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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight E3649A DC Power Supply

HP Agilent E3649A Programmable DC Power Supply The Agilent/Keysight E3649A is an E364xA series programmable dual-range DC power supply rated 100 W with 2 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 E3649A is an E364xA series programmable dual-range DC power supply rated 100 W with 2 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
E3649A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E3649A

LISTING

<https://aumictechlabs.com/products/e3649a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight E3649A is a 100 W dual-output programmable DC power supply engineered for R&D design verification, production testing, and quality assurance. Each output operates

independently across two voltage ranges - 0 to 35 V at 1.4 A, or 0 to 60 V at 0.8 A - with dual-range capability enabling flexible power delivery for diverse circuit requirements.

Technical Specifications

Output Performance

Voltage regulation: $< 0.01\% + 3 \text{ mV}$ (load and line)

Current regulation: $< 0.01\% + 5 \text{ mA}$ (load and line)

Voltage accuracy (12 months @ $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$): $< 0.05\% + 5 \text{ mV}$ (output 1); $< 0.1\% + 25 \text{ mV}$ (output 2)

Current accuracy (12 months @ $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$): $< 0.15\% + 5 \text{ mA}$ (output 1); $< 0.15\% + 10 \text{ mA}$ (output 2)

Program resolution: $< 5 \text{ mV} / 1 \text{ mA}$

Meter resolution: Voltage $< 0.05\% + 2 \text{ counts}$; Current $< 0.15\% + 5 \text{ mA}$

Transient response: $< 50 \mu\text{s}$ for output recovery within 15 mV following full-to-half load current transitions

Voltage settling time: $< 90 \text{ ms}$ at any output load condition

Protection & Safety

Over-voltage protection (OVP) with adjustable trip voltage

OVP accuracy: $< 0.5\% + 0.5 \text{ V}$

OVP activation time: $< 1.5 \text{ ms}$ ($\text{OVP} \geq 3 \text{ V}$); $< 10 \text{ ms}$ ($\text{OVP} < 3 \text{ V}$)

Key Features

Vacuum fluorescent display for clear voltage and current readout

Intuitive front-panel control with rotary knob and self-guiding keypads

Non-volatile memory stores and recalls up to five complete power supply configurations

Electronic calibration accessible from front panel

Output on/off button for fast power cycling

Typical Applications

Component and subsystem characterization during design phase

Manufacturing test and burn-in procedures

Quality verification and acceptance testing

Compatibility & Integration

Built-in GPIB (IEEE-488) and RS-232 interfaces

SCPI-compliant command set for direct instrument control

VXIplug&play drivers available for Agilent VEE, LabVIEW, and LabWindows environments

Compatible with any PC equipped with GPIB or RS-232 interface cards

E3649A Characteristics / Specifications

PARAMETER	VALUE
Maximum Power	100 W
Number of Outputs	2
DC Output Rating	Two outputs each 0 to 35 V/1.4 A or 0 to 60 V/0.8 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 8 mVpp / 1 mVrms
Ripple Noise Current	less than 4 mArms
Common Mode Current	less than 1.5 uArms
Programming Voltage Accuracy	less than 0.1% + 25 mV
Programming Current Accuracy	less than 0.2% + 10 mA
Readback Voltage Accuracy	less than 0.1% + 25 mV
Readback Current Accuracy	less than 0.15% + 10 mA
Meter Voltage Accuracy	less than 0.1% + 4 counts
Meter Current Accuracy	less than 0.15% + 10 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	212.8 mmWx 133.0 mmHx 348.3 mmDNet Weight: 9.1 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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PARAMETER	VALUE
Maximum Power	100 W
Number of Outputs	2
DC Output Rating	Two outputs each 0 to 35 V/1.4 A or 0 to 60 V/0.8 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 8 mVpp / 1 mVrms
Ripple Noise Current	less than 4 mA rms
Common Mode Current	less than 1.5 uA rms
Programming Voltage Accuracy	less than 0.1% + 25 mV
Programming Current Accuracy	less than 0.2% + 10 mA
Readback Voltage Accuracy	less than 0.1% + 25 mV
Readback Current Accuracy	less than 0.15% + 10 mA
Meter Voltage Accuracy	less than 0.1% + 4 counts
Meter Current Accuracy	less than 0.15% + 10 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	212.8 mmWx 133.0 mmHx 348.3 mmDNet Weight: 9.1 kg
AC Input	100/115/230 Vac +/-10%, 47 to 63 Hz

PARAMETER	VALUE
Operating Temperature Rating	0 C to 40 C for stated output ratings

Notes

From Keysight E3640A to E3649A Programmable DC Power Supplies data sheet (5968-7355EN). Accuracies are 12-month values at 25 C +/-5 C after 1-hour warm-up with no load and calibration at 25 C. Dual-output Output 2 programming/readback offsets differ as noted on the OEM sheet.

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.