

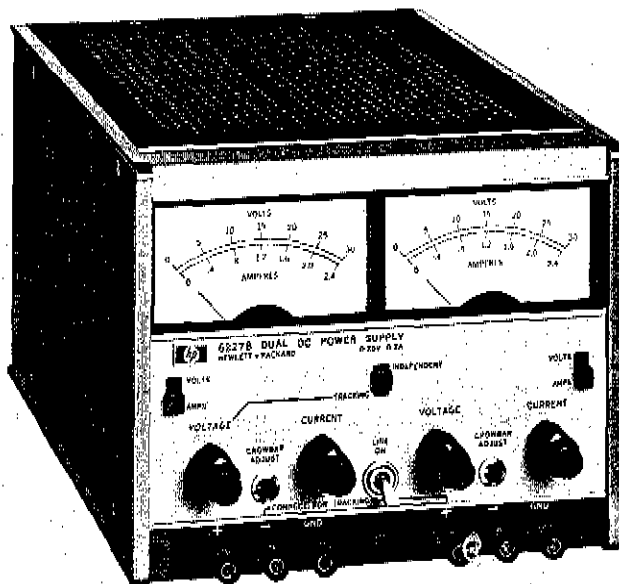
HEWLETT *hp* PACKARD

DPB SERIES

DUAL POWER SUPPLY

MODELS 6227B, 6228B

TECHNICAL DATA MARCH 1970



FEATURES

- Two 50-watt power supplies for independent or tracking operation in a half-rack case.
- Front panel switch for tracking operation.
- Constant current in addition to constant voltage outputs.
- Built-in overvoltage protection crowbars.
- Low peak-to-peak ripple and noise.
- Large meters for current and voltage.

DESCRIPTION

These Hewlett-Packard dual output supplies include tracking operation for powering operational amplifiers, push-pull stages, deflection systems, and any application where plus and minus voltages are required to track with an insignificant error.

Each unit houses two identical, independently adjustable dc power supplies. A convenient front panel switch selects one of two modes: independent or tracking. In the independent mode, the output voltage and current are controlled separately. Each supply is isolated up to 300 V from output to chassis or output to output. In the tracking mode, both outputs are connected in series, and the controls for the left supply adjust the magnitude of both (+) and (-) outputs.

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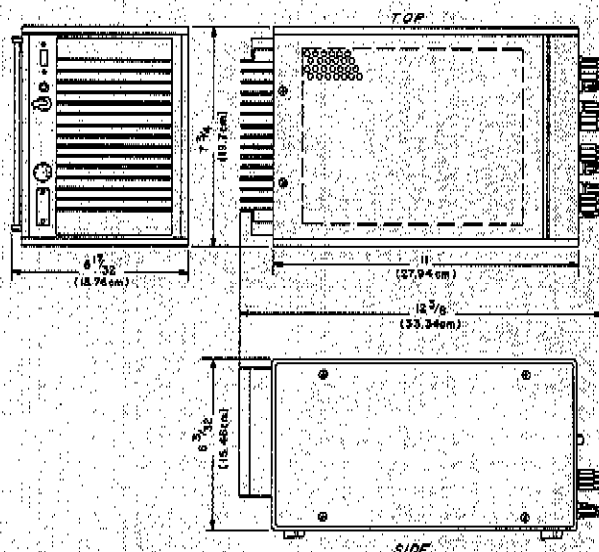


