ALTEC LANSING

1269 POWER AMPLIFIER ...PRELIMINARY

DESCRIPTION

Quantum increases in the sophistication of modern sound systems have been paralleled by rapid and significant advances in the design of amplifiers intended to power these systems. The first generation of 'super amplifiers' successfully met the challenge of generating massive wattage from a single source.

As system demands continue to rise, however, output capability alone no longer represents the full measure of professional performance. The ALTEC LANSING 1269 Power Amplifier harnesses super amp brute strength to state-of-the-art computer protection circuitry. Designed to protect itself and the acoustic elements it drives, the 1269 is 400+ watts of **controlled** power in the bridge mode.

The 1269 provides continuous high power demand where uninterrupted operation is requisite. Two channels may be operated independently to deliver 120 watts per channel at less than 0.03% THD from 20 Hz to 20 kHz.

Peak/Error Computer The amplifier is provided with a peak/error computer that compares channel input and output signals and detects any output errors. Detection of any peak/error causes the appropriate peak/error indicator to illuminate. Output anomalies detected include excessive voltage, excessive current (load), excessive slew rate, and any other significant difference between the channel input and output signal.

Amplifier Protection The amplifier output is continuously monitored to guard against excessive current drain. An instantaneous VI limiter restricts output to 200 VA ±45° phase shift. The amplifier is additionally protected against excessive operating temperature; if temperature rises excessively, the load is disconnected by a relay and the protection indicator illuminates. When temperature falls to safe operating conditions, the amplifier automatically resumes operation.

Load Protection The load is protected from transients during startup and shutdown of the amplifier. During startup, the load remains disconnected through a relay during a three-second delay period. During shutdown or loss of power, the load is instantaneously disconnected by the relay. The load is similarly protected against amplifier failure, such as dc voltage at the output.

The ALTEC Model 1269 Power Amplifier has less than 0.05% total harmonic distortion (THD) while delivering more than 150 watts per channel into 8-ohm loads.

The 1269 may be operated from a 120V or 240V 50/60 Hz ac source. An LED indicates ac power.

SPECIFICATIONS:

Type:	Two-channel basic power amplifier
Power Gain:	49.5 dB (balanced) bridging 600-ohm line with 8-ohm load
	55.5 dB (balanced) bridging 600-ohm line in bridge (mono) mode with 8-ohm load
Voltage Gain:	32.0 dB (unbalanced)
Input Sensitivity:	0.775V rms for rated output
Power Output:	120 watts per channel into 8 ohms, both channels driven from 20 Hz to 20 kHz at less than 0.03% THD
	Typically greater than 150 watts per channel into 8 ohms at 1 kHz at less than 0.01% THD
Bridge (mono) Operation:	Typically greater than 400 watts into 8 ohms from 20 Hz to 20 kHz at less than 0.05% THD
IM Distortion (single channel):	Less than 0.03% from 0.01 watt to 120 watts into 8 ohms (60 Hz, 7 kHz, 4:1)
Frequency Response (direct input):	±0.25 dB at 1W (8 ohms) from 20 Hz to 20 kHz +0 dB, −3 dB at 1W (8 ohms) from 5 Hz to 100 kHz
Input Impedance:	15,000 ohms (nominal for all inputs)
Load Impedance:	4 ohms or greater ±45° or less
	8 ohms or greater ±45° or less in bridge (mono) mode
Output Impedance:	Less than 0.1 ohm in dual mode at 1 kHz
	Less than 0.2 ohms in bridge (mono) mode at 1 kHz
Signal-to-Noise Ratio:	Greater than 100 dB unweighted with 600-ohm source impedance volume at maximum
Channel Separation:	Greater than 70 dB at 1 kHz
Slew Rate:	18 V/μ sec
Controls:	2 stepped attenuators
	1 MODE switch (mono or dual operation)
	1 ac POWER ON-OFF switch
	1 ac power indicator (LED)
	2 peak/error indicators (LED); indicate excessive input/output differential for each channel; shows THD greater than 1% and transient errors. Response time: 1 microsecond with 25 millisecond hold for visibility
	1 PROTECTION indicator (LED); indicates operation of load/amplifier protection system
	2 channel input receptacles (Cannon type)
	4 channel output jacks (5-way binding post type)
	2 phone jack multiple receptacles (to connect additional amplifiers)
	8-foot, 3-wire, 16GA power cord with NEMA 5-15 plug
Power Requirements:	120/240V ac, 50/60 Hz 80W at zero signal 300W at ⅓ rated output (8 ohms) with both channels driven at 1 kHz
	400W at rated output (8 ohms) with both channels driven at 1 kHz
Amplifier Protection:	Active output stage with voltage/current limiting. Temperature sensor.
Load Protection:	Output relay delays turn-on of output power for 3 seconds. Provides instant turn-off of output power and removal of load during presence of dc voltage in output, or in event of excessive heat sink temperature.
Operating Temperature Range:	Up to +55°C (131°F) ambient
Dimensions:	3½" (8.9 cm) H 19" (48.3 cm) W 14.75" (37.47 cm) D
Color:	Black
Enclosure:	Rack mount chassis with heavy duty front handles

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 protection for the output transistors and the load.

The power amplifier shall meet the following criteria. Gain: 49.5 dB with line transformer bridging 600-ohm line with 8-ohm load. Input sensitivity: 0.775V rms for rated output. Power output: 120 watts per channel into 8 ohms, both channels driven from 20-20,000 Hz at less than 0.03% THD. Frequency response with direct input: ±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 unweighted with 600-ohm source impedance volume at maximum. Channel separation: more than 70 dB at 1000 Hz. Operating temperature range: up to 55°C (131°F) ambient. Dimensions: 3½" H x 19" W x 14.75" D. Color: black. Enclosure: rack mount chassis with heavy duty front handles.

The power amplifier shall be the ALTEC Model 1269.

ALTEC LANSING

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