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BK PRECISION

Data Sheet

Programmable DC Power Supplies

Models 1696B, 1697B & 1698B



The 1696B Series of compact 200 W DC power supplies are equipped with programming and protection features commonly found in more expensive performance instruments. Programming features include list mode for repetitive operation and 10 user-configurable voltage/current presets for quick recall. These benchtop power supplies also support adjustable voltage and current limits to protect the device under test.

The front panel incorporates a numeric keypad, rotary control knob, and a dedicated V-set/I-set button for convenient control. The back-lit LCD simultaneously displays voltage, current, and power meter measurements with 4-digit resolution.

This series features USB and RS485 interfaces for remote communication. Operating software is included for list mode set up and logging measurement data. Any of the three models in this series can be combined for multi-unit control of up to 31 power supplies.

Applications

Suitable for many applications including repetitive test routines in R&D, production testing, product evaluation, or in education environments.

Model	1696B	1697B	1698B
Voltage	I to 20 V	I to 40 V	I to 60 V
Current	0 to 10 A	0 to 5 A	0 to 3.3 A
Max Output Power	200 W		

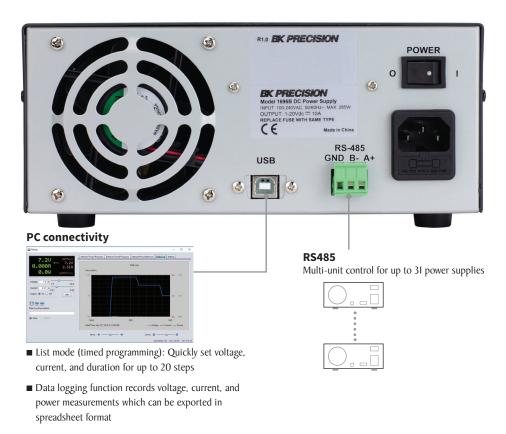
Features

- Built-in voltage, current, and power meter
- List mode (timed programming): program up to 20 steps
- Automatic CV/CC crossover operation
- Protection features: overvoltage (OVP), overcurrent (OCP), overtemperature (OTP) and key-lock function
- Control up to 31 power supplies from one PC through RS485
- Store up to 10 voltage and current combinations for quick output
- Lightweight and compact
- Large back-lit LCD display
- Thermostatically-controlled fan with linear-speed control to minimize fan noise
- USB and RS485 interfaces, supports basic SCPI commands

Front Panel



Rear Panel



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Specifications

Note: All specifications apply to the unit after a temperature stabilization time of 30 minutes over an ambient temperature range of 23 $^{\circ}$ C \pm 5 $^{\circ}$ C.

Model	1696B	1697B	1698B		
Output Rating					
Voltage	I to 20 V	I to 40 V	I to 60 V		
Current	0 to 10 A	0 to 5 A	0 to 3.3 A		
Max Output Power	200 W				
Load Regulation					
Voltage	≤ 200 mV	≤ 200 mV	≤ 100 mV		
Current	≤ 25 mA	≤ I5 mA	≤ 10 mA		
Line Regulation					
Voltage	≤ I0 mV				
Setting/Readback Resolution					
Voltage	I00 mV / I0 mV				
Current	IO mA / I mA				
Power	NA / I mW				
Meter Accuracy					
Voltage Meter	\pm (1% + 2 counts for V > 5 V)				
Current Meter	\pm (1% + 2 counts for I > 0.5 A)				
Ripple & Noise					
Voltage	≤ 30 mVp-p / ≤ 6 mVrms				
Current	≤ 10 mArms				
General					
Efficiency	≥ 70%				
AC Input	100 to 240 VAC ±10%, 50/60 Hz				
Display Meter	4-digit voltage, current and power meter				
I/O Interface	USB (type B), RS485				
Operating Temperature	32 °F to I04 °F (0 °C to 40 °C), \leq 80% R.H				
Safety	LVD: EN61010-1:2010				
Electromagnetic Compatibility	EN55011, EN61000-3-2, EN61000-3-3, EN61000-6-1				
Dimensions	7.6" x 3.85" x 8.46" (193 mm x 98 mm x 215 mm)				
Weight	6.6 lbs. (3 kg)				
Warranty	2 years				
Included Accessories	PC software, RS485 adapter, USB cable, and test report				
Optional Accessories	RS232 to RS485 adapter (ATR-2485)				

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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 centers in Singapore and Brasil service customers in Singapore, Malaysia, Vietnam, Indonesia and South America, respectively.



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



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