

KEITHLEY

2420

The Keithley Model 2420 High Voltage SourceMeter is a high-performance, 60W source measure unit (SMU) designed for high current or medium power applications. Combining a highly stable DC power source and a precision 5½-digit multimeter, it enables tightly coupled precision voltage and current sourcing and measurement. The 2420 offers 4-quadrant source and sink capabilities, high repeatability, and low noise, making it highly suitable for testing resistors, thermistors, solar cells, batteries, and high-current diodes.

SPECIFICATIONS

General

Interfaces	GPIB (SCPI), RS-232, Keithley Trigger Link, Programmable Digital I/O (DIO)
Display	Double-line Vacuum Fluorescent Display (VFD)

Physical

Power Supply	100 V to 240 V AC, 50 Hz to 60 Hz, 190 VA maximum
Operating Temperature	0 °C to 50 °C °C
Dimensions (W×H×D)	213 mm × 89 mm × 370 mm mm
Weight	4.1 kg
Cooling	Forced air, internal fan

Resolution and Display

Digits of Resolution	5½ digits
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DC Voltage

DCV Ranges	200 mV, 2 V, 20 V, 60 V
DCV Best 1-Year Accuracy	0.012% basic measure accuracy
DCV Measurement Resolution	±1 µV
Voltage Programming Resolution (200 mV range)	5 µV
Voltage Programming Resolution (2 V range)	50 µV
Voltage Programming Resolution (20 V range)	500 µV
Voltage Programming Resolution (60 V range)	1.5 mV
Voltage Sourcing/Measuring Limit	±60 V

DC Current

DCI Ranges	10 µA to 3 A
Current Sourcing/Measuring Limit	±3 A

System Speed and Performance

Maximum Output Power	60 W
Source and Sink Operation	4-quadrant operation
Sensing Configurations	2- and 4-wire remote V-source and measure sensing
Transient Response Time	<30 μ s
Contact Check Function	Only available on 2420-C

Power and Environmental

DC Floating Voltage	Up to $\pm$ 250 V DC maximum from chassis ground
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Triggering and Math Functions

Pass/Fail Comparator	Yes, for fast sorting and binning
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Interfaces and Connectivity

Digital I/O Port	Programmable DIO port for automation/handler/prober control
Supported Software	Keithley LabTracer 2.0 I-V curve tracing application software

Safety & Electrical

Common Mode Voltage	250 V DC maximum (LO to chassis)
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Performance

Warm-up Time	1 hour to rated accuracy
Overrange Limit	105% of range (source and measure)

Memory & Logging

Reading Buffer Size	5,000 readings (volatile)
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Control & Software

Command Language	SCPI-1996.0
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Connectivity

Trigger Link	8-pin micro-DIN connector
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Protection & Limits

Overvoltage Protection Range	2 V to 66 V
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Measurement Settings

Max Sense Lead Resistance	1 M Ω
Input Impedance	>10 G Ω
Common Mode Impedance	>10 G Ω in parallel with <290 pF

Power & Safety

Power Consumption	190 VA max.
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Environmental

Operating Humidity	70% RH up to 35 °C (derated 3% RH/°C from 35 °C to 50 °C)
Operating Altitude	0 to 2000 m

Compliance

Safety Compliance	Conforms to European Union Directive 73/23/EEC, EN 61010-1
EMC Compliance	Conforms to European Union Directive 89/336/EEC, EN 55011, EN 50082-1
Vibration	MIL-PRF-28800F Class 3

TECHNOLOGY

Source Measure Unit (SMU)

APPLICATIONS

Precision DC sourcing and measurement for high-current component testing

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.