

 Agilent Performance dc Power Supplies speed and accuracy for test optimization

Single-Output: 200 W



6541A-6545A

Protect valuable assemblies with fast protection features

Proven reliability

Low ripple and noise

This reliable series of 200 W dc power supplies can be controlled either from the front panel or via an analog programming voltage. When used in a test system, the fast up and down programming helps decrease test time. Quickly reacting protection features, including fast crowbar, CV/CC mode crossover and over-voltage protection help protect your valuable assemblies from damage. The linear topology produces very low ripple and noise, which allows you to make extremely accurate measurements of the devices which you are testing.

Lab bench use is enhanced by the fan speed control, which helps to minimize the acoustic noise.

Specifications (at 0° to 55° C unless otherwise specified)	6541A	6542A	6543A	6544A	6545A
Number of outputs	1	1	1	1	1
GPIB	No	No	No	No	No
Output ratings					
Output voltage	0 to 8 V	0 to 20 V	0 to 35 V	0 to 60 V	0 to 120 V
Output current (40° C)	0 to 20 A	0 to 10 A	0 to 6 A	0 to 3.5 A	0 to 1.5 A
Maximum current (50° C/55° C)	18 A/17 A	9 A/8.5 A	5.4 A/5.1 A	3.2 A/3 A	1.4 A/1.3 A
Programming accuracy at 25° C ±5° C					
Voltage	0.06% + 5 mV	10 mV	15 mV	26 mV	51 mV
Current	0.14% + 26 mA	13 mA	6.7 mA	4.1 mA	1.7 mA
Ripple and noise					
from 20 Hz to 20 MHz					
Voltage rms	300 µV	300 µV	400 µV	500 µV	700 µV
peak-peak	3 mV	3 mV	4 mV	5 mV	7 mV
Current rms	10 mA	5 mA	3 mA	1.5 mA	1 mA
Load regulation					
Voltage	1 mV	2 mV	3 mV	4 mV	5 mV
Current	1 mA	0.5 mA	0.25 mA	0.25 mA	0.25 mA
Line regulation					
Voltage	0.5 mV	0.5 mV	1 mV	1mV	2 mV
Current	1 mA	0.5 mA	0.25 mA	0.25 mA	0.25 mA
Transient response time	Less than 100 µs for the output voltage 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 rated current				
Supplemental Characteristics	(Non-warranted characteristics determined by design and useful in applying the product)				
Average resolution					
Voltage	2 mV	5 mV	10 mV	15 mV	30 mV
Current	6 mA	3 mA	2 mA	1.2 mA	0.5 mA
OVP	13 mV	30 mV	54 mV	93 mV	190 mV
OVP accuracy	160 mV	400 mV	700 mV	1.2 V	2.4 V



Single-Output: 200 W (Continued)

Supplemental Characteristics for all model numbers

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

Remote Sensing: Up to half the rated output voltage can be dropped in each load lead. The drop in the load leads subtracts from the voltage available for the load.

Output Programming Response Time: The rise and fall time (10/90% and 90/10%) of the output voltage is less than 15 ms. The output voltage change settles within 1 LSB (0.025% x rated voltage) of final value in less than 60 ms.

Down Programming: An active down programmer sinks approximately 20% of the rated output current

Modulation: (Analog programming of output voltage and current)
Input Signal: 0 to -5 V
Input Impedance: 10 k Ohm nominal

ac Input: (ac input frequency 47 to 63 Hz)
Voltage 100 Vac 120 Vac 220 Vac 240 Vac
Current 4.4 A 3.8 A 2.2 A 2.0 A

Input Power: 480 VA, 400 W at full load; 60 W at no load

Regulatory Compliance: Conforms to UL1244 and IEC 61010-1.

Size: 425.5 mm W x 88.1 mm H x 439 mm D (16.75 in x 3.5 in x 17.3 in)
See page 101 for more details

Weight: Net, 14.2 kg (31.4 lb); shipping, 16.3 kg (36 lb)

Warranty Period: Three years

Specifications

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

6541A-J04

Special Order Option

6544A-J09

Special Order Option

6545A-J05

Special Order Option

	6541A-J04 Special Order Option	6544A-J09 Special Order Option	6545A-J05 Special Order Option
Number of outputs	1	1	1
GPIB	No	No	No
Output ratings			
Output voltage	13 V	70 V	150 V
Output current (40° C)	15.3 A	3 A	1.2 A
Maximum current (50° C/55° C)	13.77 A/13 A	2.7 A/2.55 A	1.08 A/1.02 A
Programming accuracy at 25° C $\pm 5^{\circ}$ C			
Voltage	0.06% + 8.5 mV	31 mV	65 mV
Current	0.15% + 21 mA	4.1 mA	1.7 mA
Ripple and noise			
from 20 Hz to 20 MHz			
Voltage rms	300 μ V	600 μ V	900 μ V
peak-peak	3 mV	6 mV	9 mV
Current rms	8 mA	1.5 mA	1 mA
Load regulation			
Voltage	1 mV	4.5 mV	7 mV
Current	1 mA	0.25 mA	0.25 mA
Line regulation			
Voltage	0.5 mV	1.5 mV	2.5 mV
Current	1 mA	0.25 mA	0.25 mA
Transient response time	Less than 100 μ s for the output voltage 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 rated current		

Supplemental Characteristics

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

	6541A-J04 Special Order Option	6544A-J09 Special Order Option	6545A-J05 Special Order Option
Average resolution			
Voltage	3.5 mV	1.4 mV	37.5 mV
Current	5 mA	1.2 mA	0.5 mA
OVP	23 mV	110 mV	250 mV
OVP accuracy	260 mV	1.5 mV	3 V

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 240 209 to 250 Vac, 47 to 63 Hz
- * Opt 908 Rack-mount Kit (p/n 5063-9212)
- * Opt 909 Rack-mount Kit w/ Handles (p/n 5063-9219)
- Opt 0L2 Extra Standard Documentation Package
- Opt 0B3 Service Manual
- Opt 0B0 No documentation package
- * Support rails required

Accessories

- p/n 1494-0060 Accessory 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.

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.

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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 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

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

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



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