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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight AC6903L

Output On Off Phase: 0.0 to 360.0 degrees, 0.1 degree resolution, plus or minus 1 degree at less than or equal to 1 kHz Input Frequency: 50 to 60 Hz nominal, 45 to 65 Hz variation Dc Voltage Measurement Accuracy: 0.05 percent plus 150 mV From Keysight AC6900 Series Power Sources datasheet (complete three-phase AC power solution). AC6903L kVA, current, frequency ceiling, input VA, mass, and size are the model row. L models are 1 Hz to 550 Hz on three-phase output; H models extend to 5 kHz with de-rating notes on the sheet. Input Frequency: 50 to 60 Hz nominal, 45 to 65 Hz variation Dc Voltage Measurement Accuracy: 0.05 percent plus 150 mV From Keysight AC6900 Series Power Sources datasheet (complete three-phase AC power solution). AC6903L kVA, current, frequency ceiling, input VA, mass, and size are the model row. L models are 1 Hz to 550 Hz on three-phase output; H models extend to 5 kHz with de-rating notes on the sheet.



MODEL

**Agilent / Keysight
AC6903L**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

AC6903L

LISTING

<https://aumictechlabs.com/products/ac6903l-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight AC6903L is a three-phase AC power source delivering 3 kVA of stable, precision power across single-phase and three-phase output configurations. It functions as a multifaceted instrument combining power generation, measurement, and analysis capabilities - operating as a power analyzer, harmonic analyzer, and waveform generator in a single platform. Technical

Specifications Output Power & Voltage Power capacity: 3 kVA AC voltage output: 1 V to 320 Vrms (two ranges: 1–160 V and 2–320 V) DC voltage output: 1.4 VDC to 452 VDC (two ranges: 1.4–226 VDC and 2.8–452 VDC) Peak voltage (AC + DC): –455 V to 455 V (high range) or –227.5 V to 227.5 V (low range) Maximum RMS current: 30 A / 15 A (single-phase); 10 A / 5 A (single-phase three-wire or three-phase) Frequency: Up to 550 Hz Output modes: AC, DC, or AC plus DC Output configuration: Single-phase, single-phase three-wire, or three-phase four-wire Input Specifications Input power: 100–240 VAC, single-phase, 50/60 Hz (standard) or 180–235 VAC, three-phase, 50/60 Hz (optional) Performance Frequency accuracy: ± 0.002 kHz at 1 kHz (example at 30°C) Phase angle accuracy: $\pm 0.5^\circ$ at 60 Hz; $\pm 0.8^\circ$ at 400 Hz Key Features Real-time measurement of AC, DC, and combined AC + DC voltage and current Peak voltage and current detection Power metrics: real, apparent, reactive power; power factor and crest factor Harmonic analysis up to the 50th harmonic with amplitude and phase information Total Harmonic Distortion (THD) measurement Built-in power line disturbance, sequencing, and harmonic analysis tests Waveform generation capability Over/undervoltage, current, overpower, and overtemperature protection Output inhibit function and disconnect relays Programmable soft start/stop Five-inch LCD color display Typical Applications Power supply testing, harmonic compliance verification, component characterization under variable AC/DC conditions, power quality assessment, and transient response evaluation. Compatibility & Integration LXI-LAN, USB, and optional GPIB interfaces support analog and digital control. Compact footprint: 261.1 mm W $\times$ 103.8 mm H $\times$ 303.2 mm D (with bumpers).

Features & description

From manufacturer datasheet

Built-in harmonic analyzer to 50th order

Power line disturbance and sequencer Five-inch color LCD all-phase metering Parallel operation on 6 kVA and larger models Technical Specifications Model: AC6903L Instrument Type: Three-phase AC DC power source Ac Voltage Ranges: 160 V / 320 V (setting 0.0 to 161.0 V / 0.0 to 322.0 V) Voltage Setting Resolution: 0.1 V Voltage Setting Accuracy 45 To 500 Hz: plus or minus (0.15 percent plus 0.3 V) Voltage Setting Accuracy 500 Hz To 5 KHz: plus or minus (1 percent plus 0.3 V) / plus or minus (1 percent plus 0.6 V) Maximum Rms Current 1P: 30 A / 15 A Maximum Rms Current 1P3W Or 3P: 10 A / 5 A Power Capacity 1P Or 3P: 3 kVA Power Capacity 1P3W: 2 kVA Load Power Factor: 0 to 1 leading or lagging Frequency Range: 1 Hz to 550 Hz (L three-phase); familyHextends to 5 kHz Frequency Resolution: 0.01 Hz (1.00 to 99.99 Hz), 0.1 Hz (100.0 to 999.9 Hz), 1 Hz (1 kHz to 5 kHz) Frequency Accuracy: plus or minus 0.01 percent, temperature coefficient plus or minus 0.005 percent perCPhase Modes: 1P, 1P3W, 3P4W switchable Dc Voltage Ranges: plus or minus 226 V / plus or minus 452 V (setting 0 to plus or minus 227.5 V / 0 to plus or minus 455 V) Dc Voltage Accuracy: plus or minus (0.15 percent plus 0.3 V) Dc Power Capacity: 3 kW

