Single-Output: 500 W

6551A-6555A

Protect valuable assemblies with fast protection features

Proven reliability

Low ripple and noise

This reliable series of 500 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)		6551A	6552A	6553A	6554A	6555A
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 50 A	0 to 25 A	0 to 15 A	0 to 9 A	0 to 4 A
Maximum current (50° C/55° C)		45 A/42.5 A	22.5 A/21.3 A	13.5 A/12.8 A	8.1 A/7.7 A	3.6 A/3.4 A
Programming accuracy at 25°C ±5°C						
Voltage	0.06% +	5 mV	10 mV	15 mV	26 mV	51 mV
Current	0.15% +	60 mA	25 mA	13 mA	8 mA	4 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		25 mA	10 mA	5 mA	3 mA	2 mA
Load regulation						
Voltage		1 mV	2 mV	3 mV	4 mV	5 mV
Current		2 mA	1 mA	0.5 mA	0.5 mA	0.5 mA
Line regulation						
Voltage		0.5 mV	0.5 mV	1 mV	1mV	2 mV
Current		2 mA	1 mA	0.75 mA	0.5 mA	0.5 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	5 mV	10 mV	15 mV	30 mV
Current		15 mA	7 mA	4 mA	2.5 mA	1.25 mA
OVP		12 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: 500 W (Continued)

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	12 A	10 A	5.7 A	5.3 A

Input Power: 1,380 VA, 1,100 W at full load; 120 W at no load

Regulatory Compliance: Listed to UL 1244; certified to CSA556B; conforms to IEC 61010-1.

Size: 425.5 mm W x 132.6 mm H x 497.8 mm D (16.75 in x 5.22 in x 19.6 in) See page 101 for more details

Weight: Net, 25 kg (54 lb); shipping, 28 kg (61 lb)

Warranty Period: One year

Specifications (at 0° to 55°C unless otherwise specified)		6551A-J01 Special Order Option	6551A-J03 Special Order Option	6553A-J04 Special Order Option	6553A-J17 Special Order Option
Number of outputs		1	1	1	1
GPIB		No	No	No	No
Output ratings					
Output voltage		10 V	6 V	40 V	30 V
Output current (40° C)		50 A	60 A	12.5 A	17.5 A
Maximum current (50° C/55° C)		45 A/42.5 A	54 A/51 A	11.25 A/10.6 A	15.75 A/14.87 A
Programming accuracy at 25°C ±5°C					
Voltage	0.06% +	6 mV	5 mV	17.5 mV	15 mV
Current	0.15% +	60 mA	75 mA	13 mA	16 mA
Ripple and noise from 20 Hz to 20 MHz					
Voltage rms		300 µV	300 µV	1.6 mV	400 µV
peak-peak		3 mV	3 mV	5 mV	4 mV
Current rms		25 mA	30 mA	5 mA	6 mA
Load regulation					
Voltage		1 mV	1 mV	3.5 mV	3 mV
Current		2 mA	6.5 mA	1 mA	0.5 mA
Line regulation					
Voltage		0.5 mV	0.5 mV	1 mV	1 mV
Current		2 mA	2 mA	0.75 mA	0.75 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		2.5 mV	2 mV	12 mV	10 mV
Current		15 mA	18 mA	4 mA	5 mA
OVP		16 mV	12 mV	65 mV	54 mV
OVP accuracy		200 mV	160 mV	750 mV	700 mV

Single-Output: 500 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 5062-3977)
* **Opt 909** Rack-mount Kit w/ Handles (p/n 5063-9221)
Opt 0L2 Extra Standard Documentation Package
Opt 0B3 Service Manual
Opt 0B0 No documentation package
* Support rails required

Accessories

p/n 1494-0059 Accessory Slide Kit
E3663AC Support rails for Agilent rack cabinets

Specifications (at 0° to 55°C unless otherwise specified)		6554A-J04 Special Order Option	6554A-J05 Special Order Option	6554A-J12 Special Order Option	6555A-J10 Special Order Option
Number of outputs		1	1	1	1
GPIB		No	No	No	No
Output ratings					
Output voltage		70 V	50 V	80 V	156 V
Output current (40° C)		7.5 A	10 A	6 A	3 A
Maximum current (50° C/55° C)		6.75 A/6.37 A	9 A/8.5 A	5.4 A/5.1 A	2.7 A/2.55 A
Programming accuracy at 25°C ±5°C					
Voltage	0.06% +	38 mV	26 mV	35 mV	71 mV
Current	0.15% +	7 mA	9 mA	7 mA	4 mA
Ripple and noise from 20 Hz to 20 MHz					
Voltage rms		600 µV	500 µV	700 µV	900 µV
peak-peak		6 mV	5 mV	5 mV	8 mV
Current rms		5 mA	4 mA	3 mA	3 mA
Load regulation					
Voltage		4 mV	4 mV	4 mV	7 mV
Current		0.5 mA	0.5 mA	0.5 mA	1 mA
Line regulation					
Voltage		1 mV	1 mV	4.5 mV	2 mV
Current		0.5 mA	0.5 mA	0.5 mA	1 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		17.5 mV	15 mV	20 mV	39.5 mV
Current		1.9 mA	2.75 mA	1.7 mA	8 mA
OVP		110 mV	93 mV	130 mV	250 mV
OVP accuracy		1.4 V	1.2 V	1.6 V	3.3 V

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** 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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