Power Supplies

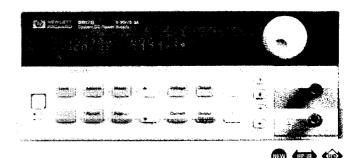
Precision Measurement Single-Output System, 50 W

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HP 6611C HP 6612C HP 6613C HP 6614C

1993 - Am 1994 - 1995 - 1

- · Precision low current measurement
- · Low-output noise
- · High-speed programming
- HP-IB and RS-232 interface
- SCPI (Standard Commands for Programmable Instruments)



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

			HP 6611C	HP 6612C	HP 6613C	HP 6614C
Output ratings	Voltage/Current		0 to 8 V/0 to 5 A	0 to 20 V/0 to 2 A	0 to 50 V/0 to 1 A	0 to 100 V/0 to 0.5 A
Programming accuracy at 25° C ±5° C	Voltage/+ Current	0.05% +	5 mV/2 mA	10 mV/1 mA	20 mV/0.5 mA	50 mV/0.25 mA
Ripple and noise (20 Hz to 20 MHz, with outputs ungrounded or with either terminal grounded)	Voltage Normal mod Current	le rms/p-p rms	0.5 mV/3 mV 2 mA	0.5 mV/3 mV 1 mA	0.5 mV/4 mV 1 mA	0.5 mV/6 mV 1 mA
DC measurement accuracy: via HP-IB or front-panel meters with	Voltage Low current range –20 mA to +20 mA	0.3% +	3 mV	3 mV	6 mV	12 mV 2.5 μA
respect to actual output at 25° C ±5° C	High current range +20 mA to + rated I -20 mA to -rated I	0.1% + 0.2% + 0.2% +	2.5 μA 1 mA 1.6 mA	2.5 μA 0.25 mA 0.85 mA	2.5 μA 0.2 mA 0.8 mA	0.1 mA 0.7 mA
Load regulation	Voltage/Current	**************************************	2 mV/1 mA	2 mV/0.5 mA	4 mV/0.5 mA	5 mV/0.5 mA
Line regulation	Voltage/Current		0.5 mV/0.5 mA	0.5 mV/0.5 mA	1 mV/0.25 mA	1 mV/0.25 mA

Transient Response Time: Less than 100 μ s 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 the output current rating of the supply

Supplemental Characteristics Non-warranted characteristics determined by design and useful in applying the product

Average programming resolution	Voltage/Current	2 mV/1.25 mA	5 mV/0.5 mA	12.5 mV/0.2 mA	25 mV/0.1 mA
Sink current		3 A	1.2 A	0.6 A	0.3 A
Price		\$1,395	\$1,395	\$1,395	\$1,395

dc Floating Voltage: Output terminals can be floated up to $\pm 240\,\text{Vdc}$ maximum from chassis ground

Remote Sensing: Up to two volts dropped in each load lead. Add 2 mV to the voltage load regulation specification for each one volt change in the positive output lead due to load current change.

Command-Processing Time: Average time required for the output voltage to begin to change following receipt of digital data is 4 ms for the power supplies connected directly to the HP-IB. (Display disabled.) Output-Programming Response Time: The rise and fall time (10/90% and 90/10%) of the output voltage is less than 2 ms. The output voltage change settles within 1 LSB (0.025% x rated voltage) of final value in less than 6 ms.

HP-IB Interface Capabilities: IEEE-488.2, SCPI command set, and 6630A Series programming compatability

Instrument Time: Average time to make a voltage or current measurement is 50 ms.

Input Power (full load): 160 VA, 100 W

Regulatory Compliance: Listing pending to UL 3111-1; certified to CSA 22.2 No. 1010.1; conforms to IEC 1010-1; complies with EMC directive 89/336/EEC (ISM Group 1, Class B)

Warranty Period: Three years

Size: 212.8 mm W x 88.1 mm H x 348.3 mm D (8.4 in x 3.5 in x 13.7 in)

Weight: 8.85 kg (19.5 lb) net; 11.1 kg (24.5 lb) shipping

Ordering Information	Price
Standard: 104 to 127 Vac. 47 to 63 Hz	
Opt 100 87 to 106 Vac, 47 to 63 Hz	\$0
Opt 220 191*to 233 Vac, 47 to 63 Hz	\$0
Opt 230 207 to 253 Vac, 47 to 63 Hz	\$0
Opt 760 Isolation and Reversal Relays	+\$184
Opt ICM Rackmount Kit, HP p/n 5062-3972	+\$61
Opt AXS Rackmount Kit for side-by-side	+\$81
mounting, Lock-link Kit HP p/n 5061-9694;	
Flange Kit HP p/n 5062-3974 (6612B only)	
Opt AXU Rackmount and slide for side-by-side	\$350
mounting of 2 different depth instruments	
(HP p/n 5062-3996 and 1494-0015)	
Opt AXV Rackmount, slide and support shelf for	\$430
mounting 1 HP 6610 Series instrument	
(HP p/n 1494-0015, 5062-3996 and 5062-4022)	
Opt OBN Service Manual and extra Operating Guide	+\$36
(Standard unit is shipped with operating guide	
and programming guide only.)	

Key Literature

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