

# 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)   |  |  |  |  |
|---|--|--|--|--|
| GPIB No No No No No Output ratings  |  |  |  |  |
| Output ratings  |  |  |  |  |
| 1 0   |  |  |  |  |
| Output voltage  |  |  |  |  |
| • •   | V  |  |  |  |
| Output current (40° C)  | 4  |  |  |  |
| 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 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 gr following any step change in load current of up to 50% of rated current | (within 0.1% of the voltage rating of the supply or 20 mV, whichever is greater) |  |  |  |
| 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  $\pm 240~{\rm Vdc}$  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

 $\begin{tabular}{ll} \textbf{Modulation:} & (Analog programming of output voltage and current) \\ \textbf{Input Signal:} & 0 to -5 V \\ \textbf{Input Impedance:} & 10 k Ohm nominal \\ \end{tabular}$ 

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,

 $16.3 \, \mathrm{kg} \, (36 \, \mathrm{lb})$ 

Warranty Period: Three years

| Specifications<br>(at 0° to 55°C unless<br>otherwise specified) | 6541A-<br>J04<br>Special Order<br>Option  | 6544A-<br>J09<br>Special Order<br>Option | 6545A-<br>J05<br>Special Order<br>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 ±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                                      |  |

#### **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 OL2** 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

Power Products Catalog 2002-2003

For more detailed specifications see the product manual at www.agilent.com/find/power

## Your Requested Excerpt from the Agilent Power Products Catalog

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