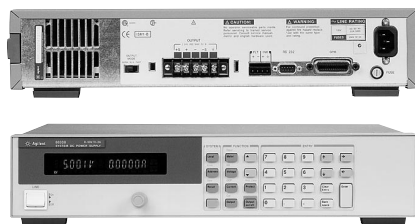


## Single-Output 80-100 W GPIB



6631B - 6634B

Fast, low-noise outputs

Programmable active down-programmer sinks the full rated current

Dual-range, precision low current measurement

Optional isolation and polarity reversal relays

Built-in measurements and advanced programmable features

Protection features to ensure DUT safety

This series of linear-regulated 80-100 W DC power supplies is designed to maximize the throughput of DUTs through the manufacturing test process. Both programming and measurement are optimized for speed. The active downprogrammer can sink up to the full rated current of the power supply, which quickly brings the power supply output to zero volts. The 6630B Series offers many advanced programmable features including stored states and status reporting. Programming is done using industry standard SCPI commands via the GPIB or RS-232. Test system integration is further simplified by using the *VXIPlug&Play* drivers. The optional relays simplify system design and troubleshooting.

The optional front panel binding posts make the 6630B Series convenient on the R&D lab bench. The built-in microamp measurement system helps the engineer to easily and accurately monitor the output voltage and current without a complicated test setup.

### Application Notes:

**10 Practical Tips You Need to Know About Your Power Products**  
5965-8239E

**10 Hints for Using Your Power Supply to Decrease Test Time**  
5968-6359E

### Specifications

(at 0° to 55°C unless otherwise specified)

	6631B	6632B	6633B	6634B
<b>Number of outputs</b>	1	1	1	1
<b>GPIB</b>	Yes	Yes	Yes	Yes
<b>Output ratings</b>				
Voltage	0 to 8 V	0 to 20 V	0 to 50 V	0 to 100 V
Current	0 to 10 A	0 to 5 A	0 to 2 A	0 to 1 A
<b>Programming accuracy at 25°C ±5°C</b>				
Voltage	5 mV	10 mV	20 mV	50 mV
+ Current	0.05% + 4 mA	2 mA	1 mA	0.5 mA
<b>Ripple and noise</b> (20 Hz to 20 MHz, with outputs ungrounded or with either terminal grounded)				
Voltage Normal mode	rms 0.3 mV peak-to-peak 3 mV	rms 0.3 mV peak-to-peak 3 mV	rms 0.5 mV peak-to-peak 3 mV	rms 0.5 mV peak-to-peak 3 mV
Fast mode	rms 1 mV peak-to-peak 10 mV	rms 1 mV peak-to-peak 10 mV	rms 1 mV peak-to-peak 15 mV	rms 2 mV peak-to-peak 25 mV
Current	rms 3 mA	2 mA	2 mA	2 mA
<b>DC measurement accuracy</b> via GPIB or front panel meters with respect to actual output at 25°C ±5°C				
Voltage	0.03% + 2 mV	3 mV	6 mV	12 mV
Low current range	-20 mA to +20 mA 0.1% + 2.5 µA	2.5 µA	2.5 µA	2.5 µA
High current range	+20 mA to +rated I 0.2% + -20 mA to -rated I 0.2% + 1.6 mA	0.5 mA 1.1 mA	0.25 mA 0.85 mA	0.25 mA 0.85 mA
<b>Load regulation</b>				
Voltage	2 mV	2 mV	4 mV	5 mV
Current	2 mA	1 mA	1 mA	1 mA
<b>Line regulation</b>				
Voltage	0.5 mV	0.5 mV	1 mV	1 mV
Current	1 mA	0.5 mA	0.25 mA	0.25 mA
<b>Transient response time</b> Less than 100 µs (50 µs in the fast mode) for the output voltage to recover to its previous level (within 0.1% of the voltage rating of the supply or 20 mV) following any step change in load current of up to 50% of the output current rating of the supply.				

**Understanding Linear Power Supply Operation** (AN1554)  
5989-2291EN

More detailed specifications at [www.agilent.com/find/6630](http://www.agilent.com/find/6630)

Single-Output: 80-100 W GPIB (Continued)

Specifications

(at 0° to 55°C unless otherwise specified)

6631B 6632B 6633B 6634B

Supplemental Characteristics for all model numbers

**DC Floating Voltage:** Output terminals can be floated up to ±240 Vdc maximum from chassis ground

**Remote Sensing:** Up to two volts dropped in each load lead. Add 2 mV to the voltage load regulation specification for each one volt change in the positive output lead due to load current change.

**Command-Processing Time:** Average time required for the output voltage to begin to change following receipt of digital data is 4 ms for the power supplies connected directly to the GPIB. (Display disabled).

