Multi-Range Programmable DC Power Supplies
9200B Series

USB RS232

The 9200B Series can replace multiple supplies on your bench or in your rack. Unlike conventional supplies with fixed output ratings, the 9200B Series automatically recalculates voltage and current limits for each setting, providing maximum output power in any Volt/Amp combination within the rated voltage and current limits.

These supplies provide a numerical keypad for direct entry of voltage and current values along with convenient cursors and a rotary knob to quickly make incremental voltage and current changes. For remote control, the standard USB and RS232 interfaces supporting SCPI commands can be used to remotely control the power supplies via a PC. Alternatively, users can control the power supply, execute test sequences or log measurements using the provided PC software application.

These features make the 9200B Series suitable for a wide range of applications including production testing, R&D, electronic field service, and education.

Features and benefits

- Multi-ranging operation
- High programming and readback resolution of 1 mV / 0.1 mA
- Store and recall up to 72 instrument settings
- Output timer function
- List mode programming
- Standard USB (USBTMC-compliant) and RS232 interfaces supporting SCPI commands for remote control
- Remote sense
- Thermostatically controlled fan
- Built-in digital voltmeter (DVM)
- Overvoltage/overpower/overtemperature protection, and key-lock function
- NI certified LabVIEW™ driver and softpanel for remote control, test sequence generation, and datalogging available
- Compact 19" half-rack form factor allows for side-by-side rack mounting of two units

Model	9201B	9202B	9205B	9206B
Max Voltage	60 V	60 V	60 V	150 V
Max Current	10 A	15 A	25 A	10 A
Max Power	200 W	360 W	600 W	600 W

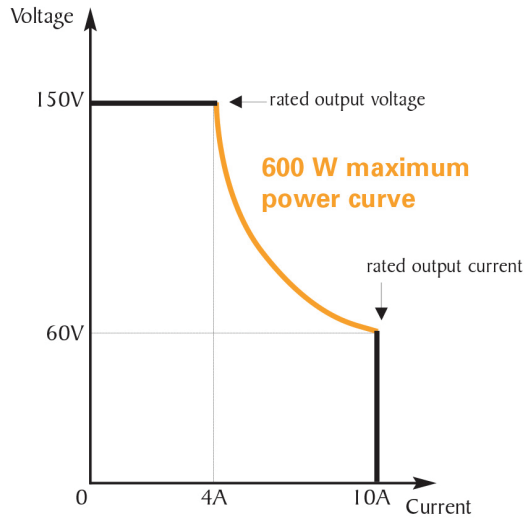
IT-E151 rack mount kit accessory

Flexibility & Performance

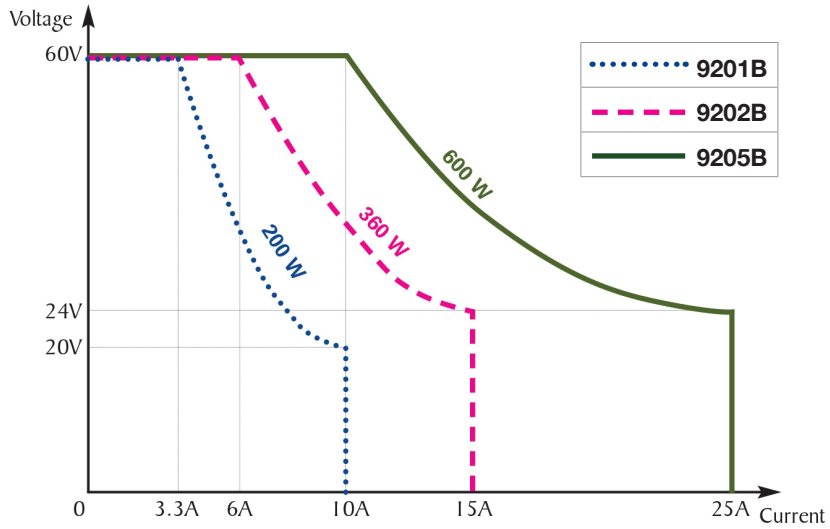
Multi-Range Operation

Traditional power supplies with rectangular output characteristics are only able to deliver maximum output power at one voltage/current point. The multi-ranging 9200B Series provides greater flexibility over traditional power supplies by extending operating areas. For example, the 9206B can operate at 150 V/4 A, 60 V/10 A, or any other point on the maximum power curve. These wide ranges of voltage and current allow users to replace multiple traditional power supplies on a bench or system rack.

