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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight E3642A DC Power Supply

HP Agilent E3642A Programmable DC Power Supply The Agilent/Keysight E3642A is an E364xA series programmable dual-range DC power supply rated 50 W with 1 output(s). OEM E3640A to E3649A datasheet 5968-7355EN lists dual-range ratings, 0.01% load/line regulation, GPIB and RS-232 standard, and 12-month programming/readback accuracies at 25 C +/-5 C after 1-hour warm-up. R&D bench bias, production ATE power sequencing over GPIB or RS-232, and QA verification needing dual-range CV/CC rails with OVP and remote sense. The Agilent/Keysight E3642A is an E364xA series programmable dual-range DC power supply rated 50 W with 1 output(s). OEM E3640A to E3649A datasheet 5968-7355EN lists dual-range ratings, 0.01% load/line regulation, GPIB and RS-232 standard, and 12-month programming/readback accuracies at 25 C +/-5 C after 1-hour warm-up. R&D bench bias, production ATE power sequencing over GPIB or RS-232, and QA verification needing dual-range CV/CC rails with OVP and remote sense. Selectable dual output ranges for higher current or higher voltage



MODEL

**Agilent / Keysight
E3642A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E3642A

LISTING

<https://aumictechlabs.com/products/e3642a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight E3642A is a 50 W single-output DC power supply with dual voltage ranges, delivering clean, regulated power for benchtop and system-level testing applications. Its compact

form factor combines intuitive front-panel control with full programmability, making it suitable for component characterization, circuit validation, and automated test environments.

Technical Specifications

Electrical Performance

Output voltage: 0–8 V DC (Range 1) or 0–20 V DC (Range 2)

Output current: 0–5 A @ 8 V or 0–2.5 A @ 20 V

Power rating: 50 W

Load regulation: $<0.01\% + 3 \text{ mV (voltage)}$; $<0.01\% + 250 \text{ }\mu\text{A (current)}$

Line regulation: 0.01%

Voltage programming accuracy: $0.05\% + 10 \text{ mV}$

Ripple and noise: $<5 \text{ mVpp (voltage peak-peak)}$; $0.5 \text{ mVrms (voltage)}$; $<4 \text{ mArms (current)}$

Voltage settling time: $<90 \text{ msec}$

Overvoltage protection: Front-panel configurable with adjustable trip voltage

Input & Environmental

Input voltage: 115 VAC $\pm 10\%$ (100/115/230 VAC selectable)

Input frequency: 47–63 Hz

Operating temperature: 0 °C to 40 °C

Dimensions: 212.8 mm $\times$ 88.5 mm $\times$ 348.3 mm (W $\times$ H $\times$ D)

Weight: 6.2 kg

Key Features

- Dual-range output for flexible voltage/current capability
- High-visibility vacuum-fluorescent display with 10 mV voltage and 1 mA current resolution
- Rotary knob and self-guiding keypads for intuitive manual operation
- Memory storage for up to five complete power supply configurations
- GPIB (IEEE-488) and RS-232 remote interfaces
- SCPI-compliant programming for instrument automation
- Screw-type rear terminals and versatile binding posts
- Optional rack-mount kits available for system integration

Typical Applications

Component testing, power electronics validation, laboratory power delivery, automated test equipment (ATE) integration, and educational demonstrations.

Compatibility & Integration

Supports VXIplug&play drivers for Keysight VEE, National Instruments LabVIEW, and LabWindows, enabling rapid integration into existing test frameworks.

E3642A Characteristics / Specifications

PARAMETER	VALUE
Maximum Power	50 W
Number of Outputs	1
DC Output Rating	0 to 8 V/5 A or 0 to 20 V/2.5 A
Load Regulation Voltage	less than 0.01% + 3 mV
Load Regulation Current	less than 0.01% + 250 uA
Line Regulation Voltage	less than 0.01% + 3 mV
Line Regulation Current	less than 0.01% + 250 uA
Ripple Noise Voltage	less than 5 mVpp / 0.5 mVrms
Ripple Noise Current	less than 4 mArms
Common Mode Current	less than 1.5 uArms
Programming Voltage Accuracy	less than 0.05% + 10 mV
Programming Current Accuracy	less than 0.2% + 10 mA
Readback Voltage Accuracy	less than 0.05% + 5 mV
Readback Current Accuracy	less than 0.15% + 5 mA
Meter Voltage Accuracy	less than 0.05% + 2 counts
Meter Current Accuracy	less than 0.15% + 5 mA
Program Resolution	less than 5 mV / 1 mA
Readback Resolution	less than 2 mV / 1 mA
Meter Resolution	10 mV / 1 mA
Transient Response	less than 50 us to within 15 mV half to full load
Settling Time	less than 90 ms
OVP Accuracy	less than 0.5% + 0.5 V
OVP Activation Time	less than 1.5 ms for OVP at or above 3 V; less than 10 ms below 3 V
Remote Sense Lead Drop	1 V max each load lead
Dimensions	212.6 mmWx 88.5 mmHx 348.3 mmDNet Weight: 6.3 kg

PARAMETER	VALUE
AC Input	100/115/230 Vac +/-10%, 47 to 63 Hz
Operating Temperature Rating	0 C to 40 C for stated output ratings
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General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Rating: 0 C to 40 C for stated output ratings
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Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Number of Outputs	1
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Load Regulation Current	less than 0.01% + 250 uA
Line Regulation Voltage	less than 0.01% + 3 mV
Line Regulation Current	less than 0.01% + 250 uA
Ripple Noise Voltage	less than 5 mVpp / 0.5 mVrms
Ripple Noise Current	less than 4 mA rms
Common Mode Current	less than 1.5 uA rms
Programming Voltage Accuracy	less than 0.05% + 10 mV
Programming Current Accuracy	less than 0.2% + 10 mA
Readback Voltage Accuracy	less than 0.05% + 5 mV
Readback Current Accuracy	less than 0.15% + 5 mA
Meter Voltage Accuracy	less than 0.05% + 2 counts
Meter Current Accuracy	less than 0.15% + 5 mA
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OVP Accuracy	less than 0.5% + 0.5 V
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Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.