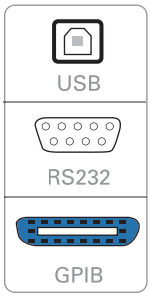
Data Sheet

Multi-Range Programmable DC Power Supplies

9200 Series





The 9200 Series can replace multiple supplies on your bench or in your rack. Unlike conventional supplies with fixed output ratings, the 9200 Series automatically recalculates voltage and current limits for each setting, providing max 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, RS232, and GPIB 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. This software also integrates with Data Dashboard for LabVIEW apps enabling iOS, Android, or Windows 8 compatible tablets or smartphones to remotely monitor select measurement indicators.

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

Model	9201	9202	9205	9206
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

Features

- Multi-ranging operation
- High programming and readback resolution of 1mV / 0.1 mA
- Store and recall up to 72 instrument settings
- Output timer function
- List mode programming
- Standard USB (USBTMC-compliant), RS232, and GPIB 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



IT-E151 rack mount kit accessory

Technical data subject to change
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ELECTRONIC TEST INSTRUMENTS

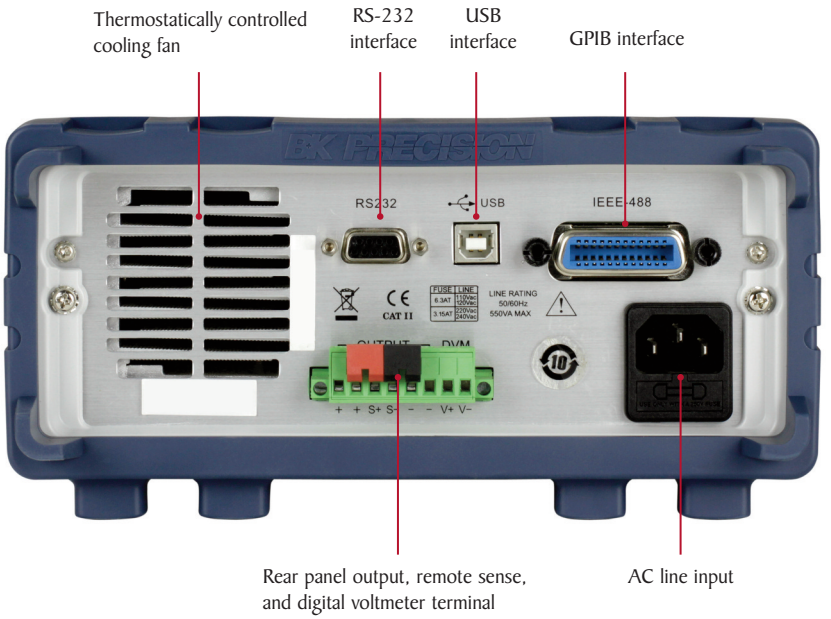
Front panel



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

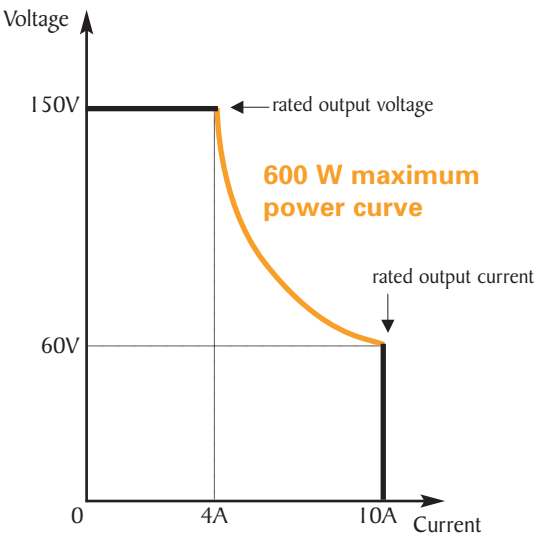
These power supplies offer SCPI IEEE488.2 compatible standard USB (USBTMC-compliant), RS232, and GPIB interfaces to facilitate test system development and integration.

