

SPECIFICATIONS
MODEL 3001TCA 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 non-servoed T-series plug-in oscillator. Using a servoed oscillator can generate $\pm 1\%$ distortion.

POWER OUTPUT:	3000 VA from 45 Hz to 2 KHz and 2000 VA from 2 KHz to 5 KHz at 110 to 130 volts output with power factor of unity to 0.7 lead or lag. See the power derating chart for operation at lower voltages and/or power factor.
OUTPUT VOLTAGE RANGES: (Determined by rear loaded printed circuit assembly)	0 to 32.5 volts rms, 0 to 65 volts rms, 0 to 130 volts rms, and 0 to 260 volts rms.
TOTAL HARMONIC DISTORTION:	Less than 0.5% distortion, 45 Hz to 2 KHz, and less than 1% distortion from 2 KHz to 5 KHz.
AMPLITUDE STABILITY: (After one hour warm-up)	$\pm 0.25\%$ for 24 hours at constant line, load, and ambient temperature conditions.
LOAD REGULATION*:	$\pm 1\%$ over the range from 45 Hz to 2 KHz when tested (on 130 volt range) at unity power factor. $\pm 5\%$ 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 over the frequency range of 45 Hz to 2 KHz.
LINE REGULATION:	$\pm 0.10\%$ of full output for a $\pm 10\%$ line change.

* Load regulation stays the same for the 260 volt range and degrades slightly on the 32.5 volt and 65 volt ranges for operation above 2.0 KHz. See Section 4.9.6 of this instruction manual for test procedure on these ranges.

FULL POWER FREQUENCY RANGE**:	45 Hz to 2 KHz.
FREQUENCY RESPONSE:	± 0.5 dB from 45 Hz to 5 KHz.
AC NOISE LEVEL:	50 dB below full output while measured at full power output.
CAPACITIVE LOADING:	Output will remain stable under purely capacitive loads over the following ranges: 32.5 V range: 0 to 170uF 65.0 V range: 0 to 43uF 135.0 V range: 0 to 10uF 260.0 V range: 0 to 2.7uF
OVERLOAD AND SHORT CIRCUIT PROTECTION:	Complete protection from overloads and short circuits is provided. Automatic instantaneous reset occurs when overload is removed.
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:	208 volts L-L three-phase, three-wire. Unit may be wired for the following three-phase three-wire voltages on special order: 220 VAC, 230 VAC, 416 VAC, 440 VAC or 460 VAC. Also, the unit may be wired for three-phase, four-wire operation from 380 volts L-L.

**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 2-5 in this instruction manual; otherwise, permanent damage to the unit may occur.

AC INPUT FREQUENCY:	48 to 65 Hz.
AC INPUT CURRENT:	24 amperes rms per line maximum under high line and full rated load conditions from the 208 volt three-phase 60 Hz AC line.
	25 amperes rms per line maximum under high line and full rated load conditions from the 208 volt three-phase 50 Hz AC line.
OPERATING TEMPERATURE RANGE:	0 to 55 degrees C.
FRONT PANEL METER: (Meter range also controlled by rear loaded printed circuit assembly)	0 to 40, 80, 160, 320 volts AC voltmeter provides $\pm 1\%$ of full scale accuracy at 400 Hz and $\pm 3\%$ of full scale accuracy over the range from 45 Hz to 5 KHz.
DIMENSIONS:	15.75" high x 19" wide x 21" maximum depth.
NET WEIGHT:	240 pounds.
SHIPPING WEIGHT:	250 pounds.
FRONT PANEL FINISH:	Gray, 26440 per Federal Standard 595 with black silk-screened lettering.