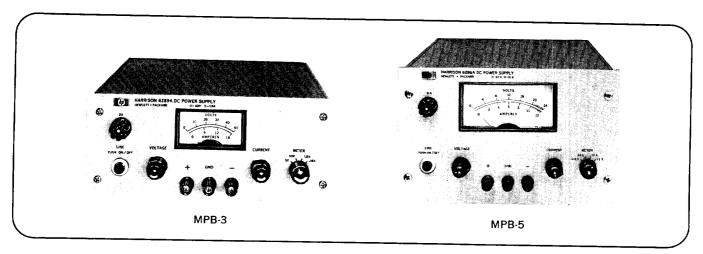
# **POWER SUPPLIES**



## MEDIUM & DUAL POWER SUPPLIES MPB-3, MPB-5, & DPR series Models 6281A-6299A, 6253A, 6255A



The MPB-3 and MPB-5 Series of dc power supplies are highly regulated, medium power, constant voltage/constant current bench models. All include multiple range meters and provision for remote sensing, remote programming, auto-series, auto-parallel, and auto-tracking operation.

The DPR models contain two identical MPB-3 supplies mounted in a full rack-width chassis. All DPR features and specifications are identical to the MPB-3 with the exceptions listed on the following page.

## Advantages:

Short circuit proof
Constant voltage/constant current operation with
automatic crossover
Multiple range meters
Floating output
All silicon circuitry

Front and rear output terminals No overshoot on turn-on, turn-off, or power removal Easily rack mounted

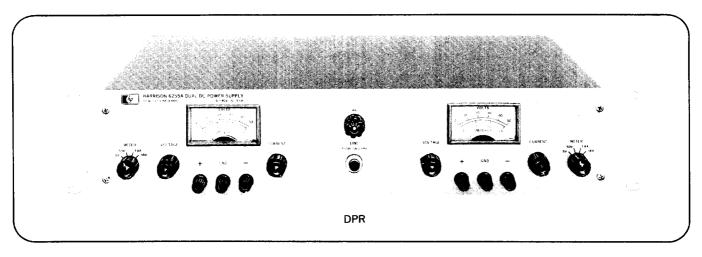
Overvoltage protection "crowbar" option Auto-series, auto-parallel, auto-tracking

### **MPB-5 Specifications**

Model		6282A	6285A	6286A	6290A	6291A	6296A	
Output DC Voltage DC Current		0-10V	0-20V	0-20V	0-40V	0-40V	0-60V	
		0-10A	0-5A	0-10A	0-3A	0-5A	0-3A	
Input:115 V ac $\pm 10\%$ , 50-60 Hz		3.5A, 200W	3.5A, 160W	5.5A, 320W	3.5A, 170W	5.5A, 280W	4.5A, 250W	
*Load regulation: The Constant Voltage Load Regulation specification is given for a load current change equal to the current rating of the supply. The Constant Current Load Regulation specification is given for a load voltage change equal to the voltage rating of the supply.	c v	0.01% plus 1 mV	0.01% plus 1 mV	0.01% plus 1 mV	0.01% plus 1 mV	0.01% plus 1 mV	0.01% plus 1 mV	
	СС	0.05% plus 1 mA	0.05% plus 1 mA	0.05% plus 1 mA	0.05% plus 1 mA	0.05% plus 1 mA	0.05% plus 1 mA	
Line regulation: For a 10% change in the nom- inal line voltage at any output voltage and current within rating.	C V	0.01% plus 1 mV	0.01% plus 1 mV	0.01% plus 1 mV	0.01% plus 1 mV	0.01% plus 1 mV	0.01% plus 1 mV	
	СС	0.05% plus 1 mA	0.05% plus 1 mA	0.05% plus 1 mA	0.05% plus 1 mA	0.05% plus 1 mA	0.05% plus 1 mA	
Ripple and noise: At any line voltage and under any load condition within rating.	C V	500 μV RMS (25 mV peak to peak DC to 20 MHz)						
	CC	5 mA RMS	3 mA RMS	5 mA RMS	3 mA RMS	3 mA RMS	3 mA RMS	
Remote programming: All Programming terminals are located on rear barrier strips.	CV	200 ohms per volt	200 ohms per volt	200 ohms per volt	200 ohms per volt	200 ohms per volt	300 ohms per volt	
	СС	100 ohms per amp	200 ohms per amp	100 ohms per amp	500 ohms per amp	200 ohms per amp	500 ohms per amp	
Meter ranges: (Accuracy : 3%)		.0-1.2 V, 0-12 V, 0-1.2 A, 0-12 A	0-2.4 V, 0-24 V, 06 A, 0-6 A	0-2.4 V, 0-24 V, 0-1.2 A, 0-12 A	0-5 V, 0-50 V, 04 A, 0-4 A	0-5 V, 0-50 V, 06 A, 0-6 A	0-7 V, 0-70 V, 04 A, 0-4 A	
Weight: (Net/Shipping)	lbs kg	25/32 11,3/14,5	25/32 11,3/14,5	30/40 13,6/14,1	26/33 11,8/15,0	30/40 13,6/14,1	29/38 13,1/12,7	
Price		\$350	\$350	\$395	\$350	\$395	\$395	
Options: Refer to page 561 for description		11-\$55	charge if ordered wit 13—\$60	07—\$25 28—\$50	08—\$25			

<sup>\*</sup>CV load regulation given for rear terminals only. At front terminals CV load regulation is 0.5 mv per amp greater due to front terminal resistance.

