

KEYSIGHT TECHNOLOGIES (AGILENT HP)

6296A

The Keysight Agilent HP 6296A is a classic, highly reliable, convection-cooled linear DC power supply. Designed for bench and rack use, it operates in both constant-voltage (CV) and constant-current (CC) modes. It features a single-output rated at 180 Watts (0-60 V, 0-3 A), built-in remote sensing, analog programming, auto-series, auto-parallel, and auto-tracking capabilities with front and rear output terminals.

SPECIFICATIONS

General

Interfaces	Analog programming (voltage/resistance), remote sensing
Display	Dual front-panel analog meters (voltage and current)

Physical

Power Supply	115 VAC $\pm 10\%$, single-phase, 57-63 Hz (230 VAC optional)
Operating Temperature	0 to 55 °C °C
Weight	10.9 kg

Output Ratings and Capabilities

Number of Channels	1
Rated Output Voltage	0 to 60 V
Rated Output Current	0 to 3 A
Rated Output Power	180 W
Output Configuration	Constant Voltage (CV) / Constant Current (CC)
Output Voltage Isolation	Up to 300 VDC above/below ground
Output Terminals	Front and rear output terminals

Load and Line Regulation

Voltage Line Regulation	0.01% + 1 mV
Current Line Regulation	0.05% + 1 mA
Voltage Load Regulation	0.01% + 1 mV
Current Load Regulation	0.05% + 1 mA

Ripple and Noise

Constant Voltage Ripple and Noise (Vrms)	500 uV rms (20 Hz to 20 MHz)
Constant Voltage Ripple and Noise (Vp-p)	25 mV peak-to-peak (20 Hz to 20 MHz)
Constant Current Ripple and Noise (Irms)	3 mA rms (20 Hz to 20 MHz)

Design & Features

Voltage Control Type	Coarse and fine controls
Current Control Type	Coarse and fine controls
Remote Sensing	Supported
Auto-Series Capability	Supported
Auto-Parallel Capability	Supported
Auto-Tracking Capability	Supported

Physical and Mechanical

Cooling System Design	Convection cooled
Form Factor	5-1/4 inch height, half rack width

Performance

Transient Recovery Time	< 50 μ s to within 15 mV following full to half (or half to full) load change
Voltage Temperature Coefficient	0.01% + 1 mV per °C
Voltage Drift (8 hours)	0.1% + 5 mV
Current Drift (8 hours)	0.1% + 3 mA
Output Impedance (DC to 100 Hz)	1.2 m Ω (typical)
Output Impedance (100 Hz to 1 kHz)	12 m Ω (typical)
Output Impedance (1 kHz to 100 kHz)	0.15 Ω (typical)
Output Impedance (100 kHz to 1 MHz)	1.5 Ω (typical)
Remote Programming Coefficient (Current)	333 Ω /A
Current Temperature Coefficient	0.02% + 1 mA/°C

Controls

Voltage Control Resolution	15 mV
Current Control Resolution	10 mA

Display & Meters

Meter Accuracy	±2% of full scale
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Protection

Overvoltage Protection Crowbar Range	10 V to 65 V (Option 011 dependent)
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Programming & Control

Remote Programming Coefficient (Voltage)	200 Ω /V
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Environmental

Storage Temperature Range	-40 °C to +75 °C
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Power

AC Input Voltage	115 VAC ±10% (standard) / 230 VAC ±10% (with Option 28)
AC Input Frequency Range	48 Hz to 63 Hz
AC Input Current	3.1 A (at 115 VAC)

TECHNOLOGY

Linear

APPLICATIONS

Precision DC laboratory power and analog system integration

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