

POWER SUPPLIES

Laboratory: Single Output, 30 W to 60 W

HP E3610A-E3617A

HP E3610A, E3611A, and E3612A features:

- Dual ranges
- Digital voltage and current meters

HP E3614A, E3615A, E3616A, and E3617A features:

- Digital voltage and current meters
- Overvoltage protection
- Remote sensing
- Voltage programming



HP E3610A - E3617A

HP E3610A, E3611A, E3612A

These popular low-cost CV/CC bench supplies are designed for general laboratory use. The constant-voltage, constant-current output allows operation as either a voltage source or current source. The change-over occurs automatically, based on the load. This feature also provides an adjustable current limit, allowing you to set the safest current limit level for a particular DUT. Also, a CC Set button lets you set the current limit without your having to short the output.

Each model has two ranges, allowing more current at a lower voltage. For a higher output voltage, supplies can be connected in series. Either the positive or negative terminal can be connected to ground, providing a positive or negative voltage output. Either terminal can also be floated up to 240 V from ground.

Dual digital meters monitor current and voltage simultaneously. Adjustments are made with the 10-turn voltage control and the 10-turn current control. Each power supply is 212 mm W x 88 mm H x 318 mm D (8.4 in x 3.5 in x 12.5 in) and weighs 3.8 kg (8.4 lb).

HP E3614A, E3615A, E3616A, E3617A

These flexible single range CV/CC power supplies can be used as either voltage sources or current sources. The CC-set button allows you to quickly set the current limit when operating in the CV mode, without shorting the output. 10-turn controls allow accurate adjustment of voltage and current output settings. The output voltage and current can also be controlled with external 0 to 10 volt analog signals.

Output connections can be made on either the front or rear panel. Remote sensing is available to eliminate the errors in voltage regulation due to voltage drops in the load leads. Either the positive or negative output terminal may be connected to ground to provide positive or negative output voltage. Either terminal can also be floated to a maximum of 240 volts. Multiple units can be combined in auto-parallel, auto-series and auto-tracking configurations to obtain more voltage or current output.

The load is protected with the overvoltage protection feature, which is easily monitored and adjusted from the front panel. The digital voltage and current meters provide continuous and accurate readings of the output levels. The HP E3614A-E3617A are 212 mm W x 88 mm H x 373 mm D (8.5 in x 3.5 in x 14.7 in).

Key Literature

1995/96 Power Products Catalog, p/n 5963-3906.

HP Basic Instrument Catalog, p/n 5962-9359.

Specifications (at 0° to 55° C unless otherwise specified)

Single-output models	HP E3610A	HP E3611A	HP E3612A	HP E3614A	HP E3615A	HP E3616A	HP E3617A	
Number of output ranges	2	2	2	1	1	1	1	
Output ratings ¹	Range 1	0 to 8 V, 0 to 3 A ¹	0 to 20 V, 0 to 1.5 A ¹	0 to 60 V, 0 to 0.5 A ¹	0 to 8 V, 0 to 6 A	0 to 20 V, 0 to 3 A	0 to 35 V, 0 to 1.7 A	0 to 60 V, 0 to 1 A
	Range 2	0 to 15 V, 0 to 2 A ¹	0 to 35 V, 0 to 0.85 A ¹	0 to 120 V, 0 to 0.25 A ¹	—	—	—	—
	Power (max)	30 W	30 W	30 W	48 W	60 W	60 W	60 W
Load and line regulation	0.01%+2 mV	0.01%+2 mV	0.01%+2 mV	0.01%+2 mV	0.01%+2 mV	0.01%+2 mV	0.01%+2 mV	
Ripple and noise	rms	200 μV	200 μV	200 μV	200 μV	200 μV	200 μV	
	peak-to-peak	2 mV	2 mV	2 mV	1 mV	1 mV	1 mV	

Supplemental Characteristics (Nonwarranted characteristics determined by design and useful in applying the product)

Control mode		CV/CC	CV/CC	CV/CC	CV/CC	CV/CC	CV/CC	CV/CC
Resolution (minimum change using front-panel controls)	Voltage	10 mV	10 mV	100 mV	10 mV	10 mV	10 mV	100 mV
	Current	5 mA	5 mA	2 mA	10 mA	5 mA	5 mA	5 mA
Power (115 Vac ±10%)		47 to 63 Hz	47 to 63 Hz	47 to 63 Hz	47 to 63 Hz	47 to 63 Hz	47 to 63 Hz	47 to 63 Hz
Options available		0E3, 0E9	0E3, 0E9	0E3, 0E9	0E3, 0E9	0E3, 0E9	0E3, 0E9	0E3, 0E9
Price		\$300	\$300	\$300	\$500	\$500	\$500	\$500

¹Maximum current is derated 1% per °C between 40° to 55° C.