



Single-Output: 80-100 W GPIB



6631B - 6634B

- Increase production throughput with fast programming speed
- Active downprogrammer sinks the full rated current
- Protect valuable prototypes with fast protection features
- Accurate and fast built-in measurement system

Specifications

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

| | | 6631B | 6632B | 6633B | 6634B |
|--|---|-----------|-----------|-----------|------------|
| Number of outputs | | 1 | 1 | 1 | 1 |
| GPIB | | Yes | Yes | Yes | Yes |
| Output ratings | | | | | |
| 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 |
| Programming accuracy at 25°C ±5°C | | | | | |
| Voltage | | 5 mV | 10 mV | 20 mV | 50 mV |
| + Current | 0.05% + | 4 mA | 2 mA | 1 mA | 0.5 mA |
| Ripple and noise (20 Hz to 20 MHz, with outputs ungrounded or with either terminal grounded) | | | | | |
| Voltage Normal mode | rms | 0.3 mV | 0.3 mV | 0.5 mV | 0.5 mV |
| | peak-to-peak | 3 mV | 3 mV | 3 mV | 3 mV |
| Fast mode | rms | 1 mV | 1 mV | 1 mV | 2 mV |
| | peak-to-peak | 10 mV | 10 mV | 15 mV | 25 mV |
| Current | rms | 3 mA | 2 mA | 2 mA | 2 mA |
| dc measurement accuracy 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% + | 1 mA | 0.5 mA | 0.25 mA | 0.25 mA |
| | -20 mA to -rated I 0.2% + | 1.6 mA | 1.1 mA | 0.85 mA | 0.85 mA |
| Load regulation | | | | | |
| Voltage | | 2 mV | 2 mV | 4 mV | 5 mV |
| Current | | 2 mA | 1 mA | 1 mA | 1 mA |
| Line regulation | | | | | |
| Voltage | | 0.5 mV | 0.5 mV | 1 mV | 1 mV |
| Current | | 1 mA | 0.5 mA | 0.25 mA | 0.25 mA |
| Transient response time | 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. | | | | |

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.



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

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: Three years

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). See page 103 for more information

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 | 6631B | 6632B | 6633B | 6634B |
|---|-------------|-------------|-------------|---------------|
| 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
- Opt 760 Isolation and Reversal Relays (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 0L2 Additional standard documentation package
- Opt 0B3 Service Manual

* Support rails required

Accessories

- p/ n 1494-0060 Rack Slide Kit
- E3663AC Support rails for Agilent rack cabinets

Your Requested Excerpt from the Agilent Power Products Catalog

The preceding page(s) are an excerpt from the *2002-2003 Power Products 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, ac sources, and dc electronic loads, please visit www.agilent.com/find/power to print a copy of the complete Power Products 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 Power Products Catalog, you will find that Agilent offers much more than basic power generation. If you need basic, clean, power for your lab bench, it's there. But in each product category, we've also integrated the capabilities that you need for a complete power solution, including extensive measurement and analysis capabilities.

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To see a copy of the user's guide, please visit our Web site at www.agilent.com/find/manuals

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Product specifications and descriptions in this document subject to change without notice.



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