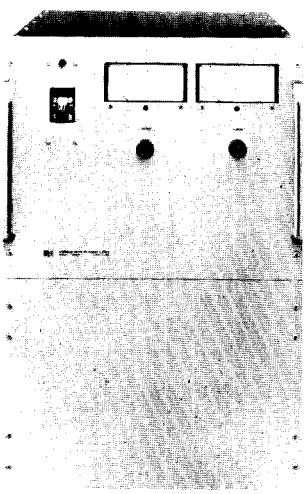
10 KW REGULATED SUPPLIES

SCR-10 Series

Models 6463A—6483B

The SCR-10 Series of all silicon, 10 kilowatt regulated supplies are intended for high power applications which require a fixed or variable dc source with a moderate degree of regulation. Silicon-controlled rectifiers in series with the transformer primary, and controlled by the output voltage and current settings, accomplish the desired regulation using Harrison's "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. All features of the SCR-10 Series are the same as given for the SCR-3 Series, except that auto-series and auto-parallel operation is not possible.



6472A

Specifications

Controls: a single control allows continuous adjustment of output voltage over the entire output range. A single control allows continuous adjustment of output current over the entire output range. Models 6475A, 6477A, 6479A, and 6483B have 10-turn voltage controls.

Input terminals: a 4-pin jack and mating connector are supplied.

Output terminals: tapped rectangular bus bars.

Cooling: internal fan.

Size: standard 19 inch (483 mm) relay rack mounting, 26¼ inches (669 mm) and 22½ inches (572 mm) deep.

Weight: 420 lbs (191 kg) net, 500 lbs (227 kg) shipping weight.

Finish: light gray front panel with dark gray case.

Model		6463A	6464A	6466A	6469A	6472A	6475A	6477A	6479A	6483B
DC output	volts	0-4	0-8	0-16 or 0-18	0-36	0-64	0-110	0-220	0-300	0-440 or 0-500 or 0-600
	amps	0-2000	0-1000	0-600 or 0-500	0-300	0-150	0-100	0-50	0-35	0-15 or 0-20 or 0-25
AC input	volts	208/230/380/400/460 ±10% 3 Phase 57–63 Hz Specify by option number see below								
	amps	less than 50 amps per phase at 230 V ac								
Combined line and regulation constant voltage: for a change in output current from no load to full load or full load to no load combined with a ±10% change in line voltage.		50 mV	25 mV	0.2% plus 10 mV	0.2% plus 10 mV	0.2% plus 100 mV	0.2% plus 100 mV	0.2% plus 100 mV	0.2% plus 100 mV	0.5% plus 100 mV
Combined line and load regulation constant current: for a change in output voltage from no load to full load or full load to no load combined with a ±10% change in line voltage.		20 A	10 A	6 A	3 A	1.5 A	1 A	0.5 A	0.3 A	0.2 A
Full scale meter readings: meters have 2% accuracy; all units have meter calibrating potentiometers.		5 V & 2400 A	10 V & 1200 A	18 V & 700 A	40 V & 350 A	80 V & 180 A	125 V & 120 A	250 V & 60 A	350 V & 40 A	600 V & 25 A
†Transient recovery time: less than 50 milliseconds is required for output voltage recovery to within A millivolts of the nominal output voltage following a load change from full load to half load or half load to full load, or a change of 100 amperes, whichever is less.		—	A= 150	A= 150	A= 500	A= 600	A= 1 V	A= 2 V	A= 3 V	A= 5 V
Ripple and noise: rms/p-p (dc to 20 MHz); at any line voltage and load condition within rating		280 mV/1V	80 mV/1V	180 mV/1V	180 mV/1V	160 mV/2V	220 mV/2V	330 mV/2V	300 mV/2V	600 mV/2V
Temperature coefficient: output change per degree centigrade change in ambient following 30 minutes warmup.	cv	0.05% plus 2 mV								
	cc	12 A	6.0 A	3.6 A	1.8 A	0.9 A	0.6 A	0.3 A	0.2 A	0.1 A
Stability: under constant ambient conditions, total drift for 8 hours following 30 minutes warmup.	cv	0.25% plus 10 mV								
	cc	60 A	30 A	18 A	9 A	4.5 A	3 A	1.5 A	1 A	0.6 A
Remote programming (Accuracy 1%)	cv	200Ω/V	200Ω/V	200Ω/V	200Ω/V	300Ω/V	300Ω/V	300Ω/V	300Ω/V	300Ω/V
Remote programming (Accuracy 10%)	cc	0.1Ω/A	1/5Ω/A	⅓Ω/A	⅔Ω/A	1.5Ω/A	2Ω/A	4Ω/A	6Ω/A	10Ω/A
Price: Option 01, 02, 03, 31 or 32 must be specified when ordering.		$3500	$3300	$2600	$2300	$2600	$2600	$2600	$2600	$2600
Options: refer to page 561 for descriptions.	06	—	—	$500	$450	$400	$400	$300	$300	$300
		01-208 V ac input-no charge, 02-230 V ac input-no charge, 03-460 V ac input- $200, 04-$85, 05-$25, 10-$225 31-380 V ac input-$275, 32-400 V ac input-$275.								

cv = constant voltage cc = constant current

†Use of supply at 50 Hz input (possible only with option 05) results in a 20% increase in transient recovery time and ripple