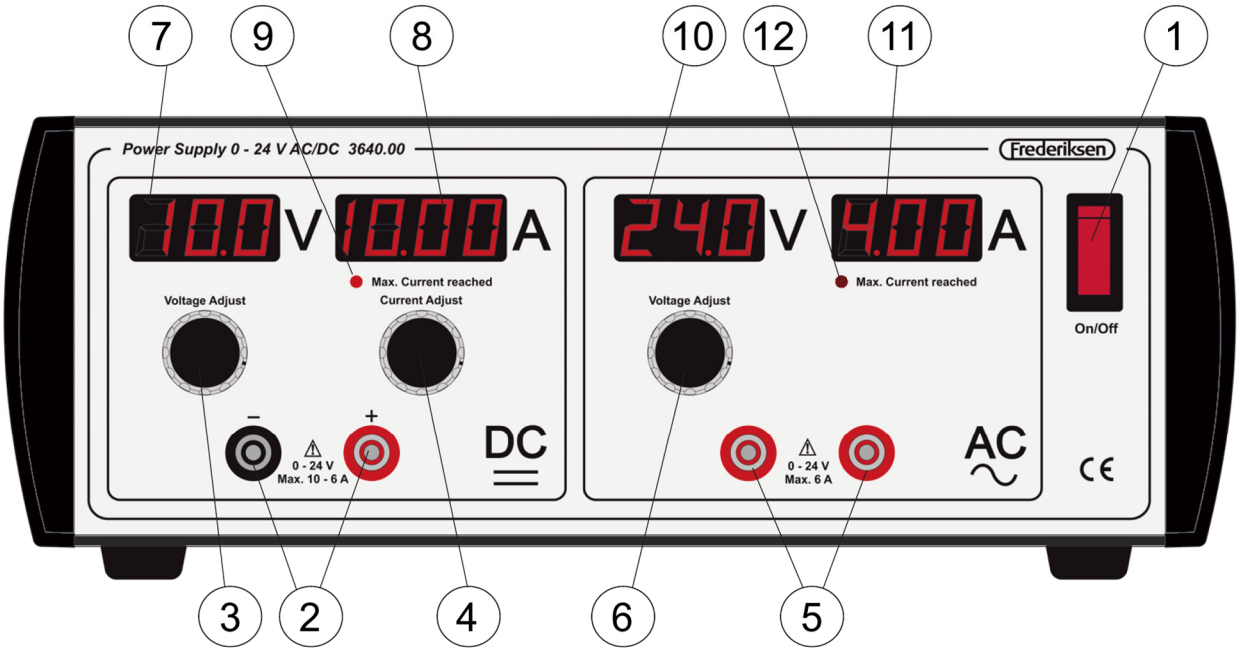
2016-09-19 / HS



This power supply has been designed specifically for use in teaching physics, chemistry and other science subjects. The power supply provides both direct current (DC) and alternating current (AC). The power supply can provide both types of electrical power at the same time, and they can be adjusted independently. Separate voltage and current displays are provided for both DC and AC.

Safety

A power cord with ground is provided with the apparatus.

The apparatus must be connected to a power outlet with ground.

Important !

Never connect two power supply outlets in parallel.

This applies whether the outlets belong to the same power supply or to separate units.

When charging accumulators or large capacitors: Remove the cable before turning the voltage down.

Operation

Use the power cord provided to connect the unit to a 230 V, 50 Hz (115 V, 50/60 Hz) mains outlet with ground.

The control panel is divided into two sections: DC controls to the left and AC-controls to the right. The two sections are independent.

(1) On/off switch with lamp

(2) DC Output

(3) Adjustment of DC voltage

(4) DC current limiter

(6) Adjustment of AC voltage

(7) Display for DC voltage

(8) Display for DC current

(9) Max DC current reached (current limiter active)

(10) Display for AC voltage

(11) Display for AC current

(12) Max AC current reached (current limiter active)

Using the DC current limiter

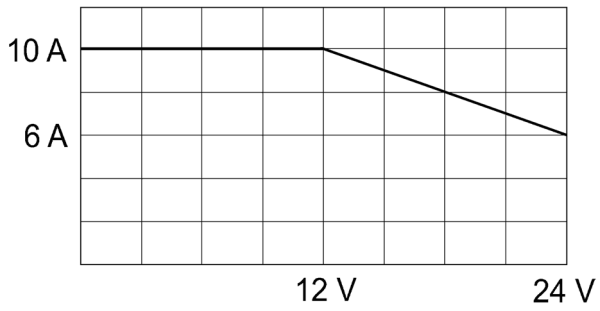
Set the desired voltage level with (3).

Short-circuit the output (2) with a cable.

Adjust the desired max. current with (4). Remove the shorting cable again.

Now, the current will not exceed the selected level no matter how far you turn up the voltage with (3).

The maximum DC current that the power supply is able to deliver can be read from this graph:



AC current limiter

The alternating current is electronically limited to prevent e.g. short circuits to damage the power supply.

The maximum AC current cannot be adjusted.

Further information

The power supply is of the switched mode type, and adheres to the EN-61558-1 standard. The connection jacks are safety-type 4 mm connectors and are well-suited for use with students.

The connectors also accept leads with ordinary banana plugs. The apparatus is CE marked and approved.

Under extreme conditions, which will rarely occur during normal use (high temperature combined with high loading for a long period of time), the power supply will automatically shut down when a given internal temperature is reached. The power supply will turn itself on again, when it has cooled off.

Specifications

230 V version

Input voltage:	200 - 242 V, 50 Hz
Input current:	1.4 A
Fuses:	2 ea. 3.15 AT (no. 409015)
Power consumption:	320 W

115 V version

Input voltage:	100 - 121 V, 50/60 Hz
Input current:	2.8 A
Fuses:	2 ea. 6.3 AT (no. 409009)
Power consumption:	320 W

DC output

Voltage, continuously adjustable:	0-24 V
Current (0-12 volts):	0-10 A
Current (12-24 volts), linearly decreasing:	0-10/6 A
Overload protection:	Electronic
Ripple and noise:	< 25 mV pp
Digital displays:	1 % +/- 2 LSD

AC output

Voltage, continuously adjustable:	0-24 V
Current:	0-6 A
Overload protection:	Electronic
Digital displays:	2 % ± 2 LSD
Size:	312 x 225 x 117 mm
Weight:	3.4 kg