

# Agilent 6030 Series Single-Output, DC Power Supplies 200 W & 1000 W, Autoranging; GPIB

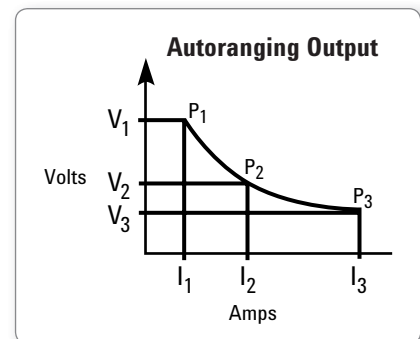
Data Sheet



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.

- Autoranging outputs provide maximum power at a variety of operating voltages
- Analog/resistance control of output voltage and current
- Series and auto-parallel connections of multiple supplies
- Built-in measurements and advanced programmable features
- Protection features to ensure DUT safety



## Specifications

Specifications <i>(at 0 ° to 50 ° unless otherwise specified)</i>		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	240 W	1,050 W	240 W
<b>Auto-ranging output</b>	V <sub>1</sub> , 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
	V <sub>2</sub> , 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
	V <sub>3</sub> , 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> at 25°C ±5°C	Voltage	0.035% +145 mV	0.035% +15 mV	0.035% +40 mV	0.035% +9 mV	0.25% +400 mV	0.035% +40 mV
	Current	0.2% +25 mA	0.25% +250 mA	0.2% +85 mA	0.15% +20 mA	0.3% +63 mA	0.09% +10 mA
<b>Ripple and noise</b> 20 Hz to 20 MHz	Voltage rms P-P	22 mV	8 mV	8 mV	3 mV	50 mV	3 mV
		50 mV	50 mV	40 mV	30 mV	160 mV	30 mV
	Current rms	15 mA	120 mA	25 mA	30 mA	50 mA	5 mA
<b>Readback accuracy</b> at 25°C ±5°C	Voltage	0.08% +80 mV	0.08% +7 mV	0.08% +20 mV	0.07% +6 mV	0.5% +200 mV	0.07% +50 mV
	Current	0.36% +15 mA	0.4% +100 mA	0.36% +35 mA	0.3% +25 mA	0.5% +50 mA	0.2% +11 mA
<b>Load regulation</b>							
Voltage	0.01%+	5 mV	3 mV	5 mV	2 mV	40 mV	3 mV
Current		0.01% + 10 mA	0.01% + 15 mA	0.01% + 10 mA	0.01% + 9 mA	0.03% + 34 mA	0.01% + 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	0.01% + 25 mA	0.01% + 10 mA	0.01% + 6 mA	0.03% + 17 mA	0.01% + 2 mA
<b>Transient response time</b> 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

