KEYSIGHT TECHNOLOGIES (AGILENT HP)

6031A

The Keysight Agilent 6031A is a high-performance, single-output autoranging programmable DC power supply providing up to 1064 W of output power. Designed for automated test systems (ATE), it features precise HP-IB (GPIB) programming, robust protection mechanisms, and a 3U form factor, making it an efficient and space-saving solution for demanding high-current test environments.

SPECIFICATIONS

General

Interfaces	GPIB (HP-IB)
Display	Dual 4-digit LED displays for voltage and current

Physical

Power Supply	120 VAC nominal (104 to 127 VAC), single phase, 47 to 63 Hz; 1600 VA maximum (optional 100/220/240 VAC)
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	425.5 mm × 132.6 mm × 503.7 mm mm
Weight	16.3 kg kg

Output Ratings and Capabilities

Number of Channels	1
Rated Output Power	1064 W
Rated Output Voltage	0 to 20 V
Rated Output Current	0 to 120 A

Programming Accuracy and Resolution

Voltage Programming Accuracy	0.035% + 15 mV
Current Programming Accuracy	0.25% + 250 mA

Readback Accuracy and Resolution

Voltage Readback Accuracy	0.08% + 7 mV
Current Readback Accuracy	0.35% + 130 mA

Ripple and Noise

Constant Voltage Ripple (rms)	8 mV
Constant Voltage Ripple (peak-to-peak)	50 mV
Constant Current Ripple (rms)	120 mA

Load and Line Regulation

Voltage Load Regulation	0.01% + 3 mV
Current Load Regulation	0.01% + 10 mA
Voltage Line Regulation	0.01% + 2 mV
Current Line Regulation	0.01% + 5 mA

Transient Response and Dynamic Performance

Transient Recovery Time	1 ms to recover within 75 mV of nominal voltage following a step change in load current from 90% to 100% or 100% to 90%

Protection Features

Over-Voltage Protection (OVP) Range	2 V to 23 V

Physical and Mechanical

Form Factor	Rackmount 3U

Resolution

Voltage Programming Resolution	5 mV
Current Programming Resolution	30 mA
Voltage Readback Resolution	5 mV
Current Readback Resolution	30 mA
OVP Programming Resolution	100 mV

Protection

OVP Accuracy	1.6% + 0.3 V

Temperature Coefficient

Voltage Temperature Coefficient	0.005% + 0.3 mV per °C
Current Temperature Coefficient	0.008% + 5 mA per °C

Performance

Maximum Remote Sense Drop	0.5 V per load lead
Command Processing Time	15 ms typical

Power

Typical Efficiency	70% at full power

Safety & Isolation

Output Isolation to Chassis Ground	240 VDC max

Power Requirements

AC Input Voltage Options	100 VAC / 120 VAC / 220 VAC / 240 VAC (±10%)
AC Input Frequency	48 to 63 Hz
AC Input Current	16 A @ 120 VAC / 9 A @ 220 VAC / 8.5 A @ 240 VAC

Dynamic Performance

Upward Programming Response Time (No Load)	30 ms
Upward Programming Response Time (Full Load)	30 ms
Downward Programming Response Time (No Load)	400 ms
Downward Programming Response Time (Full Load)	50 ms

Interfaces & Controls

Analog Programming Input Range	0 - 5 V / 0 - 10 V or 0 - 5 kΩ / 0 - 10 kΩ

Physical & Connectivity

Output Terminals	Rear-panel bus bars

Environmental

Cooling	Forced air cooling with rear exhaust
Storage Temperature	-40 °C to +75 °C

Compliance

Safety Standards	UL 1244, CSA 22.2 No. 220

TECHNOLOGY

Programmable DC Power Supply

APPLICATIONS

Automated test equipment (ATE), system-level DC power, high-current component testing

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.