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IPC Irwin Powerlock PSU

Part Number EPU0115

User Instructions



INTRODUCTION.

Thank you for purchasing the IPC Irwin Powerlock PSU, this power supply has been designed with a key lock to allow the teacher to set and lock the required output voltage. The power supply provides both AC and DC voltages up to 5 Amps, is simple to use and also incorporates a safety cut-out in case of an overload or short circuit. The power supply is enclosed in a robust metal case with a durable powder coated finish and comes complete with a moulded mains lead and plug. For added convenience four units are designed to fit into a shallow GrateNells tray.

DESCRIPTION.

The IPC Irwin Powerlock PSU uses a simple key lock mechanism therefore making it impossible for students to change the set voltage. The Powerlock offers 2, 4, 6, 8, 10 & 12V in both AC and DC up to a maximum of 5 Amps, the DC output is a fully rectified, non-smoothed voltage. Both outputs are unregulated which means the output voltage will vary in relation to the amount of current being drawn, for a precise voltage a voltmeter should be used. Both outputs may be used simultaneously up to the rated output current of 5 Amps (combined). For safety, the output is protected by a simple push button thermal cut-out. Each unit is supplied with 2 keys that can be used on all Powerlock units if needed.

INSTRUCTIONS.

To set the output voltage simply turn the key to the required voltage and remove the key, the AC output is supplied via the two yellow 4mm sockets and the DC voltage via the Red and Black

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sockets. The AC and DC output voltages are switched on using the mains rocker switch on the front of the unit.

We recommend that any load on the output is removed before switching between the voltage setting. Should the safety cut-out operate, first remove the cause of the overload, then wait 2 minutes to allow the thermal switch to cool down before push the reset button back in.

Note: if the LED fails to illuminate then first check the fuse located on the back of the unit, if this is intact then check the fuse in the main plug.

SPECIFICATIONS.

Electrical Supply	= 220-240VAC, 50-60Hz
Fuse Ratings	= Rear Panel: 2A, 20mm, Quick-Blow, UK Mains Plug: 3A
Dimensions	= 130 x 140 x 70mm overall.
Mass	= 1.8kg
AC Voltage Range	= 2, 4, 6, 8, 10 & 12V (non-regulated).
DC Voltage Range	= 2, 4, 6, 8, 10 & 12V (full-wave rectified, non-regulated).
Output Current	= 5 Amps Maximum (AC or DC or Combined).

Please Note: This Equipment is for Education, Training, or research Purposes Only.

IMPORTANT - ELECTRICAL SAFETY NOTICE

Only connect the product to single phase mains electrical supply (with neutral nominally at each potential), also check that the supply voltage and frequency are within the products stated range. Before connecting to the mains electrical supply, examine the information on the products rating label (the value of the fuse fitted to the product is also stated), ensure that the mains plug or outlet circuit is fitted with an appropriate fuse of higher value.

WARNING: THIS PRODUCT MUST BE EARTHED

This product is designed for Electrical Safety Class 1.

If a mains lead is not fitted or supplied, connect the wires to a Standard UK, 3-pin plug as follows:-

Green/Yellow wire to the terminal marked: E (Earth) or coloured Green or Green/Yellow.

Brown wire to terminal marked: L (Live) or coloured Brown.

Blue wire to terminal marked: N (Neutral) or coloured Blue.

LIVE PARTS SHOULD NEVER BE EXPOSED UNLESS THE PRODUCT HAS BEEN SWITCHED OFF AND ISOLATED FROM THE MAINS ELECTRICITY SUPPLY.

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Declaration of Conformity (In Accordance with EN ISO 17050-1:2010).

Manufacturer: **IPC Irwin, Holker School, Cark-in-Cartmel, Grange-over-Sands, Cumbria, LA11 7PQ, United Kingdom.**

Product/Part No: **Powerlock PSU (230V AC, 50Hz main voltage)/EPU0115**

This conformity certificate approves the compliance of the product with the essential safety requirements of the following UK Standards and Regulations:

SI 2005 No.1803	General Product Safety Regulation (implements Directive 2001/95/EC).
SI 2016/1101	Electrical Equipment (Safety) Regulation (implements Directive 2014 /35/EU.
EN 61010-1: 2010	Electrical Requirements for Laboratory Test & Measurement Equipment.
EN 61000-6-1: 2019	EMC, Generic Standards, Immunity for Residential, Commercial and Light Industrial Environments.
EN 61000-6-3: 2019	EMC, Generic Standards, Emission for Residential, Commercial and Light Industrial Environments.
SI 2012 No. 3032	Restriction on Hazardous Substances (RoHS) in Electrical and Electronic Equipment Regulation, (implements Directive 2011/65/EU).



Mark can be used only in the case of conformity assessment according to all relevant UK Standards and Regulations.

EU Declaration of Conformity (In accordance with European Parliament and Council Decision No: 768/2008/EC Annex III).

This conformity certificate approves the compliance of the product with the essential safety requirements of the following EC/EU Directives (Manufacturer, Product/Part No: as above).

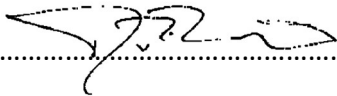
2001/95/EU	General Product Safety Directive.
2014/35/EU	Low Voltage Directive (LVD).
2014/30/EU	Electromagnetic Compatibility (EMC) Directive.
2011/65/EU	Restriction on Hazardous Substances Directive (RoHS).

European harmonised Standards used for conformity assessment and declaration:

EN 61010-1: 2010	Electrical Requirements for Laboratory Test & Measurement Equipment.
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Mark can be used only in the case of conformity assessment according to all relevant EC/EU Directives.

Dickon Knight (Director):  Date of Issue: 24th May 2023.

In the event of any correspondence concerning this product, please contact your supplying agent quoting the catalogue number and serial number shown on the apparatus rating label, together with the voltage and frequency of the mains electrical supply. This will help us to process your enquiry quickly. Any spare parts which may be required are supplied on the understanding that the replacement of those requiring the exposure of live electrical connections **will** be undertaken by an electrically qualified person.

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Thank you for choosing this IPC Irwin product, which has specifically been designed for education and we know it will bring you good service long into the future. This is just one product of a wide range of UK designed and manufactured products to enhance a STEM education, please see www.ipcirwin.com website for more details on the products and service we provide to support teaching and learning in science and technology.

IPC Irwin also provide Portable Appliance Testers and a Calibration service, for more details please go to www.ipcirwin.com or call our sales and technical support line on 015395 58555.



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