

POWER SUPPLIES

General Purpose: 120–2000 W Output

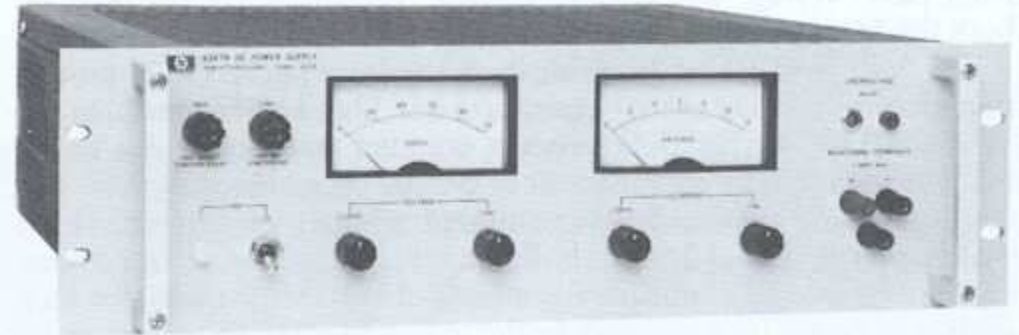
Models 6259B-6274B

- Built-in overvoltage protection
- Constant voltage/constant current operation
- Remote programming and sensing

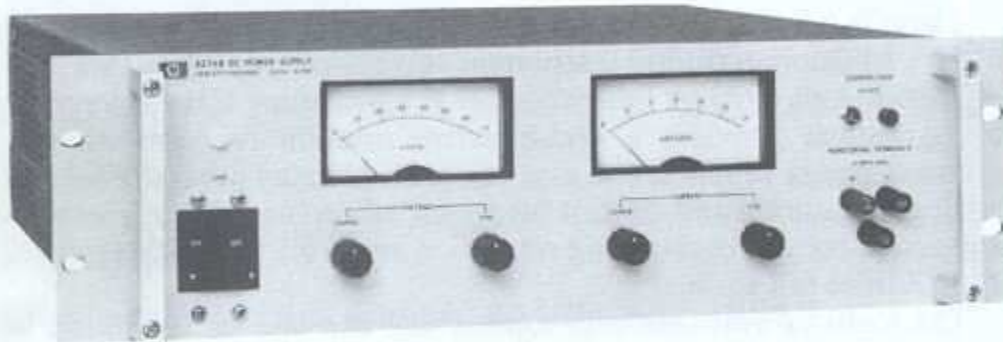


HP 6263B, 6266B, 6271B

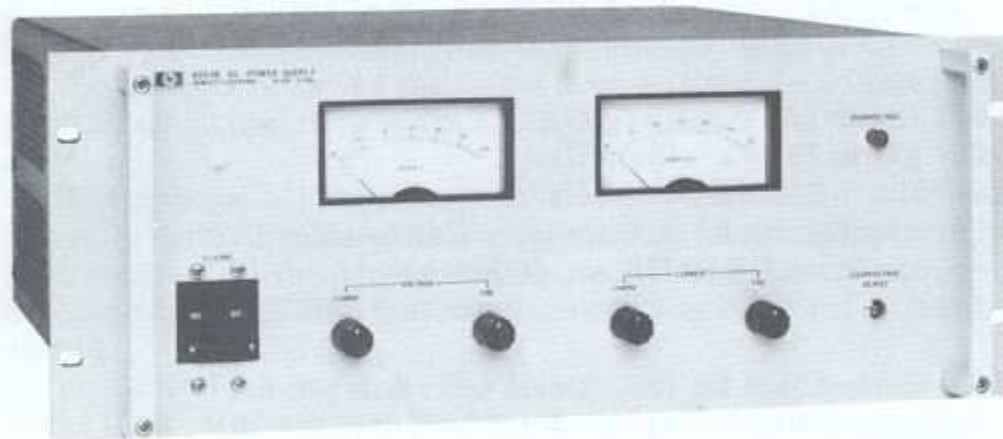
- Remote sensing
- Auto-series, -parallel, and -tracking operation
- $\leq 50 \mu\text{s}$ load transient recovery



HP 6264B, 6267B



HP 6274B



HP 6259B, 6260B, 6261B, 6268B, 6269B

Description

Models 6259B-6274B

This series of high-performance constant voltage/constant current supplies includes twelve models with output rating from 10 to 60 V. All models employ a transistor series-regulator/triac-preregulator circuit to achieve high efficiency, excellent regulation, low ripple and noise, and moderate programming speeds in a compact full-rack width package.