Flexibility & Performance

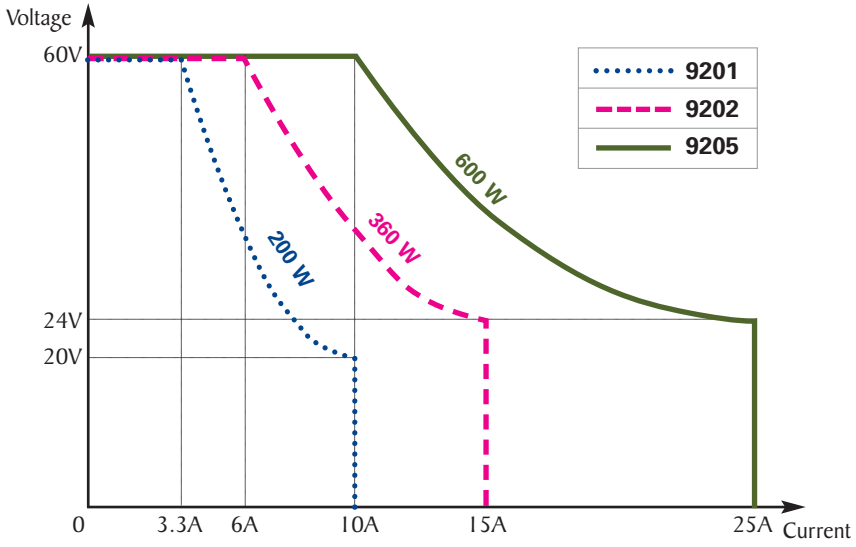
Multi-Range Operation

Traditional power supplies with rectangular output characteristics are only able to deliver maximum output power at one voltage/current point. The multi-ranging 9200 Series provides greater flexibility over traditional power supplies by extending operating areas. For example, the 9206 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.

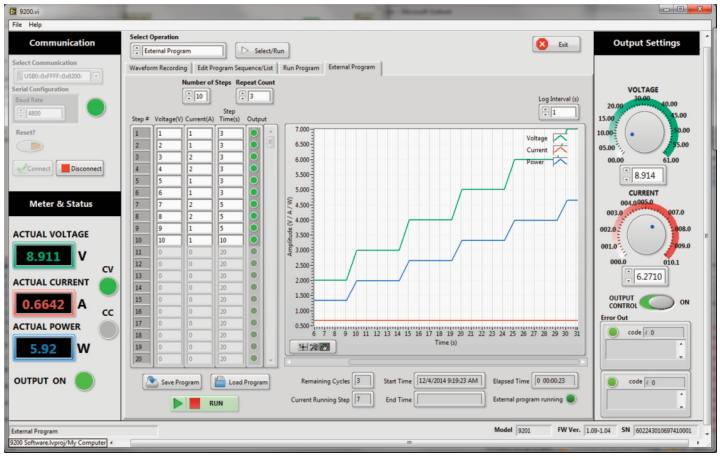
Model 9206 output characteristics



Models 9201 / 9202 / 9205 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.

- Remote monitoring on iOS, Android, or Windows 8 compatible tablets or smartphones via NI Data Dashboard for LabVIEW apps
- Quickly develop a custom dashboard with indicators, charts, or gauges to monitor your power supply
- 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, RS232, or GPIB 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.

Specifications

Model	9201	9202	9205	9206
Output Rating				
Voltage	0-60 V	0-60 V	0-60 V	0-150 V
Current	0-10 A	0-15 A	0-25 A	0-10 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	≤ 0.05%+6 mA	≤ 0.05%+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	1 mV	1 mV	1 mV
Current	0.1 mA	0.1 mA	0.1 mA	0.1 mA
Readback Resolution				
Voltage	1 mV	1 mV	1 mV	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	0-60 V			
DVM Accuracy	0.02%+10 mV			
DVM Resolution	1 mV			
Standard Interface	USB (USBTMC-compliant), GPIB, RS-232			
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)	
Weight	16.98 lbs. (7.7 kg)		33.07 lbs. (15 kg)	
				Three-Year Warranty
Standard Accessories	User manual, power cord, & certificate of calibration			
Optional Accessories	IT-E151 rack mount kit			