



## 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**
- **EU RoHS compliant to 2002/95/EC**

## 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  $1 \times 10^{-11}$  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 $\mu$ 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 $\mu$ 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).

# Series IP100

## ION PUMP POWER SUPPLY



### 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) 2006/95/EC by complying with BS EN61010 when it is installed as a component part of compliant equipment. It is CE marked accordingly.

### RoHS:

The Series IP100 meets the requirements of EU Directive 2002/95/EC on the Restriction of use of Certain Hazardous Substances in electrical and electronic equipment (RoHS).

### 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.

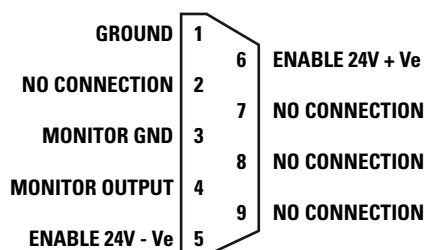
### Interface Connection:

Mains: IEC320 mains receptable.

HV Output: FISCHER 105 series

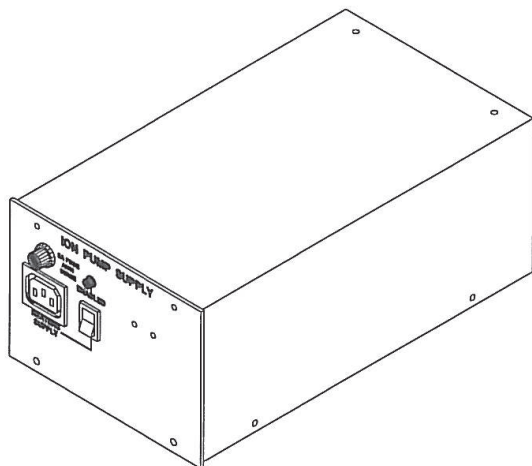
Current Monitor: 4mm isolated sockets

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



CE These component power supplies meet the requirements of EC Directive 2006/95/EC (LVD).

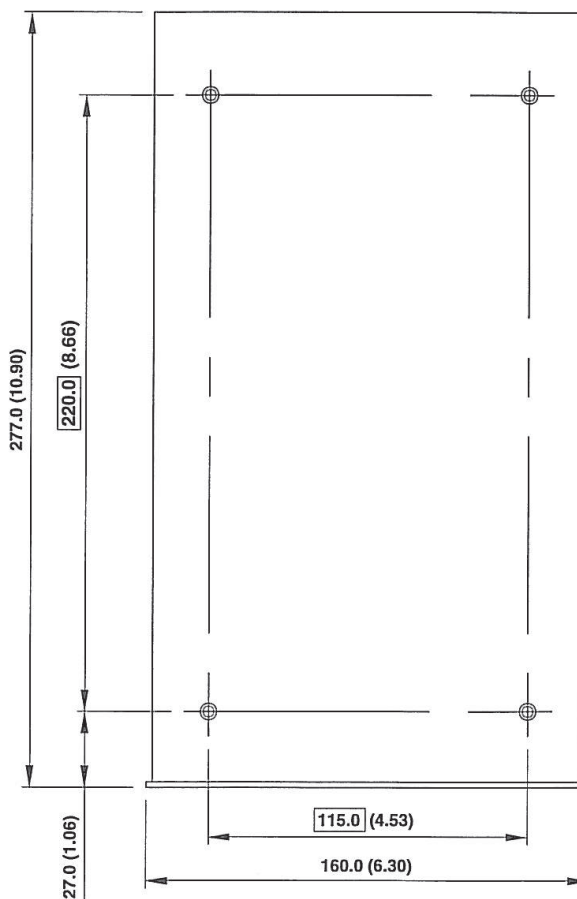
# Series IP100 ION PUMP POWER SUPPLY



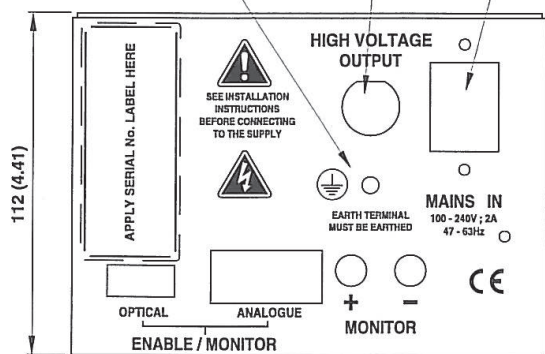
## D TYPE CONNECTIONS

1. GROUND
2. NOT CONNECTED
3. MONITOR GROUND
4. MONITOR OUTPUT
5. ENABLE 0V
6. ENABLE 24V
7. NOT CONNECTED
8. NOT CONNECTED
9. NOT CONNECTED

## UNIT FOOTPRINT



PROTECTIVE EARTH TERMINAL HV SOCKET MAINS INPUT



VIEW ON REAR PANEL

MAINS INPUT TO BE PROTECTED BY A 5A. ANTISURGE FUSE

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

# HiTek



# Power

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