Separate coarse and fine voltage and current controls allow the voltage and current outputs to be varied from zero to the maximum rated value, crossover from constant voltage to constant current operation occurs automatically when the load current exceeds the value established by the current control settings.

Additional features include built-in overvoltage crowbar protection; remote error sensing; and auto-series, auto-parallel, and auto-tracking operation. The crowbar trip point adjustment and associated overvoltage indicator are conveniently located on the front panel.

Specifications†

RATINGS			PERFORMANCE							
DC Output		HP Model	Load Effect		Source Effect		PARD (rms/p-p)		Drift (stability)	
Volts	Amperes		Voltage	Current	Voltage	Current	Voltage	Current	Voltage	Current
0-10	0-50	6259B	0.01% + 200 μV	0.02% + 1 mA	0.01% + 200 μV	0.02% + 1 mA	500 $\mu\text{V}/5 \text{ mV}$	25 mA rms	0.03% + 2 mV	0.03% + 10 mA
0-10	0-100	6260B	0.01% + 200 μV	0.02% + 2 mA	0.01% + 200 μV	0.02% + 2 mA	500 $\mu\text{V}/5 \text{ mV}$	50 mA rms	0.03% + 2 mV	0.03% + 20 mA
0-20	0-10	6263B	0.01% + 200 μV	0.02% + 500 μA	0.01% + 200 μV	0.02% + 500 μA	200 $\mu\text{V}/10 \text{ mV}$	3 mA rms	0.03% + 500 μV	0.03% + 6 mA
0-20	0-20	6264B	0.01% + 200 μV	0.02% + 500 μA	0.01% + 200 μV	0.02% + 500 μA	200 $\mu\text{V}/10 \text{ mV}$	5 mA rms	0.03% + 500 μV	0.03% + 6 mA
0-20	0-50	6261B	0.01% + 200 μV	0.02% + 1 mA	0.01% + 200 μV	0.02% + 1 mA	500 $\mu\text{V}/5 \text{ mV}$	25 mA rms	0.03% + 2 mV	0.03% + 10 mA
0-40	0-5	6266B	0.01% + 200 μV	0.02% + 500 μA	0.01% + 200 μV	0.02% + 500 μA	200 $\mu\text{V}/10 \text{ mV}$	3 mA rms	0.03% + 500 μV	0.03% + 3 mA
0-40	0-10	6267B	0.01% + 200 μV	0.02% + 500 μA	0.01% + 200 μV	0.02% + 500 μA	200 $\mu\text{V}/10 \text{ mV}$	3 mA rms	0.03% + 2 mV	0.03% + 3 mA
0-40	0-30	6268B	0.01% + 200 μV	0.02% + 2 mA	0.01% + 200 μV	0.02% + 2 mA	1 mV/5 mV	20 mA rms	0.03% + 2 mV	0.03% + 5 mA
0-40	0-50	6269B	0.01% + 200 μV	0.02% + 2 mA	0.01% + 200 μV	0.02% + 2 mA	1 mV/5 mV	25 mA rms	0.03% + 2 mV	0.03% + 10 mA
0-60	0-15	6274B	0.01% + 200 μV	0.02% + 500 μA	0.01% + 200 μV	0.02% + 500 μA	200 $\mu\text{V}/20 \text{ mV}$	5 mA rms	0.03% + 2 mV	0.03% + 5 mA

Auto-series, auto-parallel, and auto-tracking connections should ordinarily include no more than three supplies. If a specific application requires the use of more than three supplies in any of the three connections, consult your local HP Field Engineer for additional information.

