. The maximum current is 5 A. The power supply is equipped with a safety transformer, thermal circuit breaker, and a built-in digital volt meter.
The voltmeter can switch between displaying DC or AC.

5. Operation

Connect the power supply to the mains (230 V, 50-60 Hz) using the supplied cable. It is recommended to turn down the adjustment knob (6) before the unit is switched on.
Press the power button (1). The button lights up to indicate that the power supply is turned on.
Connect the equipment to be powered to either DC (4) or AC (5). Then the voltage is adjusted to the desired value with the button (6).
The present voltage of either DC or AC is displayed on the voltmeter (2).
The outlet which the voltmeter is connected to is selected via the button (3).
The power supply is equipped with a circuit breaker (7) which switches off if it's overloaded. Shortly after the overload ceases, the circuit breaker can be pushed back in and the power supply will once again function normally.

6. Trouble shooting

The power supply is protected against overload by a thermally activated circuit breaker. If this trips during an experiment, or if there is no voltage on the outputs when the device is turned on: Press the Reset button on the front panel. This resets the circuit breaker. It may of course be necessary to reduce the voltage or reduce the connected load to avoid that the circuit breaker trips again. If there still is no voltage at the outputs, check the fuse on the back of the housing and replace it if necessary. Replace a defective fuse only with a fuse that corresponds to the original value (see fuse plate on the back of the housing).