



# Single-Output: 40-50 W GPIB



6611C - 6614C

- Increase production throughput with fast programming speed and fast downprogramming time
- Protect valuable prototypes with fast protection features
- Accurate and fast built-in measurement system

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 *VXIPlug&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.

## Specifications

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

	6611C	6612C	6613C	6614C	6611C-J05 Special Order Option
<b>Number of outputs</b>	1	1	1	1	1
<b>GPIB</b>	Yes	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	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
<b>Programming accuracy (at 25°C ±5°C)</b>					
Voltage	5 mV	10 mV	20 mV	50 mV	5 mV
+Current	0.05% +	2 mA	1 mA	0.75 mA	0.5 mA
<b>Ripple and noise</b> 20 Hz to 20 MHz, with outputs ungrounded or with either terminal grounded					
Voltage	rms 0.5 mV peak-to-peak 3 mV	0.5 mV 3 mV	0.5 mV 4 mV	0.5 mV 5 mV	0.5 mV 3 mV
Normal mode	rms 2 mA	1 mA	1 mA	1 mA	2 mA
<b>dc measurement accuracy</b> via GPIB or front-panel meters 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 1	0.2% +	0.5 mA	0.25 mA	0.2 mA	0.1 mA
-20 mA to - rated 1	0.2% +	1.1 mA	0.85 mA	0.8 mA	0.7 mA
<b>Load regulation</b>					
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
<b>Line regulation</b>					
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
<b>Transient response time</b> 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					
<b>Supplemental Characteristics</b>		(Non-warranted characteristics determined by design and useful in applying the product)			
<b>Average programming resolution</b>					
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
<b>Sink current</b>	3 A	1.2 A	0.6 A	0.3 A	3 A



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

### Supplemental Characteristics for all model numbers

**dc Floating Voltage:** Output terminals can be floated up to  $\pm 240$  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.

**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 compatibility

**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).

**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)  
See page 102 for more details

**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 0L2** Additional standard  
documentation package

**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

### 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](http://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.

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

### Keep up to date with Agilent's Test and Measurement Email Updates

As an Email Update subscriber, you will receive periodic customized email updates that match the areas of interest that you have specified. Your update will include products and services, applications and support information, events, and promotions. Sign up today at [www.agilent.com/find/emailupdates](http://www.agilent.com/find/emailupdates).

Check off dc power supplies, ac power sources or electronic loads on your registration form, and we will promptly let you know what's new in power products! Our Privacy Statement at [www.agilent.com/go/privacy](http://www.agilent.com/go/privacy) describes our commitment to you regarding your privacy.

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

By internet, phone, or fax, get assistance with all your test & measurement needs

Online assistance:  
[www.agilent.com/find/assist](http://www.agilent.com/find/assist)

### Phone or Fax

**United States:**  
(tel) 1 800 829 4444

**Canada:**  
(tel) 1 877 894 4414  
(fax) (905) 282-6495

**China:**  
(tel) 800-810-0189  
(fax) 1-0800-650-0121

**Europe:**  
(tel) (31 20) 547 2323  
(fax) (31 20) 547 2390

**Japan:**  
(tel) (81) 426 56 7832  
(fax) (81) 426 56 7840

**Korea:**  
(tel) (82-2) 2004-5004  
(fax) (82-2) 2004-5115

**Latin America:**  
(tel) (305) 269 7500  
(fax) (305) 269 7599

**Taiwan:**  
(tel) 080-004-7866  
(fax) (886-2) 2545-6723

**Other Asia Pacific Countries:**  
(tel) (65) 375-8100  
(fax) (65) 836-0252  
Email: [tm\\_asia@agilent.com](mailto:tm_asia@agilent.com)

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



**Agilent Technologies**