All dc output, ac input, sensing, control, and programming connections are made to rear-panel terminals. Either the positive or negative output terminal may be grounded or the supplies may be operated floating at up to 300 volts above ground. Models 6263B, 6264B, 6266B and 6267B are convection cooled. All other models in this series employ cooling fans. Models which output more than 200 watts are equipped with terminal blocks for ac input and are not shipped with line cords.

Specification—General

Load effect transient recovery: time, 50 μ s; Level, 10 mV.

Resolution: voltage control, less than 0.02%; current control, less than 0.15%.

Temperature coefficient per °C: 0.01% of output plus 200 μ V.

Temperature ratings: operating, 0 to 55°C; storage, -40 to 75°C.

Remote control programming: these power supplies are capable of being programmed in constant voltage and constant current operation by using an external resistance or dc voltage with coefficients as shown in the table below.

Rear terminal wiring configurations for remote control operation are specified in the operating and service manual supplied with the power supply. For remote control programming procedures and timing considerations, contact your local HP field engineer.

Power: input voltage tolerance is $\pm 10\%$, 57-63 Hz. For other input voltage and frequency options available, see option listing in the specifications table below. Standard input voltage, maximum input current, and maximum power are:

HP 6259B, 230 V ac, 6 A, 850 W;
 HP 6260B, 230 V ac, 12 A, 1600 W;
 HP 6263B, 115 V ac, 4.5 A, 350 W;
 HP 6266B, 115 V ac, 4 A, 325 W;
 HP 6268B, 230 V ac, 12 A, 1600 W;
 HP 6261B, 230 V ac, 12 A, 1500 W;
 HP 6264B, 115 V ac, 8 A, 600 W;
 HP 6267B, 115 V ac, 8 A, 550 W;
 HP 6269B, 230 V ac, 18 A, 2500 W;
 HP 6274B, 115 V ac, 15 A, 1200 W;

AC line connections: three wire, five foot ac power cord included—HP 6263B and 6266B.

Three-terminal barrier strip provided on power supply for ac power connections—HP 6259B, 6260B, 6261B, 6264B, 6267B, 6268B, 6269B and 6274B.

Size

HP 6263B, 6266B: 83.7 H x 483 W x 479.4 mm D (3.296" x 19" x 18.875").

HP 6264B, 6267B, 6274B: 127 H x 483 W x 479.4 mm D (5.00" x 19" x 18.875").

HP 6259B, 6260B, 6261B, 6268B, 6269B: 173 H x 483 W x 479.4 mm D; (6.812" x 19" x 18.875").

Option Descriptions

005: 50 Hz ac input: optimizes power supplies that require adjustment/modification for 50 Hz operation.

010: chassis slides. For access to rack mounted power supplies: HP 6263B, 6264B, 6266B, 6267B

HP 6274B, 6259B, 6260B, 6261B, 6268B, 6269B

016: Model 6260B only. 115 Vac $\pm 10\%$ single phase input. Consists of replacing power transformer and circuit breaker, and reconnecting bias transformer, RFI choke and fans.

022: voltage and current programming adjust. Allows the V and I programming coefficients and zero output to be conveniently adjusted to 0.1% accuracy via access holes in the rear panel. Consists of four potentiometers and resistors located inside the rear panel.

026: 115 Vac $\pm 10\%$, single phase input. Consists of replacing the input circuit breaker and reconnecting the power transformer, bias transformer, RFI choke, and fans. Models 6259B, 6261B and 6268B only.

027: 208 Vac, $\pm 10\%$, single phase input. Consists of reconnecting power transformer taps, and other components where necessary.

028: 230 Vac $\pm 10\%$, single phase input. Consists of reconnecting power transformer taps, and other components where necessary.

040: Multiprogrammer interface. Prepares standard HP power supplies for resistance programming by the HP 6942A or 6940B Multiprogrammers. This option includes Option 022, special calibration, and protection check-out procedures (where required).

