

## X-Series Amplifier, 300 W



- *ENERGY STAR® certified power amplifier*
- *1 RU high, half-rack width form factor supports surface and rack mounting*
- *Configurable for either Lo-Z (4 or 8  $\Omega$ ) or Hi-Z (70V or 100V) operation*
- *BUS line input and output for sending the same signal to multiple amps*
- *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, 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 bypasses standby with minimal power consumption*
- *Internal universal 100-240V power supply*

The AMP-X300 is a high performance, space saving, energy efficient, professional grade amplifier solution that's 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.

### Lo-Z (4/8 $\Omega$ ) and Hi-Z (70V or 100V) Operation

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), 2-channel bridged operation (up to 150 W per channel), or 1 channel bridged operation (up to 300 W). A choice of Lo-Z outputs to drive 4- or 8- $\Omega$  speakers, or Hi-Z outputs to drive a distributed speaker system (70V or 100V) can be used. Balanced/Unbalanced inputs are provided for connection to two stereo or four mono sources through detachable terminal blocks or RCA connectors.

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

### Solid and 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.

### 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 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. An optional rack-mounting kit ([RMK-AMP-X](#), sold separately) is available to gang the amplifier alongside another half-width model or two quarter-width models. 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, paired outputs mute automatically until the fault condition is resolved. In the event of a prolonged fault, all outputs mute 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 amplifier draws no added inrush current during power-up, thereby reducing AC circuit requirements and allowing multiple amplifiers 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 any channel for 25 minutes. Signal detection sensitivity has been optimized to improve response time when triggering the amplifier to the on state, allowing it to return to full operation within a half-second. The REMOTE input can be connected to a contact closure to place the amplifier outputs in a controlled standby mode.

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## Specifications

## Audio

## Output Power

| Mode                            | 1 Channel Driven | 2 Channels Driven | 3 Channels Driven  | 4 Channels Driven |
|---------------------------------|------------------|-------------------|--------------------|-------------------|
| Lo-Z, 8 $\Omega$ (single ended) | 150 W            | 150 W             | 75 W <sup>1</sup>  | 75 W              |
| Lo-Z, 4 $\Omega$ (single ended) | 200 W            | 150 W             | 75 W <sup>1</sup>  | 75 W              |
| Lo-Z, 8 $\Omega$ Bridged        | 300 W            | 150 W             | 150 W <sup>1</sup> | N/A               |
| Hi-Z 70V                        | 300 W            | 150 W             | N/A                | N/A               |
| Hi-Z 100V                       | 300 W            | 150 W             | N/A                | N/A               |

The efficient design ensures cool running operation and long term reliability.

## 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.

|  |   |
|--|---|
| Input Signal Types                             | Balanced or unbalanced analog line-level                                      |
| Frequency Response                             | 20 Hz to 20 kHz $\pm 0.5$ 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;<br>0.316 Vrms, -10 dBV unbalanced                 |
| Gain   | 29 dB @ 8 $\Omega$  |
| Protection                                     | Overcurrent, undervoltage, overtemperature, 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 (OUTPUT)** (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 mm)

**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; Maximum Input Level: 7.75 Vrms, +20 dBu; Input Impedance: 20 k $\Omega$

**NOTE:** Channel pairs 1 - 2 and 3 - 4 can each be configured to operate as stereo channels or a downmixed mono channel;

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

**Chassis Ground** (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 &amp; 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

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|                        |  |
|------------------------|--|
| <b>SIGNAL</b>          | (4) White LEDs (one per output);<br>Indicates when an audio signal is present  |
| <b>FAULT</b>           | (4) Red LEDs (one per output);<br>Indicates that the output channel is faulted or clipping   |
| <b>GAIN 1-4</b>        | (4) Screwdriver-adjustable rotary controls, one per output channel;<br>Adjusts the attenuation level for the corresponding output channel  |
| <b>Lo-Z Modes</b>      | (2) Slide switches, one switch controlling channels 1 and 2, and one switch controlling channels 3 and 4;<br>Selects stereo, summed, or bridged operation <ul style="list-style-type: none"> <li>• <b>STEREO:</b> 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.</li> <li>• <b>SUM:</b> 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.</li> <li>• <b>BRIDGE:</b> 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.</li> </ul> |
| <b>Operations Mode</b> | (1) Slide switch;<br>Sets the amplifier for Lo-Z (4 or 8 $\Omega$ ) or Hi-Z operation (70V or 100V)  |
| <b>Power Mode</b>      | (1) Slide switch;<br>Selects Power Saver or Always On operation  |

**Power**

|                          |  |
|--------------------------|--|
| <b>Main Power</b>        | 1.2-0.6A @ 100-240VAC, 50/60 Hz  |
| <b>Power Consumption</b> | 75 W, (4 channels driven at 1/8th output power, 4 $\Omega$ );<br>16 W, idle (Hi-Z mode);<br>0.37 W, power saver (230VAC/50 Hz) |

**Environmental**

|                    |                                |
|--------------------|--------------------------------|
| <b>Temperature</b> | 41 to 104°F (5° to 40°C)       |
| <b>Humidity</b>    | 10% to 90% RH (non-condensing) |

|                         |  |
|-------------------------|--|
| <b>Heat Dissipation</b> | 107 BTU/hr @ 4 $\Omega$ , all channels driven at 1/8th output power;<br>55 BTU/hr, all channels idle (Hi-Z mode);<br>1.2 BTU/hr in standby |
|-------------------------|--|

**Construction**

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

**Dimensions**

|               |  |
|---------------|--|
| <b>Height</b> | 1.75 in. (44 mm) without feet;<br>1.83 in. (46 mm) with feet                             |
| <b>Width</b>  | 8.67 in. (220 mm) without mounting brackets<br>19.00 in. (483 mm) with mounting brackets |
| <b>Depth</b>  | 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****AMP-X300**  
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.

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](http://www.crestron.com/How-To-Buy/Find-a-Representative) or by calling 855-263-8754.

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This product is covered under the Crestron standard limited warranty. Refer to [www.crestron.com/warranty](http://www.crestron.com/warranty) for full details.

The specific patents that cover Crestron products are listed online at [patents.crestron.com](http://patents.crestron.com).

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