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Advanced Test Equipment Rentals
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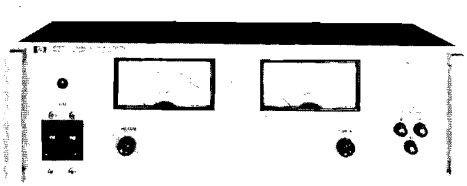
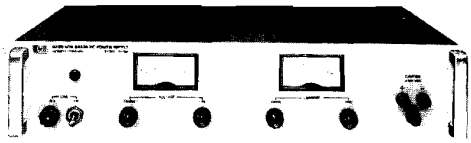
COMPACT SCR REGULATED

SCR-1P Series
Models 6427B-6448B

POWER SUPPLIES



Models 6428B, 6434B, 6439B, 6448B



Models 6427B, 6433B, 6438B, 6443B

The SCR-1P Series consists of eight regulated dc power supplies utilizing silicon-controlled rectifiers in series with the transformer primary. Controlled by the output voltage and current settings, these supplies accomplish the desired regulation using Harrison's unique "Ramp-Lock" phase control circuit. This circuit technique permits a reduction in the overall size and weight of the power supply and results in up to 75% efficiency at full output. Four models with output ratings of approximately 300 watts are packaged in a 3½" high rack mounting cabinet, while the four models with approximately 900 watt output power capability are 5¼" high. All supplies may also be used on the bench (attachable rubber feet for bench use available on request). These second generation SCR regulated power supplies also feature lower output ripple, tighter load and line regulation, and Constant Voltage/Constant Current operation with automatic crossover, and all-silicon circuitry.

Advantages:

Output continuously variable to zero in either voltage or current mode
Efficiency up to 75% at full output
Excellent line transient immunity

Specifications

Model		6427B	6428B	6433B	6434B	6438B	6439B	6443B	6448B
DC output	volts	0-20	0-20	0-36	0-40	0-60	0-60	0-120	1-600
	amps	0-15	0-45	0-10	0-25	0-5	0-15	0-2.5	0-1.5
AC power in	volts	115 V ac ± 10%, 57-63 Hz							
	amps	6.5	17	7	19	6.5	17	6.5	16
	watts	450	1200	450	1300	400	1200	400	1200
Line regulation: For a 10% change in the nominal ac line voltage.	constant voltage	10 mV	20 mV	18 mV	18 mV	30 mV	60 mV	60 mV	600 mV
	constant current	150 mA	450 mA	100 mA	200 mA	50 mA	150 mA	25 mA	15 mA
Constant voltage load regulation: for a change in output current from no load to full load or full load to no load.		20 mV	40 mV	36 mV	40 mV	60 mV	120 mV	120 mV	600 mV
Constant current load regulation: for a change in output voltage from no load to full load or full load to no load.		150 mA	450 mA	100 mA	200 mA	50 mA	150 mA	25 mA	15 mA
Full scale meter readings: meters have 2% accuracy: all units have meter calibrating potentiometers.		24 V & 18 A	24 V & 50 A	40 V & 12 A	50 V & 30 A	70 V & 6 A	70 V & 18 A	150 V & 3 A	700 V & 1.8 A
*Transient recovery time: <200 ms for output recovery to within "A" mV; transient amplitude less than "B" volts/amp for any load change between 20% and 100% of rated output current.		A = 200 B = 0.35	A = 200 B = 0.15	A = 200 B = 0.5	A = 200 B = 0.3	A = 300 B = 1.0	A = 600 B = 0.4	A = 600 B = 4.0	A = 3000 B = 20
*Ripple and noise: rms maximum		40 mV	40 mV	36 mV	40 mV	120 mV	60 mV	240 mV	600 mV
Remote programming	constant voltage	200 ohms/volt	200 ohms/volt	200 ohms/volt	200 ohms/volt	300 ohms/volt	300 ohms/volt	300 ohms/volt	300 ohms/volt
	constant current	15 ohms/amp	5 ohms/amp	25 ohms/amp	10 ohms/amp	50 ohms/amp	15 ohms/amp	100 ohms/amp	170 ohms/amp
Size: W x H x D	inches	19 x 3½ x 17	19 x 5¼ x 16¾	19 x 3½ x 17½	19 x 5¼ x 16¾	19 x 3½ x 17½	19 x 5¼ x 16¾	19 x 3½ x 17½	19 x 5¼ x 16¾
	centimeters	48,3 x 8,9 x 44	48,3 x 14 x 43,7	48,3 x 8,9 x 44,4	48,3 x 14 x 43,7	48,3 x 8,9 x 44,4	48,3 x 14 x 43,7	48,3 x 8,9 x 44,4	48,3 x 14 x 43,7
Weight (net/shipping)	pounds	36/51	67/76	33/48	67/76	31/46	61/70	31/46	61/70
	kilograms	16,3/23,1	30,4/34,4	14,9/21,7	30,4/34,4	14/20,8	27,6/31,7	14/20,8	27,6/31,7
Price		$380	$550	$370	$550	$360	$550	$360	$550
Options: refer to page 561 for descriptions.		05-$10 10-$125							

*Use of supply at 50 Hz input (possible only with option 05) results in a 50% increase in transient recovery time and ripple.