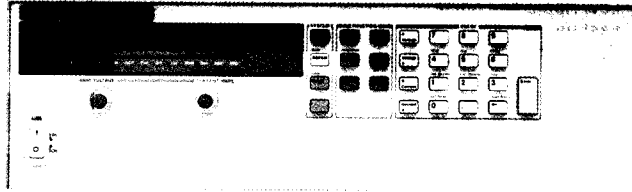


- Complete front-panel control, calibration and display
- Remote programming and sensing
- Fan-speed control to minimize acoustic noise
- Low ripple and noise
- Over-voltage and over-current protection
- Linear output regulation
- Fast up- and down-programming
- SCPI (Standard Commands for Programmable Instruments)



- HP 6651A
- HP 6652A
- HP 6653A
- HP 6654A
- HP 6655A
- HP 6651A
- HP 6652A
- HP 6653A
- HP 6654A
- HP 6655A

Specifications at 0° C to 55° C unless otherwise specified

System Power Supplies (HP-IB)		HP 6651A	HP 6652A	HP 6653A	HP 6654A	HP 6655A
General Purpose Power Supplies (w/o HP-IB)		HP 6651A	HP 6652A	HP 6653A	HP 6654A	HP 6655A
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 15A	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
	Current	0.15% +	60 mA	25 mA	13 mA	8 mA
Ripple and noise (from 20 Hz to 20 MHz)	Voltage	rms	300 µV	300 µV	400 µV	500 µV
	Current	peak-peak rms	3 mV	3 mV	4 mV	5 mV
Readback accuracy at 25° C ±5° C (percent of reading plus fixed) System models only	Voltage	0.07% +	6 mV	15 mV	25 mV	40 mV
	+Current	0.15% +	67 mA	26 mA	15 mA	7 mA
	-Current	0.35% +	100 mA	44 mA	24 mA	15 mA
Load regulation	Voltage		1 mV	2 mV	3 mV	4 mV
	Current		2 mA	1 mA	0.5 mA	0.5 mA
Line regulation	Voltage		0.5 mV	0.5 mV	1 mV	1 mV
	Current		2 mA	1 mA	0.75 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
Price	System Power Supplies	HP 6651A/ \$3,170	HP 6652A/ \$2,965	HP 6653A/ \$2,965	HP 6654A/ \$2,965	HP 6655A/ \$3,020
	General Purpose	HP 6651A/ \$1,800	HP 6652A/ \$1,800	HP 6653A/ \$1,800	HP 6654A/ \$1,800	HP 6655A/ \$1,800

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.

Command Processing Time (HP 6651A, 6652A, 6653A, 6654A, 6655A only): Average time required for the output voltage to begin to change following receipt of digital data is 20 ms for the power supplies connected directly to the HP-IB

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	4.4 A	3.8 A	2.2 A	2.0 A

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

HP-IB Interface Capabilities (HP 6651A, 6652A, 6653A, 6654A, 6655A only): SH1, AH1, T6, L4, SR1, RL1, PPO, DC1, DT1, E1, and C0. IEEE-488.2 and SCPI-compatible command set.

Regulatory Compliance: Listed to UL-1244; certified to CSA 556B; conforms to IEC 348; carries the CE mark

RFI Suppression: Complies with CISPR-11, Group 1, Class B

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)

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

Warranty Period: Three years

Ordering Information

Standard: 104 to 127 Vac, 47 to 63 Hz

Opt 100 87 to 106 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 Rackmount Kit (HP p/n 5062-3977)

Opt 909 Rackmount Kit w/ Handles

(HP p/n 5062-3983)

Opt 910 Service Manual and extra Operating Guide

(Standard unit is shipped with operating guide and programming guide.)

Accessories

Rack Slide Kit (HP p/n 1494-0059)

The following accessories for HP 6651A,

6652A, 6653A, 6654A and 6655A only:

HP p/n 1252-3698 7-pin Analog Plug

HP p/n 1252-1488 4-pin Digital Plug

HP p/n 5080-2148 Serial Link Cable 2 m (6.6 ft)

Available Modifications

6651A-J03: 6 V, 60 A, 360 W

6653A-J04: 40 V, 12.5 A, 500 W

6654A-J05: 50 V, 10 A, 500 W

6654A-J04: 70 V, 7.5 A, 525 W

6654A-J12: 80 V, 6 A, 480 W

Key Literature

1997/98 HP Power Products Catalog, p/n 5965-5284E