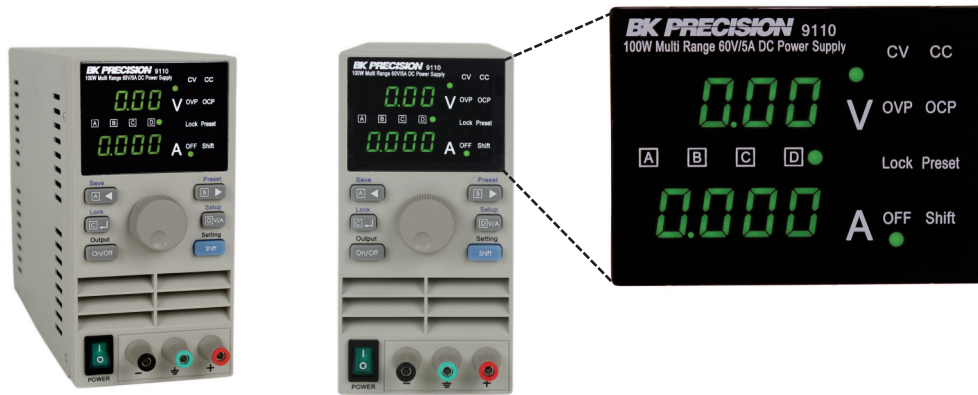


# Data Sheet

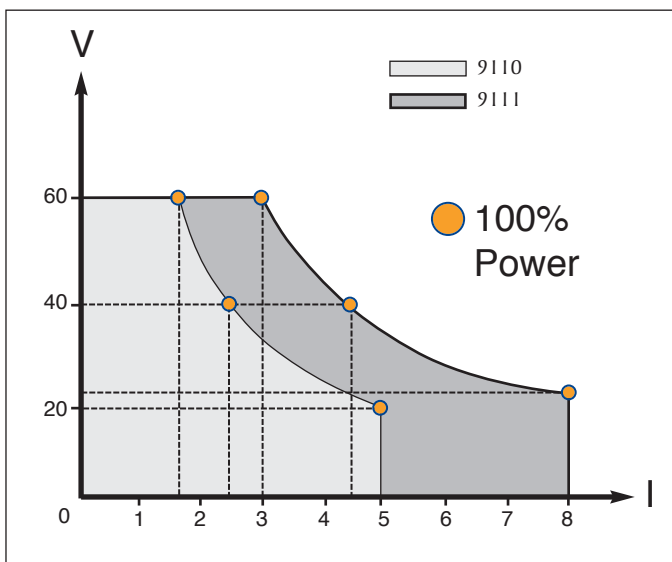
## Multi-Range 60 V DC Power Supplies Models 9110 & 9111



Models 9110 and 9111 are a new type of power supply. Unlike conventional power supplies with fixed output ratings, they automatically recalculate voltage and current limits for each setting, providing any Volt/Amp combination within the rated power. By providing greatly expanded choices of maximum power Volt/Amp combinations, users can cut down on the number of power supplies required and free up valuable bench space.

### Features & Benefits

- Output rating up to 180 W within 60 V/ 8 A (model 9111) or 100 W within 60 V/ 5 A (model 9110)
- Digitally controlled, multi-ranging output
- 10 mV/1 mA resolution over the full range
- Bright, easy-to-read display
- Very compact and lightweight
- Low ripple and noise
- OCP, OVP, and OTP protection
- Output On/Off control
- Store and Recall 4 x 100 groups of preset Volt/Amp values
- Temperature controlled, variable speed fan cooling



### Multi-range operating area

The multi-ranging feature offers exceptional flexibility by providing any combination of the rated voltage and current up to the maximum output power of the supply. For example, when setting the voltage on the 180 W model 9111 to a maximum of 60 V, the power supply can generate a maximum current of  $180\text{ W}/60\text{ V} = 3\text{ A}$ . For a 22.5 V setting, the maximum current can be increased to 8 A. All Volt/Amp combinations that lie on the hyperbolic curve between these settings are also possible up to 180 W.

Specifications		9110	9111
Output Ratings	Voltage	0-60 V	
	Current	0-5 A	0-8 A
Max. Power		100 W	180 W
Load Regulation	Voltage	$\leq 0.01\% + 3\text{ mV}$	$\leq 0.01\% + 5\text{ mV}$
	Current	$\leq 0.01\% + 3\text{ mA}$	$\leq 0.01\% + 5\text{ mA}$
Line Regulation	Voltage	$\leq 0.01\% + 3\text{ mV}$	$\leq 0.01\% + 5\text{ mV}$
	Current	$\leq 0.1\% + 3\text{ mA}$	$\leq 0.1\% + 5\text{ mA}$
Setting Accuracy	Voltage	$\leq 0.05\% + 10\text{ mV}$	
	Current	$\leq 0.2\% + 2\text{ mA}$	$\leq 0.3\% + 5\text{ mA}$
Display Accuracy	Voltage	$\leq 0.05\% + 10\text{ mV}$	
	Current	$\leq 0.2\% + 2\text{ mA}$	$\leq 0.3\% + 5\text{ mA}$
Ripple	Voltage	$\leq 2\text{ mVrms}$	$\leq 5\text{ mVrms}$
	Current	$\leq 5\text{ mArms}$	$\leq 8\text{ mArms}$
<b>General</b>			
State Storage Memory	100 groups with 4 sets of Volt/Amp memories each		
AC Input	99 V – 121 V or 198 V – 242 V, 47 – 63 Hz		
Weight	5.9 lbs (2.65 kg)	7.7 lbs (3.5 kg)	
Dimensions (W x H x D)	3.47" x 6.9" x 11.11" (88 x 175 x 282 mm)		
<b>One-Year Warranty</b>			
Included Accessories	Power cord, manual		