

Power Supply

Constant Current 2A



LB2619-001 Constant Current Power Supply

Description:

The IEC “Constant Current Power Supply” is very useful when it is important to maintain a preset current through a load which might be changing for example, as current passes through a solenoid coil, the wire heats and its resistance rises with temperature ... but the current through the wire can be held constant. In this type of power supply, the voltage automatically adjusts to maintain the preset current into the load. Is useful for studies in “electroplating”. The 4mm socket head terminals are provided for the DC output to permit the clamping of wires and also to accept standard 4mm banana plugs.

Constant Current: What Does It Mean ?

In a normal power supply, the voltage is adjusted and remains constant as the current changes through a varying load. In a Constant Current power supply, when a circuit is connected and the current is adjusted to perhaps 1.5 amps, the voltage automatically adjusts itself to maintain a constant 1.5 amps into the load. For this power supply, If the load is exactly 6 ohms resistance, the 2 amp maximum current cannot quite be achieved. The maximum voltage will be just under 12V.DC. and this is the maximum rating of this instrument.

Length: 175mm	Width: 170mm	Height: 110mm	Weight: 2.0kg
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Note:

This power supply is designed for low resistance loads only.

The maximum voltage output at 2 amps is just below 12 volts. Therefore to achieve the maximum current of 2 amps, the maximum resistance of the load must be just below 6 ohms. At 1 amp constant current, the resistance of the load cannot exceed 12 ohms. If the resistance of the load exceeds these limits, the preset constant current cannot be maintained.

For higher resistance loads, higher voltage would be required to maintain the constant current. Electroplating is a very low resistance circuit and this 12 V.DC. power source is very good for that purpose.

Observation:

When the output terminals are short circuited, the current can be set up to 2 amps, but when the voltage is observed, it can be seen to be very low. When terminals are open circuited, the current falls to zero but the voltage rises to maximum because the power supply is trying to force current through an open circuit.

Specifications:

Input:

220/240V.AC. 50/60Hz 0.5 Amp Standard removable mains cable.

On/off:

By illuminated mains on/off red illuminated rocker switch mounted on front panel.

DC output:

Adjustable current from 0 to 2 Amps maximum.

Overload protection is not required because current cannot exceed 2 amps.

Maximum Voltage available to support 2 Amps: 12V.DC.

Heat dissipation on the rear panel by a finned heat sink which runs hot at maximum dissipation (maximum current under short circuit condition).

Amps / Volts Selection Switch:

Meter is scaled in both Amps and Volts. To check the voltage that is controlling the preset current, select Volts at any time.

IEC manufactures many types of regulated and unregulated power supplies for educational use. Ask your IEC dealer for more information on our large range.

Designed and manufactured in Australia