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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight E3646A DC Power Supply

HP Agilent E3646A Programmable DC Power Supply The Agilent/Keysight E3646A is an E364xA series programmable dual-range DC power supply rated 60 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 E3646A is an E364xA series programmable dual-range DC power supply rated 60 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
E3646A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E3646A

LISTING

<https://aumictechlabs.com/products/e3646a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight E3646A is a 60 W dual-output, dual-range programmable DC power supply engineered for R&D, design verification, and production testing. Each output independently

selects between 0–8 Vdc @ 0–3 A or 0–20 Vdc @ 0–1.5 A, with voltage programming accuracy of $\pm 0.05\% + 10 \text{ mV}$ and load regulation under $0.01\% + 3 \text{ mV}$. Output voltage ripple remains below $0.5 \text{ mVrms} / 5 \text{ mVpp}$, while transient response recovers within $50 \text{ }\mu\text{sec}$ following load step changes. Readback accuracy for voltage is $\pm 0.05\% + 2 \text{ counts}$; current readback is $\pm 0.15\% + 5 \text{ mA}$ on Output 1 and $\pm 0.15\% + 10 \text{ mA}$ on Output 2. Technical Specifications Output Power: 60 W total Dual-Range Outputs: 0–8 Vdc @ 0–3 A or 0–20 Vdc @ 0–1.5 A per output Voltage Programming Accuracy: $\pm 0.05\% + 10 \text{ mV}$ Load Regulation (Voltage): $< 0.01\% + 3 \text{ mV}$ Load Regulation (Current): $< 0.01\% + 250 \text{ }\mu\text{A}$ Voltage Ripple & Noise: $< 0.5 \text{ mVrms} / < 5 \text{ mVpp}$ Current Noise: $< 4 \text{ mArms}$ Transient Response: $< 50 \text{ }\mu\text{sec}$ (full to half load, within 15 mV) Voltage Readback Accuracy: $\pm 0.05\% + 2 \text{ counts}$ Current Readback Accuracy: $\pm 0.15\% + 5 \text{ mA}$ (Output 1); $\pm 0.15\% + 10 \text{ mA}$ (Output 2) Stability (8 hours, constant load/temperature): Voltage $< 0.02\% + 2 \text{ mV}$; Current $< 0.02\% + 3 \text{ mA}$ Over-Voltage Protection Accuracy: $\pm(0.5\% + 0.5 \text{ V})$ OVP Activation Time: $< 1.5 \text{ msec}$ ($\geq 3 \text{ V}$); $< 10 \text{ msec}$ ($< 3 \text{ V}$) AC Input: $115 \text{ Vac} \pm 10\%$, $47\text{--}63 \text{ Hz}$ (standard); options for 100 Vac or 230 Vac Maximum Input Power: 210 VA Common Mode Current: $< 1.5 \text{ }\mu\text{Arms}$ Key Features Front and rear output terminals for flexible test-point connectivity Remote sensing capability with 1 V maximum load lead voltage drop Vacuum fluorescent display with front-panel rotary knob and keypads Dual-range selectable outputs on each channel Programmable over-voltage protection with adjustable trip threshold Fan-cooled with automatic speed control for reduced noise Safety Class I with protective earth terminal User-replaceable power line fuse Interfaces & Control GPIB (IEEE-488) - standard RS-232 - standard SCPI (Standard Commands for Programmable Instruments) compatible Typical Applications Component and subsystem design verification Automated production test systems Research and development bench work Sensitivity and margin testing of electronic circuits

E3646A Characteristics / Specifications

PARAMETER	VALUE
Maximum Power	60 W
Number of Outputs	2
DC Output Rating	Two outputs each 0 to 8 V/3 A or 0 to 20 V/1.5 A
Load Regulation Voltage	less than 0.01% + 3 mV
Load Regulation Current	less than 0.01% + 250 μ A
Line Regulation Voltage	less than 0.01% + 3 mV
Line Regulation Current	less than 0.01% + 250 μ A
Ripple Noise Voltage	less than 5 mVpp / 0.5 mVrms
Ripple Noise Current	less than 4 mArms
Common Mode Current	less than 1.5 μ Arms
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 μ s 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: 8.2 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	60 W
Number of Outputs	2
DC Output Rating	Two outputs each 0 to 8 V/3 A or 0 to 20 V/1.5 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 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: 8.2 kg
AC Input	100/115/230 Vac +/-10%, 47 to 63 Hz

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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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.