



## Description

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.

### Warning!



The included power cord is equipped with a grounded plug. For safety reasons the power supply should always be connected to an electrical outlet with ground connection as well.

## Operation

Connect the power supply to the mains (230 V, 50-60 Hz) using the supplied cable. It is recommended to turn down the voltage knob (1) before the unit is switched on.

Press the power button (2). The button lights up to indicate that the power supply is turned on.

Connect the equipment to be powered to either DC (3) or AC (4). Then the voltage is adjusted to the desired value with the button (1).

The present voltage of either DC or AC is displayed on the voltmeter (5).

The outlet which the voltmeter is connected to is selected via the button (6).

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.

### Behavior with load applied

If the voltage is adjusted without load to for instance 12 V DC, and you then connect a 12 V incandescent lamp, the voltage will decrease a bit - in other words the voltage has to be adjusted with the load connected.

This is normal for power supplies of this type. The explanation is the following:

The DC voltage is smoothed with an internal capacitor, which charges 100 (120 for 60 Hz) times per second. When current

is drawn from the DC socket, the capacitor supplies the current between charges. The constant charging and discharging of the capacitor results in a so-called ripple voltage whose amplitude depends on the level of current drawn. Simultaneously a decrease in the average voltage reading on the voltmeter can be observed.

Both DC and AC voltage will also decrease slightly under load because of the transformer's internal resistance.

### Technical data

#### DC

Output voltage:	0-24 V, continuously adjustable and smoothed
Output current (max):	5 A
Ripple and Noise (max):	5 V
Digital readout (tolerance):	1% or $\pm 0.2$ V

#### AC

Output voltage:	0-24 V, continuously adjustable
Output current (max):	5 A
Digital readout (tolerance):	2% or $\pm 0.2$ V

Supply voltage:	230 V / 50-60 Hz
Supply Current (max):	1.0 A
Power Consumption (max):	200W
Idle Current (approx.):	100 mA
Fuse:	2 A (slow)
Protection of transformer:	Thermal switch at 130 °C

Dimensions (WxDxH):	259 x 225 x 117 mm
Weight:	6.3 kg