High Performance DC Power Supplies...

speed and accuracy for test optimization

Agilent Performance DC Power Supplies provide the features and performance necessary to satisfy the most demanding requirements. For system designers who are striving to shorten test time and maximize production throughput, the Agilent High Performance DC power supplies will help them achieve their goals.

Multiple output power supplies reduce rack space. The advanced programmable capabilities allow for efficient system design and maintenance. Also their programming and measurement accuracy, and their DUT protection features, make them an excellent value for the R&D lab.

Comparison Summary	Agilent Basic DC Power Supplies	Agilent High Performance DC Power Supplies
Output Power	30 W-1500 W	40 W-6600 W
Number of outputs	1-3	1-8
GPIB programming and measurement speed	Moderate	Fast
Output rise/fall time	Moderate	Fast
Convenient 1/2 rack-size for bench-top use	Yes	No
Active Downprogrammer for enhanced test throughput	No	Yes
Stored wake-up state	No	Yes
Programmable Capabilities	Moderate	Extensive
Protection for the DUT	Moderate	Extensive

More detailed specifications at **www.agilent.com/find/power**



6611C - 6614C

Single-Output
40-50 W GPIB

- Small, compact size for bench and system use
- Fast, low-noise outputs
- Dual-range, precision low current measurement
- Built-in measurements and advanced programmable features
- Protection features to ensure DUT safety

This series of linear-regulated 40-50 W DC power supplies is designed to maximize the throughput of DUTs through the manufacturing test process with fast programming and measurement, and also active downprogramming. It 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 VXI*Plug&Play* drivers. The optional relays simplify system design and troubleshooting.

The half-rack size of the 6610A series makes it a convenient DC power supply for 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

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

Specifications (at 0° to 55°C unless otherwise specified)			**6611C**	**6612C**	**6613C**	**6614C**	**6611C-J05** Special Order Option
Number of outputs			1	1	1	1	1
GPIB			Yes	Yes	Yes	Yes	Yes
Output Ratings							
Voltage			0 to 8 V	0 to 20 V	0 to 50 V	0 to 100 V	0 to 10 V
Current			0 to 5 A	0 to 2 A	0 to 1 A	0 to 0.5 A	0 to 5 A
Programming accuracy (at 25°C ±5°C)							
Voltage			5 m V	10 m V	20 m V	50 m V	5 m V
+Current		0.05% +	2 m A	1 m A	0.75 m A	0.5 m A	2 m A
Ripple and noise 20 Hz to 20 MHz, with outputs ungrounded or with either terminal grounded							
Voltage		rms	0.5 mV	0.5 mV	0.5 mV	0.5 mV	0.5 mV
		peak -to-peak	3 mV	3 mV	4 mV	5 mV	3 mV
Normal mode		rms	2 mA	1 mA	1 mA	1 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	2 mV
Low current range	-20 mA to + 20 mA	0.1% +	2.5 µA	2.5 µA	2.5 µA	2.5 µA	2.5 µA
High current range	+20 mA to + rated 1	0.2% +	0.5 mA	0.25 mA	0.2 mA	0.1 mA	0.5 mA
	-20 mA to - rated 1	0.2% +	1.1 mA	0.85 mA	0.8 mA	0.7 mA	1.1 mA
Load regulation							
Voltage			2 mV	2 mV	4 mV	5 mV	2 mV
Current			1 mA	0.5 mA	0.5 mA	0.5 mA	1 mA
Line regulation							
Voltage			0.5 mV	0.5 mV	1 mV	1 mV	0.5 mV
Current			0.5 mA	0.5 mA	0.25 mA	0.25 mA	0.5 mA

Transient response time Less than 100 µs for the output to recover to its previous level (within 0.1% of the voltage rating of the supply or 20 mV, whichever is greater) following any step change in load current of up to 50% of the output current rating of the supply

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	3 mV
Current	1.25 mA	0.5 mA	0.25 mA	0.125 mA	1.25 mA
Sink current	3 A	1.2 A	0.6 A	0.3 A	3 A

More detailed specifications at **www.agilent.com/find/6610**

Single-Output: 40-50 W GPIB (Continued)

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 postive 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 date is 4 ms for the power supplies connected directly to the GPIB.

