

G85501

Spacesaver Electromagnetics Power Supply

NFU 505



Purpose:

Investigations into magnetic fields associated with electric current and similar experiments where high current at low voltage is required and where the power supply must tolerate short-circuits.

Output:

1-0-1V ac and 2V dc at 10A

Ratings:

230V ac +/-10% 50Hz 70VA

Fuse: T250mA time delay

Temperature range: 10 to 40°C

Humidity: 10 to 90% RH

Mass:3.4kg

EMC:

This equipment is Class A according to the EMC standard EN55011 and is intended for use in a non-domestic environment only. Interference from this equipment may affect other devices nearby: PCs, laptops, tablets and mobile phones may be affected.

Warnings:

For your safety, this product should be used in accordance with these instructions, otherwise the protection provided may be impaired.

Do not open or remove covers or panels. Repairs and service may only be carried out by our repair agent, otherwise the warranty may be void.

Use only the 3-core mains cable supplied with the unit. If the mains cable is replaced, the rating of the replacement must be the same or better than the original.

The unit must be earthed at all times. The unit is earthed/grounded through the 3-core mains lead, so no additional earth connection is required.

Always position the power supply so that it can be disconnected from the mains, if an emergency arises.

This unit is intended for use in DRY conditions. Avoid spillage of water and other liquids on to the unit. If spillage occurs, disconnect the mains supply.

There is no specific requirement for insulation of external circuits as they cannot become hazardous live, as a result of connection to this unit. Limit the length of any connecting leads to 3 metres.

Continuous use:

This power supply is intended for all normal school experiments, providing ac and dc currents up to 8 amps.

If the power supply is used continuously at currents in excess of 5 amps, then we advise a maximum period of 60 minutes, followed by cooling for the same period. Similarly, if it is used at full load (10 amps) for 10 minutes, a cooling period of 10 minutes is advised.

Features

- Fixed output voltage 1-0-1V ac and 2V dc at 10A
- Short-circuit proof
- Illuminated mains on/off switch.
- Snap-up handle - Spacesaver units are safe to carry with one hand
- Time-delay fuse protection for transformer primary
- Additional thermal trip protection for transformer

Outputs

The ac and dc outputs may be used simultaneously, provided the combined output does not exceed 10A. The terminal posts accept 4mm plugs and also have transverse holes to accommodate heavy gauge bare wire connections

Display:

The illuminated digital display has two associated membrane switches with LED indicators. The user can choose to display current (I) or voltage (V), for either the ac or dc output of the unit.

Overload

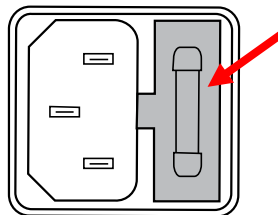
The unit is unconditionally short circuit proof. The resistance and reactance of attached coils, together with the internal resistance of the unit itself, limit the current available.

Mains lead and fuse replacement

The mains cable stows on the back of the unit with a wind and clip feature. The mains cable retainer can be removed to allow the cable to be stored separately. Simply remove the screw and retainer from the base of the unit. The IEC cable is now detachable. In the unlikely event of the fuse blowing, the retainer and mains cable must be removed to gain access to the fuse carrier.



The carrier can be removed with a fingernail or tip of a screwdriver. A spare fuse is provided in the carrier.



Replacement fuses must be 20mm cartridge time-delay fuses, of the correct rating: T250mA

Cooling

Spacesaver power supplies have built-in, quiet-running fans. Ventilation is provided through slots in the base and top of the unit. These should not be obstructed. Under conditions of continuous use at full load and high

ambient temperatures, the thermal trip may operate. Reducing the load and/or ambient temperature will allow the supply to operate after a delay.

Cleaning

The front panel membrane may be wiped clean using a damp cloth. Be sure to disconnect the unit from the mains before cleaning, and do not use any abrasive cleaners or organic solvents.

Periodic testing:

Check the mains lead and plugs at both ends for any damage.

Periodically check the earth bonding and insulation, by performing a Portable Appliance Test (PAT). Most schools and local authorities have a regular schedule for such testing.

Check that the fuse in the mains plug (5A recommended) and the two fuses (T250mA active and spare) in the IEC socket on the back panel are all of the correct rating.

Warranty, repairs and spare parts:

The power supply is guaranteed for a period of one year from the date of delivery to the customer. This warranty does not apply to defects resulting from the action of a user such as misuse, improper wiring, any operations outside of its specification, improper maintenance or repair, or unauthorized modification.

Our liability is limited to repair or replacement of the product. Any failure during the warranty period should be referred to Customer Services.

In the event of a fault, apart from replacing the instrument fuse in the IEC socket, the power supply should be referred to the Philip Harris recommended repair agent.

Please contact Customer Services or techsupport@philipharris.co.uk for advice

Instructions for authorized service technicians:

Ensure that any replaceable mains cord is of the correct rating.

Ensure that all earth conductors and protective earth bonding is maintained after service work. Please refer to the detailed service procedures, safe servicing and continued safety - contact techsupport@philipharris.co.uk for advice.

For any manufacturer specific parts please refer to our recommended repairer.

Please refer to product specific risks that may affect service personnel, the protective measures and verification of the safe state after repair.

Disposal of Waste Electrical and Electronic Equipment (WEEE)



Do not dispose of this product with household waste

- For the proper treatment, recovery and recycling please take this product to an appropriate collection point.
- If you are unsure where this is, contact your Local Authority.
- By disposing of this product correctly you will be providing positive help to the environment.

Supplier details:

Customer Service Centre, Philip Harris & UNILAB, Hyde Buildings, Ashton Road, Hyde, Cheshire SK14 4RH UK

Orders and Information Tel: 0845 120 4521

Fax: 0800 138 8881

Repairs Tel: 0845 120 3211

E-mail: techsupport@philipharris.co.uk

Website: www.philipharris.co.uk

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