

Keysight E363xA Series Programmable DC Power Supplies

Data Sheet



Clean and Stable Power with Programmability at an Affordable Price

Affordable programmable power supplies to meet your needs

The Keysight Technologies, Inc. E363xA Series of programmable DC power supplies gives you the performance of the system power supplies at a decent price. All models provide clean power, excellent regulation and a fast transient response with built-in GPIB and RS-232 interfaces. The E363xA Series is designed to meet the requirements of the most demanding applications in R&D design verifications, production testing, and QA verifications with traditional quality and reliability which you can count on.

Excellent performance you can trust

With the 0.01% load and line regulation, the E363xA Series can maintain a steady output when power line and load changes occur. The power supplies specify both normal mode voltage/current noise and common mode current noise. The low normal mode noise specification assures clean power for precision circuitry applications, and the low common mode current provides isolation from power line current injection.

Remote interface

If you have an IEEE-488 card or RS-232 in a PC, these power supplies will work for you. Every model comes equipped with both GPIB and RS-232 as standard. All programming is done in easy-to-use SCPI (Standard Commands for Programmable Instruments). The user's guide describes the process for the first-time programmers.

Front panel operation

A knob and self-guiding keypads allow you to set the output at your desired resolution quickly and easily. You can store and recall for up to three complete setups using the internal non-volatile memory. The output on/off button sets the output to zero.

E3631A triple-output power supply

This famous 80-watt triple output supply offers three independent outputs: 0 to 6 V/5A, 0 to +25V/1A and 0 to -25V/1A. The 6 V output is electrically isolated from the ± 25 V supply to minimize any interference between circuits under test. The ± 25 V outputs can be set to track each other.

E3632A/33A/34A single-output dual range power supplies

These single output power supplies give you the flexibility to select from a dual output range. The output load is protected against overvoltage and overcurrent, which are easily monitored and adjusted from the front panel and remote interface. Remote sensing is available to eliminate the errors caused by voltage drops on the load leads. The E3633A/34A offer front and rear output terminals for easy wiring.



Reliable Power, Repeatable Results

- Single and triple output
- 80 W to 200 W output power
- Dual range output (except E3631A)
- Low noise and excellent regulation
- Remote sensing (except E3631A)
- Front and rear output terminals (E3633A/34A only)
- GPIB and RS-232 standard
- Save and recall functions
- Overvoltage protection, overcurrent protection (except E3631A)

E3631A/32A/33A/34A Programmable DC Power Supply Specifications

Model Number	E3631A			E3632A	E3633A	E3634A
	1	2	3			
DC output Rating (0 to 40 °C)	0 to +6 V, 0 to 5 A	0 to +25 V, 0 to 1 A	0 to -25 V, 0 to 1 A	0 to 15 V/7 A or 0 to 30 V/4 A	0 to 8 V/20 A or 0 to 20 V/10 A	0 to 25 V/7 A or 0 to 50 V/ 4 A
Load regulation ± (% of output + offset)				< 0.01% + 2 mV < 0.01% + 250 µA		
Line regulation ± (% of output + offset)				< 0.01% + 2 mV < 0.01% + 250 µA		
Ripple and noise (20 Hz to 20 MHz)						
Normal mode voltage	< 350 µVrms/2 mVpp			< 350 µVrms/3 mVpp	< 500 µVrms/ 3 mVpp	
Normal mode current	< 2 mArms	< 500 µArms		< 2 mArms		
Accuracy¹ 12 months (25 °C + 5 °C), ± (% output + offset)						
Programming						
Voltage	0.1% + 5 mV	0.05% + 20 mV		0.05% + 10 mV		
Current	0.2% + 10 mA	0.15% + 4 mA		0.2% + 10 mA		
Readback ²						
Voltage	0.1% + 5 mV	0.05% + 10 mV		0.05% + 5 mV		
Current	0.2% + 10 mA	0.15% + 4 mA		0.15% + 5 mA		
Transient response	Less than 50 µsec for output to recover to within 15 mV following a change in output current from full load to half load or vice versa					