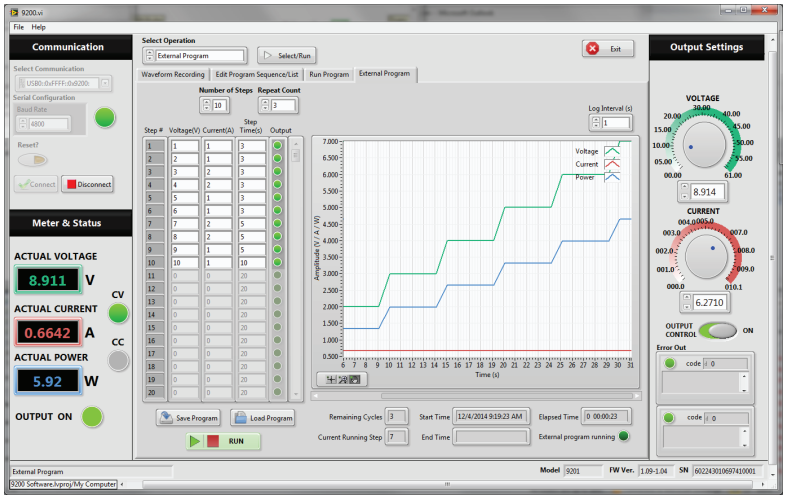
Model 9206B output characteristics



Model 9201B / 9202B / 9205B output characteristics



Application software



PC software is provided for front panel emulation, generating and executing test sequences or logging measurement data without the need to write source code.

- Log voltage, current, and power values as well as timestamp, CV/CC mode, and output status
- Save and load list files to and from the power supply's internal memory or a PC

Test sequence execution in list mode

The list mode feature lets users store, recall, and run program sequences in the power supply's internal memory. A total of 10 list files can be saved, each allowing a maximum of 150 configured steps. The test sequence can be programmed from the front panel or remotely via the USB or RS232 interfaces. A list file can be set to execute once or repeated multiple cycles. Each step's settings include voltage, current, and duration.

Built-in DVM and output timer

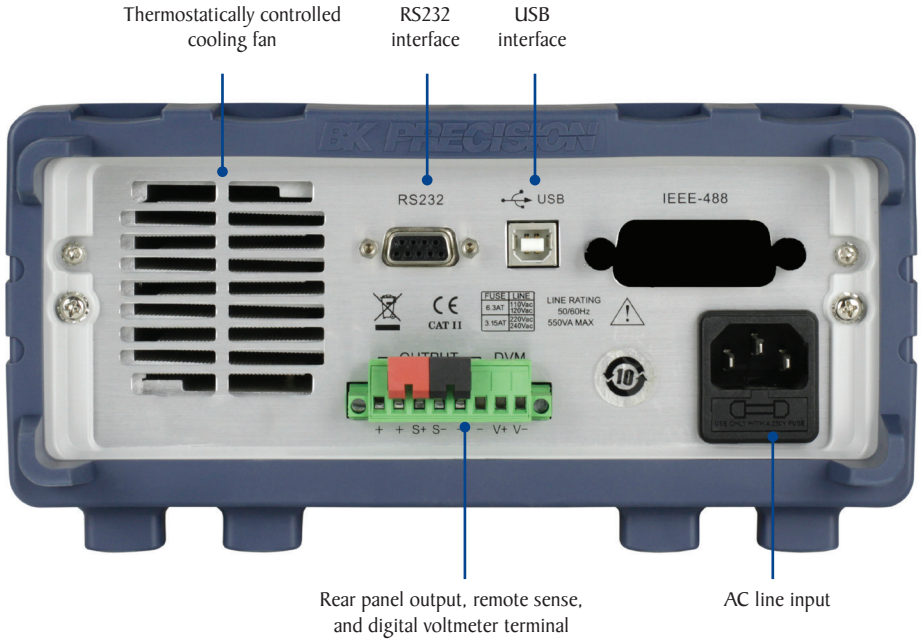
Additional features include a built-in DVM capable of measuring up to 60 V DC and an output timer function. The timer can be adjusted from 0.1 – 99999.9 s and used to set up how long the output is enabled when turned on.

Front panel

Intuitive user interface

The numeric keys and rotary knob provide a convenient interface for setting output levels quickly and precisely. Use the meter button to quickly toggle between measured and set values. Additionally, the power supplies provide internal memory for storage of up to 72 different instrument settings that can be saved and recalled via the front panel or remote interfaces.