**Output-Programming Response Time:** The rise and fall time (10/90% and 90/10%) of the output voltage is less than 2 ms (400 µs in fast mode). The output voltage change settles within 1 LSB (0.025% x rated voltage) of final value in less than 6 ms (2 ms in the fast mode).

**GPIB Interface Capabilities:** IEEE-488.2, SCPI command set and 6630A Series programming compatibility

**Software Driver:** VXIPlug&Play

**Measurement Time:** Average time to make a voltage or current measurement is 50 ms.

**Input Power (full load):** 3.5 A, 250 W

**Regulatory Compliance:** Complies with EMC directive 89/336/EEC (ISM 1B).

**Warranty Period:** One year

**Size:** 425.5 mm W x 88.1 mm H x 364.4 mm D (16.8 in x 3.5 in x 14.3 in).

**Weight:** Net, 12.7 kg (28 lb) net; 15.0 kg (33 lb) shipping

Supplemental Characteristics

(Non-warranted characteristics determined by design and useful in applying the product)

Average programming resolution				
Voltage	2 mV	5 mV	12.5 mV	25 mV
Current	2.5 mA	1.25 mA	0.5 mA	0.25 mA
Sink current	10 A	5 A	2 A	1 A
Sink current tracking				
SCPI mode	0.4% + 4 mA	0.4% + 2 mA	0.4% + 1 mA	0.4% + 0.5 mA
Compatibility mode	-500 mA	-250 mA	-100 mA	-50 mA
Minimum current in constant current mode*				
	40 mA	20 mA	8 mA	4 mA

\*When programming in the 6630A Series language compatibility mode.

Ordering Information

**Opt 100** 87 to 106 Vac, 47 to 63 Hz

**Opt 120** 104 to 127 Vac, 47 to 63 Hz

**Opt 220** 191 to 233 Vac, 47 to 63 Hz

**Opt 230** 207 to 253 Vac, 47 to 63 Hz

**Opt 020** Front-panel Binding Posts (N/A on 6631B)

**Opt 760** Isolation and Reversal Relays, only available at time of order (N/A on 6631B)

\* **Opt 1CM** Rack-mount Kit, p/n 5063-9212

\* **Opt 1CP** Rack-mount Kit with Handles, p/n 5063-9219

**Opt 0L1** Full documentation on CD-ROM, and printed standard documentation package

**Opt 0L2** Extra copy of standard printed documentation package

**Opt 0B0** Full documentation on CD-ROM only

**Opt 0B3** Service Manual

\* Support rails required

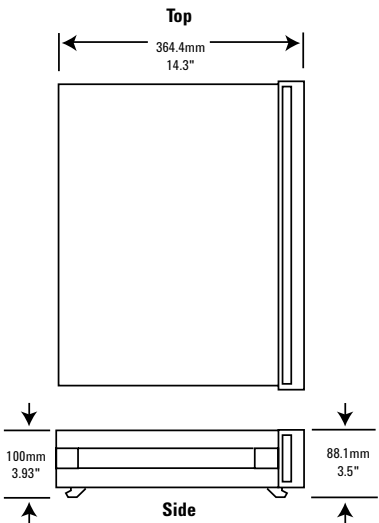
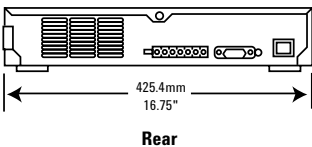
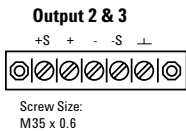
Accessories

p/n 1494-0060 Rack Slide Kit

**E3663AC** Support rails for Agilent rack cabinets

Agilent Models: 6631B, 6632B, 6633B, 6634B

Terminal Strip Detail



More detailed specifications at [www.agilent.com/find/6630](http://www.agilent.com/find/6630)

**Your Requested Excerpt from the  
Agilent System and Bench Instruments Catalog 2006**

The preceding page(s) are an excerpt from the 2006 System and Bench Instruments Catalog. We hope that these pages supply the information that you currently need. If you would like to have further information about the extensive selection of Agilent DC power supplies, please visit [www.agilent.com/find/power](http://www.agilent.com/find/power) to print a copy of the complete catalog, or to request that a copy be sent to you. You will also find a lot of other useful information on this Web site.

In the full System and Bench Instruments Catalog, you will find that Agilent offers much more than DC power supplies. This catalog contains detailed technical and application information on digital multimeters, DC power supplies, arbitrary waveform generators, and many more instruments. If you need basic, clean, power for your lab bench, it's there. In each power product category we have also integrated the capabilities you need for a complete power solution, including extensive measurement and analysis capabilities.

Please give us a call at your local Agilent Technologies sales office, or call a regional office listed, for assistance in choosing or using Agilent power products.

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