E36731A Battery Emulator

Quickly optimize your device for better battery

The E36731A is designed to operate with Keysight BV9211B Pathwave BenchVue advanced battery emulation software. This combination allows you to easily profile batteries and perform battery emulation, enabling you to perform battery drain analysis at different charge levels. This capability allows you to quickly optimize your device for batter battery life. You can also create a custom charging and discharging sequence at various test conditions. The software can run one thousand cycle operations to determine the aging effects and the impact on battery reliability.

Keysight E36731A Battery Emulator & BV9211B Software

Model/Option	Description
E36731A	Battery Emulator
BV9211B	PathWave BenchVue Advanced Battery Test and Emulation Software for Single Instrument
BV9210B	PathWave BenchVue Advanced Battery Test and Emulation Software for Four Instrument
EL34GPBU	GPIB user installable interface module
SEC	NISPOM and file security
UK6	Commercial calibration with test result data

		E36731A
DC Power Supply Output Rating		
Power		200W
Voltage		0 to 30 V
Current		0 to 20 A
Programming accuracy ± (% of output + offset) at 23 °C ± 5 °C for 12 months.		
Voltage		0.025% + 1.5 mV
Current		0.035% + 1.5 mA
Readback accuracy ± (% of output + offset) at 23 °C ± 5 °C for 12 months.		
Voltage		0.025% + 1.5 mV
Current	Low, 0.1 A	0.035% + 10 µA
	Mid, 2 A	0.03% + 300 µA
	High, 20 A	0.05% + 250 µA
Electronic Load Input Rating		
Power		250W
Voltage		0 to 60 V
Current		0 to 40 A
Programming accuracy ± (% of output + offset) at 23 °C ± 5 °C for 12 months.		
Constant current mode	Low, 4 A	0.05% + 820 µA
	High, 40 A	0.05% + 7.2 mA
Constant voltage mode	Low, 15 V	0.03% + 4.2 mV
	High, 60 V	0.03% + 15 mV
Constant power mode	Low, 0.08 Ω to 30 Ω	0.1% + 160 mS
	Mid, 10 Ω to 1.25 kΩ	0.1% + 16 mS
	High, 100 Ω to 4 kΩ	0.1% + 1.8 mS
Constant power mode	Low, 0.02 W to 5 W	0.08% + 18 mW
	Mid, 0.15 W to 25 W	0.08% + 150 mW
	High, 1.5 W to 250 W	0.08% + 1.5 W
Readback accuracy ± (% of output + offset) at 23 °C ± 5 °C for 12 months.		
Current	Low, 4 A	0.05% + 820 µA
	High, 40 A	0.05% + 7.2 mA
Voltage	Low, 15 V	0.03% + 4.2 mV
	High, 60 V	0.03% + 15 mV
Power	Low, 0.02 W to 5 W	0.08% + 18 mW
	Mid, 0.15 W to 25 W	0.08% + 150 mW
	High, 1.5 W to 250 W	0.08% + 1.2 W

More Information: www.keysight.com/find/E36731A

Key Values

Battery profiling, emulation, and cycling with BV9211B/BV9210B software

- Power up to 200W, 30V, 20A
- Profile batteries through charge/discharge to create a unique battery model
- Emulate charge states to reduce test time, improve safety, and test repeatability
- Charge/discharge batteries to determine the capacity visually
- Cycle batteries to determine loss of capacity and reduction of battery life

Two-quadrant operation

Power supply function

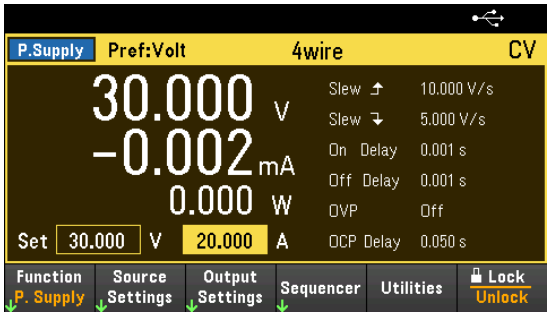
- 200W, 30V, 20A
- Autoranging
- Datalogging
- LIST function
- Voltage slew control

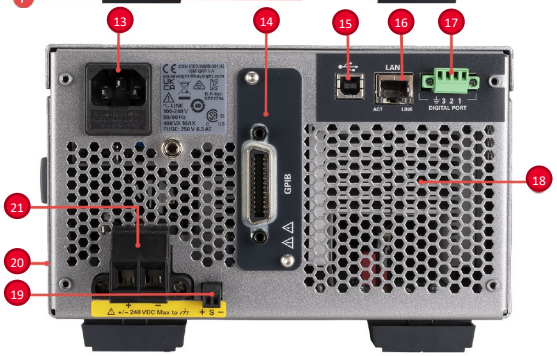
Electronic load function

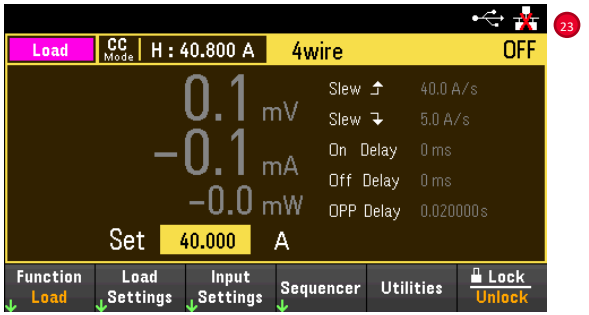
- 250W, 60V, 40A
- CC, CV, CR, CP
- Scope function
- Datalogging
- LIST function

Convenient benchtop capabilities and intuitive interfaces

- Front output terminal, including sense and ground
- 4.3-inch LCD color display
- Individual knobs for voltage and current
- LAN/LXI, USB, and GPIB (requires EL34GPBU upgrade option) interfaces







1. 4.3-inch LCD color display
2. Voltage and current knobs
3. Meter view, list run/stop, and scope/datalog keys
4. Navigation keys
5. Numeric keypad
6. Detachable binding post for output terminals
7. Sense terminal
8. Earth ground reference
9. On/standby key and LED indicator
10. Output on/off key
11. Softkeys
12. USB port
13. AC inlet
14. GPIB port (Option EL34GPBU only)
15. USB port (rear)
16. LAN port
17. Digital I/O terminal port
18. Fan ventilation hole
19. Sense terminals (rear)
20. Kensington security slot
21. Output terminals (rear)
22. Power supply function
23. Electronic load function

Learn more at: www.keysight.com/find/E36731A

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