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Data Sheet
August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 6681A DC Power Supply

Agilent Keysight 6681A 5000 W System DC Power Supply The Agilent/Keysight 6681A isasingle-output 5000 W GPIB system DC power supply in the 6680A series. OEM 6680A Series datasheets list output ratings at 40 C with 1 percent perCderating to 55 C, SCPI programming, analog modulation inputs, and three-phase AC input. High-current burn-in and manufacturing test, long-term system DC bias, and ATE racks needing up to 5 kW programmable DC with GPIB. Analog voltage and current programming inputs The Agilent/Keysight 6681A isasingle-output 5000 W GPIB system DC power supply in the 6680A series. OEM 6680A Series datasheets list output ratings at 40 C with 1 percent perCderating to 55 C, SCPI programming, analog modulation inputs, and three-phase AC input. High-current burn-in and manufacturing test, long-term system DC bias, and ATE racks needing up to 5 kW programmable DC with GPIB. Analog voltage and current programming inputs Serial link up to 16 supplies on one GPIB address

MODEL **Agilent / Keysight 6681A**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **6681A**	LISTING **https://aumictechlabs.com/products/6681a-2/**

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 6681A is a 5000 W single-output DC power supply engineered for R&D, manufacturing, and automated test systems requiring precise voltage and current control. The unit delivers 0–8 V at 0–580 A with exceptional low-noise performance: 1.5 mV RMS and 10 mV peak-to-peak ripple in constant voltage mode across the 20 Hz to 20 MHz bandwidth.

Programming accuracy reaches 0.04% + 8 mV for voltage and 0.1% + 300 mA for current at 25°C ±5°C.Technical Specifications Output: 0–8 V, 0–580 A Power: 5000 W Programming Accuracy: Voltage 0.04% + 8 mV; Current 0.1% + 300 mA Readback Accuracy: Voltage 0.05% + 12 mV; Current 0.1% + 400 mA Load & Line Regulation: Voltage (0.002% +) 0.3 mV; Current (0.005% +) 40 mA Output Ripple & Noise (CV mode, 20 Hz–20 MHz): 1.5 mV RMS / 10 mV p-p Output Ripple & Noise (CC mode, 20 Hz–20 MHz): 190 mA RMS Transient Response: <900 µs to recover within 150 mV after 50–100% load step Command Processing: 20 ms average (GPIB direct connect) Remote Sensing: Up to 0.5 × rated output voltage drop per load lead OVP Setting: 45 mVKey Features Low output ripple and noise for precision measurement applications Selectable compensation for inductive loads Analog voltage and current control for immediate process response Built-in V and I readback for integrated metering Programmable operation with advanced automation control Comprehensive protection architecture for DUT safety Fan-speed control to reduce acoustic emissionsTypical Applications R&D prototyping, manufacturing test, automated test systems, and applications demanding stable low-noise DC power with high current delivery.Compatibility & Integration GPIB (IEEE-488.2, SCPI) with SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, DT1, E1, C0 capabilities; serial link supports up to 16 units at single GPIB address; analog control inputs; VXIplug&play driver support. Input: 3-phase 47–63 Hz (Option 208: 180–235 VAC; Option 400: 360–440 VAC).

6681A Characteristics / Specifications

PARAMETER	VALUE
Model	6681A
Number Of Outputs	1
Output Voltage	0 to 8 V
Output Current At 40 C	0 to 580 A
Current Derating	1 percent perCfrom 40 C to 55 C
Power Class	5000 W series
Voltage Programming Accuracy 25 Plus Or Minus 5 C	0.04 percent plus 8 mV
Current Programming Accuracy	0.1 percent plus 300 mA
CV Ripple Noise RMS 20 Hz To 20 MHz	1.5 mV
CV Ripple Noise Peak To Peak	10 mV
Voltage Readback Accuracy	0.05 percent plus 12 mV
Current Readback Accuracy	0.1 percent plus 400 mA
Load Line Regulation Voltage	0.002 percent plus 0.3 mV
Load Line Regulation Current	0.005 percent plus 40 mA
Transient Response	less than 900 us to within 150 mV for 100 percent to 50 percent or 50 percent to 100 percent load step
AC Input Line To Line	180 to 235 Vac 3 phase or 360 to 440 Vac 47 to 63 Hz
Input Power Maximum	7350 VA and 6000 W
No Load Power	160 W
Analog Program Voltage Input	0 to minus 5 V for voltage
Analog Program Current Input	0 to plus 5 V for current
Analog Input Impedance	30 kOhm or greater
GPIB Capabilities	SH1 AH1 T6 L4 SR1 RL1 PP0 DC1 DT1 E1 C0
Command Set	IEEE-488.2 and SCPI
Series Family	Agilent 6680A 5000 W

6681A Specifications

PARAMETER	VALUE
Agilent Keysight 6681A 5000 W System DC Power Supply	Overview
Applications	High-current burn-in and manufacturing test, long-term system DC bias, and ATE racks needing up to 5 kW programmable DC with GPIB.
Key Features	5000 W single output system supply
Analog voltage and current programming inputs	Serial link up to 16 supplies on one GPIB address
Technical Specifications	Model: 6681A

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	6681A
Number Of Outputs	1
Output Voltage	0 to 8 V
Output Current At 40 C	0 to 580 A
Current Derating	1 percent perCfrom 40 C to 55 C
Power Class	5000 W series

Voltage Programming Accuracy 25 Plus Or Minus 5 C: 0.04 percent plus 8 mV
Current Programming Accuracy: 0.1 percent plus 300 mA
CV Ripple Noise RMS 20 Hz To 20 MHz: 1.5 mV

Specifications

PARAMETER	VALUE
CV Ripple Noise Peak To Peak	10 mV
Voltage Readback Accuracy	0.05 percent plus 12 mV
Current Readback Accuracy	0.1 percent plus 400 mA
Load Line Regulation Voltage	0.002 percent plus 0.3 mV
Load Line Regulation Current	0.005 percent plus 40 mA
Transient Response	less than 900 us to within 150 mV for 100 percent to 50 percent or 50 percent to 100 percent load step
AC Input Line To Line	180 to 235 Vac 3 phase or 360 to 440 Vac 47 to 63 Hz
Input Power Maximum	7350 VA and 6000 W
No Load Power	160 W
Analog Program Voltage Input	0 to minus 5 V for voltage
Analog Program Current Input	0 to plus 5 V for current
Analog Input Impedance	30 kOhm or greater
GPIB Capabilities	SH1 AH1 T6 L4 SR1 RL1 PP0 DC1 DT1 E1 C0
Command Set	IEEE-488.2 and SCPI
Series Family	Agilent 6680A 5000 W

Notes

From Agilent 6680A Series Single-Output 5000 W DC Power Supplies data sheet model column for 6681A. Confirm three-phase AC wiring and current derating at ambient above 40 C.

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
788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
https://aumictechlabs.com

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