

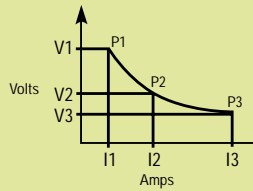


# Single-Output, Autoranging: 200 W and 1000 W



6010A, 6011A, 6012B, 6015A

Autoranging Output:



- Save rack space by using fewer outputs
- Reduce cost by using fewer power supplies
- Control with external voltage

This series of dc power supplies take the place of multiple power supplies on your test bench by providing maximum power at a variety of operating points. They have ten-turn front panel pots to allow precise local control. These power supplies also may be connected in auto-parallel or auto-series with their corresponding GPIB unit (6030 Series), as part of a test system.

### Supplemental Characteristics for all model numbers

**Remote Sensing:** Up to 2 V drop in each lead. Voltage regulation specification met with up to 0.5 V drop, but degrades for greater drops.

**Modulation:** (analog programming of output voltage and current)

**Input signal:** 0 to 5 V or 0 to 4 k Ohms

**Regulatory Compliance:** Certified to CSA556B; conforms to IEC 61010-1.

**Size:** 425.5 mm W x 132.6 mm H x 516.4 mm D (16.75 in x 5.25 in x 20.33 in). See page 99 for more details

**Warranty:** One year

### Ordering Information

- Opt 120 104 to 127 Vac, 47 to 63 Hz
- Opt 220 191 to 233 Vac, 48 to 63 Hz
- Opt 240 209 to 250 Vac, 48 to 63 Hz
- \* Opt 908 Rack-mount Kit (p/n 5062-3977)
- \* Opt 909 Rack-mount Kit with Handles. (p/n 5062-3983)
- Opt 0L2 Extra Standard Documentation Package
- Opt 0B0 No documentation package
- Opt J01 Stabilization for loads up to 10 Henries

## Specifications

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

|  | 6010A  | 6011A           | 6012B           | 6015A           |
|--|--|-----------------|-----------------|-----------------|
| <b>Number of outputs</b>   | 1  | 1               | 1               | 1               |
| <b>GPIB</b>  | No   | No              | No              | No              |
| <b>Output ratings</b>  |  |                 |                 |                 |
| Voltage  | 0 to 200 V   | 0 to 20 V       | 0 to 60 V       | 0 to 500 V      |
| Current  | 0 to 17 A  | 0 to 120 A      | 0 to 50 A       | 0 to 5 A        |
| <b>Maximum power</b>   |  |                 |                 |                 |
| Watts  | 1,200 W  | 1,064 W         | 1,200 W         | 1,050 W         |
| <b>Autoranging output</b>  | V1, I <sub>1</sub>   | 20 V, 50 A      | 60 V, 17.5 A    | 500 V, 2 A      |
|  | V2, I <sub>2</sub>   | 120 V, 10 A     | 14 V, 76 A      | 350 V, 3 A      |
|  | V3, I <sub>3</sub>   | 60 V, 17 A      | 7 V, 120 A      | 200 V, 5 A      |
| <b>Ripple and noise, 20 Hz to 20 MHz</b>   |  |                 |                 |                 |
| Voltage rms  | 22 mV  | 8 mV            | 8 mV            | 50 mV           |
| p-p  | 50 mV  | 50 mV           | 40 mV           | 160 mV          |
| Current rms  | 15 mA  | 120 mA          | 25 mA           | 50 mA           |
| <b>Load regulation</b>   |  |                 |                 |                 |
| Voltage  | 0.01%+   | 5 mV            | 3 mV            | 5 mV            |
| Current  | 0.01%+   | 10 mA           | 15 mA           | 10 mA           |
| <b>Transient response time</b>   |  |                 |                 |                 |
| 10% step change  |  |                 |                 |                 |
| Time   | 2 ms   | 2 ms            | 2 ms            | 5 ms            |
| Level  | 150 mV   | 100 mV          | 100 mV          | 200 mV          |
| <b>Supplemental Characteristics</b>  | (Non-warranted characteristics determined by design that are useful in applying the product) |                 |                 |                 |
| <b>Programming resolution</b>  |  |                 |                 |                 |
| Voltage  | 50 mV  | 5 mV            | 15 mV           | 125 mV          |
| Current  | 4.25 mA  | 30 mA           | 12.5 mA         | 1.25 mA         |
| <b>dc floating voltage</b><br>either terminal can be grounded or floated from chassis ground | ±550 V   | ±240 V          | ±240 V          | ±550 V          |
| <b>ac input current</b>  | 100 Vac  | 24 A            | 24 A            | 24 A            |
|  | 120 Vac  | 24 A            | 24 A            | 24 A            |
|  | 220 Vac  | 15 A            | 15 A            | 15 A            |
|  | 240 Vac  | 14 A            | 14 A            | 14 A            |
| <b>Weight</b>  |  |                 |                 |                 |
| Net  | 16.3 kg (36 lb)  | 17.2 kg (38 lb) | 16.3 kg (36 lb) | 16.3 kg (36 lb) |
| Shipping   | 21.8 kg (48 lb)  | 22.7 kg (50 lb) | 21.8 kg (48 lb) | 21.8 kg (48 lb) |