910: one additional operating and service manual shipped with each power supply. HP 6259B-6274B

Price

N/C

add \$86

add \$160

add \$120

add \$61

N/C

N/C

N/C

add \$76

add \$7.50

Specifications, Continued

REMOTE CONTROL FEATURES								GENERAL					Options	Price
Resistance Coeff.		Voltage Coeff.		Speed Up*		Speed Down*		Overvoltage		Weight				
Voltage	Current	Voltage	Current	NL	FL	NL	FL	Range	Margin	Net	Shipping			
200 $\Omega/V \pm 1\%$	4 $\Omega/A \pm 10\%$	1 V/V $\pm 1\%$	10 mV/A $\pm 10\%$	70 ms	70 ms	200 ms	100 ms	2-12 V	5% + 2V	31.3 kg/69 lb	35.3 kg/78 lb	5, 10, 22, 26, 27, 40	\$1775	
200 $\Omega/V \pm 1\%$	2 $\Omega/A \pm 10\%$	1 V/V $\pm 1\%$	5 mV/A $\pm 10\%$	70 ms	70 ms	200 ms	75 ms	2-12 V	5% + 2 V	43.9 kg/97 lb	48 kg/106 lb	5, 10, 16, 22, 27, 40	\$2105	
200 $\Omega/V \pm 1\%$	100 $\Omega/A \pm 10\%$	1 V/V $\pm 1\%$	50 mV/A $\pm 10\%$	150 ms	150 ms	7 s	350 ms	2-23 V	5% + 1 V	15.4 kg/34 lb	18.6 kg/41 lb	5, 10, 22, 27, 28, 40	\$1450	
200 $\Omega/V \pm 1\%$	10 $\Omega/A \pm 10\%$	1 V/V $\pm 1\%$	25 mV/A $\pm 10\%$	140 ms	140 ms	10 s	150 ms	2.5-23V	5% + 1 V	21.3 kg/47 lb	24.5 kg/54 lb	5, 10, 22, 27, 28, 40	\$1500	
200 $\Omega/V \pm 1\%$	4 $\Omega/A \pm 10\%$	1 V/V $\pm 1\%$	10 m V/A $\pm 10\%$	150 ms	150 ms	250 ms	250 ms	2-23 V	5% + 2 V	35.3 kg/78 lb	39.4 kg/87 lb	5, 10, 22, 26, 27, 40	\$1880	
200 $\Omega/V \pm 1\%$	200 $\Omega/A \pm 10\%$	1 V/V $\pm 1\%$	100 mV/A $\pm 10\%$	275 ms	275 ms	13 s	1.5 s	2.5-45 V	5% + 1 V	15.4 kg/34 lb	18.6 kg/41 lb	5, 10, 22, 27, 28, 40	\$1400	
200 $\Omega/V \pm 1\%$	100 $\Omega/A \pm 10\%$	1 V/V $\pm 1\%$	50 mV/A $\pm 10\%$	275 ms	275 ms	13 s	750 ms	2.5-45 V	5% + 1 V	17.7 kg/39 lb	20.8 kg/46 lb	5, 10, 22, 27, 28, 40	\$1450	
200 $\Omega/V \pm 1\%$	6 $\Omega/A \pm 10\%$	1 V/V $\pm 1\%$	16.7 mV/A $\pm 10\%$	300 ms	300 ms	1 s	650 ms	4-45 V	5% + 1 V	34.4 kg/76 lb	38.1 kg/84 lb	5, 10, 22, 26, 27, 40	\$1830	
200 $\Omega/V \pm 1\%$	4 $\Omega/A \pm 10\%$	1 V/V $\pm 1\%$	10 mV/A $\pm 10\%$	350 ms	350 ms	1 s	600 ms	4-45 V	5% + 1 V	40.3 kg/89 lb	44 kg/98 lb	5, 10, 22, 27, 40	\$2000	
300 $\Omega/V \pm 1\%$	67 $\Omega/A \pm 10\%$	1 V/V $\pm 1\%$	33.3 mV/A $\pm 10\%$	600 ms	600 ms	40 s	800 ms	6-66 V	5% + 1 V	21.7 kg/48 lb	24.5 kg/54 lb	5, 10, 22, 27, 28, 40	\$1600	