



Europa Range - Specification Sheet



Basic Description

The Europa range of power supplies are a classic high voltage power supply design for laboratory applications. Up to 100kV output voltage is available and both positive and negative polarities can be provided. Extremely accurate output parameters are achieved as can be seen from the specification below. The power supply is also well protected against erratic line and load conditions. The reversible section is removable in the form of a drawer accessible from the front of the unit. Two sections – one positive and one negative are exchanged to engage the alternative polarity. Control and monitoring can be via an IEEE-488 interface or by front panel potentiometers.

Performance

V	I	W
100kV	1mA	100W
50kV	4mA	200W
35kV	6mA	210W
20kV	10mA	200W

Line regulation	Not more than 50ppm of maximum rated output voltage for $\pm 10\%$ input line change
Load regulation	Not more than 100ppm of maximum rated output voltage for 0 to maximum output current change.
Ripple	Not more than 20V (peak to peak) - 100kV Version

Front Panel Features

Front panel meters	Front panel meters are available for reading output voltage and current with accuracy of $\pm 2\%$ of full scale.
Front panel controls	Front panel controls are available for output voltage and current control.
Protection	The power supply is protected against overloads, short circuits and arcs.

Front Panel Features

Size	19 inch wide suitable for standard rack mounting, 6U high.
Weight	Main Unit: 35kg Alternative Polarity Head: 12kg
High voltage connector and cable	Pre-assembled mating high voltage connector with 3 metres of high voltage shielded cable will be provided as standard.
Power input connector	A 2m 3-wire mains lead with IEC plug will be provided as standard.
Cooling	Forced air by means of a fan.
IEEE-488 interface	Full talker/listener capability is available through the IEEE-488 interface. The interface functions allow output voltage and current limit to be programmed via the IEEE-488 bus. In addition, voltage and current measurements can be taken on request.
Power requirements	230V AC $\pm 10\%$, less than 2A, 50Hz.

Temperature coefficient

(0 to 50°C)	Not more than 50ppm of maximum output per °C
Stability after 1/2 hour warm up	Not more than 0.01% per hour. Not more than 0.02% per 8 hours.

Environmental Requirements

Temperature	Operating:	15°C to 35°C.
	Storage:	0°C to 50°C.
Relative humidity (Non-condensing)	Operating:	30% to 80%.
	Storage:	<95%.

Design improvements may lead to specification changes.