

# POWER SUPPLIES

General Purpose, 100- to 200-W Output  
HP 6282A, 6286A, 6291A, 6296A

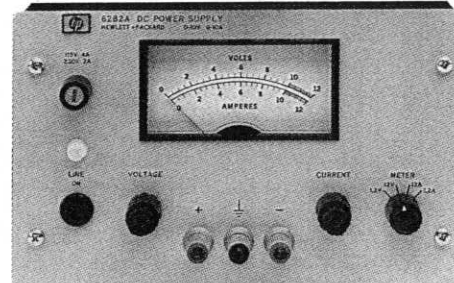
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- Constant voltage, constant current
- Remote sensing and programming
- Auto-series, auto-parallel, and auto-tracking
- Front and rear output terminals
- Floating output to serve as positive or negative source

## Single-Output Power Supplies

This series of constant-voltage, constant-current power supplies is available in power ranges from 100 to 200 W (in 5¼-in-high, half-rack cases). All models have 10-turn voltage and current controls that vary the voltage and current outputs from zero to the maximum rated values. Crossover from constant voltage to constant current operation occurs automatically when the load current exceeds the control settings. A four-position meter-function switch selects either of two output voltage ranges or output current ranges (X1, X0.1) for display.

These models employ a series-regulator, SCR-preregulator configuration to achieve the high efficiency necessary for a convection-cooled package of this size.



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

		HP 6282A	HP 6286A	HP 6291A	HP 6296A
Output ratings	Voltage	0 to 10 V	0 to 20 V	0 to 40 V	0 to 60 V
	Current	0 to 10 A	0 to 10 A	0 to 5 A	0 to 3 A
Load regulation	Voltage	0.01% + 1 mV	0.01% + 1 mV	0.01% + 1 mV	0.01% + 1 mV
	Current	0.05% + 1 mA	0.05% + 1 mA	0.05% + 1 mA	0.05% + 1 mA
Line regulation	Voltage	0.01% + 1 mV	0.01% + 1 mV	0.01% + 1 mV	0.01% + 1 mV
	Current	0.05% + 1 mA	0.05% + 1 mA	0.05% + 1 mA	0.05% + 1 mA
Ripple and noise	Voltage	rms	500 $\mu$ V	500 $\mu$ V	500 $\mu$ V
		peak-to-peak	25 mV	25 mV	25 mV
	Current	rms	5 mA	5 mA	3 mA
Load-effect transient recovery		50 $\mu$ s, 15 mV	50 $\mu$ s, 15 mV	50 $\mu$ s, 15 mV	50 $\mu$ s, 15 mV

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

		HP 6282A	HP 6286A	HP 6291A	HP 6296A
Resistance programming coefficient	Voltage	200 $\Omega$ /V $\pm$ 1%	200 $\Omega$ /V $\pm$ 1%	200 $\Omega$ /V $\pm$ 1%	300 $\Omega$ /V $\pm$ 1%
	Current	100 $\Omega$ /A $\pm$ 10%	100 $\Omega$ /A $\pm$ 10%	200 $\Omega$ /A $\pm$ 10%	500 $\Omega$ /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%
	Current	100 mV/A $\pm$ 10%	100 mV/A $\pm$ 10%	200 V/A $\pm$ 10%	333 mV/A $\pm$ 10%
Programming response time (at full load)	Up <sup>1</sup>	200 ms	150 ms	275 ms	600 ms
	Down	40 ms	70 ms	275 ms	200 ms
Overvoltage (optional)*	Range	1 to 13 V	2 to 22 V	6 to 43 V	9 to 66 V
	Margin	7% $\pm$ 1 V	7% $\pm$ 1 V	7% $\pm$ 1 V	7% $\pm$ 1 V
Input power	Frequency range	57 to 63 Hz	57 to 63 Hz	57 to 63 Hz	57 to 63 Hz
	Max current	3.5 A	5.5 A	5.5 A	4.5 A
	Max power	200 W	320 W	280 W	250 W
Weight	Net	11.3 kg (25 lb)	10.8 kg (26 lb)	11.3 kg (25 lb)	11.3 kg (25 lb)
	Shipping	13.6 kg (30 lb)	13.1 kg (29 lb)	12.7 kg (28 lb)	12.7 kg (28 lb)
Options		05, 011, 028, 040	05, 011, 028	05, 011, 028	05, 011, 028
Price		\$2,015	\$2,015	\$2,015	\$2,015

<sup>1</sup>Up = increasing output voltage

**Meter Accuracy:** 3% of full scale

**Power:** Standard input voltage, 115 Vac ( $\pm$  10%) (Order Opt 028 for 230-Vac  $\pm$  10% operation.)

**DC Floating Voltage:** Output terminals floatable up to 120 V from ground and from each other

**Regulatory Compliance:** Conform to IEC 348

HP 6282A, 6286A, 6291A, 6296A: 210 mm W  $\times$  131 mm H  $\times$  435 mm D (8¼ in  $\times$  5¼ in  $\times$  17½ in)

## Key Literature

1994/95 Power Products Catalog, p/n 5091-9593.

## Ordering Information

See the option listings in the tables for applicability.

### Option Descriptions

<b>Opt 005</b> 50-Hz AC Input (optimizes power supplies that require adjustment or modification for 50-Hz operation)	\$0
<b>Opt 010</b> Chassis Slides (enable convenient access to rackmounted power supply for maintenance)	\$122
<b>Opt 011</b> Internal Overvoltage Protection Crowbar	\$255
<b>Opt 028</b> 230-Vac, 10%, Single-Phase Input	\$0
<b>Opt 040</b> (equips standard HP power supplies for resistance programming)	\$92
<b>Opt 910</b> Additional Operating and Service Manual	\$15
<b>HP 14515A</b> 5¼-in High Rack Kit for one supply	\$179
<b>HP 14525A</b> 5¼-in High Rack Kit for two supplies	\$97