### 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 kΩ

**Software driver:** VXIplug&play

#### 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).

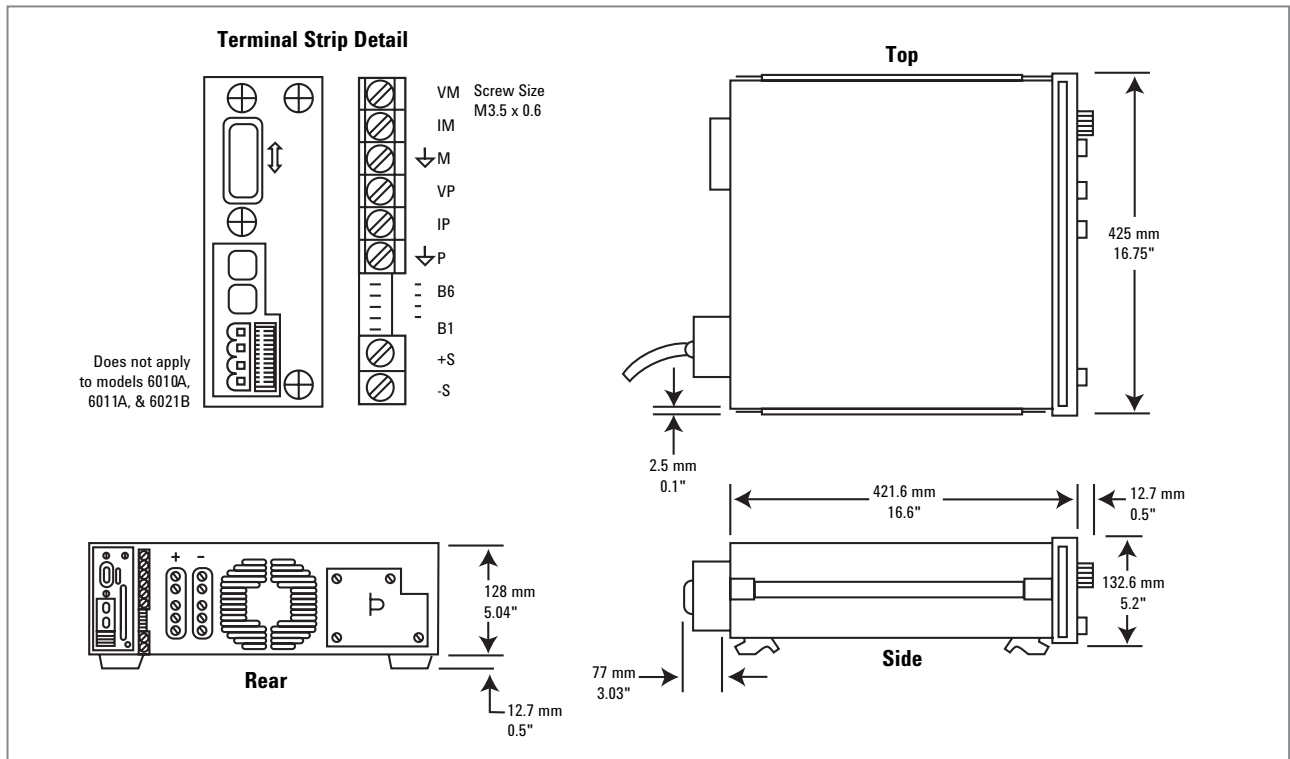
6033A, 6038A:

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).

