



### DESCRIPTION

The ALTEC Model 9440A Power Amplifier is a direct-coupled amplifier that typically delivers over 250 watts per channel into 8-ohm loads and over 450 watts per channel into 4-ohm loads at less than 0.1% total harmonic distortion (THD). An optional plug-in line bridging transformer may be used in each channel for balanced inputs.

The 9440A is capable of operation from a 120V or 240V ac source.

Circuit design provides fail-safe protection for the output transistors and the load.

Provisions are made for mounting two accessory fans on the heat sink shroud for greater cooling of the output circuitry.

Illuminated VU meters indicate full-wave average output level of each channel at selectable ranges of 0 dB, -10 dB and -20 dB.

Designed for rack mounting, the 9440A occupies only four vertical units of rack space (7").

## SPECIFICATIONS

<b>Type:</b>	Two-channel basic power amplifier with provision for two optional 15335A plug-in line transformers for balanced input	<b>Load Impedance:</b>	4 ohms or greater per channel 8 ohms or greater in bridge (mono) mode
<b>Gain:</b>	55.7 dB with 15335A bridging 600-ohm line with 8-ohm load 58.7 dB with 15335A bridging 600-ohm line with 4-ohm load 61.7 dB with 15335A bridging 600-ohm line in bridge (mono) mode with 8-ohm load	<b>Output Impedance:</b>	Less than 0.1 ohm in dual mode at 1 kHz Less than 0.2 ohm in bridge (mono) mode at 1 kHz
<b>Input Sensitivity:</b>	0.6V rms for rated output	<b>Signal-to-Noise Ratio:</b>	Greater than 100 dB and 20 kHz noise bandwidth; equivalent to 5.5 $\mu$ V maximum input noise or -103 dBm (600 ohms)
<b>Power Output— Single Channel Driven:</b>	200 watts per channel into 8 ohms from 20 Hz to 20 kHz at less than 0.1% THD Typically greater than 250 watts per channel into 8 ohms at 1 kHz at less than 0.01% THD 400 watts per channel into 4 ohms from 20 Hz to 20 kHz at less than 0.25% THD Typically greater than 450 watts per channel into 4 ohms at 1 kHz at less than 0.05% THD	<b>Channel Separation:</b>	Greater than 80 dB at 1 kHz and 8-ohm loads
<b>Both Channels Driven:</b>	200 watts per channel into 8 ohms from 20 Hz to 20 kHz at less than 0.25% THD 400 watts per channel into 4 ohms at 1 kHz at less than 0.25% THD	<b>Controls:</b>	2 VOLUME controls, continuously variable 2 METER RANGE switches having 0 dB, -10 dB and -20 dB ranges (Ref.: 0 dB = 40V output) 1 POWER OUTPUT switch to select mode (MONO or DUAL) and clipping power percentage (40% or 100%) in either MONO or DUAL mode 1 POWER ON-OFF switch (primary power)
<b>Bridge (Mono) Operation:</b>	Greater than 800 watts into 8 ohms at 1 kHz at less than 0.25% THD	<b>Indicators:</b>	2 illuminated meters indicating full-wave average output level with ranges of 0 dB, -10 dB and -20 dB (Ref.: 40V output)
<b>IM Distortion (Single Channel Driven):</b>	Less than 0.1% from 0.01 watt to 250 watts into 8 ohms (60 Hz, 7 kHz, 4:1) Less than 0.1% from 0.01 watt to 450 watts into 4 ohms (60 Hz, 7 kHz, 4:1)	<b>Connectors:</b>	2 Cannon XLR3-31 input receptacles 2 Phone jack input receptacles 4 Five-way binding-post output jacks 2 Phone jack multiple receptacles (to connect additional amplifiers) 8-foot, 3-wire, 16GA power cord with NEMA 5-15P plug 2 AC power receptacles, switched. Total maximum power-handling capacity of 150 watts.
<b>Frequency Response (Direct Input):</b>	$\pm$ 0.25 dB at 1W (8 ohms) from 20 Hz to 20 kHz $\pm$ 3 dB at 1W (8 ohms) from 5 Hz to 100 kHz	<b>Power Requirements:</b>	120/240V ac, 50/60 Hz 100W at zero signal 850W at $\frac{1}{3}$ rated output (4 ohms) with both channels driven at 1 kHz 1500W at rated output (4 ohms) with both channels driven at 1 kHz
<b>Input Impedance:</b>	15,000 ohms (nominal for all inputs)		

**Amplifier Protection:**

Active output stage with voltage/current limiting and dual voltage-level power supply to reduce power output to 40% of rated output. Control circuitry monitors excessive heat sink temperature, mismatch of load impedance and setting of POWER OUTPUT switch.

**Load Protection:**

Output relay delays turn-on of output power for 5 seconds; provides instant turn-off of output power and removal of load in case of presence of dc voltage in the output.

