

KEYSIGHT TECHNOLOGIES (AGILENT HP)

E3631A

The Keysight (formerly Agilent/HP) E3631A is an 80 W triple-output programmable DC power supply widely used in benchtop and automated test applications. It features one 6 V/5 A output and two ± 25 V/1 A outputs, offering clean power with low ripple and noise. The unit includes built-in GPIB and RS-232 interfaces for remote programming and monitoring, alongside precise readback capabilities.

SPECIFICATIONS

General

Interfaces	GPIB, RS-232
Display	Vacuum Fluorescent Display (VFD)

Physical

Power Supply	115 Vac $\pm$ 10% (standard), 100 Vac or 230 Vac $\pm$ 10% (by option); 47-63 Hz; 250 VA maximum
Operating Temperature	0 to 40 °C °C
Dimensions (W×H×D)	212.6 × 132.6 × 348.3 mm mm
Weight	8.2 kg kg
Cooling	Fan cooled

Output Ratings

Number of Outputs	3
Maximum Total Output Power	80 W
Output 1 Voltage Range	0 to 6 V
Output 1 Current Range	0 to 5 A
Output 2 Voltage Range	0 to +25 V
Output 2 Current Range	0 to 1 A
Output 3 Voltage Range	0 to -25 V
Output 3 Current Range	0 to 1 A

Programming Accuracy

Voltage Programming Accuracy	0.05% + 20 mV (± 25 V outputs), 0.1% + 5 mV (6 V output)
Current Programming Accuracy	0.15% + 4 mA (± 25 V outputs), 0.2% + 10 mA (6 V output)

Readback Accuracy

Voltage Readback Accuracy	0.05% + 10 mV (± 25 V outputs), 0.1% + 5 mV (6 V output) @ 25°C $\pm 5^\circ\text{C}$
Current Readback Accuracy	0.15% + 4 mA (± 25 V outputs), 0.2% + 10 mA (6 V output) @ 25°C $\pm 5^\circ\text{C}$

Regulation

Voltage Load Regulation	$< 0.01\% + 2 \text{ mV}$
Current Load Regulation	$< 0.01\% + 250 \text{ }\mu\text{A}$
Voltage Line Regulation	$< 0.01\% + 2 \text{ mV}$
Current Line Regulation	$< 0.01\% + 250 \text{ }\mu\text{A}$

Ripple and Noise

Normal Mode Voltage RMS	$< 350 \text{ }\mu\text{V rms (20 Hz to 20 MHz)}$
Normal Mode Voltage Peak-to-Peak	$< 2 \text{ mV p-p (20 Hz to 20 MHz)}$
Normal Mode Current RMS	$< 500 \text{ }\mu\text{A rms } (\pm 25 \text{ V outputs}), < 2 \text{ mA rms (6 V output)}$
Common Mode Current RMS	$< 1.5 \text{ }\mu\text{A rms}$

Performance

Transient Response Time	$< 50 \text{ }\mu\text{s}$ to recover within 15 mV for a 50% change in load current
Output Tracking Accuracy	$\pm (0.2\% \text{ of output} + 20 \text{ mV})$ for $\pm 25\text{V}$ outputs
Warm-Up Time	1 hour (for specified accuracy)
Remote Sensing	Not supported (local sensing only)

Safety & Protection

Isolation to Ground	$\pm 240 \text{ Vdc}$ maximum (between any output terminal and earth ground)
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Environmental

Storage Temperature	$-40 \text{ }^{\circ}\text{C}$ to $70 \text{ }^{\circ}\text{C}$
Maximum Altitude	2000 meters
Pollution Degree	2
Installation Category	II

Power

AC Input Voltage	115 Vac $\pm 10\%$ (standard); 100 Vac or 230 Vac $\pm 10\%$ (by option)
AC Input Frequency	47 Hz to 63 Hz
Maximum Input Power	250 VA

Configuration

Output Topology	All three outputs share a common COM terminal
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Software & Control

State Storage Memory	3 user-configurable operating states (Store/Recall)
Programming Language	SCPI

TECHNOLOGY

Programmable DC Power Supply

APPLICATIONS

Benchtop and Automated Test Equipment (ATE)

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.