Rear panel



PC connectivity

These power supplies offer SCPI IEEE488.2 compatible standard USB (USBTMC-compliant) and RS232 interfaces to facilitate test system development and integration.

Specifications

Note: All specifications apply to the unit after a temperature stabilization time of 15 minutes over an ambient temperature range of 23 °C ± 5 °C.

Model	9201B	9202B	9205B	9206B
Output Rating				
Voltage	0 to 60 V	0 to 60 V	0 to 60 V	0 to 60 V
Current	0 to 10 A	0 to 15 A	0 to 25 A	0 to 25 A
Power	200 W	360 W	600 W	600 W
Line Regulation				
Voltage	≤ 0.01% + 5 mV	≤ 0.01% + 8 mV	≤ 0.01% + 15 mV	≤ 0.01% + 15 mV
Current	≤ 0.05% + 4 mA	≤ 0.05% + 6 mA	≤ 0.1% + 10 mA	≤ 0.05% + 10 mA
Load Regulation				
Voltage	≤ 0.01% + 8 mV	≤ 0.01% + 8 mV	≤ 0.01% + 15 mV	≤ 0.01% + 15 mV
Current	≤ 0.1% + 6 mA	≤ 0.1% + 6 mA	≤ 0.1% + 10 mA	≤ 0.05% + 10 mA
Ripple and Noise (20 Hz - 20 MHz)				
Voltage	≤ 8 mVpp	≤ 15 mVpp	≤ 20 mVpp	≤ 50 mVpp
Current	≤ 6 mArms	≤ 8 mArms	≤ 15 mArms	≤ 15 mArms
Programming Resolution				
Voltage	1 mV			
Current	0.1 mA			
Readback Resolution				
Voltage	1 mV			
Current	0.1 mA	0.1 mA (< 10 A) 1 mA (> 10 A)	0.1 mA (< 10 A) 1 mA (> 10 A)	0.1 mA
Programming Accuracy ± (% output + offset)				
Voltage	≤ 0.03% + 5 mV	≤ 0.03% + 5 mV	≤ 0.03% + 5 mV	≤ 0.03% + 20 mV
Current	≤ 0.1% + 10 mA	≤ 0.1% + 15 mA	≤ 0.1% + 25 mA	≤ 0.1% + 25 mA
Readback Accuracy ± (% output + offset)				
Voltage	≤ 0.03% + 5 mV	≤ 0.03% + 5 mV	≤ 0.03% + 5 mV	≤ 0.03% + 20 mV
Current	≤ 0.1% + 10 mA	≤ 0.1% + 15 mA	≤ 0.1% + 25 mA	≤ 0.1% + 25 mA
General				
Remote Sense Compensation	1 V			
DVM Range	0 to 60 V			
DVM Accuracy	0.02%+10 mV			
DVM Resolution	1 mV			
Standard Interface	USB (USBTMC-compliant) and RS232			
AC Input	110/220 VAC (+/- 10 %), 47 Hz - 63 Hz			
Operating Temperature	32 °F to 104 °F (0 °C to 40 °C)			
Storage Temperature	-4 °F to 158 °F (-20 °C to 70 °C)			
Dimensions (W×H×D)	8.45" x 3.47" x 13.96" (214.5 x 88.2 x 354.6 mm)		8.45" x 3.47" x 17.52" (214.5 x 88.2 x 445 mm)	
Warranty	3 Years			
Standard Accessories	User manual, power cord, & certificate of calibration			
Optional Accessories	IT-E151 rack mount kit			

About B&K Precision

For more than 70 years, B&K Precision has provided reliable and value-priced test and measurement instruments worldwide.

Our headquarters in Yorba Linda, California houses our administrative and executive functions as well as sales and marketing, design, service, and repair. Our European customers are most familiar with B&K through our French subsidiary, Sefram. Engineers in Asia know us through our B+K Precision Taiwan operation. The independent service center in Singapore services customers in Singapore, Malaysia, Vietnam, and Indonesia.

B&K Precision group member Independent service center Service center location

Quality Management System

B&K Precision Corporation is an ISO9001 registered company employing traceable quality management practices for all processes including product development, service, and calibration.

ISO9001:2015

Certification body NSF-ISR
Certificate number 6Z241-IS8

NSF-ISR
Registered to ISO 9001

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