

Data Sheet

Single Output DC Power Supplies  
Models 1740B, 1743B, 1744A, 1745A & 1746B

These power supplies have all of the great features you would expect B+K Precision power supplies to have and some new features not normally seen on power supplies in this price range. The output-shorting button allows the user to short the output terminals to set the current limit.



Model 1744A



Model 1745A

| Specifications             | 1740B                                                                                                 | 1743B                           | 1746B        | 1744A         | 1745A                           |
|----------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------|--------------|---------------|---------------------------------|
| Output Voltage             | 0-60 V                                                                                                | 0-35 V                          | 0-16 V       | 0-35 V        | 0-35 V                          |
| Output Current             | 0-4 A                                                                                                 | 0-6 A                           | 0-10 A       | 0-10 A        | 0-10 A                          |
| Constant Voltage Operation |                                                                                                       |                                 |              |               |                                 |
| Voltage Regulation         | Line (120 VAC $\pm$ 10%) $<0.2\% + 2\text{ mV}$<br>Load (no load - full load) $<0.04\% + 2\text{ mV}$ |                                 |              |               |                                 |
| Recovery Time              | $<100\text{ }\mu\text{s}$                                                                             |                                 |              |               |                                 |
| Ripple & Noise             | 1 mV rms (Typical)                                                                                    |                                 |              |               |                                 |
| Temperature Coefficient    | $<300\text{ ppm}/^{\circ}\text{C}$                                                                    |                                 |              |               |                                 |
| Constant Current Operation |                                                                                                       |                                 |              |               |                                 |
| Adjustable Current Limit   | 5% to 100%                                                                                            |                                 |              |               |                                 |
| Current Regulation         | Line (120 VAC $\pm$ 10%) $<0.4\% + 5\text{ mA}$<br>Load $<0.4\% + 5\text{ mA}$                        |                                 |              |               |                                 |
| Current Ripple             | $<3\text{ mArms}$                                                                                     |                                 |              |               |                                 |
| Metering                   |                                                                                                       |                                 |              |               |                                 |
| Type                       | 2-Analog                                                                                              | Dual 4-digit LED                | 2-Analog     | 2-Analog      | Dual 4-digit LED                |
| Voltmeter Range            | 0-64 V                                                                                                | 0-99.99 V (green)               | 0-16 V       | 0-40 V        | 0-99.99 V                       |
| Voltmeter Accuracy         | $\pm 2.5\%$                                                                                           | $\pm (0.5\% + 9\text{ digits})$ | $\pm 2.5\%$  | $\pm 2.5\%$   | $\pm (0.7\% + 9\text{ digits})$ |
| Ammeter Range              |                                                                                                       |                                 |              |               |                                 |
| High Range                 | 0-4.4 A                                                                                               | 0-9.999 A (red)                 | 0-11 A       | 0-11 A        | 0-9.999 A                       |
| Low Range                  | 0-1.1 A                                                                                               | -                               | 0-2.2 A      | 0-2.2 A       | -                               |
| Ammeter Accuracy           | $\pm 2.5\%$                                                                                           | $\pm (0.5\% + 9\text{ digits})$ | $\pm 2.5\%$  | $\pm 2.5\%$   | $\pm (0.7\% + 9\text{ digits})$ |
| General                    |                                                                                                       |                                 |              |               |                                 |
| Overload Protection        | Current limiting, reverse polarity, overvoltage, short circuit                                        |                                 |              |               |                                 |
| AC Input                   | 120/220 VAC $\pm 10\%$ , 50/60 Hz                                                                     |                                 |              |               |                                 |
| Power Consumption          | 450 W                                                                                                 | 420 W                           | 380 W        | 560 W         | 560 W                           |
| Operating Temperature      | 32 to 104 $^{\circ}\text{F}$ (0 to 40 $^{\circ}\text{C}$ ), $<75\%$ R.H.                              |                                 |              |               |                                 |
| Storage Temperature        | 5 to 158 $^{\circ}\text{F}$ (-15 to +70 $^{\circ}\text{C}$ ), $<85\%$ R.H.                            |                                 |              |               |                                 |
| Dimensions (H x W x D)     | 5.7" x 10.5" x 15" (145 x 267 x 381 mm)                                                               |                                 |              |               |                                 |
| Weight                     | 23 lbs (10.4 kg)                                                                                      |                                 | 20 lbs (9.1) | 27 lbs (12.2) |                                 |
| Two-Year Warranty          |                                                                                                       |                                 |              |               |                                 |
| Included Accessories       | Instruction manual , spare fuse and power cord                                                        |                                 |              |               |                                 |

Features & Benefits

- Largest selection of voltage and current ratings ever offered
- Connect two supplies in parallel to double the current output
- Connect two supplies in series to double the voltage output
- Reliable, Durable
- Operate continuously at full load without overheating
- Fully overload protected
- Coarse and fine voltage controls
- Excellent regulation
- Very low ripple
- Constant voltage or constant current operation
- Continuously monitor voltage and current output on two meters