

Comparison Guide

B&K Precision 9170B/9180B Series vs. Keysight E363xA/E364xA Series Programmable DC Power Supplies

Compared to the Keysight E363xA/E364xA Series, the B&K Precision 9170B/9180B Series provides higher output power at a lower cost per watt, same or better specifications, and many additional useful features.

Key feature comparison	B&K Precision 9170B/9180B Series	Keysight E363xA/E364xA Series
3-year warranty standard	✓	✓
Numerical keypad for convenient direct entry	✓	X
List (sequence) mode	✓	X
Save and recall	✓	✓
Overvoltage and overcurrent protection	✓	✓
Adjustable slew rate	✓	X
Closed case calibration	✓	✓
LED test mode	✓	X



Available remote interfaces	B&K Precision 9170B/9180B Series	Keysight E363xA/E364xA Series
USB	✓	X
RS232	✓	✓
RS485	✓	X
Analog I/O	✓	X
GPIB	✓	✓
LAN	✓	X

Modular interface card slots
 The 9170B/9180B Series provides a unique modular interface concept for users to install interface cards at time of purchase or later when needed.



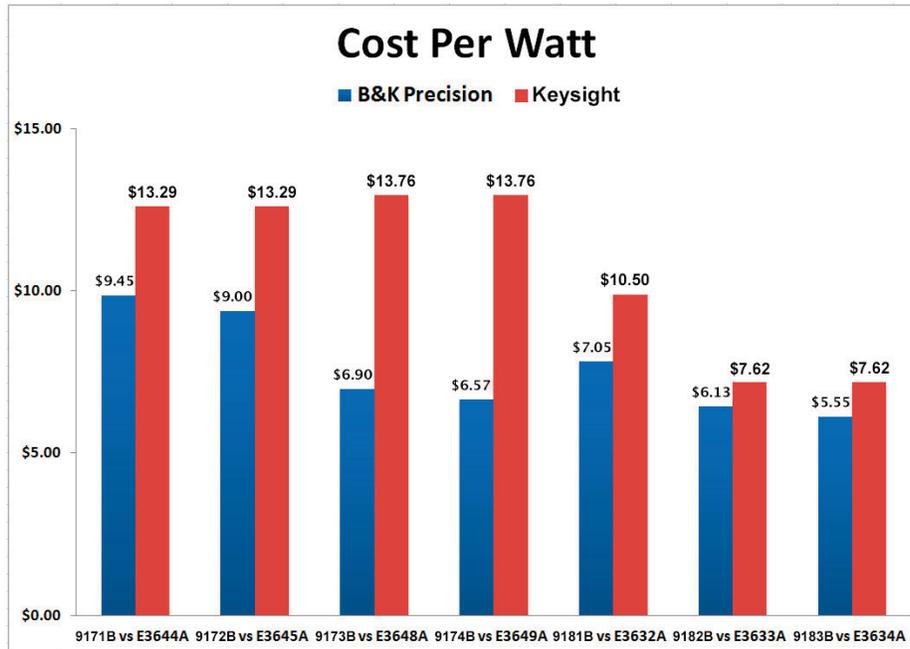
Key specification comparison	B&K Precision 9182B	Keysight E3633A
Output ratings	10 V/20 A (200 W), 20 V/10 A (200 W)	8 V/20 A (160 W), 20 V/10 A (200 W)
Load regulation	≤ 0.01% + 1 mV, ≤ 0.01% + 250 uA	≤ 0.01% + 2 mV, ≤ 0.01% + 250 uA
Ripple and noise (20 Hz to 20 MHz)	≤ 0.35 mVrms / ≤ 3 mVpp, ≤ 2 mArms	≤ 0.35 mVrms / ≤ 3 mVpp, ≤ 2 mArms
Programming accuracy	≤ 0.05 % + 5 mV, ≤ 0.1 % + 5 mA	≤ 0.05 % + 10 mV, ≤ 0.2 % + 10 mA
Temperature coefficient	≤ 0.005% + 1 mV, ≤ 0.01% + 3 mA	0.01% + 3 mV, 0.02% + 3 mA
Settling time	≤ 30 ms	< 90 ms
Command processing time	≤ 10 ms (Typical)	< 100 ms
Stability	≤ 0.02% + 2 mV, ≤ 0.1% + 1 mA	0.02% + 1 mV, 0.1% + 1 mA

Note: Comparison is between the two models with the most similar output ratings.

= Better performance

Cross Reference and Cost Per Watt Comparison

The 9170B/9180B Series offers more output power at a lower price point in terms of cost per watt than the E363xA/E364xA Series. Cost per watt savings is approximately 10%-50% depending on the model, as shown in the graph below.



Model	Output Rating			No. of Channels	US List Price
	Low Range	High Range	Max Power		
B&K Precision 9171B	10 V, 10 A	20 V, 5 A	100 W	1	\$945
Keysight E3644A	8 V, 8 A	20 V, 4 A	80 W	1	\$1,063
B&K Precision 9172B	35 V, 3 A	70 V, 1.5 A	105 W	1	\$945
Keysight E3645A	35 V, 2.2 A	60 V, 1.3 A	80 W	1	\$1,063
B&K Precision 9173B	10 V, 10 A	20 V, 5 A	200 W	2	\$1,380
Keysight E3648A	8 V, 5 A	20 V, 2.5 A	100 W	2	\$1,376
B&K Precision 9174B	35 V, 3 A	70 V, 1.5 A	210 W	2	\$1,380
Keysight E3649A	35 V, 1.4 A	60 V, 0.8 A	100 W	2	\$1,376
B&K Precision 9181B	18 V, 8 A	36 V, 4 A	144 W	1	\$1,015
Keysight E3632A	15 V, 7 A	30 V, 4 A	120 W	1	\$1,260
B&K Precision 9182B	10 V, 20 A	20 V, 10 A	200 W	1	\$1,225
Keysight E3633A	8 V, 20 A	20 V, 10 A	200 W	1	\$1,523
B&K Precision 9183B	35 V, 6 A	70 V, 3 A	210 W	1	\$1,165
Keysight E3634A	25 V, 7 A	50 V, 4 A	200 W	1	\$1,523
B&K Precision 9184B	100 V, 2 A	200 V, 1 A	200 W	1	\$1,365
Keysight (no cross in series)	n/a	n/a	n/a	n/a	n/a
B&K Precision 9185B	400 V, 0.5 A	600 V, 0.35 A	210 W	1	\$1,365
Keysight (no cross in series)	n/a	n/a	n/a	n/a	n/a

Notes:

- With exception of model 9185B (200 W low range, 210 W high range), models in B&K Precision 9170B/9180B Series offer identical power ratings for both low and high ranges. All Keysight E363xA/E364xA Series models offer specified maximum output power for high range only, whereas low range outputs less power, e.g. model E3644A rated 80 W maximum output power, offers 64 W in low range and 80 W in high range.
- Comparison data retrieved from www.keysight.com on Sept. 15, 2016.