POWER SUPPLIES

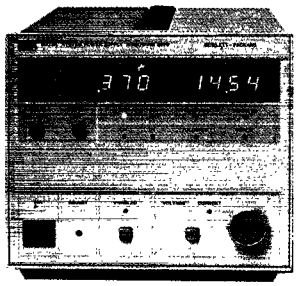
Single-Output System: 200 to 1000 W Autoranging

HP 6030A, 6031A, 6032A, 6033A, 6035A, 6038A

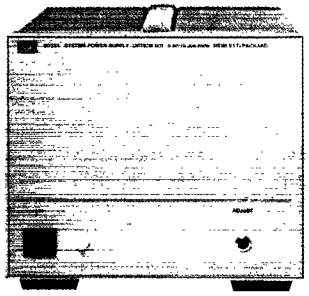
- Autoranging output
- "One-Box" Solution: includes V and I readback
- SCPI (Standard Commands for Programmable Instruments)

DESIGNED FOR HP-IB SYSTEMS

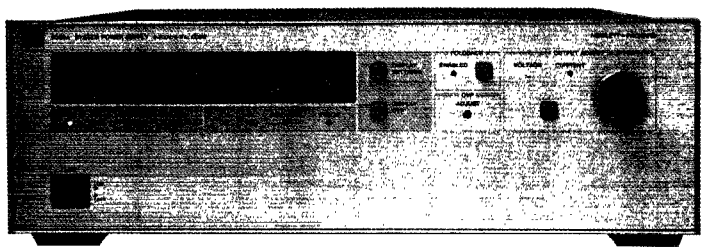
SUPPORTED BY HP ITG SOFTWARE



HP 6033A, and 6038A



HP 6033A and 6038A with Opt 001.



HP 6030A, 6031A, 6032A, and 6035A

Specifications (at 0° C to 50° C unless otherwise specified)

Hewlett-Packard Model			6033A	6031A	6038A	6032A	6030A	6035A
Output ratings	Output voltage		0 to 20 V	0 to 20 V	0 to 60 V	0 to 60 V	0 to 200 V	0 to 500 V
	Output current		0 to 30 A	0 to 120 A	0 to 10 A	0 to 50 A	0 to 17 A	0 to 5 A
Autoranging Output*	V1 P1 V2 P2 V3 P3		20 V 200 W 14 V 242 W 6.7 V 200 W	20 V 1000 W 14 V 1064 W 7 V 840 W	60 V 200 W 40 V 240 W 20 V 200 W	60 V 1000 W 40 V 1200 W 20 V 1000 W	200 V 1000 W 120 V 1200 W 60 V 1020 W	500 V 1000 W 350 V 1200 W 200 V 1000 W
Programming accuracy at 25° C ± 5° C	Voltage		0.035% +9 mV	0.035% +15 mV	0.035% +40 mV	0.035% +40 mV	0.035% +145 mV	0.25% +400 mV
	Current		0.15% +20 mA	0.25% +250 mA	0.085% +10 mA	0.2% +85 mA	0.2% +25 mA	0.3% + mA
Ripple and noise from 20 Hz to 20 MHz	Constant voltage	rms	3 mV	8 mV	3 mV	8 mV	22 mV	50 mV
		peak-to-peak	30 mV	50 mV	30 mV	40 mV	50 mV	160 mV
	Constant current	rms	15 mA	120 mA	5 mA	25 mA	15 mA	50 mA
Readback accuracy at 25° C ± 5° C	Voltage		0.07% +6 mV	0.08% +7 mV	0.07% +50 mV	0.08% +20 mV	0.08% +80 mV	0.5% +200 mV
	Current		0.3% +25 mA	0.4% +100 mA	0.2% +11 mA	0.36% +35 mA	0.36% +15 mA	0.5% +50 mA
Load regulation	Voltage		0.01% +2 mV	0.01% +3 mV	0.01% +3 mV	0.01% +5 mV	0.01% +5 mV	0.01% +13 mV
	Current		0.01% +9 mA	0.01% +15 mA	0.01% +5 mA	0.01% +10 mA	0.01% +10 mA	0.03% +34 mA
Line regulation	Voltage		0.01% +1 mV	0.01% +2 mV	0.01% +2 mV	0.01% +3 mV	0.01% +5 mV	0.01% +13 mV
	Current		0.01% +6 mA	0.01% +25 mA	0.01% +2 mA	0.01% +10 mA	0.01% +5 mA	0.03% +17 mA
Transient Response Time 10% step change	Time		1 ms	2 ms	1 ms	2 ms	2 ms	5 ms
	Level		50 mV	100 mV	75 mV	100 mV	150 mV	200 mV

*See the generalized autoranging output characteristic curve.

Isolation: Either terminal may be grounded, or may be floated up to ±240V (±550 V for the HP 6030A and 6035A) from chassis ground.

Supplemental Characteristics

Hewlett-Packard Model		6033A	6031A	6038A	6032A	6030A	6035A
Average Programming Resolution	Voltage	5 mV	5 mV	15 mV	15 mV	50 mV	125 mV
	Current	7.5 mA	30 mA	2.5 mA	12.5 mA	4.25 mA	1.25 mA
	OVP	100 mV	100 mV	100 mV	200 mV	600 mV	1 V
AC Input Current:	100 Vac 120 Vac 220 Vac 240 Vac	6.0 A 6.5 A 3.8 A 3.6 A	24 A 24 A 15 A 14 A	6.0 A 6.5 A 3.8 A 3.6 A	24 A 24 A 15 A 14 A	24 A 24 A 15 A 14 A	24 A 24 A 15 A 14 A
Weight (kg(lb)):	Net	9.6(21)	17.2(38)	9.6(21)	16.3(36)	16.3(36)	16.3(36)
	Shipping	11.4(25)	22.7(50)	11.4(25)	21.8(48)	21.8(48)	21.8(48)

Remote sensing: Remote sensing can be used to maintain the CV load effect specification at the load with up to 0.5 V drop per load lead, and sense wires that are less than 0.2 Ω per lead. Operation is possible with up to 2.0 V drop per lead; however, the load effect specification may be degraded.

Modulation (analog programming of output voltage and current): Analog programming inputs and monitoring terminals are provided on the rear panel in addition to the HP-IB programming capabilities. Zero to full-scale voltage or current can be programmed with either 0 to 5 V voltage signals, or 0 to 4000 Ω resistance signals. The monitoring terminals present 0 to 5 V buffered signals, which are proportional to the output voltage and current.

Inductive load: HP models 6030A, 6031A, 6032A, 6035A, and 6038A are stable when operating in CC into inductive loads up to 100 mH, and the HP 6033A and 6038A can handle up to 1 H. A special modification is available for HP Models 6030A, 6031A, and 6032A to ensure stable operation when operating into inductive loads up to 10 H.

HP-IB interface capabilities: SH1, T6, AH1, L4, SR1, RL1, PP1, DC1, DT1, IEEE 488.2 and SCPI compatible command set.

RFI suppression: Meets VDE 0871/6.78 Level B and FCC class B.