**Operating Temperature Range:**

Up to +55°C (131°F) ambient

**Dimensions:**

7" (17.8 cm) H  
19" (48.3 cm) W  
11" (27.9 cm) D  
(without fans)

**Weight:**

56.5 pounds (25.6 kg)

**Color:**

Gun-metal gray front panel with clear-irridited chassis

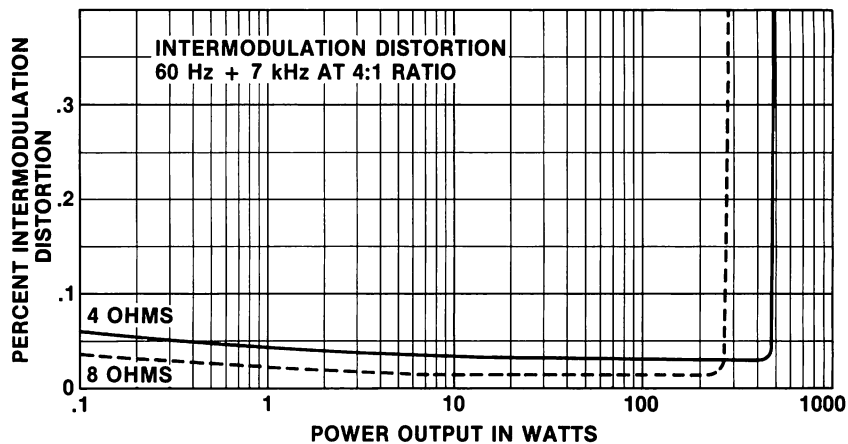
**Enclosure:**

Rack mount chassis with provision for mounting two accessory fans on heat sink shroud

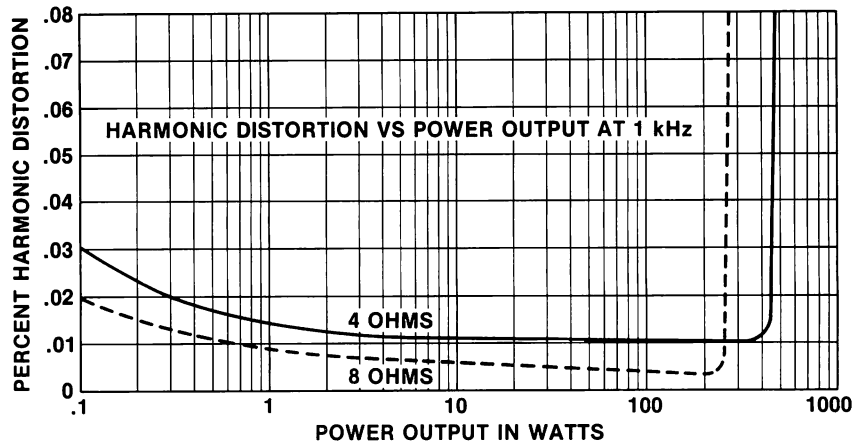
**Accessories:**

ALTEC 15335A Line Transformer. Do not use 15335 transformer.  
Axial fan, 4<sup>1</sup>/<sub>6</sub>", 120V ac

(TYPICAL PERFORMANCE)

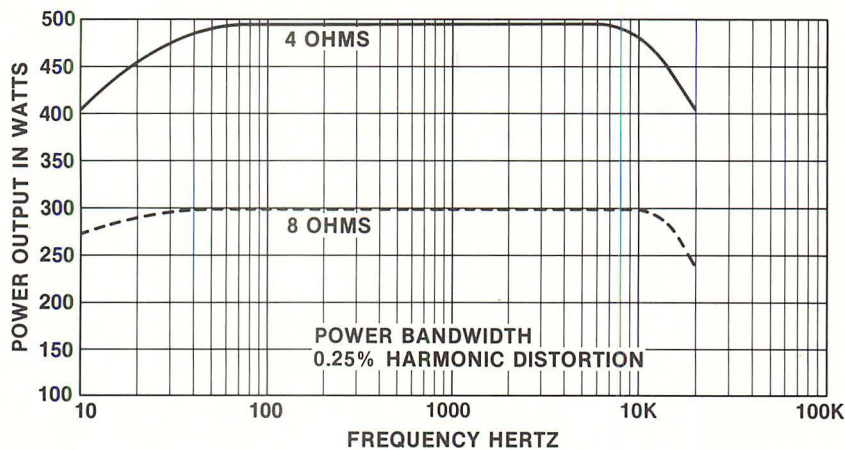


(TYPICAL PERFORMANCE)





(TYPICAL PERFORMANCE)



ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The power amplifier shall be capable of operating from a 120/240V ac, 50/60 Hz line. Circuitry shall provide fail-safe protection for the output transistors and the load. Within the chassis, an octal socket shall be provided in each channel for installation of an accessory plug-in line transformer.

The power amplifier shall meet the following criteria. Gain: 55.7 dB with accessory line transformer bridging 600-ohm line with 8-ohm load. Input sensitivity, 0.6V rms for rated output. Single-channel driven power output; 200W into 8 ohms from 20-20,000 Hz at less than 0.1% THD, more than 250W into 8 ohms at 1000 Hz at less than 0.01% THD, 400W into 4 ohms from 20-20,000 Hz at less than 0.25% THD. Frequency response with direct input;  $\pm 0.25$  dB at 1W (8 ohms) from 20-20,000 Hz. Input impedance

(nominal), 15,000 ohms. Load impedance; at least 4 ohms/channel, at least 8 ohms in bridge (mono) mode. Output impedance; less than 0.1 ohm in dual mode at 1000 Hz, less than 0.2 ohm in bridge (mono) mode at 1000 Hz. Signal-to-noise ratio; more than 100 dB and 20,000 Hz bandwidth, equivalent to 5.5  $\mu$ V maximum input noise or -103 dBm (600 ohms). Channel separation, more than 80 dB at 1000 Hz and 8-ohm loads. Operating temperature range, up to +55°C (131°F) ambient. Dimensions, 7"H x 19"W x 11" D (without fans). Weight, 56.5 pounds. Color, gun-metal gray front panel with clear-irridited chassis. Enclosure, rack mount chassis with provision for mounting two accessory fans on heat sink shroud.

The power amplifier shall be the ALTEC Model 9440A.



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