

# Keysight Technologies

## E3620A and E3630A

### Non-programmable DC Power Supplies

#### Data Sheet



## Reliable Power, Repeatable Results

- Linear power supply
- Dual or triple output
- 10-turn voltage and current control
- Low noise and excellent regulation



## Affordable, Full-Featured Benchtop Power Supplies Provide Excellent Performance and Flexibility

### Multiple-output non-programmable models

The Keysight Technologies, Inc. E3620A and E3630A low-cost benchtop power supplies give you the performance of system power supplies at a decent price. Both supplies provide clean power with excellent regulation and a fast transient response.

With multiple supplies in a compact unit, the E3620A and E3630A provide excellent performance while saving space on your bench. Both instruments feature a tight 0.01 percent line and load regulation and a low normal mode noise specification of less than 0.35 mV to ensure clean power for precision circuitry. With a common mode current specification of less than 1  $\mu$ A, both multiple-output power supplies minimize the power line current injection.

The E3620A and E3630A feature separate digital panel meters so you can monitor the voltage and current simultaneously. They also protect your DUT against overload and short-circuit damage.

Smooth turn-on and turn-off transitions keep power spikes out of your circuits. Auto-tracking permits equal or proportional voltage sharing, and allows control of output voltage from one master unit. The master and slave supplies have the same output polarity with respect to a common bus or ground. This operation is useful where simultaneous turn-up, turn-down or proportional control of all power supplies is required.

### E3620A dual-output power supply

The 50-watt E3620A dual-output power supply provides two 0 V to 25 Vdc outputs with the maximum current of 1 A to satisfy most bench requirements. The outputs are completely independent and isolated.

### E3630A triple-output power supply with auto-tracking feature

The 35-watt E3630A triple-output power supply provides three DC outputs: 0 to 6 V with a maximum current of 1 to 2.5 A and 0 to 20 V and 0 to  $\pm$ 20 V with a maximum current of 0.5 A. An auto-tracking feature lets you use one voltage control to adjust the +20 V and  $\pm$ 20 V outputs simultaneously. The outputs track each other to within 1 percent, making it easy to adjust the power supply for circuits requiring balanced voltages.

## Specifications

|                                    | <b>E3620A</b>                                                                                                       | <b>E3630A</b>                                |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| Features                           | Isolated dual outputs, 10 turn pots CV, CL                                                                          | Tracking, CV, CL ( $\pm 20$ V) CV, CF (+6 V) |
| Number of outputs                  | 2                                                                                                                   | 3                                            |
| Number of output ranges            | 1                                                                                                                   | 1                                            |
| DC output rating                   | 25 V, 1 A<br>25 V, 1 A                                                                                              | +6 V, 2.5 A<br>+20 V, 0.5 A<br>–20 V, 0.5 A  |
| Load and line regulation           | < 0.01% + 2 mV                                                                                                      |                                              |
| Ripple and Noise (20 Hz to 20 MHz) |                                                                                                                     |                                              |
| Normal mode voltage                | < 350 $\mu$ Vrms, < 1.5 mVpp                                                                                        |                                              |
| Normal mode current                | –                                                                                                                   |                                              |
| Common mode current                | < 1 $\mu$ Arms                                                                                                      |                                              |
| Transient response time            | < 50 $\mu$ sec following a change in output current from full load to half load for output to recover within: 15 mV |                                              |
| Meter accuracy                     | $\pm 0.5\%$ + 2 counts at 25 °C $\pm 5$ °C                                                                          |                                              |
| Meter resolution                   |                                                                                                                     |                                              |
| Voltage                            | 10 mV (0–20 V), 100 mV (> 20 V)                                                                                     | 10 mV                                        |
| Current                            | 1 mA                                                                                                                | 10 mA                                        |
| Isolation                          | 240 Vdc                                                                                                             |                                              |

## Supplemental Characteristics

|                                | <b>E3620A</b>                                                                                                                                                                             | <b>E3630A</b>                                                    |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| Control mode                   | CV/CL                                                                                                                                                                                     | CV/CL ( $\pm 20$ V)<br>CV/CF (+ 6 V)                             |
| Temperature coefficient per °C |                                                                                                                                                                                           |                                                                  |
| Voltage                        | < 0.02% + 1 mV                                                                                                                                                                            |                                                                  |
| Current                        | –                                                                                                                                                                                         |                                                                  |
| Output Drift                   |                                                                                                                                                                                           |                                                                  |
| Voltage                        | Less than 0.1% + 5 mV total drift for 8 hours after initial warm-up of 30 minutes                                                                                                         |                                                                  |
| Current                        | N/A                                                                                                                                                                                       |                                                                  |
| Temperature range              | Derate output current 50% between 40 °C to 55 °C                                                                                                                                          |                                                                  |
| Cooling                        | Convection cooling                                                                                                                                                                        |                                                                  |
| Isolation                      | $\pm 240$ Vdc                                                                                                                                                                             |                                                                  |
| AC Input                       | 100 Vac $\pm 10\%$ , 47–63 Hz (opt. 0E9)<br>115 Vac $\pm 10\%$ , 47–63 Hz (std)<br>230 Vac $\pm 10\%$ , 47–63 Hz (0E3)                                                                    |                                                                  |
| Weight                         | 5.0 kg (11.0 lbs) net, 6.25 kg (13.8 lbs) shipping                                                                                                                                        | 3.8 kg (8.4 lbs) net, 5.1 kg (11.3 lbs) shipping                 |
| Size                           | 88.1 mm H x 212.3 mm W x 392.4 mm D<br>3.5" H x 8.4" W x 15.4" D                                                                                                                          | 88.1 mm H x 212.3 mm W x 318.4 mm D<br>3.5" H x 8.4" W x 12.5" D |
| Warranty                       | Three year for E3600 Series power supplies<br>Three months for standard shipped accessories                                                                                               |                                                                  |
| Product regulation             | Certified to CSA 22.2 No. 231; conforms to IEC 1010-1; carries CE mark; complies with CISPR-11, Group 1, Class A, KC South Korean EMC Mark, Canadian ICES/NMB-001, Australian C Tick Mark |                                                                  |

### Ordering information

E3620A Dual-output power supply  
E3630A Triple-output power supply

### Standard shipped accessories

Product reference CD, 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. 1CM or 34190A rackmount kit\*  
(Only applicable for E3620A)  
Opt. UK6 Commercial calibration  
certificate with test result data  
E3600A-100 Test lead kit

### Manual sets

Please visit  
[www.keysight.com/find/manuals](http://www.keysight.com/find/manuals)  
for the latest revisions of manuals.

### Rackmount kits\*

E3620A  
To rackmount two instruments  
side-by-side  
– Lock-link Kit (P/N 5061-9694)  
– Flange Kit (P/N 5063-9212) or 34191A

To rackmount one or two instruments in  
a sliding support shelf  
– Support Shelf (P/N 5063-9255)  
– Slide Kit (P/N 1494-0015) required  
for support shelf

For a single instrument, also order filler  
panel (P/N 5002-3999)

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

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### myKeysight

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A personalized view into the information most relevant to you.

### Three-Year Warranty

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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.

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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.

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DEKRA Certified ISO 9001:2008

Quality Management System

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### 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              | 0124 229 2010  |
| 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:

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