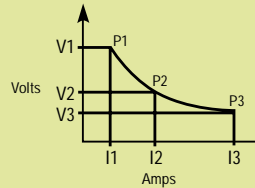
A line cord option must be specified. See pages 93-98 for ordering information. \* Support rails required

**Accessories**  
1494-0060 Rack Slide Kit  
E3663AC Support rails for Agilent rack cabinets



# Single-Output, Autoranging: 200 W and 1000 W GPIB

Autoranging Output:



Save rack space by using fewer outputs  
Reduce cost by using fewer power supplies



6030A, 6031A,  
6032A, 6035A

This series of 200 watt and 1000 watt dc power supplies take the place of multiple power supplies in your test system by providing maximum power at a variety of operating points.

Industry standard SCPI commands and *VXIPlug&Play* drivers make system integration easy. Using the serial link, up to 16 power supplies can be connected through one GPIB address. These power supplies have excellent electrical efficiency, making them a good choice for large systems.

## Specifications

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

|   |                    | 6030A             | 6031A            | 6032A            | 6033A           | 6035A            | 6038A            |
|---|--------------------|-------------------|------------------|------------------|-----------------|------------------|------------------|
| <b>Number of outputs</b>                          |                    | 1                 | 1                | 1                | 1               | 1                | 1                |
| <b>GPIB</b>                                       |                    | Yes               | Yes              | Yes              | Yes             | Yes              | Yes              |
| <b>Output ratings</b>                             |                    |                   |                  |                  |                 |                  |                  |
| Output Voltage                                    |                    | 0 to 200 V        | 0 to 20 V        | 0 to 60 V        | 0 to 20 V       | 0 to 500 V       | 0 to 60 V        |
| Output Current                                    |                    | 0 to 17 A         | 0 to 120 A       | 0 to 50 A        | 0 to 30 A       | 0 to 5 A         | 0 to 10 A        |
| <b>Maximum power watts</b>                        |                    | 1,200 W           | 1,064 W          | 1,200 W          | 242 W           | 1,050 W          | 240 W            |
| <b>Autoranging output</b>                         | V1, I <sub>1</sub> | 200 V, 5 A        | 20 V, 50 A       | 60 V, 17.5 A     | 20 V, 10 A      | 500 V, 2 A       | 60 V, 3.3 A      |
|   | V2, I <sub>2</sub> | 120 V, 10 A       | 14 V, 76 A       | 40 V, 30 A       | 14 V, 17.2 A    | 350 V, 3 A       | 40 V, 6 A        |
|   | V3, I <sub>3</sub> | 60 V, 17 A        | 7 V, 120 A       | 20 V, 50 A       | 6.7 V, 30 A     | 200 V, 5 A       | 20 V, 10 A       |
| <b>Programming accuracy</b><br>at 25°C ±5°C       | Voltage            | 0.035%<br>+145 mV | 0.035%<br>+15 mV | 0.035%<br>+40 mV | 0.035%<br>+9 mV | 0.25%<br>+400 mV | 0.035%<br>+40 mV |
|   | Current            | 0.2%<br>+25 mA    | 0.25%<br>+250 mA | 0.2%<br>+85 mA   | 0.15%<br>+20 mA | 0.3%<br>+63 mA   | 0.09%<br>+10 mA  |
| <b>Ripple and noise</b><br>20 Hz to 20 MHz        | Voltage rms<br>p-p | 22 mV<br>50 mV    | 8 mV<br>50 mV    | 8 mV<br>40 mV    | 3 mV<br>30 mV   | 50 mV<br>160 mV  | 3 mV<br>30 mV    |
|   | Current rms        | 15 mA             | 120 mA           | 25 mA            | 30 mA           | 50 mA            | 5 mA             |
| <b>Readback accuracy</b><br>at 25°C ±5°C          | Voltage            | 0.08%<br>+80 mV   | 0.08%<br>+7 mV   | 0.08%<br>+20 mV  | 0.07%<br>+6 mV  | 0.5%<br>+300 mV  | 0.07%<br>+50 mV  |
|   | Current            | 0.36%<br>+15 mA   | 0.4%<br>+100 mA  | 0.36%<br>+35 mA  | 0.3%<br>+25 mA  | 0.5%<br>+50 mA   | 0.2%<br>+11 mA   |
| <b>Load regulation</b>                            |                    |                   |                  |                  |                 |                  |                  |
| Voltage   | 0.01%+             | 5 mV              | 3 mV             | 5 mV             | 2 mV            | 13 mV            | 3 mV             |
| Current   | 0.01%+             | 10 mA             | 15 mA            | 10 mA            | 9 mA            | 35 mA            | 5 mA             |
| <b>Line regulation</b>                            |                    |                   |                  |                  |                 |                  |                  |
| Voltage   | 0.01%+             | 5 mV              | 2 mV             | 3 mV             | 1 mV            | 13 mV            | 2 mV             |
| Current   | 0.01%+             | 5 mA              | 25 mA            | 10 mA            | 6 mA            | 18 mA            | 2 mA             |
| <b>Transient response time</b><br>10% step change | Time               | 2 ms              | 2 ms             | 2 ms             | 1 ms            | 5 ms             | 1 ms             |
|   | Level              | 150 mV            | 100 mV           | 100 mV           | 50 mV           | 200 mV 7         | 5 mV             |



