Specifications

			TEN-TURN VOLTAGE ADJUST		CALIBRATED PUSHBUTTON VOLTAGE ADJUST		TEN-TURN VOLTAGE ADJUST		CALIBRATED PUSHBUTTON VOLTAGE ADJUST	
RATING	DC Output: Voltage and current spans indicate range over which output may be varied using front panel controls.	Volts	0-20	20-40	0-20	20-40	0-50	50-100	0-50	50-100
		Amps	0-2.0	0-1.0	0-2.0	0-1.0	0-0.8	0-0.4	0-0.8	0-0.4
	Model		6104A		6114A		6105A		6115A	
PERFORMANCE	Load Regulation: Voltage Load Regulation is given for a load current change equal to the current rating of the supply, and is measured at the rear terminals. Current Load Regulation is given for a load voltage change equal to the voltage rating of the supply.	Voltage	0.0005% + 100μV		0.0005% + 100μV		0.0005% + 50μV		0.0005% + 50μV	
		Current	0.01% + 500μA		0.01% + 500μA		0.01% + 500μA		0.01% + 500μA	
	Line Regulation: For a change in line voltage between 104 and 127Vac or 208 and 254Vac at any output voltage and current within rating.	Voltage	0.0005% + 40μV		0.0005% + 40μV		0.0005% + 100μV		0.0005% + 100μV	
		Current	0.005% + 40μA		0.005% + 40μA		0.005% + 20μA		0.005% + 20μA	
	Ripple and Noise: Rms/p-p (20Hz to 20MHz), at any line voltage and under any load condition within rating.	Voltage	40μV/100μV ☆		40μV/100μV ☆		40μV/100μV ☆		40μV/100μV ☆	
		Current	200μA/1mA		200μA/1mA		200μA/1mA		200μA/1mA	
	Temperature Coefficient: Output change per degree Celsius change in ambient following 30 minutes warm-up.	Voltage	0.005% + 25μV		0.001% + 15μV		0.005% + 50μV		0.001% + 15μV	
		Current	0.02% + 50μA		0.02% + 50μA		0.02% + 25μA		0.02% + 25μA	
	Drift: Total drift in output (dc to 20Hz) over specified interval, under constant line, load, and ambient temperature, and following 30-minutes warm-up under same conditions.	Voltage, 8-hour	0.005% + 50μV †		0.0015% + 15μV *		0.005% + 50μV †		0.0015% + 15μV *	
		△ Voltage, 90-day	0.01% + 100μV †		0.0075% + 30μV *		0.01% + 100μV †		0.0075% + 30μV *	
		Current, 8-hour	0.25% + 7mA ‡		0.25% + 7mA ‡		0.25% + 4mA ‡		0.25% + 4mA ‡	
	Output Voltage Accuracy: Output voltage accuracy obtainable from the front panel controls at 23 ±3°C, at any line voltage and load current within rating, and following 5 minutes warm-up.		Not Applicable		0.025% + 1.0mV		Not Applicable		0.025% + 1.0mV	
	Resolution: Minimum output voltage or current change that can be obtained using front panel controls.	Voltage	8mV		200μV		16mV		200μV	
		Current	15mA		15mA		8mA		8mA	
	Output Impedance (Typical): Represented by a resistance in series with an inductance.		0.05mΩ + 3μH		0.05mΩ + 3μH		0.05mΩ + 3μH		0.05mΩ + 3μH	
	Load Transient Recovery: Time required for output voltage recovery to within the given level of the nominal output voltage following a change in output current equal to the current rating of the supply.	Time	<50μs		<50μs		<50μs		<50μs	
		Level	10mV		10mV		10mV		10mV	
FEATURES	Output Mode: Constant Voltage/Constant Current, or Constant Voltage/Current Limited.		CV/CC		CV/CC		CV/CC		CV/CC	
