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Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

KEYSIGHT / AGILENT / HP

Keysight / Agilent / HP 6653A 500 Watt Single-Output DC Power Supply

Readback Accuracy Plus Current: 0.15 percent + 15 mA Readback Accuracy Minus Current: 0.35 percent + 24 mA Transient Recovery: less than 100 us to prior level within 0.1 percent of rating or 20 mV whichever greater after 50 percent load step Limits from HP/Agilent 665xA 500 W family tables for 6653A. Confirm GPIB option/interface and serial prefix. 654xA is the analog-only 200 W cousin; 657xA is the 2000 W no-GPIB cousin. Readback Accuracy Minus Current: 0.35 percent + 24 mA Transient Recovery: less than 100 us to prior level within 0.1 percent of rating or 20 mV whichever greater after 50 percent load step Limits from HP/Agilent 665xA 500 W family tables for 6653A. Confirm GPIB option/interface and serial prefix. 654xA is the analog-only 200 W cousin; 657xA is the 2000 W no-GPIB cousin.



MODEL

**Keysight / Agilent /
HP 6653A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

6653A

LISTING

[https://aumictechlabs.c
om/products/6653a-2/](https://aumictechlabs.com/products/6653a-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight/Agilent/HP 6653A is a 500 W single-output DC power supply engineered for automated test and high-volume manufacturing. It delivers 0 to 35 V with programming accuracy of 0.06% + 15 mV and current to 15 A at 40°C. Fast voltage settling - under 60 ms to within 0.025% of rated output - combined with low ripple (400 μV RMS, 4 mV peak-to-peak across 20 Hz to 20 MHz) makes it suitable for precision device characterization and production test floors.

Built-in overvoltage, overcurrent, and overtemperature protection with fast crowbar response safeguard connected equipment. GPIB (IEEE-488.2) and analog control interfaces enable seamless integration into multi-supply test architectures; serial linking supports up to 16 units on a single GPIB address. Adjustable fan speed minimizes acoustic output for lab and manufacturing environments. Technical Specifications Output: 0–35 V, 0–15 A @ 40°C; 13.5 A @ 50°C, 12.8 A @ 55°C; 500 W nominal (up to 525 W maximum) Voltage Programming Accuracy: 0.06% + 15 mV (25°C ±5°C) Current Programming Accuracy: 0.15% + 13 mA (25°C ±5°C) Line Regulation (Voltage): 0.06% + 15 mV typical Load Regulation (Voltage): 0.15% + 13 mA typical Ripple & Noise (20 Hz–20 MHz): 400 µV RMS voltage; 4 mV peak-to-peak voltage; 5 mA RMS current Programming Response: Voltage rise/fall time (10/90%, 90/10%) <15 ms; settles within 0.025% of rated voltage in <60 ms Input Voltage: 87–106 VAC (100V), 104–127 VAC (120V), 191–233 VAC (220V), 209–250 VAC (240V); 47–63 Hz Operating Temperature: Up to 55°C Key Features Overvoltage, overcurrent, and overtemperature protection with fast crowbar Mode crossover protection and discrete fault indicator/remote inhibit support GPIB (IEEE-488.2) with SCPI command set and analog control inputs Serial linking capability for multi-supply configurations VXIplug&play driver support Adjustable fan speed control for acoustic noise reduction UL 1244 listed Typical Applications Automated device characterization and burn-in testing Production test platforms requiring multi-supply synchronization Lab bench power delivery with remote programming Compatibility & Integration GPIB interface (SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, DT1, E1, C0). Front panel and remote analog programming. Serial link topology allows integration of up to 16 units under single GPIB address control.

