

AMP-X300

X-Series Amplifier



- *ENERGY STAR® certified power amplifier*
- *1 RU high design is surface or rack mountable*
- *Half-rack width form factor, gangable with other next generation half-rack width form factor products*
- *Configurable for either LoZ (4/8 Ω) or Hi-Z (70V or 100V) operation*
- *Configurable for 4 x up to 75 W output, 2 x up to 150 W output, 1 x up to 300 W (bridged) output, and 2 x up to 75 W + 1 x up to 150 W (bridged) output*
- *Low noise, low distortion, and high headroom*
- *Comprehensive fault and speaker protection*
- *Captive speaker connectors for secure and robust connectivity*
- *Balanced and unbalanced inputs*
- *Standby feature instantly turns on amplifier when input sensing circuitry detects an audio signal*
- *Always On feature allows constant on connection with very low power consumption*
- *Remote standby feature allows for instant on/off control over amplifier outputs via a simple contact closure input*
- *Front panel power/standby, fault, and signal/clip indicators*
- *Internal universal 100-240V power supply*

The Crestron® AMP-X300 is a high performance, space saving, energy efficient, professional grade amplifier solution that is totally configurable, yet simple to use. Whether you need a stereo amp that mounts on a wall or under a table, or a multichannel rack mount amp with multiple output types and power levels, the AMP-X300 is simple to specify and install in any configuration.

LoZ (4/8 Ω) and Hi-Z (70V or 100V) Output

The AMP-X300 is a 4-channel amplifier (up to 75 W per channel) which can also be configured for 3-channel bridged operation (up to 75 W per single ended channel and up to 150 W for the bridged channel), or 2-channel bridged operation (up to 150 W per channel), or 1 channel bridged operation (up to 300 W), with a choice of "LoZ" outputs to drive 4- or 8-Ω speakers, or "Hi-Z" outputs to drive a distributed speaker system (70V or 100V). Balanced and unbalanced inputs are provided for connection to two stereo or four mono source(s) via detachable terminal blocks or RCA connectors.

NOTE: Each configuration can output up to its respective power rating.

Solid & Efficient Performance

The AMP-X300 is engineered to deliver exceptional performance and reliability with low distortion, low noise, and high power headroom. Advanced Class D technology maximizes efficiency to reduce power consumption and heat dissipation. An internal universal power supply ensures consistent performance at varying line voltages.

Convection Cooling

The efficient design ensures cool running operation and long-term reliability. The AMP-X300 is high-density stackable with other Crestron modular amps, allowing multiple units to be installed vertically in an equipment rack without needing extra ventilation space.

Modular Design

The AMP-X300 is housed in a half-width rack-mountable form factor that can be installed individually or ganged together in a single rack space. The amplifier ships complete with all the hardware required for installation. Rack and surface mount parts are included, so no additional mounting accessories or rack shelves are required.

Whether mounting in a rack, attaching to a flat surface, or placing on a shelf, it is easy to combine two amplifiers into a single assembly.

Fully Protected

The AMP-X300 features protection against overheating, shorted or overloaded speaker lines, excessive input signals, and other faults. In the case of a shorted speaker line or overheating condition, both outputs mute automatically until the fault condition is resolved. In the event of a prolonged fault, such as an internal component failure, the outputs mute instantly and the amplifier shuts down.

ENERGY STAR® Certified

An energy-efficient design enables the AMP-X300 to meet demanding ENERGY STAR requirements. In addition to its high efficiency under operation, the AMP-X300 draws no added inrush current during power-up, thereby reducing AC circuit requirements and allowing multiple units to be connected to a single switched circuit. To reduce energy usage further, the AMP-X300 can be configured to enter a low-power standby state if no input signal is detected on either channel for 25 minutes. Signal detection has been optimized for sensitivity to improve response time when triggering the amplifier to the "on" state, allowing it to return to full operation within a half-second the instant an input signal is detected. A remote input can be connected to a contact closure to place the amplifier outputs in controlled standby mode.

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Specifications

Audio

Input Signal Types Balanced or unbalanced analog line-level

Output Power

Mode	1 Channel Driven	2 Channels Driven	3 Channels Driven	4 Channels Driven
LoZ, 8 Ω (single ended)	150 W	150 W	75 W ¹	75 W
LoZ, 4 Ω (single ended)	200 W	150 W	75 W ¹	75 W
LoZ, 8 Ω Bridged	300 W	150 W	150 W ¹	N/A
Hi-Z 70V	300 W	150 W	N/A	N/A
Hi-Z 100V	300 W	150 W	N/A	N/A

NOTES:

- Total output power from all channels combined (simultaneously) is up to 300 W.
- Each mode will output power in watts up to the value listed in the table.