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Output impedance: MPB-5 series:  $0.001\Omega$  series with 1  $\mu$ H. For other models, see table below.

Controls: Concentric coarse and fine output voltage and current controls permit continuous adjustment over entire output span. Models 6294A and 6299A incorporate a 10-turn front panel voltage control in lieu of the concentric coarse and fine voltage controls. Switch selects front panel meter voltage or current scale.

Finish: Light gray panel with dark gray case.

Accessories: Rack Kits 14513A and 14523A. See page 561.

Transient recovery time: Less than 50 µs is required for output voltage recovery in constant voltage operation to within 15 millivolts of the nominal output voltage following a change in output current equal to the current rating of the supply or 5 amperes, whichever is smaller. The nominal output voltage is defined as the mean between the no load and full load voltages.

#### Temperature ratings:

Operating: 0-50°C (consult factory for derating information for operation between 50°C and 71°C) Storage -20°C to +85°C

### Size:

MPB-3 —  $3\frac{1}{2}$ " H x  $8\frac{1}{2}$ " W x  $14\frac{1}{2}$ " D — 8,9 cm H x 21,8 cm W x 36,8 cm D

MPB-5 — 5 $\frac{1}{4}$ " H x 8 $\frac{1}{2}$ " W x 16" D — 13,3 cm H x 21,8 cm W x 40,7 cm D

DPR — 3½" H x 14½" D x 19" W

— 8,9 cm H x 36,8 cm D x 48,3 cm W

Model	-	MPB-3 6281A	MPB-3 6284A	DPR 6253A	MPB-3 6289A	DPR 6255A	MPB-3 6294A	MPB-3 6299A
DC Voltage		0-7.5V	0-20V		0-40V		0-60V	0-100V
Output DC Current	-	0-5A	0-3	0-3A		.5A	0-1A	0-750 mA
Input: 115 V ac ± 10%, 50-400 Hz		1.3 A 118 W	1.5 A 128 W	3 A 256 W	1.3 A 110 W	2.6 A 220 W	1.3 A 114 W	1.5 A 135 W
*Load regulation: The Constant Voltage Load Regulation is given for a load current change equal to the current rating of the	СV	5 mV	0.01% plus 4 mV		0.01% plus 2 mV		0.01% plus 2 mV	0.01% plus 2 mV
supply. The Constant Current Load regulation is given for a load voltage change equal to the voltage rating of the supply.	СС	0.01% plus 250 μA		0.01% plus 250 μA		0.01% plus 250 μA	0.01% plus 250 μA	
Line regulation:	CV	0.01% plus 2 mV	0.01% plus 2 mV		0.01% plus 2 mV		0.01% plus 2 mV	0.01% plus 2 mV
For a 10% change in the nominal line voltage at any output voltage and current within rating.	СС	0.01% plus 250 μA	0.01% plus 250 μA		0.01% plus 250 μA		0.01% plus 250 μA	0.01% plus 250 μA
Ripple and noise:	CV	200 μV RMS/1 mV p-p (dc to 20					20 MHz)	
At any line voltage and under any load condition within rating.	CC	4 mA RMS	2 mA RMS		500 μA RMS		500 μA RMS	500 μA RMS
Remote programming:	CV	200 ohms per volt	200 ohms per volt		200 ohms per volt		300 ohms per volt	300 ohms per volt
All Programming terminals are located on rear barrier strips.	CC	200 ohms per amp	500 ohms per amp		500 ohms per amp		1000 ohms per amp	1000 ohms per amp
Output impedance:		$1 \text{ m}\Omega + 1 \mu \text{H}$	$2m\Omega + 1 \mu H$		$4m\Omega + 1 \mu H$		$8m\Omega + 1 \mu H$	$16m\Omega + 1 \mu H$
Meter ranges (Accuracy: 3%)	1	09 V, 0-9 V, 06 A, 0-6 A	0-2.4 V, 0-24 V, 04 A, 0-4 A		0-5 V, 0-50 V, 018 A, 0-1.8 A		0-7 V, 0-70 V, 012 A, 0-1.2 A	0-12 V, 0-120 V, 01 A, 0-1 A
Weight: (Net/Shipping)	lbs. kg	14/19 6,4/8,6	14/19 6,4/8,6	28/35 12,7/15,8	14/19 6,4/8,6	28/35 12,7/15,8	14/19 6,4/8,6	15/20 6,8/9,1
Price		\$210	\$210	\$445	\$210	\$445	\$210	\$225
Options: Refer to page 561 for details	MPB-3 DPR	07—\$25 07—\$50 08-	08—\$25 -\$50 09	09— <b>\$4</b> 9— <b>\$</b> 90	5 11 10— <b>\$</b> 125	-\$110 11-\$110	13—\$60 14—\$ 13—\$120 14—	60 28—\$10 -\$120 28—\$10

CC indicates constant current.

CV Indicates constant voltage.