SPECIFICATIONS

| MODEL | | 6227B | 6228B |
|--|------------|--|-------------------------|
| OUTPUT | DC Voltage | 0-25V | 0-50V |
| | DC Current | 0-2A | 0-1A |
| INPUT: 115 or 230 Vac \pm 10% Selected by rear panel switch | | 2.7A, 260W, 48-66Hz | 2.7A, 260W, 48-66Hz |
| LOAD REGULATION: The Constant Voltage Load Regulation is given for a load current change equal to the current rating of the supply. The Constant Current Load Regulation is given for a load voltage change equal to the voltage rating of the supply | C V | 0.01% plus 1mV | 0.01% plus 1mV |
| | C C | 0.01% plus 250 μ A | 0.01% plus 250 μ A |
| LINE REGULATION: For a change in line voltage from 103.5 to 126.5 (or 207 to 253) at any output voltage and current within rating | C V | 1mV | 1mV |
| | C C | 100 μ A | 100 μ A |
| RIPPLE AND NOISE: At any line voltage and under any load condition within rating | C V | 250 μ V rms/4mV p-p (dc to 20 MHz) | |
| | C C | 250 μ A rms/2mA p-p (dc to 20 MHz) | |
| TEMPERATURE COEFFICIENT: Output change per degree Centigrade change in ambient following 30 minutes warm-up. | C V | 0.02% plus 200 μ V | 0.02% plus 200 μ V |
| | C C | 0.02% plus 300 μ A | 0.02% plus 150 μ A |
| STABILITY: Under constant ambient conditions, total drift for 8 hours following 30 minutes warm-up. | C V | 0.2% plus 2mV | 0.2% plus 2mV |
| | C C | 0.2% plus 3mA | 0.2% plus 1.5mA |
| REMOTE RESISTANCE PROGRAMMING: All Programming terminals are located on rear barrier strips. | C V | 200 ohms per volt | 200 ohms per volt |
| | C C | 500 ohms per amp | 1 Kohms per amp |
| REMOTE VOLTAGE PROGRAMMING: | C V | IV/V | IV/V |
| | C C | 0.5V/A | IV/A |
| OUTPUT IMPEDANCE: A resistance in series with an inductance. | | 2m Ω , 2 μ H | 6m Ω , 6 μ H |
| RESOLUTION, FINE CONTROL | voltage | 5mV | 10mV |
| | current | 1mA | 0.5mA |
| METER RANGES: Two meters; one for each supply. Accuracy: 2% of full scale | | 30V/2.4A | 60V/1.2A |
| WEIGHT: (Net/Shipping) | lbs. | 24/28 | 24/28 |
| | Kg | 11/12, 9 | 11/12, 9 |
| PRICE: | | \$450 | \$450 |

CV Indicates Constant Voltage
CC Indicates Constant Current

DIMENSIONS:



Internal overvoltage crowbars: During independent operation, each supply is protected by its own crowbar. In the tracking mode, an overvoltage in either supply results in firing both crowbars.

Trip voltage margin: the minimum trip voltage above the operating output voltage of the supply to prevent false crowbar tripping: 7% of the output voltage + 1.5V.

Trip voltage range:

6227B; 5-28 Vdc
6228B; 5-55 Vdc

Tracking error: In Tracking mode, the slave supply is matched to within 0.2% \pm 2mV of the master.

Transient Recovery Time: In constant voltage, the output will recover in 50 μ sec. to within 10 mV of its nominal value for a resistive load change demanding an output current change equal to the current rating of the supply. The nominal output voltage is defined as the mean between the no load and full load voltages.

Temperature Ratings:

Operating: 0 to 55°C
Storage: -40 to +75°C

Cooling: Employs convection cooling, no moving parts.

Controls: Single-turn concentric coarse and fine voltage and current controls permit continuous adjustment over entire output span. Meter switch selects voltage or current meter readings. Independent tracking switch selects either: two independently isolated outputs, or the two outputs connected in series for tracking.

Finish: Light gray panel with dark gray case.

OPTIONS

007 — Two ten-turn output voltage controls replace both sets of concentric coarse and fine voltage control. Price: \$50

008 — Two ten-turn output current controls replace both sets of concentric coarse and fine current control. Price: \$50

009 — Four ten-turn output voltage and current controls replace all four concentric coarse and fine voltage and current controls. Price: \$90

013 — Three digit graduated decadal voltage control includes graduated ten-turn control replacing standard coarse and fine voltage controls. Price: \$120

014 — Three digit graduated decadal current control includes graduated ten-turn control replacing standard coarse and fine controls. Price: \$120

For more information call your local HP Sales Office or East (201) 265-5000 Midwest (312) 677-0400 South (404) 436-6181 West (213) 877-1282 Hewlett-Packard, New Jersey Division, 100 Locust Avenue, Berkeley Heights, New Jersey 07922. Telephone (201) 464-1234. In Europe: 1217 Meyrin-Geneva