



6641A - 6645A

Single-Output 200 W GPIB

Fast, low-noise outputs

Analog control of output voltage and current Fan-speed control to minimize acoustic noise Parallel and series connections of multiple units Built-in measurements and advanced programmable features Protection features to ensure DUT safety

This series of 200 W linear-regulated
DC power supplies is designed to
maximize the throughput of DUTs
through the manufacturing test
process with fast up and down
programming time.

Valuable assemblies can be destroyed by a minor component failure that can allow a surge of voltage or current to flow to the DUT. Fast protection features, including fast crowbar, mode crossover protection, and the ability to connect the protection circuitry of multiple power supplies can increase production yield.

Programming of the DC output and the protection features can be done either from the front panel or using industry standard SCPI commands, via the GPIB. Using the serial link, up to 16 power supplies can be connected through one GPIB address. Test system integration can be further simplified be using the VXIPlug&Play drivers. The output voltage and current can also be controlled with analog signals. This is helpful for certain types of noisy environments, and also immediate reactions to process changes.

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)		6641A	<mark>6642A</mark>	6643A	6644A	6645A	
Number of outputs		1	1	1	1	1	
GPIB		Yes	Yes	Yes	Yes	Yes	
Output ratings							
Output voltage		0 to 8 V	<mark>0 to 20 V</mark>	0 to 35 V	0 to 60 V	0 to 120 V	
Output current (40° C)		0 to 20 A	<mark>0 to 10 A</mark>	0 to 6 A	0 to 3.5 A	0 to 1.5 A	
Maximum current (50° C/55° C)		18 A/17 A	<mark>9 A/8.5 A</mark>	5.4 A/5.1 A	3.2 A/3 A	1.4 A/1.3 A	
Programming accurat	:y at 25°C ±5°C						
Voltage	0.06% +	5 mV	<mark>10 mV</mark>	15 mV	26 mV	51 mV	
Current	0.15% +	26 mA	<mark>13 mA</mark>	6.7 mA	4.1 mA	1.7 mA	
Ripple and noise from 20 Hz to 20 MHz							
Voltage	rms	300 µV	<mark>300 µV</mark>	400 µV	500 µV	700 μV	
	peak-peak	3 mV	<mark>3 mV</mark>	4 mV	5 mV	7 mV	
Current	rms	10 mA	<mark>5 mA</mark>	3 mA	1.5 mA	1 mA	
Readback accuracy at 25°C ±5°C (percent of reading plus fixed)							
Voltage	0.07% +	6 mV	<mark>15 mV</mark>	25 mV	40 mV	80 mV	
+Current	0.15% +	18 mA	<mark>9.1 mA</mark>	5 mA	3 mA	1.3 mA	
-Current	0.35% +	40 mA	<mark>20 mA</mark>	12 mA	6.8 mA	2.9 mA	
Load regulation							
Voltage		1 mV	<mark>2 mV</mark>	3 mV	4 mV	5 mV	
Current		1 mA	0.5 mA	0.25 mA	0.25 mA	0.25 mA	
Line regualtion							
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	<mark>5 mV</mark>	10 mV	15 mV	30 mV			
Current	6 mA	<mark>3 mA</mark>	2 mA	1.2 mA	0.5 mA			
OVP	13 mV	<mark>30 mV</mark>	54 mV	93 mV	190 mV			
OVP accuracy	160 mV	<mark>400 mV</mark>	700 mV	1.2 V	2.4 V			

More detailed specifications at www.agilent.com/find/6640

Single-Output: 200 W GPIB (Continued)

AC Input:(AC input frequency 47 to 63 Hz)Voltage100 Vac120 Vac220 Vac240 VacCurrent4.4 A3.8 A2.2 A2.0 A

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

GPIB Interface Capabilities SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, DT1, E1, and C0. IEEE-488.2 and SCPI-compatible command set

Software Driver:

• IVI-COM

• VXIPlug&Play

Regulatory Compliance: Complies with UL 3111-1, 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

Ordering Information

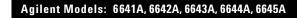
Opt 100 87 to 106 Vac, 47 to 63 Hz **Opt 120** 104 to 127 Vac, 47 to 63 Hz **Opt 220** 191 to 233 Vac, 47 to 63 Hz **Opt 240** 209 to 250 Vac, 47 to 63 Hz

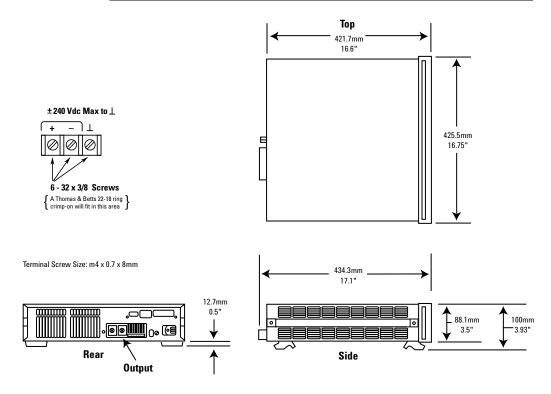
- * Opt 908 Rack-mount Kit (p/n 5063-9212)
 * Opt 909 Rack-mount Kit w/ Handles
- (p/n 5063-9219)

* Opt 1CP Rack-mount Kit with 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
p/n 1252-3698 7-pin Analog Plug
p/n 1252-1488 4-pin Digital Plug
p/n 5080-2148 Serial Link Cable 2 m (6.6 ft)
E3663AC Support rails for Agilent rack cabinets





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