

Series IP100

ION PUMP POWER SUPPLY



FEATURES

- 115W Output Power
- 90V to 265V AC Operation
- Positive or Negative polarity to order
- Compact size
- Lightweight
- Protection against output short circuit
- Current monitor
- Interlock

DESCRIPTION

The Series IP100 is a range of high voltage power supplies designed to drive a vacuum chamber ion pump where a vacuum in the region of 1×10^{-11} Torr is required. The Series IP100 is also suitable for use in mass spectrometers, scanning electron microscopes and high integrity vacuum systems.

SPECIFICATION

Output Power:

115W output at 240V input.

Output Voltage:

5kV or 7kV depending on model.

Output Current:

80mA max.

Input Voltage:

90V to 265V AC.

Input Current:

2A max.

Polarity:

Positive or negative to order.

Output Ripple:

Less than 30V peak to peak.

Operation:

A mains ON/OFF switch, ENABLED indicator lamp and fuse are provided on the front panel. HV Enable and a Current Monitor are provided via a 9-way D-type connector situated on the rear panel. A current monitor is also provided via 4mm banana sockets.

Current Monitors:

Fibre optic transmitter:

A series of light pulses, where the frequency is directly proportional to the load current over the range 1 μ A to 2mA. 1mA load gives 30kHz. (Frequency (Hz) = load current x 30E6) \pm 5%.)

4mm sockets or 9-way D-type (pins 3 or 4):

A voltage directly proportional to the load current over the range 1 μ A to 2mA. (1mA load = 4.7V monitor \pm 5%.)

Remote Enable:

The presence of a 24V supply fed remotely enables the supply.

Operating Temperature:

10°C to 40°C.

Altitude:

Sea level to 2000 metres (6500 feet).

Humidity:

80%.

Assembly:

The unit incorporates an air insulated HV assembly to achieve a total weight of less than 1.6kg (3.5 lb).

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Protection:

Robust design ensures that the power supply is immune to output short circuit.

Safety:

An interlock is provided which disables the power supply when the cover is removed. The Series IP100 meets the requirements of the Low Voltage Directive (LVD) 73/23/EEC by complying with BS EN61010 when it is installed as a component part of compliant equipment. It is CE marked accordingly.

RoHS:

The IP100 is currently built to non-RoHS standard. This unit can, however, be configured to meet the requirements of RoHS where significant customer demand requires it, although please note that this will have an impact on delivery timescales.

Mechanical Specification:

Dimensions: See outline drawing.

Weight: 1.6kg (3.5 lb).

Outputs & Ordering Information:

Model no	Output Voltage	Output Current
IP100/502*	5kV	80mA
IP100/702*	7kV	80mA

* Please add suffix P (Positive) or N (negative) to the model number for the required polarity.

eg: part number for a 7kV positive unit: IP100/702P.

For voltages not listed above, please contact our sales team.

If required, this unit can be configured to meet the requirements of RoHS providing a significant quantity is ordered - please contact our sales team.

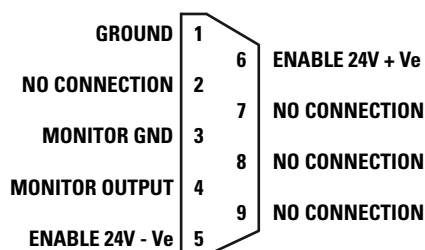
Interface Connection:

Mains: IEC320 mains receptable.

HV Output: FISCHER 105 series

Current Monitor: 4mm isolated sockets

HV Enable/Current Monitor via a 9-way D-type connector:



CE These component power supplies meet the requirements of EC Directive 73/23/EEC (LVD).

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Drawing dimensions are in mm (inches)
Design developments may result in specification changes

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