POWER SUPPLIES

Single-Output System, 100 W HP 6632A, 6633A, 6634A

- · Linear output regulation
- · Low ripple and noise
- · "One-Box" solution: includes V and I readback
- · Fast up- and down-programming





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

| | | | HP 6632A | HP 6633A | HP 6634A |
|---|----------------------------|-------------|--------------|--------------|--------------|
| Output ratings | Output voltage | | 0 to 20 V | 0 to 50 V | 0 to 100 V |
| | Output current | | 0 to 5 A | 0 to 2 A | 0 to 1 A |
| Programming accuracy at 25° C ±5° C | Voltage | | 0.05% +10 mV | 0.06% +20 mV | 0.05% +50 mV |
| | + Current | | 0.15% +7 mA | 0.15% +2 mA | 0.15% +1 mA |
| Ripple and noise from 20 Hz to 20 MHz | Voltage (rms/peak-peak) | Normal mode | 0.3 mV/3 mV | 0.5 mV/3 mV | 0.5 mV/3 mV |
| | | Fast mode | 1 mV/10 mV | 1 mV/15 mV | 2 mV/25 mV |
| | Current | rms | 2 mA | 2 mA | 2 mA |
| Readback accuracy (at 25° C ±5° C) (percent of reading plus fixed) | Voltage | | 0.07% +15 mV | 0.07% +30 mV | 0.06% +70 mV |
| | + Current | | 0.18% +9 mA | 0.17% +3 mA | 0.15% +2 mA |
| | - Current | | 0.50% +15 mA | 0.50% +7 mA | 0.50% +6 mA |
| Load regulation | Voltage | | 2 mV | 4 mV | 5 mV |
| | Current | | 1 mA | 1 mA | 1 mA |
| Line regulation | Voltage | | 0.5 mV | 1 mV | 1 mV |
| | Current | | 0.5 mA | 0.25 mA | 0.25 mA |

Transient Response Time: Less than 100 µs (50 µs in fast mode) for the output voltage to recover to its previous level (within 0.1% of the

voltage rating of the supply) following any step change in load current of up to 50% of rated current.

Supplemental Characteristics (Nonwarranted characteristics determined by design and useful in applying the products)

| | Current | HP 6632A | HP 6633A | HP 6634A |
|--|---------|-------------|-------------|------------|
| Programming resolution | Voltage | 5 mV | 12.5 mV | 25 mV |
| | Current | 1.25 mA | 0.5 mA | 0.25 mA |
| | OVP | 100 mV | 250 mV | 500 mV |
| OVP accuracy | | 2.4%+240 mV | 2.4%+600 mV | 2.4%+1.2 V |
| Sink current | | 5 A | 2 A | 1 A |
| Minimum current in constant current mode | | 20 mA | 8 mA | 4 mA |
| Price | | \$1,885 | \$1,885 🚡 | \$1,885 |

For off-the-shelf shipment, call 800-452-4844.

DC Floating Voltage: Output terminals can be floated up to ±240 Vdc from chassis ground.

Remote Sensing: Up to 2 volts can be dropped in each load lead. Add 5 mV to the voltage load regulation specification for each 1-V change in the negative output lead due to load current change.

Command Processing Time: Average time required for the output voltage to begin to change following receipt of digital data is 10 ms for power supplies connected directly to the HP-IB.

Output Programming Response Time: The rise and fall time (10/90% and 90/10%) of the output voltage is less than 15 ms (400 μ s in fast mode). The output voltage change settles within 1 LSB (0.025% × rated voltage) of final value in less than 60 ms (2 ms in fast mode).

Input Power: 350 VA, 250 W at full load

HP-IB Interface Capabilities: SH1, AH1, T6, L4, SR1, RL1, PP1, DC1, DT0, E1 and C0

Regulatory Compliance: Listed to UL 1244; certified to CSA 556B; conforms to IEC 348; carries the CE mark.

RFI Suppression: Complies with CISPR-11 Group 1 Class B

Size: 88.1 mm H \times 425.5 mm W \times 346 mm D (3.5 in \times 16.75 in \times 13.6 in)

Weight: Net, 10.5 kg (23 lb); shipping, 12.3 kg (27 lb)

Warranty Period: Three years

Key Features (for more information, see page 150)

· HP-IB programming of voltage and current

· Measured voltage and current readback over the HP-IB

· Programmable overvoltage and overcurrent protection

· Self-test occurs at power-on or from an HP-IB command

Electronic calibration via HP-IB

Option 760 for built-in relays and DFI/RI

· Fast or normal mode operation selected via rear-panel switch

· Option 020 provides front panel binding posts

Key Literature

1995/96 Power Products Catalog, p/n 5963-3906.

| Ordering Information | Price |
|--|------------|
| Option Descriptions | 1.00 |
| Standard: 104 to 127 Vac, 48 to 63 Hz, 3.3 A | \$0 |
| Opt 020 Front Binding Posts | \$87 |
| Opt 760 Isolation and Reversal Relays; includes | \$430 |
| discrete fault indicator and remote inhibit | |
| Opt 100 87 to 106 Vac, 48 to 63 Hz, 2.9 A (Japan only) | \$0 |
| Opt 220 191 to 233 Vac, 48 to 63 Hz, 1.7 A | \$0 \$0 |
| Opt 240 209 to 250 Vac, 48 to 63 Hz, 1.6 A | \$0 |
| Opt 908 Rack Mount Kit (HP p/n 5061-9674) | \$36 |
| Opt 909 Rack Mount Kit with handles (HP p/n 5061-9675) | \$82 |
| Opt 910 Extra Operating Manual (HP p/n 5957-6360) | \$36 |
| and Service Manual (HP p/n 5957-6365). Standard unit | |
| is shipped with operating manual only. | |
| Accessory rack slide kit (HP p/n 1494-0060) | \$100 |