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

<table>
<thead>
<tr>
<th>Model Number</th>
<th>E3631A</th>
<th>E3632A</th>
<th>E3633A</th>
<th>E3634A</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC output</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rating (0 to 40 ºC)</td>
<td>0 to +6 V, 0 to 5 A</td>
<td>0 to +25 V, 0 to 1 A</td>
<td>0 to +25 V, 0 to 1 A</td>
<td>0 to 25 V/7 A or 0 to 50 V/4 A</td>
</tr>
<tr>
<td>Load regulation ± (% of output + offset)</td>
<td>&lt; 0.01% + 2 mV</td>
<td>&lt; 0.01% + 250 µA</td>
<td>&lt; 0.01% + 2 mV</td>
<td>&lt; 0.01% + 250 µA</td>
</tr>
<tr>
<td>Line regulation ± (% of output + offset)</td>
<td>&lt; 0.01% + 2 mV</td>
<td>&lt; 0.01% + 250 µA</td>
<td>&lt; 0.01% + 2 mV</td>
<td>&lt; 0.01% + 250 µA</td>
</tr>
<tr>
<td>Ripple and noise (20 Hz to 20 MHz)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal mode voltage</td>
<td>&lt; 350 µVrms/2 mVpp</td>
<td>&lt; 350 µVrms/3 mVpp</td>
<td>&lt; 500 µVrms/3 mVpp</td>
<td></td>
</tr>
<tr>
<td>Normal mode current</td>
<td>&lt; 2 mArms</td>
<td>&lt; 500 µArms</td>
<td>&lt; 2 mArms</td>
<td></td>
</tr>
<tr>
<td>Common mode current</td>
<td>&lt; 1.5 µArms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accuracy1 12 months (25 ºC + 5 ºC), ± (% of output + offset)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Programming</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage</td>
<td>0.1% + 5 mV</td>
<td>0.05% + 20 mV</td>
<td>0.05% + 10 mV</td>
<td></td>
</tr>
<tr>
<td>Current</td>
<td>0.2% + 10 mA</td>
<td>0.15% + 4 mA</td>
<td>0.2% + 10 mA</td>
<td></td>
</tr>
<tr>
<td>Readback²</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage</td>
<td>0.1% + 5 mV</td>
<td>0.05% + 10 mV</td>
<td>0.05% + 5 mV</td>
<td></td>
</tr>
<tr>
<td>Current</td>
<td>0.2% + 10 mA</td>
<td>0.15% + 4 mA</td>
<td>0.15% + 5 mA</td>
<td></td>
</tr>
<tr>
<td>Resolution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program</td>
<td>0.5 mV/0.5 mA</td>
<td>1.5 mV/0.1 mA</td>
<td>1 mV/0.5 mA</td>
<td>1 mV/1 mA</td>
</tr>
<tr>
<td>Readback</td>
<td>0.5 mV/0.5 mA</td>
<td>1.5 mV/0.1 mA</td>
<td>0.5 mV/0.1 mA</td>
<td>0.5 mV/1 mA</td>
</tr>
<tr>
<td>Meter</td>
<td>1 mV/1 mA</td>
<td>10 mV/1 mA</td>
<td>1 mV/1 mA</td>
<td>1 mV/1 mA (≤ 10A), 10 mA (≤ 10 A)</td>
</tr>
<tr>
<td>Transient response</td>
<td>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</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Command processing time³</td>
<td>&lt; 50 msec</td>
<td></td>
<td>&lt; 100 msec</td>
<td></td>
</tr>
<tr>
<td>OVP/OCP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accuracy ± (% of output + offset)</td>
<td>N/A</td>
<td>0.5% + 0.5 V/0.5% + 0.5 A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activation time</td>
<td>N/A</td>
<td>1.5 msec, OVP ≥3 V/≤ 10 mV, OVP &lt; 3 V and OCP &lt;10 msec</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature coefficient per ºC (% of output + offset)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage</td>
<td>0.01% + 2 mV</td>
<td>0.01% + 3 V</td>
<td>0.01% + 3 V</td>
<td></td>
</tr>
<tr>
<td>Current</td>
<td>0.02% + 3 mA</td>
<td>0.02% + 0.5 mA</td>
<td>0.02% + 3 mA</td>
<td></td>
</tr>
<tr>
<td>Stability, constant load &amp; temperature ± (% of output + offset), 8 hrs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage</td>
<td>0.03% + 1 mV</td>
<td>0.02% + 2 mV</td>
<td>0.02% + 1 mV</td>
<td></td>
</tr>
<tr>
<td>Current</td>
<td>0.1% + 3 mA</td>
<td>0.06% + 1 mA</td>
<td>0.1% + 1 mA</td>
<td></td>
</tr>
<tr>
<td>Remote Sense (max. voltage in each load lead)</td>
<td>N/A</td>
<td>1 V</td>
<td>0.7 V</td>
<td></td>
</tr>
<tr>
<td>Voltage programming speed, to within 1% of total excursion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up Full load</td>
<td>11 msec</td>
<td>50 msec</td>
<td>50 msec</td>
<td>95 msec</td>
</tr>
<tr>
<td>No load</td>
<td>10 msec</td>
<td>20 msec</td>
<td>20 msec</td>
<td>45 msec</td>
</tr>
<tr>
<td>Down Full load</td>
<td>13 msec</td>
<td>45 msec</td>
<td>45 msec</td>
<td>30 msec</td>
</tr>
<tr>
<td>No load</td>
<td>200 msec</td>
<td>400 msec</td>
<td>400 msec</td>
<td>450 msec</td>
</tr>
</tbody>
</table>

1. Accuracy specifications are valid after a 1-hour warm-up and calibration at 25 ºC.
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 ± 10%  
Opt. 0EM 115 Vac ± 10%  
Opt. 0E9 100 Vac ± 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
myKeysight
www.keysight.com/find/mykeysight
A personalized view into the information most relevant to you.

www.axiestandard.org
AdvancedTCA® Extensions for Instrumentation and Test (AXIe) is an open standard that extends the AdvancedTCA for general purpose and semiconductor test. Keysight is a founding member of the AXIe consortium. ATCA®, AdvancedTCA®, and the ATCA logo are registered US trademarks of the PCI Industrial Computer Manufacturers Group.

www.lxistandard.org
LAN eXtensions for Instruments puts the power of Ethernet and the Web inside your test systems. Keysight is a founding member of the LXI consortium.

www.pxisa.org
PCI eXtensions for Instrumentation (PXI) modular instrumentation delivers a rugged, PC-based high-performance measurement and automation system.

Three-Year Warranty
www.keysight.com/find/ThreeYearWarranty
Keysight’s commitment to superior product quality and lower total cost of ownership. The only test and measurement company with three-year warranty standard on all instruments, worldwide.

Keysight Assurance Plans
www.keysight.com/find/AssurancePlans
Up to five years of protection and no budgetary surprises to ensure your instruments are operating to specification so you can rely on accurate measurements.

www.keysight.com/go/quality
Keysight Technologies, Inc.
DEKRA Certified ISO 9001:2008
Quality Management System

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 1 800 112 929
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 0280637
For other unlisted countries: www.keysight.com/find/contactus

(BP-09-23-14)