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Data Sheet

August 3, 2026

KEYSIGHT / AGILENT

Keysight (Agilent) N8949A Autoranging System DC Power Supply, 750 V, 40 A, 10000 W

Keysight (Agilent) N8949A Autoranging System DC Power Supply, 750 V, 40 A, 10000 W The Keysight N8949A is the 400 VAC-input twin of the N8929A in the N8900 Series: autoranging 750 V / 40 A / 10 kW system DC power supply. Same output curve as N8929A with 400 Vac mains for Europe/Asia sites. Built-in V/I measurement; LAN/USB/GPIB/analog; LXI Core; 3U. High-voltage ATE on 400 Vac facilities; autoranging system DC; parallel high-power banks. The Keysight N8949A is the 400 VAC-input twin of the N8929A in the N8900 Series: autoranging 750 V / 40 A / 10 kW system DC power supply. Same output curve as N8929A with 400 Vac mains for Europe/Asia sites. Built-in V/I measurement; LAN/USB/GPIB/analog; LXI Core; 3U. High-voltage ATE on 400 Vac facilities; autoranging system DC; parallel high-power banks.



MODEL

**Keysight / Agilent
N8949A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N8949A

LISTING

<https://aumictechlabs.com/products/n8949a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight N8949A is a 10 kW autoranging DC power supply engineered for demanding automated test equipment applications. It delivers 0–750 V and 0–40 A across a single output, maintaining full 10,000 W power across the entire voltage-current operating envelope. Unlike

traditional rectangular-output supplies, autoranging eliminates the need for multiple units by providing flexible voltage and current combinations without power derating. The 3U rack-mount form factor achieves high power density in space-constrained installations. Built-in voltage and current measurement circuitry enable real-time monitoring and feedback control. Over-voltage, over-current, and over-temperature protection safeguard the load and supply. Multiple N8900 Series units connect via built-in parallel links to achieve over 100 kW of combined output while operating as a single logical supply through unified programming.

Technical Specifications

DC Output Voltage: 0–750 V Current: 0–40 A Power: 10,000 W Programming Accuracy: $\pm 0.1\%$ of full-scale voltage; $\pm 0.2\%$ of full-scale current

AC Input 360–440 VAC (unit configured for 400 VAC)

Built-in Measurements Voltage and current monitoring integrated

Key Features

- Autoranging output maintains full 10 kW across wide voltage and current range
- Integrated overvoltage, overcurrent, and overtemperature protection
- Parallel operation capability for distributed power systems exceeding 100 kW
- Integrated measurement functions eliminate need for external instrumentation

Typical Applications Automated test equipment, component burn-in, high-voltage device characterization, power conversion testing, and distributed power architectures requiring synchronized multi-supply operation.

Compatibility & Integration N8900 Series member with 400 VAC input. Interfaces include LAN (LXI Core), USB, GPIB, and analog control. Compatible with PathWave BenchVue Power Supply Software for parameter configuration and data capture.

Features & description

From manufacturer datasheet

Features

- 750 V / 40 A / 10,000 W • Autoranging: 13.3 A @ 750 V; 250 V @ 40 A • AC input: 400 VAC nominal (N8949A) • Interfaces: LAN (LXI), USB, GPIB, analog • OVP/OCP/OTP; parallel primary/secondary

N8949A Characteristics / Specifications

PARAMETER	VALUE
Model	N8949A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Autoranging System DC Power Supply
Family	N8900 Series (10 kW, 400 VAC)
Alias	N8949A DC Output
Voltage	0–750 V; Current: 0–40 A; Power: 10,000 W
OVP	0–825 V class
Load transient recovery	≤ 1.5 ms (family) AC Input 400 VAC nominal $\pm 10\%$; 45–65 Hz; 3-phase; PF > 0.99
Efficiency	~90% class (family table) Operational Notes Choose N8929A (208 Vac) vs N8949A (400 Vac) for site mains. Prefer N8900 Series datasheet 5991-2818EN.
Autoranging	13.3 A @ 750 V; 250 V @ 40 A
AC input	400 VAC nominal (N8949A)
Interfaces	LAN (LXI), USB, GPIB, analog

N8949A Specifications

PARAMETER	VALUE
Applications	High-voltage ATE on 400 Vac facilities; autoranging system DC; parallel high-power banks.
Key Features	- 750 V / 40 A / 10,000 W
Technical Specifications	Model: N8949A
DC Output	Voltage: 0–750 V; Current: 0–40 A; Power: 10,000 W
Performance	CV ripple/noise, load effect, programming/measurement accuracy: per N8900 datasheet row for N8929A/N8949A (750 V / 10 kW)
Operational Notes	Choose N8929A (208 Vac) vs N8949A (400 Vac) for site mains. Prefer N8900 Series datasheet 5991-2818EN.

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

Specifications

PARAMETER	VALUE
Model	N8949A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Autoranging System DC Power Supply
Family	N8900 Series (10 kW, 400 VAC)
Alias	N8949A

DC Output

Voltage: 0-750 V; Current: 0-40 A; Power: 10,000 W

Current @ Max Voltage: 13.3 A; Voltage @ Max Current: 250 V

Performance

CV ripple/noise, load effect, programming/measurement accuracy: per N8900 datasheet row for N8929A/N8949A (750 V / 10 kW)

Specifications

PARAMETER	VALUE
OVP	0-825 V class
Load transient recovery	≤ 1.5 ms (family)
AC Input	400 VAC nominal ±10%; 45-65 Hz; 3-phase; PF > 0.99
Efficiency	~90% class (family table)

Operational Notes

Choose N8929A (208 Vac) vs N8949A (400 Vac) for site mains. Prefer N8900 Series datasheet 5991-2818EN.

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.