**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 1x10E-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 1µA to 2mA.
  1mA load gives 30kHz. (Frequency (Hz) = load current x 30E6 ±5%)

- **4mm sockets or 9-way D-type (pins 3 or 4):**
  A voltage directly proportional to the load current over the range 1µA to 2mA.
  (1mA load = 4.7V monitor ±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:

<table>
<thead>
<tr>
<th>Model no</th>
<th>Output Voltage</th>
<th>Output Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP100/502*</td>
<td>5kV</td>
<td>80mA</td>
</tr>
<tr>
<td>IP100/702*</td>
<td>7kV</td>
<td>80mA</td>
</tr>
</tbody>
</table>

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

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:

[Diagram of connector with pins labeled: GROUND, NO CONNECTION, MONITOR GND, MONITOR OUTPUT, ENABLE 24V - Ve, ENABLE 24V + Ve]

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

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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  HY SOCKET  MAINS INPUT

VIEW ON REAR PANEL

MAINS INPUT TO BE PROTECTED BY A 5A ANTISURGE FUSE