AC6903L Characteristics / Specifications

PARAMETER	VALUE
Model	AC6903L
Instrument Type	Three-phase AC DC power source
Ac Voltage Ranges	160 V / 320 V (setting 0.0 to 161.0 V / 0.0 to 322.0 V)
Voltage Setting Resolution	0.1 V
Voltage Setting Accuracy 45 To 500 Hz	plus or minus (0.15 percent plus 0.3 V)
Voltage Setting Accuracy 500 Hz To 5 Khz	plus or minus (1 percent plus 0.3 V) / plus or minus (1 percent plus 0.6 V)
Maximum Rms Current 1P	30 A / 15 A
Maximum Rms Current 1P3W Or 3P	10 A / 5 A
Power Capacity 1P Or 3P	3 kVA
Power Capacity 1P3W	2 kVA
Load Power Factor	0 to 1 leading or lagging
Frequency Range	1 Hz to 550 Hz (L three-phase); familyHextends to 5 kHz
Frequency Resolution	0.01 Hz (1.00 to 99.99 Hz), 0.1 Hz (100.0 to 999.9 Hz), 1 Hz (1 kHz to 5 kHz)
Frequency Accuracy	plus or minus 0.01 percent, temperature coefficient plus or minus 0.005 percent perCPhase Modes: 1P, 1P3W, 3P4W switchable
Dc Voltage Ranges	plus or minus 226 V / plus or minus 452 V (setting 0 to plus or minus 227.5 V / 0 to plus or minus 455 V)
Dc Voltage Accuracy	plus or minus (0.15 percent plus 0.3 V)
Dc Power Capacity	3 kW
Max Peak Current	4 times maximum output current
Inrush Current Capacity	1.4 times maximum output current for 0.5 s
Line Regulation	plus or minus 0.1 percent
Thd	0.3 percent (less than or equal to 100 Hz), 0.5 percent (less than or equal to 330 Hz), 1.5 percent per kHz (less than or equal to 5 kHz)
Harmonic Analysis	rms voltage and current and phase angle, 5th to 50th, fundamental 10 Hz to 1 kHz

PARAMETER	VALUE
Output On Off Phase	0.0 to 360.0 degrees, 0.1 degree resolution, plus or minus 1 degree at less than or equal to 1 kHz
Apparent Input Power	4 kVA or less
Power Factor Typical	0.93 typical
Efficiency Typical	82 percent typical
Hold Up Time	10 ms
Input Frequency	50 to 60 Hz nominal, 45 to 65 Hz variation
Net Mass	28 kg
Net Dimensions	430 × 129.2 × 667.5 mm
Dc Voltage Measurement Accuracy	0.05 percent plus 150 mV
Ac Voltage Measurement Resolution	0.1 V
Transient Response Fast	40 us
Interfaces	LXI LAN, USB, GPIB
Manufacturer	Keysight Agilent

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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PARAMETER	VALUE
Maximum Rms Current 1P	30 A / 15 A
Maximum Rms Current 1P3W Or 3P	10 A / 5 A
Power Capacity 1P Or 3P	3 kVA
Power Capacity 1P3W	2 kVA
Load Power Factor	0 to 1 leading or lagging
Frequency Range	1 Hz to 550 Hz (L three-phase); family H extends to 5 kHz
Frequency Resolution	0.01 Hz (1.00 to 99.99 Hz), 0.1 Hz (100.0 to 999.9 Hz), 1 Hz (1 kHz to 5 kHz)
Frequency Accuracy	plus or minus 0.01 percent, temperature coefficient plus or minus 0.005 percent per C
Phase Modes	1P, 1P3W, 3P4W switchable
Dc Voltage Ranges	plus or minus 226 V / plus or minus 452 V (setting 0 to plus or minus 227.5 V / 0 to plus or minus 455 V)
Dc Voltage Accuracy	plus or minus (0.15 percent plus 0.3 V)
Dc Power Capacity	3 kW
Max Peak Current	4 times maximum output current
Inrush Current Capacity	1.4 times maximum output current for 0.5 s
Line Regulation	plus or minus 0.1 percent
Thd	0.3 percent (less than or equal to 100 Hz), 0.5 percent (less than or equal to 330 Hz), 1.5 percent per kHz (less than or equal to 5 kHz)
Harmonic Analysis	rms voltage and current and phase angle, 5th to 50th, fundamental 10 Hz to 1 kHz
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Specifications

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Voltage Setting Resolution	0.1 V
Voltage Setting Accuracy 45 To 500 Hz	plus or minus (0.15 percent plus 0.3 V)

Voltage Setting Accuracy 500 Hz To 5 KHz: plus or minus (1 percent plus 0.3 V) / plus or minus (1 percent plus 0.6 V)

Specifications

PARAMETER	VALUE
Maximum Rms Current 1P	30 A / 15 A
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Power Capacity 1P Or 3P	3 kVA
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Dc Voltage Ranges	plus or minus 226 V / plus or minus 452 V (setting 0 to plus or minus 227.5 V / 0 to plus or minus 455 V)
Dc Voltage Accuracy	plus or minus (0.15 percent plus 0.3 V)
Dc Power Capacity	3 kW
Max Peak Current	4 times maximum output current

PARAMETER	VALUE
Inrush Current Capacity	1.4 times maximum output current for 0.5 s
Line Regulation	plus or minus 0.1 percent
Thd	0.3 percent (less than or equal to 100 Hz), 0.5 percent (less than or equal to 330 Hz), 1.5 percent per kHz (less than or equal to 5 kHz)
Harmonic Analysis	rms voltage and current and phase angle, 5th to 50th, fundamental 10 Hz to 1 kHz
Output On Off Phase	0.0 to 360.0 degrees, 0.1 degree resolution, plus or minus 1 degree at less than or equal to 1 kHz
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Notes

From Keysight AC6900 Series Power Sources datasheet (complete three-phase AC power solution). AC6903L kVA, current, frequency ceiling, input VA, mass, and size are the model row. L models are 1 Hz to 550 Hz on three-phase output; H models extend to 5 kHz with de-rating notes on the sheet.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.