Features & description

From manufacturer datasheet

Features

- 665xA 500 W family member (siblings 6651A 8 V 50 A through 6655A 120 V 4 A)

6653A Characteristics / Specifications

PARAMETER	VALUE
Model	6653A
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Single Output System DC Power Supply
Family	665xA 500 W
Alias	6653A; HP 6653A; Agilent 6653A
Output Voltage	0 to 35 V
Output Current 40 C	0 to 15 A
Output Current 50 C	13.5 A maximum
Output Current 55 C	12.8 A maximum
Output Power	500 W class (525 W marketing class on some sheets)
Programming Accuracy Voltage	0.06 percent + 15 mV at 25 plus or minus 5 C
Programming Accuracy Current	0.15 percent + 13 mA
Ripple Voltage rms	400 uV (20 Hz to 20 MHz)
Ripple Voltage pp	4 mV
Ripple Current rms	5 mA
Readback Accuracy Voltage	0.07 percent + 25 mV
Readback Accuracy Plus Current	0.15 percent + 15 mA
Readback Accuracy Minus Current	0.35 percent + 24 mA
Load Regulation Voltage	3 mV
Load Regulation Current	0.5 mA
Line Regulation Voltage	1 mV
Line Regulation Current	0.75 mA
Transient Recovery	less than 100 us to prior level within 0.1 percent of rating or 20 mV whichever greater after 50 percent load step
Average Resolution Voltage	10 mV
Average Resolution Current	4 mA

PARAMETER	VALUE
OVP Accuracy	700 mV class
Remote Interface	GPIB (IEEE 488)
Operating Modes	CV and CC
Analog Control	voltage and current
Related 6651A	0 to 8 V 0 to 50 A
Related 6652A	0 to 20 V 0 to 25 A
Related 6654A	0 to 60 V 0 to 9 A
Related 6655A	0 to 120 V 0 to 4 A Notes Limits from HP/Agilent 665xA 500 W family tables for 6653A. Confirm GPIB option/interface and serial prefix. 654xA is the analog-only 200 W cousin; 657xA is the 2000 W no-GPIB cousin.

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	6653A
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Single Output System DC Power Supply
Specifications	
PARAMETER	VALUE
Family	665xA 500 W
Alias	6653A; HP 6653A; Agilent 6653A
Output Voltage	0 to 35 V
Specifications	
PARAMETER	VALUE
Output Current 40 C	0 to 15 A
Output Current 50 C	13.5 A maximum
Output Current 55 C	12.8 A maximum
Specifications	
PARAMETER	VALUE
Output Power	500 W class (525 W marketing class on some sheets)
Programming Accuracy Voltage	0.06 percent + 15 mV at 25 plus or minus 5 C
Programming Accuracy Current	0.15 percent + 13 mA
Specifications	
PARAMETER	VALUE
Ripple Voltage rms	400 uV (20 Hz to 20 MHz)
Ripple Voltage pp	4 mV
Ripple Current rms	5 mA

Specifications

PARAMETER	VALUE
Readback Accuracy Voltage	0.07 percent + 25 mV
Readback Accuracy Plus Current	0.15 percent + 15 mA
Readback Accuracy Minus Current	0.35 percent + 24 mA

Specifications

PARAMETER	VALUE
Load Regulation Voltage	3 mV
Load Regulation Current	0.5 mA
Line Regulation Voltage	1 mV

Specifications

PARAMETER	VALUE
Line Regulation Current	0.75 mA
Transient Recovery	less than 100 us to prior level within 0.1 percent of rating or 20 mV whichever greater after 50 percent load step
Average Resolution Voltage	10 mV

Specifications

PARAMETER	VALUE
Average Resolution Current	4 mA
OVP Accuracy	700 mV class
Remote Interface	GPIO (IEEE 488)

Specifications

PARAMETER	VALUE
Operating Modes	CV and CC
Analog Control	voltage and current
Related 6651A	0 to 8 V 0 to 50 A

Specifications

PARAMETER	VALUE
Related 6652A	0 to 20 V 0 to 25 A
Related 6654A	0 to 60 V 0 to 9 A
Related 6655A	0 to 120 V 0 to 4 A

Notes

Limits from HP/Agilent 665xA 500 W family tables for 6653A. Confirm GPIB option/interface and serial prefix. 654xA is the analog-only 200 W cousin; 657xA is the 2000 W no-GPIB cousin.

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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.