Supplemental Characteristics

Model Number	E3631A			E3632A	E3633A	E3634A
	1	2	3			
AC input (47 Hz - 63 Hz)	100 Vac ±10% (Opt 0E9)/115 Vac ±10% (Std)/230 Vac ±10% (0E3)					
Dimensions	213 x mm W x 133 mm H x 348 mm D (8.4 x 5.2 x 13.7 in)					
Weight	8.2 kg (18 lbs) net, 11 kg (24 lbs) shipping			9.5 kg (21 lbs) net, 12 kg (26 lbs) shipping		
Warranty	Three years for E363xA series power supplies Three months for standard shipped accessories					
Product regulation	Certified to CSA 22.2 No. 231 (for E3631A), No. 1010.1 (for E3632A/33A/34A); conforms to IEC 1010-1; carries CE marks; complies with CISPR-11, Group 1, Class A					
Common mode current	< 1.5 µArms					
Resolution						
Program	0.5 mV/0.5 mA	1.5 mV/0.1 mA		1 mV/0.5 mA	1 mV/1 mA	3 mV/0.5 mA
Readback	0.5 mV/0.5 mA	1.5 mV/0.1 mA		0.5 mV/0.1 mA	0.5 mV/1 mA	1.5 mV/0.5 mA
Meter	1 mV/1 mA	10 mV/1 mA		1 mV/1 mA	1 mV/1 mA (< 10A), 10 mA (≥ 10 A)	
Command processing time³	< 50 msec			< 100 msec		
OVP/OCP						
Accuracy ± (% output + offset)	N/A			0.5% + 0.5 V/0.5% + 0.5 A		
Activation time	N/A			1.5 msec, OVP ≥3 V/< 10 msec, OVP < 3 V and OCP <10 msec		
Temperature coefficient per °C (% output + offset)						
Voltage	0.01% + 2 mV		0.01% + 3 mV			
Current	0.02% + 3 mA	0.02% + 0.5 mA		0.02% + 3 mA		
Stability , constant load & temperature ± (% of output + offset), 8 hrs						
Voltage	0.03% + 1 mV		0.02% + 2 mV		0.02% + 1 mV	
Current	0.1% + 3 mA		0.05% + 1 mA		0.1% + 1 mA	
Remote Sense (max. voltage in each load lead)	N/A			1 V	0.7 V	
Voltage programming speed , to within 1% of total excursion						
Up	Full load	11 msec	50 msec	50 msec	95 msec	80 msec
	No load	10 msec	20 msec	20 msec	45 msec	100 msec
Down	Full load	13 msec	45 msec	45 msec	30 msec	30 msec
	No load	200 msec	400 msec	400 msec	450 msec	450 msec

1. Accuracy specifications are valid after a 1-hour warm-up and calibration at 25 °C.
2. Accuracy refers to readback over GPIB and RS-232 or front panel with respect to actual output.
3. Maximum time for output to change after receipt of commands.

Ordering Information

E3630 Series Power Supplies
E3631A 80-Watt Triple Power Supply
E3632A 120-Watt Single Power Supply
E3633A/34A 200-Watt Single Power Supply

Standard Shipped Accessories

User's & Service guide, Product
Reference CD, AC power cord

Power Options

Opt. 0E3 230 Vac \pm 10%
Opt. 0EM 115 Vac \pm 10%
Opt. 0E9 100 Vac \pm 10%

Other Options

Opt. 0L2 Extra manual sets
Opt. 1CM Rackmount kit*
Opt. UK6 Commercial calibration with test result data
E3600A-100 Test lead kit

Rackmount Kits*

Keysight E3631A/32A/33A/34A
To rackmount two instruments side-by-side
 Lock-link Kit (P/N 5061-9694)
 Flange Kit (P/N 5063-9214)
To rackmount one or two instruments in a sliding support shelf
 Support Shelf (P/N 5063-9256)
 Slide Kit (P/N 1494-0015) required for support shelf

* Rackmounting with 1CM or lock-link/flange kit requires Keysight or customer support rails Keysight Support Rails-E3663AC

Evolving Since 1939

Our unique combination of hardware, software, services, and people can help you reach your next breakthrough. We are unlocking the future of technology.

From Hewlett-Packard to Agilent to Keysight.



myKeysight

myKeysight

www.keysight.com/find/mykeysight

A personalized view into the information most relevant to you.

www.keysight.com/find/emt_product_registration

Register your products to get up-to-date product information and find warranty information.

KEYSIGHT SERVICES

Accelerate Technology Adoption.
Lower costs.

Keysight Services

www.keysight.com/find/service

Keysight Services can help from acquisition to renewal across your instrument's lifecycle. Our comprehensive service offerings—one-stop calibration, repair, asset management, technology refresh, consulting, training and more—helps you improve product quality and lower costs.



Keysight Assurance Plans

www.keysight.com/find/AssurancePlans

Up to ten years of protection and no budgetary surprises to ensure your instruments are operating to specification, so you can rely on accurate measurements.

Keysight Channel Partners

www.keysight.com/find/channelpartners

Get the best of both worlds: Keysight's measurement expertise and product breadth, combined with channel partner convenience.

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at:

www.keysight.com/find/contactus

Americas

Canada	(877) 894 4414
Brazil	55 11 3351 7010
Mexico	001 800 254 2440
United States	(800) 829 4444

Asia Pacific

Australia	1 800 629 485
China	800 810 0189
Hong Kong	800 938 693
India	1 800 11 2626
Japan	0120 (421) 345
Korea	080 769 0800
Malaysia	1 800 888 848
Singapore	1 800 375 8100
Taiwan	0800 047 866
Other AP Countries	(65) 6375 8100

Europe & Middle East

Austria	0800 001122
Belgium	0800 58580
Finland	0800 523252
France	0805 980333
Germany	0800 6270999
Ireland	1800 832700
Israel	1 809 343051
Italy	800 599100
Luxembourg	+32 800 58580
Netherlands	0800 0233200
Russia	8800 5009286
Spain	800 000154
Sweden	0200 882255
Switzerland	0800 805353
	Opt. 1 (DE)
	Opt. 2 (FR)
	Opt. 3 (IT)
United Kingdom	0800 0260637

For other unlisted countries:

www.keysight.com/find/contactus
(BP-9-7-17)

DEKRA Certified
ISO 9001 Quality Management System

www.keysight.com/go/quality

Keysight Technologies, Inc.
DEKRA Certified ISO 9001:2015
Quality Management System



This information is subject to change without notice.
© Keysight Technologies, 2010-2018
Published in USA, May 8, 2018
5968-9726EN
www.keysight.com