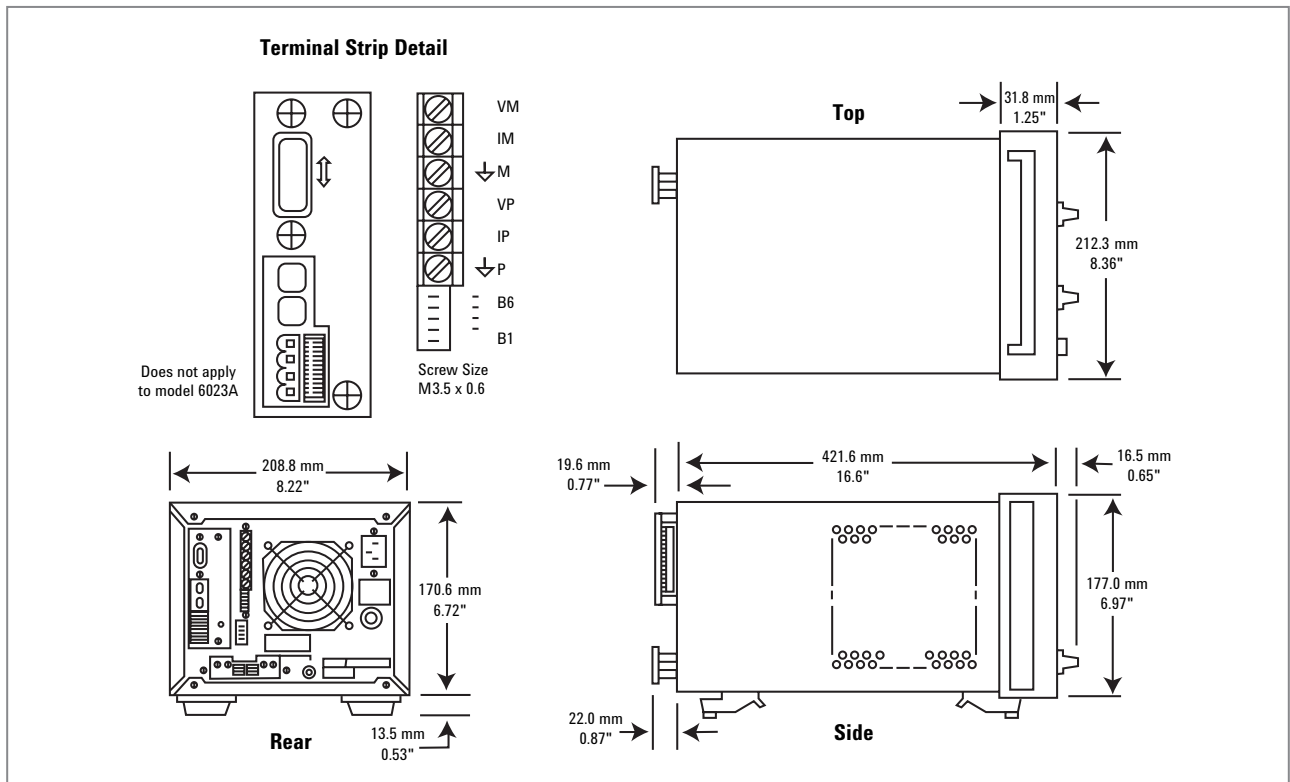
**Warranty:** One year

Supplemental Characteristics <i>(at 0 ° to 50 ° unless otherwise specified)</i>		6030A	6031A	6032A	6033A	6035A	6038A
(Non-warranted characteristics determined by design and useful in applying the product)							
<b>Programming resolution</b>	Voltage	50 mV	5 mV	15 mV	5 mV	125 mV	15 mV
	Current	4.25 mA	30 mA	12.5 mA	7.5 mA	1.25 mA	2.5 mA
<b>DC floating voltage</b> 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 (36 lb)	17.2 kg (38 lb)	16.3 kg (36 lb)	9.6 kg (21 lb)	16.3 kg (36 lb)	9.6 kg (21 lb)
	Shipping	21.8 kg (48 lb)	22.7 kg (50 lb)	21.8 kg (48 lb)	11.4 kg (25 lb)	21.8 kg (48 lb)	11.4 kg (25 lb)

Agilent Models: 6030A, 6031A, 6032A, 6035A



Agilent Models: 6033A, 6038A



## Ordering information

6030 Series power supplies ship with product reference CD-ROM including: VXi plug&play drivers, operating manual, service manual, quick start guide, and application notes.

**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 0L1** Printed operating manual (in English)

**Opt 0B3** Printed service manual (in English)

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

### Accessories

**5080-2148** Serial link cable, 2 m (6.6 ft)

**1494-0060** Rack slide kit

**E3663AC** Support rails for Agilent rack cabinets

*For models: 6033A and 6038A:*

**1CM001A\***: Rackmount flange kit 177.0 mm H (4U) - one bracket, one half-module bracket

**1CM034A\*** Rack mount flange kit 177.0 mm H (4U) - two flange brackets and lock link kit for mounting two 6033A or 6038A units side by side.

*For models: 6030A, 6031A, 6032A, 6035A*

**1CM003A\***: Rackmount flange kit 132.6 mm H (3U) - two flange brackets

**1CP002A\***: Rackmount flange and handle kit 132.6 mm H (3U) - two brackets and front handles

### Application notes

*10 Hints for Using Your Power Supply to Decrease Test Time*, 5968-6359E

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

*Agilent DC Power Supplies for Base Station Testing*, 5988-2386EN

\*Support rails required



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