

KEYSIGHT TECHNOLOGIES (AGILENT HP)

AC6803B

The Keysight AC6803B is a basic programmable AC power source offering up to 2000 VA of AC power and 1600 W of DC power. Designed for utility fluctuation simulation and power testing, it features a complete set of measurement capabilities, including RMS voltage, current, power, and harmonic analysis, combined with a user-friendly interface and modern connectivity.

SPECIFICATIONS

General

Interfaces	USB, LAN (LXI Core); Optional GPIB (via AC68GPBU interface card)
Display	Graphical LCD with backlight

Physical

Power Supply	180 to 264 VAC, single-phase, 47 to 63 Hz
Operating Temperature	0 to 50 °C °C
Dimensions (W×H×D)	428 mm × 128 mm × 447 mm mm
Weight	24.0 kg

AC Output Specifications

Maximum AC Power Rating	2000 VA
Output Phase Configuration	Single-phase
AC Voltage Ranges	1 to 135 Vrms / 2 to 270 Vrms
AC Voltage Resolution	0.1 V
Frequency Range	40 Hz to 500 Hz
Maximum RMS Current (135 V Range)	20 A
Maximum RMS Current (270 V Range)	10 A
Maximum Peak Current (135 V Range)	60 A
Maximum Peak Current (270 V Range)	30 A
Total Harmonic Distortion (THD)	≤ 0.5% (at 40 to 100 Hz), ≤ 1.0% (at 100 to 500 Hz)

DC Output Specifications

Maximum DC Power Rating	1600 W
DC Voltage Ranges	1.4 to 190 V / 2.8 to 380 V
Maximum DC Current (190 V Range)	16 A
Maximum DC Current (380 V Range)	8 A

Physical & Environmental Specifications

Rack Height Units (U)	3U
Cooling Method	Forced air cooling (front intake, rear exhaust)

Input Ratings

Input Voltage Range	180 VAC to 264 VAC
Input Frequency Range	47 Hz to 63 Hz
Input Phase Configuration	Single-phase
Maximum Input Apparent Power	3400 VA

Performance

Load Regulation (135 V Range)	$\leq 0.15 \text{ V}$ (for 0% to 100% load change)
Load Regulation (270 V Range)	$\leq 0.3 \text{ V}$ (for 0% to 100% load change)
Line Regulation	$\leq 0.1\%$ (for input voltage variations over the operating range)
AC Voltage Setting Accuracy (135 V Range)	$\pm(0.5\% \text{ of setting} + 0.6 \text{ V})$ at $23 \text{ }^{\circ}\text{C} \pm 5 \text{ }^{\circ}\text{C}$
AC Voltage Setting Accuracy (270 V Range)	$\pm(0.5\% \text{ of setting} + 1.2 \text{ V})$ at $23 \text{ }^{\circ}\text{C} \pm 5 \text{ }^{\circ}\text{C}$
Frequency Setting Accuracy	$\pm 0.02\%$

Measurement

RMS Voltage Measurement Accuracy (135 V Range)	$\pm(0.5\% \text{ of reading} + 0.6 \text{ V})$
RMS Voltage Measurement Accuracy (270 V Range)	$\pm(0.5\% \text{ of reading} + 1.2 \text{ V})$
Voltage Measurement Resolution	0.1 V

Programming & Control

Setup Memory Capacity	10 states
Programming Language	SCPI
Optional Interface Cards	AC68GPBU (GPIB), AC68ALGU (Analog)

Environmental

Storage Temperature Range	$-10 \text{ }^{\circ}\text{C}$ to $60 \text{ }^{\circ}\text{C}$
Operating Humidity Range	20% to 80% RH (non-condensing)
Storage Humidity Range	20% to 80% RH (non-condensing)
Maximum Operating Altitude	2000 m

Measurement Accuracy

RMS Current Measurement Accuracy (135 V Range)	$\pm(0.5\% \text{ of reading} + 0.2 \text{ A})$
RMS Current Measurement Accuracy (270 V Range)	$\pm(0.5\% \text{ of reading} + 0.1 \text{ A})$
Peak Current Measurement Accuracy (135 V Range)	$\pm(2\% \text{ of reading} + 2 \text{ A})$
Peak Current Measurement Accuracy (270 V Range)	$\pm(2\% \text{ of reading} + 1 \text{ A})$
Active Power Measurement Accuracy (135 V Range)	$\pm(1.5\% \text{ of reading} + 6 \text{ W})$
Active Power Measurement Accuracy (270 V Range)	$\pm(1.5\% \text{ of reading} + 6 \text{ W})$
Apparent Power Measurement Accuracy (135 V Range)	$\pm(2\% \text{ of reading} + 12 \text{ VA})$
Apparent Power Measurement Accuracy (270 V Range)	$\pm(2\% \text{ of reading} + 12 \text{ VA})$
DC Voltage Measurement Accuracy (190 V Range)	$\pm(0.1\% \text{ of reading} + 0.2 \text{ V})$
DC Voltage Measurement Accuracy (380 V Range)	$\pm(0.1\% \text{ of reading} + 0.4 \text{ V})$
Frequency Measurement Accuracy	$\pm 0.1 \text{ Hz}$ (for 40.0 Hz to 500.0 Hz)

Output Accuracy

DC Voltage Setting Accuracy (190 V Range)	$\pm(0.1\% \text{ of setting} + 0.2 \text{ V})$
DC Voltage Setting Accuracy (380 V Range)	$\pm(0.1\% \text{ of setting} + 0.4 \text{ V})$

Measurement Resolution

Crest Factor Measurement Resolution	0.01
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Output Characteristics

Output Voltage Waveform	Sine wave
Transient Response Time	150 μs (typical, for 0% to 100% or 100% to 0% load change)

TECHNOLOGY

AC/DC Power Source

APPLICATIONS

AC power simulation, power supply testing, frequency conversion, and harmonic analysis

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