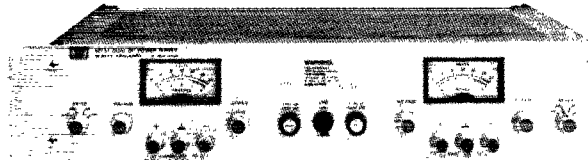


POWER SUPPLIES

General Purpose, 37- to 200-W Output (cont'd)

HP 6227B-6255A, 6281A-6299A

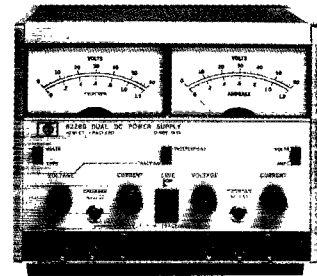


HP 6253A, 6255A

Dual-Output Power Supplies

Each versatile dual-output HP model contains two identical, independently adjustable power supplies (40 W each for the HP 6253A and 6255A; 50 W each for the HP 6227B and 6228B). The HP 6253A and 6255A are full-width rack units; the HP 6227B and 6228B are lab supplies. The regulator, voltage, and current control, as well as the metering circuits of each section of the supply, are electrically identical to those of the individual 37- to 75-W models above and to the right.

By combining the versatility of a dual power supply with the flexibility of auto-series and auto-parallel operation, each supply can deliver twice the maximum-rated output voltage or current of each section.



HP 6227B, 6228B

In addition, with auto-tracking capability, opposite-polarity voltages are possible.

Convenient front-panel switches select either independent or tracking operation. In the tracking mode, the right supply tracks the left to within $0.2\% \pm 2$ mV. The tracking mode is especially useful for powering operational amplifiers, push-pull stages, deflection systems, or any application where plus and minus voltages must track closely. The independent mode permits operation of the two supplies individually in auto-parallel or in auto-series operation.

Each side of the dual supply can operate as a constant voltage or constant current source, and each has its own crowbar for overvoltage protection. In the tracking mode, an overvoltage condition in any one supply trips both crowbars.

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

Model		HP 6296A	HP 6299A	Dual-output models				
				HP 6227B ¹	HP 6228B ¹	HP 6253A ¹	HP 6255A ¹	
Output ratings	Voltage	0 to 60 V	0 to 100 V	0 to 25 V	0 to 50 V	0 to 20 V	0 to 40 V	
	Current	0 to 3 A	0 to 0.75 A	0 to 2 A	0 to 1 A	0 to 3 A	0 to 1.5 A	
Load regulation	Voltage	0.01% + 1 mV	0.01% + 2 mV	0.01% + 1 mV	0.01% + 1 mV	0.01% + 4 mV	0.01% + 2 mV	
	Current	0.05% + 1 mA	0.01% + 250 μ A	0.01% + 250 μ A	0.01% + 250 μ A	0.01% + 250 μ A	0.01% + 250 μ A	
Line regulation	Voltage	0.01% + 1 mV	0.01% + 2 mV	1 mV	1 mV	0.02% + 2 mV	0.01% + 2 mV	
	Current	0.05% + 1 mA	0.01% + 250 μ A	100 μ A	100 μ A	0.01% + 250 μ A	0.01% + 250 μ A	
Ripple and noise	Voltage	rms	500 μ V	200 μ V	250 μ V	250 μ V	200 μ V	200 μ V
		peak-to-peak	25 mV	1 mV	4 mV	4 mV	1 mV	1 mV
	Current	rms	3 mA	500 μ A	250 μ A	250 μ A	2 mA	500 μ A
		peak-to-peak			2 mA	2 mA		
Load Transient Recovery		50 μ s, 15 mV	50 μ s, 15 mV	50 μ s, 15 mV	50 μ s, 15 mV	50 μ s, 15 mV	50 μ s, 15 mV	

Supplemental Characteristics (nonwarranted characteristics determined by design that are useful in applying the product)

