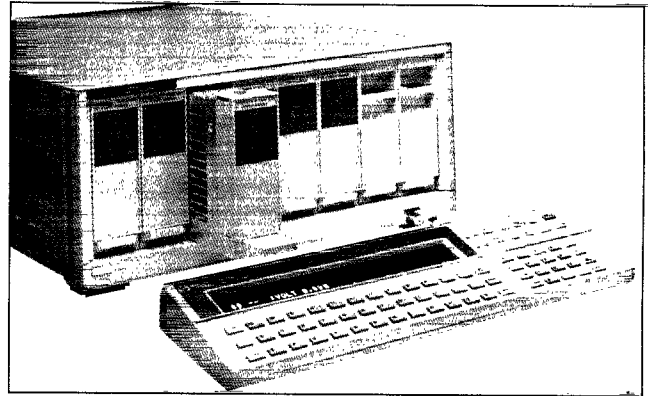


# POWER SUPPLIES

## HP 66000 Modular Power System

HP 66000A, 66001A, 66101A-66106A

- High density: eight slots in 7 inches of rack space
- Output sequencing
- Low ripple and noise
- High-accuracy read-back of voltage and current
- Standard Commands for Programmable Instruments (SCPI)
- Optional keyboard and display unit
- Serial link to connect two mainframes at one HP-IB address
- Optional isolation and polarity-reversal relays
- Built-in self-test



### HP 66000 Modular Power System

The Hewlett-Packard 66000 modular power system is one of the latest additions to the HP family of "one-box" power products. This power system simplifies test-system assembly, cabling, programming, debugging, and operation. It is ideal for ATE and production test

environments, where it can supply bias power and stimulus to sub-assemblies and final products. The HP modular power system saves rack space. The 7-in-high (4-EIA units) mainframe can accommodate up to eight dc power modules.

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

		HP 66101A	HP 66102A	HP 66103A	HP 66104A	HP 66105A	HP 66106A
Output ratings (at 40° C)	Output Voltage	0-8 V	0-20 V	0-35 V	0-60 V	0-120 V	0-200 V
	Output Current	0-16 A	0-7.5 A	0-4.5 A	0-2.5 A	0-1.25 A	0-0.75 A
	Output Power	128 W	150 W	150 W	150 W	150 W	150 W
Programming accuracy (at 25° C ± 5° C)	Voltage	0.03% + 3 mV	8 mV	13 mV	27 mV	54 mV	90 mV
	Current	0.03% + 6 mA	3 mA	2 mA	1.2 mA	0.6 mA	0.4 mA
Readback accuracy (via HP-IB or keyboard display at 25° C ± 5° C)	Voltage	0.02% + 2 mV	5 mV	8 mV	16 mV	32 mV	54 mV
	Current	0.02% + 6 mA	3 mA	2 mA	1 mA	0.6 mA	0.3 mA
Ripple and noise (20 Hz to 20 MHz)	Constant voltage rms peak to peak	2 mV	3 mV	5 mV	9 mV	18 mV	30 mV
		5 mV	7 mV	10 mV	15 mV	25 mV	50 mV
	Constant current rms	8 mA	4 mA	2 mA	1 mA	1 mA	1 mA
Line regulation	Voltage	0.5 mV	0.5 mV	1 mV	2 mV	3 mV	5 mV
	Current	0.75 mA	0.5 mA	0.3 mA	0.1 mA	50 μA	30 μA
Load regulation	Voltage	1 mV	1 mV	1 mV	2 mV	4 mV	7 mV
	Current	0.2 mA	0.2 mA	0.2 mA	0.1 mA	50 μA	30 μA

**Transient Response Time:** Less than 1 ms for the output voltage to recover within 100 mV of its previous level following any step change in load current up to 10 percent of rated current.

#### Supplemental Characteristics (Non-warranted characteristics determined by design that are useful in applying the product.)

		HP 66101A	HP 66102A	HP 66103A	HP 66104A	HP 66105A	HP 66106A
Average resolution	Voltage	2.4 mV	5.9 mV	10.4 mV	18.0 mV	36.0 mV	60.0 mV
	Current	4.6 mA	2.3 mA	1.4 mA	0.75 mA	0.39 mA	0.23 mA
	Output voltage programming (OVP)	50 mV	120 mV	200 mV	375 mV	750 mV	1.25 mV
OVP accuracy		250 mV	500 mV	800 mV	1 V	1.5 V	2.5 V

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

**Remote Sensing:** Up to half the rated output voltage can be dropped across in each load lead. Add 2 mV to the voltage load regulation specification for each 1-V change in the negative output lead caused by a load current change.

**Command Processing Time:** The average time for the output voltage to change after getting an HP-IB command is 20 ms.

**Output Programming Response Time (with full resistive load):** The rise and fall time (10% to 90% and 90% to 10%) of the output voltage is less than 20 ms. The output voltage change settles within 1 LSB (0.025% × rated voltage) of the final value in less than 120 ms.

**Down-Programming:** An active down-programmer sinks approximately 10% of the rated output current.

**Calibration Interval:** One year

#### AC Input of System Mainframe

Voltage, Vac	100	120	200	220	230	240
Maximum current, A	29	25	16	16	15	15

#### Input Power of System Mainframe:

3200 VA (max), 1800 W (max), 1600 W (typ)

**HP-IB Capabilities:** SH1, AH1, T6, L4, SR1, RL1, PPO, DC1, DT1, E1, and CO, and a command set compatible with IEEE 488.2 and SCPI.

**Regulatory Compliance:** Listed to UL 1244; certified to CSA 22.2 No. 231; conforms to IEC 1010, carries the CE mark

**RFI Suppression:** Complies with CISPR-11, Group 1, Class A

**Weight:** Net, HP 66000A, 15 kg (33 lb); HP 66001A, 1.05 kg (2.3 lb); HP 66101-66106A, 2.8 kg (6 lb). Shipping, HP 66000A, 19 kg (42 lb); HP 66001A, 1.34 kg (2.95 lb); HP 66101-66106A, 4.1 kg (9 lb).

**Size:** HP 66000A: 425.7 mm W × 184.94 mm H × 677.93 mm D (16.76 in × 7.28 in × 26.69 in), including feet and rear connectors

**Warranty Period:** Three years

#### Key Literature

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