## Autoranging: 200 W and 1000 W GPIB (Continued)

### Specifications

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

6030A 6031A 6032A 6033A 6035A 6038A

#### Supplemental Characteristics for all model numbers

**Remote Sensing:** Up to 2 V drop in each lead. Voltage regulation specification met with up to 0.5 V drop, but degrades for greater drops.

**Modulation:** (analog programming of output voltage and current)  
Input signal: 0 to 5 V or 0 to 4 k Ohms

**Size:** 6030A–32A, 6035A:  
425.5 mm W x 132.6 mm H x 503.7 mm D  
(16.75 in x 5.25 in x 19.83 in).  
6033A, 6038A:  
212.3 mm W x 177.0 mm H x 516.4 mm D  
(8.36 in x 6.97 in x 17.87 in).  
See page 99 for more details.

**Warranty:** One year

#### Ordering Information

**Opt 001** Front panel has only line switch, line indicator, and OVP adjust (6030A–33A and 6038A only)

**Opt 100** 87 to 106 Vac, 48 to 63 Hz (power supply output is derated to 75%)

**Opt 120** 104 to 127 Vac, 47 to 63 Hz

**Opt 220** 191 to 233 Vac, 48 to 63 Hz

**Opt 240** 209 to 250 Vac, 48 to 63 Hz

**Opt 800** Rack-mount Kit for Two Half-rack Units Side by Side.  
Lock link Kit p/n 5061-9694 and 7 in Rack adapter Kit 5063-9215

\* **Opt 908** Rack-mount Kit for a Single Half-rack Unit 6033A and 6038A (with blank filler panel); p/n 5062-3960, 6030A–32A and 6035A; p/n 5062-3977

\* **Opt 909** Rack-mount Kit with Handles. For 6030A–32A, 6035A; p/n 5062-3983

#### Supplemental Characteristics

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

| Programming resolution   | Voltage  | 50 mV              | 5 mV               | 15 mV              | 5 mV               | 125 mV 1           | 5 mV               |
|--|----------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|  | Current  | 4.25 mA            | 30 mA              | 12.5 mA            | 7.5 mA             | 1.25 mA            | 2.5 mA             |
| <b>dc floating voltage</b><br>either terminal can be grounded or floated from chassis ground |          | ±550 V             | ±240 V             | ±240 V             | ±240 V             | ±550 V             | ±240 V             |
| <b>ac input current</b>  | 100 Vac  | 24 A               | 24 A               | 24 A               | 6 A                | 24 A               | 6 A                |
|  | 120 Vac  | 24 A               | 24 A               | 24 A               | 6.5 A              | 24 A               | 6.5 A              |
|  | 220 Vac  | 15 A               | 15 A               | 15 A               | 3.8 A              | 15 A               | 3.8 A              |
|  | 240 Vac  | 14 A               | 14 A               | 14 A               | 3.6 A              | 14 A               | 3.6 A              |
| <b>Weight</b>  | Net      | 16.3 kg<br>(36 lb) | 17.2 kg<br>(38 lb) | 16.3 kg<br>(36 lb) | 9.6 kg<br>(21 lb)  | 16.3 kg<br>(36 lb) | 9.6 kg<br>(21 lb)  |
|  | Shipping | 21.8 kg<br>(48 lb) | 22.7 kg<br>(50 lb) | 21.8 kg<br>(48 lb) | 11.4 kg<br>(25 lb) | 21.8 kg<br>(48 lb) | 11.4 kg<br>(25 lb) |

**Opt 0L2** Extra Standard Documentation Package

**Opt 0B3** Service Manual

**Opt 0B0** No documentation package

**Opt J01** Stabilization for loads up to 10 Henries (not available on 6033A)

**A line cord must be specified for 6030A–32A, 6035A. See pages 93–98 for ordering information.**

\* Support rails required

#### Accessories

**5080-2148** Serial Link Cable, 2 m (6.6 ft)

**1494-0060** Rack 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](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.

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