Resistance programming coefficient	Voltage	300 Ω /V \pm 1%	300 Ω /V \pm 1%	200 Ω /V \pm 1%	200 Ω /V \pm 1%	200 Ω /V \pm 1%	200 Ω /V \pm 1%
	Current	500 Ω /A \pm 10%	1 k Ω /A \pm 10%	500 Ω /A \pm 10%	1 k Ω /A \pm 10%	500 Ω /A \pm 10%	500 Ω /A \pm 10%
Voltage programming coefficient	Voltage	1 V/V \pm 1%	1 V/V \pm 1%	1 V/V \pm 1%	1 V/V \pm 1%	1 V/V \pm 1%	1 V/V \pm 1%
	Current	333 mV/A \pm 10%	1.3 V/A \pm 10%	0.5 V/A \pm 10%	1 V/A \pm 10%	0.33 V/A \pm 10%	0.66 V/A \pm 10%
Programming response time (at full load)	Up ²	600 ms	200 ms	200 ms	350 ms	80 ms	45 ms
	Down	200 ms	200 ms	75 ms	50 ms	100 ms	40 ms
Overvoltage	Range	9 to 66 V	20 to 106 V	5 to 28 V	5 to 55 V	2.5 to 23 V	2.5 to 44 V
	Margin	7% \pm 1 V	4% \pm 2 V	7% + 1.5 V	7% + 1.5 V	4% + 2 V	4% + 2 V
Input power	Frequency range	57 to 63 Hz	48 to 440 Hz	48 to 63 Hz	48 to 63 Hz	48 to 440 Hz	48 to 440 Hz
	Max current	4.5 A	1.5 A	2.7 A	2.7 A	2.6 A	2.6 A
	Max power	250 W	135 W	260 W	260 W	235 W	235 W
Weight	Net	11.3 kg (25 lb)	5.9 kg (13 lb)	11 kg (24 lb)	11 kg (24 lb)	12.7 kg (28 lb)	12.7 kg (28 lb)
	Shipping	12.7 kg (28 lb)	6.8 kg (15 lb)	12.9 kg (28 lb)	12.9 kg (28 lb)	12.7 kg (28 lb)	17.7 kg (39 lb)
Options		05, 011, 028	011, 028, 040	040	040	010, 011, 028, 040	010, 011, 028, 040
Price		\$1,900	\$1,400	\$2,990	\$2,990	\$2,500	\$2,500

¹Models 6227B, 6228B, 6253A, and 6255A contain two identical, independently adjustable power supplies.

²Up = increasing output voltage

Ordering Information

See the option listings in the tables for applicability.

Option Descriptions

Opt 005 50-Hz ac Input (optimizes power supplies that require adjustment or modification for 50-Hz operation)	\$0
Opt 010 Chassis Slides (enable convenient access to rackmounted power supply for maintenance)	\$120
Opt 011 Internal Overvoltage Protection Crowbar	\$150
HP 6281A, 6284A, 6289A, 6294A, 6299A	\$250
HP 6253A, 6255A, 6282A, 6286A, 6291A, 6296A	\$0
Opt 028 230-Vac, 10%, Single-Phase Input	\$0
Opt 040 (equips standard HP power supplies for resistance programming)	\$90
Single-Output Models	\$170
Dual-Output Models	\$15
Opt 910 Additional Operating and Service Manual	\$15

Price

Accessories

HP 14513A 3½-in High Rack Kit for one HP 6281A, 6284A, 6289A, 6294A, 6299A	\$110
HP 14523A 3½-in High Rack Kit for two of the above supplies	\$70
HP 14515A 5½-in High Rack Kit for one HP 6282A, 6286A, 6291A, 6296A	\$150
HP 14525A 5½-in High Rack Kit for two of the above supplies	\$80
HP 5060-8760 Blank Filler Panel for HP 6227B, 6228B	\$75
HP 5060-8762 Adapter Frame for Rackmounting one or two HP 6227B, 6228B	\$180