3B SCIENTIFIC® PHYSICS



Transformer with Rectifier 3/6/9/12 V, 3 A (115 V, 50/60 Hz) Transformer with Rectifier 3/6/9/12 V, 3 A (230 V, 50/60 Hz)

1003315 (115 V, 50/60 Hz) 1003316 (230 V, 50/60 Hz)

Instruction sheet

06/12 ALF



- 1 AC voltage output
- 2 DC voltage output
- 3 Voltage selector switch

1. Safety instructions

The transformer with rectifier conforms to all safety regulations for electrical measuring, control, monitoring and laboratory equipment, as specified under DIN EN 61010, Section 1, and the equipment has been designed to meet protection class II. It is intended for operation in a dry environment, suitable for the operation of electrical equipment and systems.

Safe operation of the equipment is guaranteed, provided it is used correctly. However, there is no guarantee of safety if the equipment is used in an improper or careless manner.

If it may be assumed for any reason that nonhazardous operation will not be possible (e.g. visible damage), the equipment should be switched off immediately and secured against any unintended use.

In schools and other educational institutions, the operation of the power supply unit must be supervised by qualified personnel.



It is not permissible to cascade multiple devices and short them out. This causes overloading of the polyswitch.

- Before using the power supply unit for the first time, confirm that the specifications printed on the rear side of the housing are compatible with the local mains voltage.
- Before using the power supply unit for the first time, check the housing and the mains lead for any damage. In the event of any malfunction/operational defect or visible damage, switch off the unit immediately and secure it against unintended use.
- Before making any connections, check the experiment leads for damaged insulation and exposed wires.
- Replace a faulty fuse only with one matching the specifications stated at the rear of the housing.
- Disconnect the equipment from the mains before replacing a fuse.
- Never short the fuse or the fuse holder.
- The equipment may only be opened/repaired by qualified and trained personnel.

2. Description

The transformer with rectifier provides small voltages, switchable in four voltage steps, with outputs in the form of AC voltages or full-wave rectified DC voltages.

The maximum load for each output is 3 A. Both outputs are protected against short-circuiting.

The 1003315 transformer is for operation with a mains voltage of 115 V (\pm 10%), and the 1003316 unit is for operation with a mains voltage of 230 V (\pm 10%).

3. Technical data	
Mains voltage:	see rear of housing
Output voltage:	3 / 6 / 9 / 12 V AC/DC
Maximum load:	3 A
Primary fuse:	see rear of housing
Secondary fuse:	Polyswitch
Short-circuit proofing:	Available for single de- vice. It is not permissible to cascade multiple de- vices and short them out. This causes overlo- ading of the polyswitch.
Terminals:	4 mm safety sockets
Dimensions:	210x170x90 mm ³ ap- prox.
Weight:	2.6 kg approx.

4. Operation

4.1 General information

- The AC and DC outputs cannot be used at the same time
- Before connecting the plug to the power supply, set the voltage selector switch to zero.

4.2 Obtaining an AC voltage

- Connect the load to the AC output sockets (1).
- Set the voltage selector switch (3) to give the required voltage; if necessary connect a voltmeter in parallel with the load.
- Connect the unit to the mains supply.

4.3 Obtaining a DC voltage

- Connect the load to the DC output sockets (2).
- Set the voltage selector switch (3) to give the required voltage; if necessary connect a voltmeter in parallel with the load.
- Connect the unit to the mains supply.

4.4 Changing the fuse

- Unplug the mains plug.
- Unscrew the fuse holder on the rear side of the housing with a screwdriver.
- Replace the fuse and reinsert the holder in its socket.

5. Care and maintenance

- Before cleaning the equipment, disconnect it from its power supply.
- Use a soft, damp cloth to clean it.

6. Disposal

- The packaging should be disposed of at local recycling points.
- Should you need to dispose of the equipment itself, never throw it away in normal domestic waste. Local regulations for the disposal of electrical equipment will apply.