Frequency Response	20 Hz to 20 kHz ± 0.5 dB at 1 W
High-Pass Filter (70V and 100V operation only)	-3 dB @ 80 Hz, -12 dB/octave
THD+N	<0.1% at 1 kHz @ -3 dB full rated output power
S/N Ratio	>103 dBA, 20 Hz to 20 kHz, balanced
Crosstalk	-75 dB at 1 kHz
Input Sensitivity	1.23 Vrms, +4 dBu balanced; 0.316 Vrms, -10 dBV unbalanced; For 150 W (8 Ω), 300 W (8 Ω Bridged), 300 W (70V/100V)
Gain	29 dB @ 8 Ω
Protection	Over current, under voltage, over temperature, DC offset, extreme high frequency

Go to Sleep Time 25 minutes with no signal present (when set to POWER SAVER)

Wake Time 0.5 s typical

Wake Threshold 0.44 mV typical

Connectors

CH1-CH4 (2) 4-pin 5.08 mm pitch, 12A plug with screw locking retainers; Power amplifier output; Wire Size: Terminals accept up to 12 AWG (3.31 mm²)

NOTE: Output is direct-coupled, not transformer isolated.

AUDIO IN (UNBALANCED) (4) RCA connectors, female; Unbalanced line-level audio inputs (Summing on channels 1 + 2 and channels 3 + 4); Maximum Input Level: 2.24 Vrms, +7 dBV (+9.2 dBu)

AUDIO IN (BALANCED) (4) 3-pin 3.5 mm detachable terminal block; Balanced line-level audio inputs; Channel pairs 1 - 2 and 3 - 4 can each be configured to operate as stereo channels or a downmixed mono channel; Maximum Input Level: 7.75 Vrms, +20 dBu; Input Impedance: 20k Ω

REMOTE (1) 2 pin 3.5 mm detachable terminal block; Connect to dry contact closure to place amplifier in standby mode.

G (1) 6-32 screw; Chassis ground lug

100-240V~ 1.2-0.6A 50/60 Hz (1) IEC 60320 C14 main power inlet; Mates with removable power cord, included

Controls & Indicators

PWR (1) White/Red LED; White indicates amplifier is on and ready for use; Red indicates amplifier is in standby

HI-Z (1) White LED; Indicates when Hi-Z mode is enabled (70V or 100V); Channels 1 - 2 and 3 - 4 are bridged and set to 70V or 100V operation

SIGNAL (4) White LEDs (one per input); Indicates when an active input signal is present

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FAULT	(4) Red LEDs (one per input); Indicates that the input channel is faulted or clipping
GAIN 1-4	(4) Screwdriver-adjustable rotary controls, one per input channel; Adjusts the input attenuation level for the corresponding input channel
LoZ Modes	(2) Slide switches, one switch controlling channels 1 and 2, and one switch controlling channels 3 and 4; Selects stereo, summed, or bridged operation <ul style="list-style-type: none">• STEREO: The input signal received on each channel is sent to its respective output for use in applications where left and right channel separation is required. The four GAIN controls are independently adjustable.• SUM: The input signals sent to a channel pair (1 + 2 or 3 + 4) are summed and sent to their respective individual outputs. The four GAIN controls are independently adjustable.• BRIDGE: The input signals sent to a channel pair (1 + 2 or 3 + 4) are summed and sent to a bridged output (1 + 2 or 3 + 4) for use in high-power applications. The GAIN 1 control adjusts the bridged 1 + 2 output, and the GAIN 3 control adjusts the bridged 3 + 4 output.
Operations Mode	(1) Slide switch; Sets the amplifier for LoZ (4 or 8 Ω) or Hi-Z operation (70V or 100V)
Power Mode	(1) Slide switch; Selects "Power Saver" or "Always On" operation

Power

Main Power	1.2-0.6A @ 100-240VAC, 50/60 Hz
Power Consumption	75 W, (4 channels driven at 1/8th output power, 4 Ω); 16 W, idle (Hi-Z mode); 0.365 W, power saver (230VAC/50 Hz)

Environmental

Temperature	41 to 104°F (5° to 40°C)
Humidity	10% to 90% RH (non-condensing)

Heat Dissipation	107 BTU/hr @ 4 Ω , all channels driven at 1/8th output power; 55 BTU/hr, all channels idle (Hi-Z mode); 1.2 BTU/hr in standby
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Construction

Chassis	Metal, convection cooled (fanless)
Front Panel	Metal, black finish with polycarbonate label overlay
Mounting	Freestanding, surface mount, or 1/2 width 1 RU 19 in. rack mountable; Gangable with other Crestron modular AMP series products (adhesive feet, surface mounting, rack mounting, and ganging hardware all included)

Dimensions

Height	1.75 in. (44 mm) without feet; 1.83 in. (46 mm) with feet
Width	8.67 in. (220 mm) without mounting brackets 19.00 in. (483 mm) with mounting brackets
Depth	11.04 in. (280 mm)

Weight

5.3 lb (2.4 kg)

Compliance

ENERGY STAR, ErP (1275/2008/EC), UL® 62368, FCC Class B residential use

Model

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Modular Amplifier

Available Accessories

For a list of available accessories, visit the [AMP-X300](#) product page.

Note:

1. 3 channel operation requires two single ended loads and one bridged load.

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This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or by calling 855-263-8754.

This product is covered under the Crestron standard limited warranty. Refer to www.crestron.com/warranty for full details.

The specific patents that cover Crestron products are listed online at patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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