	Auto-Series, Auto-Parallel, and Auto-Tracking:		Yes		Yes		Yes		Yes	
	Remote Sensing:		Yes		Yes		Yes		Yes	
	Remote Programming: Resistance Programming Coefficient	Voltage	2000Ω/V ± 0.01%		2000Ω/V ± 0.01%		2000Ω/V ± 0.01%		2000Ω/V ± 0.01%	
		Current	500Ω/A ± 0.25%		500Ω/A ± 0.25%		1000Ω/A ± 0.25%		1000Ω/A ± 0.25%	
	Voltage Programming Coefficient	Voltage	1V/V §		1V/V §		1V/V §		1V/V §	
		Current	0.5V/A ± 1.0%		0.5V/A ± 1.0%		1V/A ± 1.0%		1V/A ± 1.0%	
	Speed: Maximum time required to non-repetitively program from zero to within 99.9% of the maximum rated output voltage, or from the maximum rated output voltage to within 0.1% of that voltage above zero.	Up Programming: No Load	60ms		60ms		150ms		150ms	
		Up Programming: Full Load	200ms		200ms		500ms		500ms	
		Down Programming: No Load	600ms		600ms		1.5s		1.5s	
		Down Programming: Full Load	100ms		100ms		175ms		175ms	
	Overvoltage Protection Crowbar: Trip Voltage Range: (approximate).		0.5V to 45V		0.5V to 45V		0.5V to 110V		0.5V to 110V	
	Margin: Minimum setting above output voltage to prevent false tripping.		2% + 0.5V		2% + 0.5V		2% + 0.5V		2% + 0.5V	
	DC Output Isolation: Supply may be floated at up to the given level above ground.		300V		300V		300V		300V	
	Meter Ranges: (Accuracy is specified as % of full scale.)		0-50V ± 2% Two 0-2.4A ± 2% Meters		0-50V ± 2% One 0-2.4A ± 2% Meter		0-120V ± 2% Two 0-1.0A ± 2% Meters		0-120V ± 2% One 0-1.0A ± 2% Meter	
GENERAL	Power:		104-127 or 208-254 Vac (switchable), 48-440Hz, 150VA max.		104-127 or 208-254 Vac (switchable), 48-440Hz, 150VA max.		104-127 or 208-254 Vac (switchable), 48-440Hz, 150VA max.		104-127 or 208-254 Vac (switchable), 48-440Hz, 150VA max.	
		Connections	3-Wire, 5-Ft. Cord		3-Wire, 5-Ft. Cord		3-Wire, 5-Ft. Cord		3-Wire, 5-Ft. Cord	
	Temperature Ratings: Operating 0 to 55°C. Storage -40 to +75°C.	Cooling	Convection		Convection		Convection		Convection	
	Overall Dimensions:	Inches	7¾W x 6½H x 13¼D		7¾W x 6½H x 13¼D		7¾W x 6½H x 13¼D		7¾W x 6½H x 13¼D	
		Millimeters	197W x 166H x 336D		197W x 166H x 336D		197W x 166H x 336D		197W x 166H x 336D	
	Weight:	Net	17 lbs; 7,7 kg.		17 lbs; 7,7 kg.		17 lbs; 7,7 kg.		17 lbs; 7,7 kg.	
		Shipping	21 lbs. 9,5 kg.		21 lbs. 9,5 kg.		21 lbs. 9,5 kg.		21 lbs. 9,5 kg.	
	Options Available: (For complete description, refer to page 4.)		008,013,014		008,014		008,013,014		008,014	

* Specified with final decade pot set to zero. If pot is set to value other than zero, pot wiper jump effect may cause drift of 0.0015% + 200μV (8-hour) or 0.0075% + 200μV (90-day).

† Pot wiper jump effect may add 5mV (6104A) or 10mV (6105A). When remote programmed, drift is 0.001% + 15μV (8-hour) or 0.0075% + 30μV (90-day) plus stability of remote programming device.

‡ When remote programmed, drift is 0.25% + 500μA plus stability of remote programming device.

^ Indicates tentative specification.

§ Accuracy is equal to accuracy of remote programming device ±200μV.

☆ When operated with a 400Hz input, peak-to-peak ripple and noise is 10mV.