

POWER SUPPLIES

HP-IB System Power Supplies


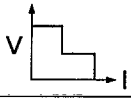
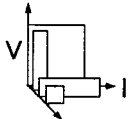
Feature Descriptions and Selection Index

| | | 6030 Series Autorangers | 6620 Series Multiple Output | 6620 Series Precision Multiple Output | 6630 Series Single Output | 6640 Series Single Output | 6650 Series Single Output | 6670 Series Single Output | 6680 Series Single Output | 66000 Modular Power System |
|-------------------------------|---|--------------------------------|--------------------------------|---|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|-------------------------------|
| DC range (for each series) | Max power Max voltage Max current | 200 & 1000 W 500 V 120 A | 80 W 50 V 10 A | 50 W 50 V 2 A | 100 W 100 V 5 A | 200 W 120 V 20 A | 500 W 120 V 50 A | 2000 W 120 V 220 A | 5000 W 40 V 875 A | 150W 200 V 16 A |
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Configuration Features

| | | | | | | | | | | |
|--|---------------|--------|--------|---|---------|---------|---------|---------|---------|------|
| "One-box" solution To preserve rack space and interconnections, the voltage and current programmers, current shunt, and DVM are built-in to one package. This also makes the full power-supply programming and monitoring system clearly specifiable, easy to configure, and reliable. | • | • | • | • | • | • | • | • | • | • |
| Modular power system (multiple reconfigurable outputs) Up to 8 modules can be installed into a mainframe, and configuration can be changed at any time. All modules in a mainframe (or two connected mainframes) share one HP-IB address. | | | | | | | | | | • |
| Multiple non-reconfigurable outputs Up to four outputs are included in one package, and they share one HP-IB address. | | • | • | | | | | | | |
| Serial link Up to 16 power-supply outputs can share one HP-IB address when connected with a telephone-style cable. The modular power system mainframe requires 8 of the 16 subaddresses available, regardless of whether it is operating with 8 modules. | • | | | | | • | • | • | • | • |
| Relay connect, disconnect, and polarity reversal A=Optionally integrated with the power supply B=Operates with relay accessories listed on page 210 C=Optionally operates with relay accessories listed on page 210 | B | C | C | A | B | B | B | B | B | A |
| Auto-parallel, auto-series, parallel, and series operation Auto-parallel, auto-series, parallel, and series operation increase the flexibility of the power supplies in your system. When connected in auto-parallel or auto-series, only one unit has to be programmed to take advantage of the full power from all. AP=auto-parallel AS=auto-series S=series P=parallel | S AP AS | S P | S P | | S AP | S AP | S AP | S AP | S AP | S, P |
| Analog programming and monitoring ports Analog programming ports allow the power supply to be used as a power amplifier, responding to an external voltage signal. Monitoring ports allow an external DMM to monitor the power-supply outputs. | • | | | | | • | • | • | • | |

Output Voltage and Current Range Changing

| | | | | | | | | | | |
|--|---|---|---|--|--|--|--|--|--|--|
| Autoranging A wide, continuous range of voltage and current combinations are available automatically at the maximum power level.  | • | | | | | | | | | |
| Multiple-output range changing Automatic range changing gives maximum power at two different voltage and current combinations.  | | • | | | | | | | | |
| Precision multiple-output range changing Voltage and current ranges can be chosen independently to provide greater resolution.  | | | • | | | | | | | |

Performance Characteristics

| | | | | | | | | | |
|---|--|--------|--------|--------------------------------|--------|--------|-----------|---------|---------|
| Output ripple and noise (Peak-to-peak, 20 Hz to 20 MHz) | 30-160 mV | 3 mV | 3 mV | 3 mV, (25 mV in fast mode) | 3-7 mV | 3-7 mV | 7-16 mV | 10 mV | 5-50 mV |
| Output programming response time Rise and fall time with full resistive load (10 to 90% and 90 to 10%) Does not include command processing time. | 200 W: 100-200 ms 1000 W: 300-2000 ms | 2-6 ms | 6 ms | 15 ms (0.4 ms in fast mode) | 15 ms | 15 ms | 30-195 ms | 9-60 ms | 20 ms |
| Programming resolution (percent of full scale) | 0.025% | 0.03% | 0.007% | 0.025% | 0.025% | 0.025% | 0.025% | 0.025% | 0.03% |

Key Literature

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