

KEYSIGHT TECHNOLOGIES (AGILENT HP)

N5700 Series - 750W

The Keysight (formerly Agilent / HP) N5700 Series (750W variants, models N5741A through N5752A) are compact, 1U programmable DC power supplies. Providing 600W to 780W of power (model dependent) in a single output, these system power supplies feature universal AC input and built-in GPIB, LAN, and USB 2.0 interfaces. They are fully SCPI programmable and LXI Class C compliant, designed for straightforward integration into ATE systems in R&D, design validation, and manufacturing environments. The series supports series and parallel operation for greater output flexibility, alongside robust analog control, analog monitoring, and DUT safety protection features.

SPECIFICATIONS

General

Interfaces	GPIB, LAN, USB 2.0
Display	Dual Digital LED (Voltage and Current)

Physical

Power Supply	85 - 265 VAC, 47 - 63 Hz
Operating Temperature	0 to 40 °C
Dimensions (W×H×D)	422.8 × 43.6 × 432.8 mm
Weight	7 kg
Output Terminals Location	Rear panel only (bus bars or wire-clamp connectors depending on voltage rating)

DC Output Ratings

Maximum Output Voltage	6 V to 600 V (model dependent)
Maximum Output Current	1.3 A to 100 A (model dependent)
Maximum Output Power	600 W to 780 W (model dependent)

Protection Features

Protection Features	Over-Voltage Protection (OVP), Over-Current Protection (OCP), Under-Voltage Limit (UVL)
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Analog Programming and Monitoring

Analog Programming Signal Level	0 - 5 V or 0 - 10 V (selectable)
Analog Monitoring Signal Level	0 - 5 V or 0 - 10 V (selectable)

Interfaces and Connectivity

Standard Communication Interfaces	GPIO (IEEE-488), LAN, USB 2.0
Supported Command Protocols	SCPI
LXI Compliance Level	LXI Class C
Parallel Operation Capability	Yes (up to 4 identical units)
Series Operation Capability	Yes (up to 2 identical units)
Remote Sense Terminals	Yes

AC Input Specifications

Input Voltage Range	85 to 265 VAC (Universal)
Input Frequency Range	47 to 63 Hz
Input Phases	Single Phase

Physical Specifications

Rack Mount Size (U)	1U
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Environmental

Storage Temperature	-20 °C to 70 °C
Operating Humidity	30% to 90% non-condensing
Storage Humidity	10% to 95% non-condensing
Operating Altitude	Up to 3000 m (10,000 ft)

Power

Power Factor	0.99 typical (at nominal input and rated power)
Maximum AC Input Current (100 VAC)	10.5 A
Maximum AC Input Current (200 VAC)	5 A
Inrush Current	< 25 A
Efficiency	73% to 87% (model dependent)

Performance

Programming Resolution	16-bit
Readback Resolution	16-bit
Command Processing Time	≤ 50 ms typical
Load Regulation (Voltage)	0.01% of rated voltage + 2 mV
Load Regulation (Current)	0.02% of rated current + 5 mA
Line Regulation (Voltage)	0.01% of rated voltage + 2 mV
Line Regulation (Current)	0.01% of rated current + 2 mA
Programming Accuracy (Voltage)	0.05% of rated voltage
Programming Accuracy (Current)	0.1% of rated current
Readback Accuracy (Voltage)	0.1% of rated voltage
Readback Accuracy (Current)	0.1% of rated current
Transient Response Time	< 1 ms (recovery to within 0.05% of rated voltage for 10-90% load step)
Temperature Coefficient (Voltage)	0.02% of rated voltage / °C
Temperature Coefficient (Current)	0.03% of rated current / °C

TECHNOLOGY

Programmable DC Power Supply

APPLICATIONS

Automated Test Equipment (ATE), R&D, Design Validation, Manufacturing

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