## Data Sheet

# High Current Switching DC Power Supplies

## Models 1693 & 1694




### High Current at a Low Price

B&K Precision models 1693 and 1694 switching mode DC power supplies provide high current output in a lightweight and compact form factor. These 900W power supplies provide a variable voltage output from 1V to 15V at 60A (model 1693) or from 1V to 30V at 30A (model 1694). In addition, a remote sensing terminal is available to compensate for voltage drop across the load leads.

The analog remote control feature can be used to control the output voltage or turn the output on/off.

Switching power supplies have the advantage of being lightweight and high in efficiency when compared to traditional linear mode power supplies. The efficiency of the 1693 and 1694 can exceed 85% under optimal conditions. These power supplies are also designed with advanced circuitry to protect against overtemperature and overvoltage conditions. Combined with bright LED displays, the 1693 and 1694 are ideal for users who want a reliable and easy-to-use high-current DC power supply for system or bench use.

### Features and Benefits

- Up to 60 A output current
- Lightweight and compact
- Dual 3-digit LED displays
- Remote sense terminal
- Analog remote control via external voltage source or variable resistor
- Current foldback circuitry with illuminated indicator prevents overloading the power supply
- Overtemperature protection circuitry
- Overvoltage protection
- Front panel auxiliary output

| Outputs/Model | 1693 | 1694 |
|---|---|---|
| Variable Output Voltage | 1 - 15 V | 1 - 30 V |
| Output Current | 60 A | 30 A |

Technical data subject to change
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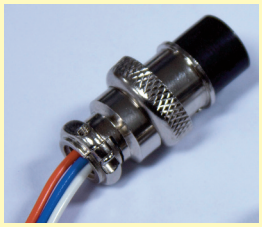
## Valuable Features



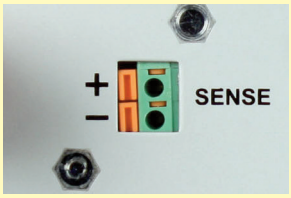

### Auxiliary Output Terminal

Conveniently placed on the front panel for quick use, this auxiliary terminal is connected in parallel with the main output terminal and provides an additional output for your application.



### Analog Remote Control Capability

Use the included connector to wire up to an external variable DC voltage source or variable resistor to remotely control the power supply's output voltage or to turn the output on/off.



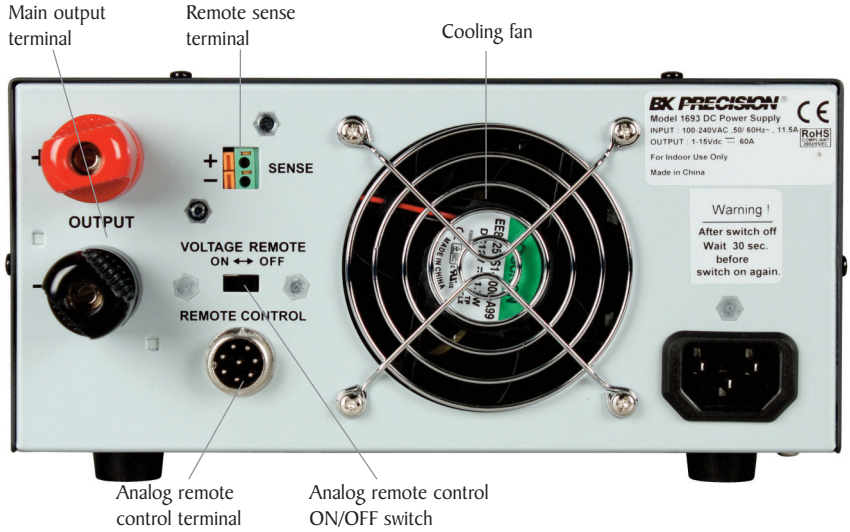

### Remote Sense

Improve regulation of the power supply's output voltage at the load by using the remote sense terminals to compensate for voltage drops across the load leads.

## Easy Operation




### Rear Panel



# Specifications

| Model | 1693 | 1694 |
|---|---|---|
| Variable Output Voltage | 1-15 V | 1-30 V |
| Output Current | 60 A | 30 A |
| Rated Auxiliary Output Current | 5 A | 3 A |
| Ripple and Noise | 40 mVpp | |
| Load Regulation | 0.1% + 5 mV | |
| Line Regulation | 0.05% + 3 mV | |
| Input Voltage | 100-240 VAC, 50Hz/60Hz | |
| Efficiency | >85% | |
| Dynamic Power Factor Correction | >0.97 at optimal load | |
| Voltmeter and Ammeter Display | 3-digit LED displays | |
| Meter Accuracy | +/- 1% + 1 count | |
| Indicator | Green LED for power on/off indication<br>Red LED for overload/short circuit indication | |
| Special Features | Analog Remote Control & Remote Sense | |
| Cooling Method | Variable speed thermostatically controlled fan | |
| Operating Temperature | 32 °F to 104 °F (0 °C to 40 °C), ≤ 80% R.H. | |
| Storage Temperature | 5 °F to 158 °F (-15 °C to 70 °C), ≤ 85% R.H. | |
| Protections | Overload (Constant Current Limiting), Short Circuit, OTP (Overtemperature Protection),<br>and OVP (Overvoltage Protection) | |
| Approvals | CE-EMC: EN 55022 CE-LVD:EN 60950 | |
| Dimension (W x H x D) | 8.66" x 4.33" x 14.17" (220 x 110 x 360 mm) | |
| Weight | 12.8 lbs (5.8 kg) | |
| | | ***One Year Warranty*** |
| Included accessories: Power cord, instruction manual, remote control connector | | |

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.