

Single-Output 200 W



6541A-6545A

- Front panel and analog control of output voltage and current
- Fast, low-noise outputs
- Fan-speed control to minimize acoustic noise
- Protection features to ensure DUT safety

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	1 mV	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)

	6541A	6542A	6543A	6544A	6545A
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)

Application Notes:

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

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

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)

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

Warranty Period: One year

Specifications

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

	6541A-J04 Special Order Option	6544A-J09 Special Order Option	6545A-J05 Special Order Option
Number of outputs	1	1	1
GPIO	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 ±5°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 µV	600 µV	900 µV
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 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	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

Single-Output: 200 W (Continued)

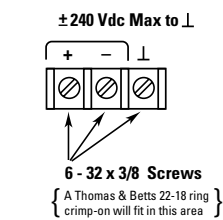
Ordering Information

- 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 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

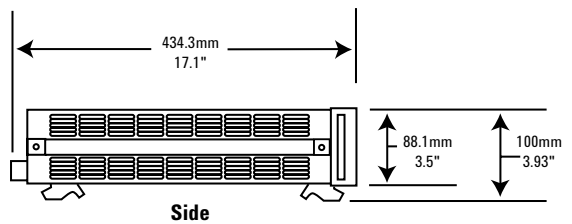
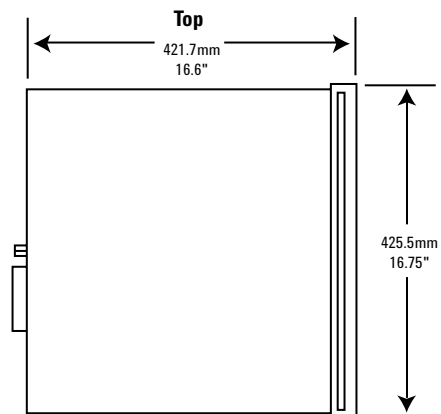
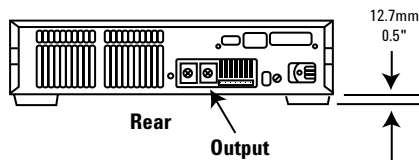
Accessories

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

Agilent Models: 6541A, 6542A, 6543A, 6544A, 6545A



Terminal Screw Size: m4 x 0.7 x 8mm



More detailed specifications at www.agilent.com/find/6540

**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.

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