

Models	1685B	1687B	1688B
Output			
Variable Output Voltage	1 – 60 V	1 – 36 V	1 – 18 V
Variable Output Current	0 – 5 A	0 – 10 A	0 – 20 A
Voltage Regulation			
Load (0-100% Load)	≤ 50 mV		
Line (90-132 VAC, 170-264 VAC Variation)	≤ 20 mV		
Current Regulation			
Load (10-90% Rated Voltage)	≤ 100 mA		
Line (90-132 VAC, 170-264 VAC Variation)	≤ 50 mA		
Ripple & Noise			
Ripple & Noise Voltage (rms)	≤ 5 mV		
Ripple & Noise Voltage (peak-peak)	≤ 50 mV		
Current Ripple & Noise (rms)	≤ 30 mA		
Meter Type & Accuracy			
Voltage Meter	3-Digit LED Display ± 0.2% + 3 counts		
Current Meter	3-Digit LED Display ± 0.2% + 3 counts		
Other			
Input Voltage	100-240 VAC 50/60 Hz		
Full Load Input Current	3.7 A (100 VAC) 1.7 A (230 VAC)	4.6 A (100 VAC) 2.1 A (230 VAC)	4.6 A (100 VAC) 2.1 A (230 VAC)
Efficiency	82% (100 VAC) 86% (230 VAC)	82% (100 VAC) 86% (230 VAC)	81% (100 VAC) 85% (230 VAC)
Switching Frequency	100 – 120 kHz		
Tracking Overvoltage Protections	O/P 1-5 V: set voltage +2 V O/P 5-20 V: set voltage +3 V O/P 20-60 V: set voltage +4 V	O/P 1-5 V: set voltage +2 V O/P 5-20 V: set voltage +3 V O/P 20-36 V: set voltage +4 V	O/P 1-5 V: set voltage +2 V O/P 5-18 V: set voltage +3 V
Transient Response Time (50-100% Load)	1.5 ms		
Power Factor Correction	> 0.95 at optimal load		
Cooling Method	Thermostatically controlled fan from zero to full speed		
Protections	Overload, Overvoltage, Overtemperature		
Special Features	3 User-Defined Voltage and Current Presets, Analog Remote Control		
External Timed Programming	Max. 20 voltage and current steps Max. 99 min + 59 sec step time Max. 999 running cycles		
General			
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.		
Dimensions (WxHxD)	7.9" x 3.5" x 8.2" (200 x 90 x 208 mm)		
Weight	5.2 lbs (2.4 kg)		
Two Year Warranty			
Supplied accessories	Power cord, instruction manual, application software CD, USB cable, remote control connector		