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

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

Input Power: (full load): 1.6 A, 100 W (6611C: 2.2 A, 120 W)

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

Software Driver: VXI*Plug&Play*

Warranty Period: One year

Size: 212.8 mm W x 88.1 mm H x 368.3 mm D (8.4 in x 3.5 in x 14.5 in)

Weight: 8.2 kg (18.16 lb) net; 10.6 kg (23.5 lb) shipping

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 760 Isolation and Reversal relays

* **Opt ICM** Rack-mount Kit (p/n 5063-9240)

* **Opt AXS** Rack-mount Kit side-by-side mounting of two units, Lock-link Kit p/n 5061-9694; Flange Kit p/n 5062-3974

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

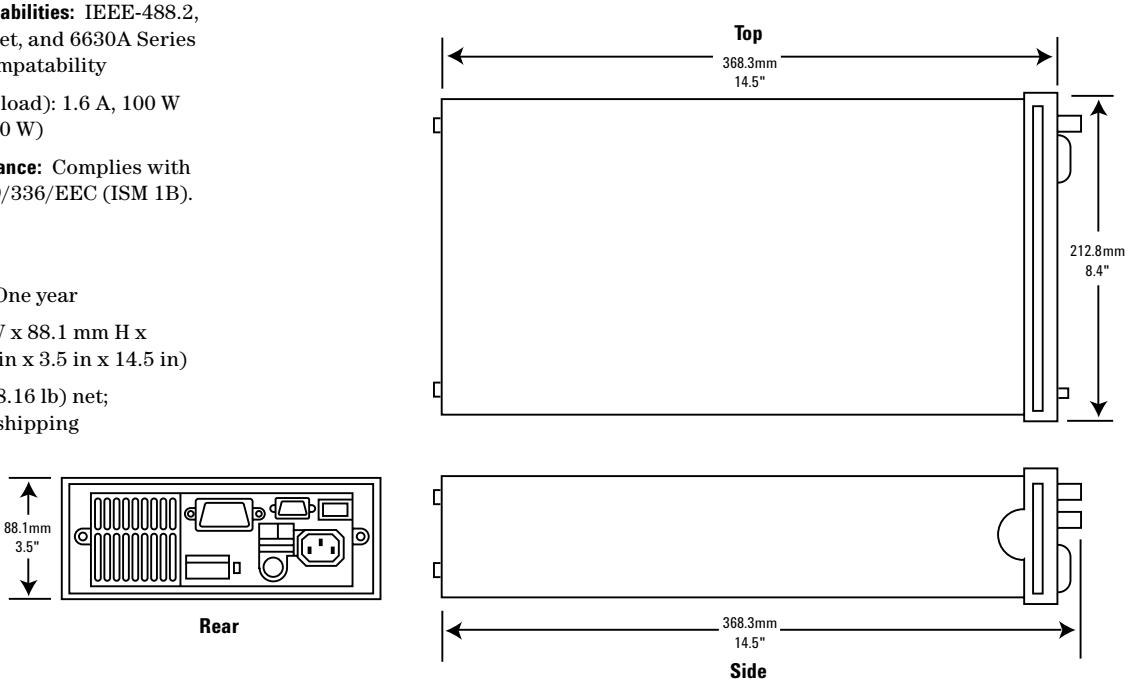
Accessories

Rack-mount and slide for two side-by-side units of different lengths p/n 1494-0015, 5063-9255 and filler panel 5002-3999

Rack-mount slide and support for one instrument p/n 1494-0015, 5063-9255 and filler panel 5002-3999

E3663AC Support rails for Agilent rack cabinets

Agilent Models: 6611C, 6612C, 6613C, 6614C



More detailed specifications at **www.agilent.com/find/6610**

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** 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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