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SPECIFICATIONS

MODEL 751TC AC POWER SOURCE

All specifications are tested in accordance with standard California Instruments test procedures and apply with a stable, low distortion input signal as generated by a T series plug-in oscillator.

POWER OUTPUT:	750 VA at 110 to 130 volts rms output from unity to ±0.7 power factor. See derating chart for operation at other output voltages and/or power factor.
OUTPUT VOLTAGE RANGES:	0 to 130 volts rms and 0 to 260 volts rms as determined by rear panel straps.
TOTAL HARMONIC DISTORTION:	Less than 0.30% distortion from 200 Hz to 600 Hz; less than 0.5% distortion from 45 Hz to 5 KHz.
AMPLITUDE STABILITY: (after one hour warm-up)	±0.25% for 24 hours at constant line, load and ambient temperature conditions.
LOAD REGULATION:	±1% over the range from 45 Hz to 5 KHz when tested at unity power factor. In addition, a load regulation adjustment permits the regulation to be adjusted to zero at any given line voltage, signal frequency and load conditions. Control resolution is 0.1%.
LINE REGULATION:	±0.25% of full output for a ±10% line change.
* FULL POWER FREQUENCY RANGE:	45 Hz to 5 KHz.
FREQUENCY RESPONSE:	±0.5 dB from 45 Hz to 5 KHz.
AC NOISE LEVEL:	80 dB below full output with input shorted; 60 dB below full output at full rated power output.
OVERLOAD AND SHORT CIRCUIT PROTECTION:	Complete protection from overloads and short circuits is provided. Automatic reset occurs when overload is removed.

* This power source may be used over the 20 Hz to 20 KHz frequency range provided the output voltage and the output VA are derated according to Table 2-2 in this instruction manual; otherwise permanent damage to the unit may occur.

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THERMAL PROTECTION:	Thermal overload circuit is activated if overload exists for a prolonged time period; if the unit is operated at an excessive ambient temperature; or if heatsink fan failure occurs. Automatic reset occurs when heatsink temperature returns to normal operating temperature.
AMPLIFIER DRIVE REQUIREMENTS: (normally obtained from plug-in)	5 volts rms (maximum) produces 130 volts rms.
AC INPUT LINE:	103.5 to 126.5 volts rms. Unit may be wired for the following single phase voltages on special order: 208 VAC, 220 VAC, 230 VAC, and 240 VAC
AC INPUT FREQUENCY:	48 to 65 Hz. (400 Hz available on special order.)
AC INPUT POWER:	2100 watts maximum under worst case line and full rated load conditions.
OPERATING TEMPERATURE RANGE:	0 to 55°C.
FRONT PANEL METER:	0 to 150 volt and 0 to 300 volt AC voltmeter provides ±1% of full scale accuracy at 400 Hz and ±3% of full scale accuracy over the range from 45 Hz to 5 KHz.
DIMENSIONS:	7" high x 19" wide x 21" deep.
NET WEIGHT:	90 lbs.
SHIPPING WEIGHT:	100 lbs.
FRONT PANEL FINISH:	Grey, 26440 per Federal Standard 595 with black silk-screened lettering.

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INSTALLATION AND OPERATION

2.1 UNPACKING

The California Instruments Model 751TC Power Source is shipped in a cardboard container with protective inner packing. Do not *destroy the packing container until the unit has been inspected for* possible damage in shipment.

2.2 POWER REQUIREMENTS

2.2.1 The Model 751TC Power Source has been designed to operate from any one of the following AC line voltages: 115 volts, 208 volts, 220 volts, 230 volts, or 240 volts rms. The power transformer is normally wired at the factory for operation from the 115 volt line. Table 2-1 below indicates how the primary connections to the power transformer are made for various AC input line voltages.

TABLE 2-1

NOTE

Prior to reconnection of power transformer T1, remove all existing jumpers from the primary winding.

Nominal Input Voltage	Operating line Voltage Range	Power Transformer Connections	Front Panel Circuit Breaker Value
115 volts rms	103.5-126.5 volts rms	jumper pins 1 and 3; jumper pins 2 and 6; connect load side of circuit breaker to pin 6.	25 ampere 125 volt circuit breaker
208 volts rms	187.2-228.8 volts rms	jumper pins 2 and 3; connect load side of circuit breaker to pin 4.	15 ampere 250 volt circuit breaker
220 volts rms	198-242 volts rms	jumper pins 2 and 3; connect load side of circuit breaker to pin 5.	15 ampere 250 volt circuit breaker
230 volts rms	207-253 volts rms	jumper pins 2 and 3; connect load side of circuit breaker to pin 6.	12 ampere 250 volt circuit breaker
240 volts rms	216-264 volts rms	jumper pins 2 and 3; connect load side of circuit breaker to pin 7.	12 ampere 250 volt circuit breaker

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TABLE 2-2

Output Frequency	Maximum Safe Sine Wave Output Voltage (rms)		Maximum VA Output at Maximum Safe Output Voltage with ±0.7 Power Factor Load
	130 Volt Range	260 Volt Range	
20 Hz	57.8V	115.6V	330 VA
30 Hz	86.7V	173V	550 VA
40 Hz	115.6V	231V	750 VA
45 Hz to 5 KHz	130V	260V	750 VA
5 KHz to 10 KHz	65V	130V	188 VA
15 KHz	43.3V	86.7V	80 VA
20 KHz	32.5V	65V	43 VA

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