Comparison Guide

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

Compared to the Agilent E363xA/E364xA Series, the B&K Precision 9170/9180 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 9170/ 9180 Series	Agilent E363xA/ E364xA Series
3-year warranty standard	√	X
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 9170/ 9180 Series	Agilent E363xA/ E364xA Series
USB	√	X
RS232	√	√
RS485	√	X
Analog I/O	√	X
GPIB	√	√
LAN	√	X

Modular interface card slots

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

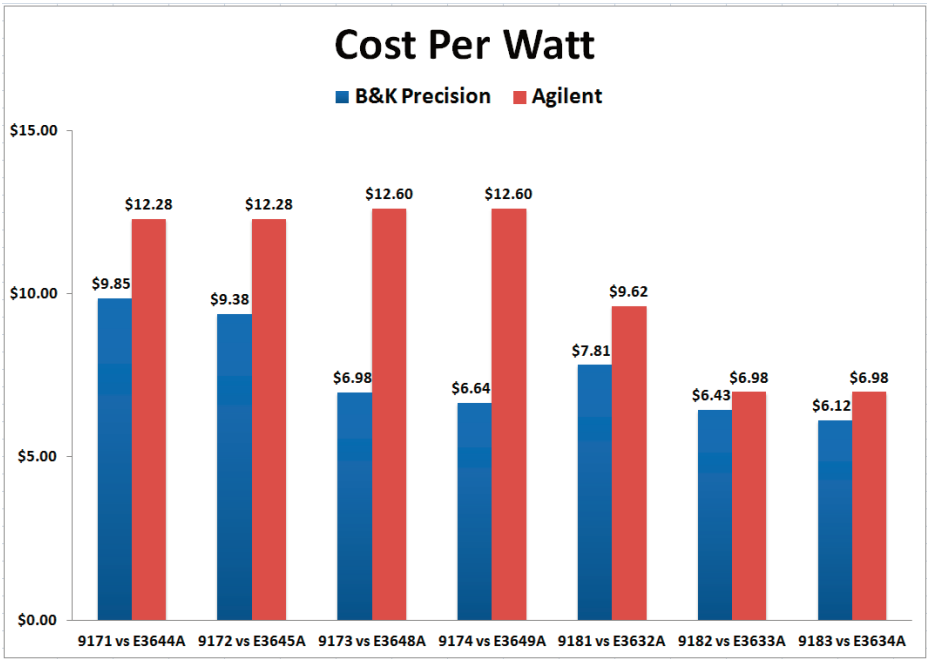
Key specification comparison	B&K Precision 9182	Agilent E3633A
Output ratings	10 V/20 A (200 W), 20 V/10 A (200 W)	8 V/20 A (160 W), 20 V/10 A (200 W)
Load regulation	≤ 0.01% + 1 mV, ≤ 0.01% + 250 uA	≤ 0.01% + 2 mV, ≤ 0.01% + 250 uA
Ripple and noise (20 Hz to 20 MHz)	≤ 0.35 mVrms / ≤ 3 mVpp, ≤ 2 mArms	≤ 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
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 9170/9180 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 9171	10 V, 10 A	20 V, 5 A	100 W	1	$985
Agilent E3644A	8 V, 8 A	20 V, 4 A	80 W	1	$982 / $1,032*
B&K Precision 9172	35 V, 3 A	70 V, 1.5 A	105 W	1	$985
Agilent E3645A	35 V, 2.2 A	60 V, 1.3 A	80 W	1	$982 / $1,032*
B&K Precision 9173	10 V, 10 A	20 V, 5 A	200 W	2	$1,395
Agilent E3648A	8 V, 5 A	20 V, 2.5 A	100 W	2	$1,260 / $1,410*
B&K Precision 9174	35 V, 3 A	70 V, 1.5 A	210 W	2	$1,395
Agilent E3649A	35 V, 1.4 A	60 V, 0.8 A	100 W	2	$1,260 / $1,410*
B&K Precision 9181	18 V, 8 A	36 V, 4 A	144 W	1	$1,125
Agilent E3632A	15 V, 7 A	30 V, 4 A	120 W	1	$1,154 / $1,304*
B&K Precision 9182	10 V, 20 A	20 V, 10 A	200 W	1	$1,285
Agilent E3633A	8 V, 20 A	20 V, 10 A	200 W	1	$1,395 / $1,545*
B&K Precision 9183	35 V, 6 A	70 V, 3 A	210 W	1	$1,285
Agilent E3634A	25 V, 7 A	50 V, 4 A	200 W	1	$1,395 / $1,545*
B&K Precision 9184	100 V, 2 A	200 V, 1 A	200 W	1	$1,385
Agilent (no cross in series)	n/a	n/a	n/a	n/a	n/a
B&K Precision 9185	400 V, 0.5 A	600 V, 0.35 A	210 W	1	$1,385
Agilent (no cross in series)	n/a	n/a	n/a	n/a	n/a

* Typically configured price with Agilent's optional 3-year warranty.

Additional notes:

- Cost per watt comparison based on Agilent's standard 1-year warranty price, not typically configured price.
- With exception of model 9185 (200 W low range, 210 W high range), models in B&K Precision 9170/9180 Series offer identical power ratings for both low and high ranges. All Agilent 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.agilent.com on Nov 17, 2012.

For more information about the 9170/9180 Series, visit www.bkprecision.com
Technical data and descriptions in this document subject to change without notice

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