

# AMP-X500

## X-Series Amplifier, 500 W



- *ENERGY STAR® certified power amplifier*
- *Compact 1 RU form factor with cool-running operation*
- *Quiet, fanless convection-cooled design*
- *Up to 500 W of output power available across 2 output channels*
- *Configurable for either Lo-Z (4/8  $\Omega$ ) or Hi-Z (70V or 100V) operation*
- *BUS line input and output for sending the same signal to multiple amps*
- *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-X500 is a high performance, compact, energy efficient, professional grade amplifier. Supporting Lo-Z and Hi-Z operation, this multichannel amplifier is suitable for both residential and commercial configurations.

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

The AMP-X500 is a 2-channel amplifier with up to 500 W of total available output power. Each amplifier channel can be configured for Lo-Z output to drive 4 or 8  $\Omega$  speakers or Hi-Z output to drive a 70V or 100V distributed speaker system. A stereo BUS line input and output are available, allowing an audio signal to be distributed to multiple amplifiers from one source. Alternatively, dedicated balanced and unbalanced inputs are provided for connection to a stereo source or up to two mono sources.

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

### Solid and Efficient Performance

The AMP-X500 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.

### Stackable Design

The AMP-X500 is housed in a compact 1 RU form factor. Its efficient design ensures cool running operation and long term reliability. The amplifier is high-density stackable with other Crestron amps, allowing multiple units to be installed vertically in an equipment rack without needing extra ventilation space. Rack mount parts are included, so no additional mounting accessories or rack shelves are required.

### Fully Protected

The AMP-X500 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, affected outputs mute automatically until the fault condition is resolved.

### ENERGY STAR® Certified

An energy-efficient design enables the AMP-X500 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-X500 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.

## Specifications

### Audio

Input Signal Types	Balanced or unbalanced analog line-level
Output Power Per Channel (RMS, continuous up to 10 seconds)	250 W (4 or 8 $\Omega$ ), 500 W (8 $\Omega$ only), 500 W (70V/100V) <b>NOTE:</b> Total simultaneous output power across all channels will not exceed 500 W
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

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<b>Input Sensitivity</b>	1.23 Vrms, +4 dBu balanced; 0.316 Vrms, -10 dBV unbalanced
<b>Gain</b>	29 dB @ 8 $\Omega$
<b>Protection</b>	Overcurrent, undervoltage, overtemperature, DC offset, extreme high frequency
<b>Go to Sleep Time</b>	25 minutes with no signal present (when set to POWER SAVER)
<b>Wake Time</b>	0.5 s typical
<b>Wake Threshold</b>	0.44 mV typical

### Connectors

<b>CH1-CH2 (OUTPUT)</b>	(2) 2-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)  <b>NOTE:</b> Output is direct-coupled, not transformer isolated.
<b>AUDIO IN (UNBALANCED)</b>	(2) RCA connectors, female; Maximum Input Level: 2.24 Vrms, +7 dBV (+9.2 dBu)
<b>AUDIO IN (BALANCED)</b>	(2) 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 $\Omega$
<b>BUS INPUT</b>	(2) paired RCA connectors, female; Unbalanced line-level audio inputs
<b>BUS OUTPUT</b>	(2) paired RCA connectors, female; Unbalanced line-level audio outputs, buffered
<b>REMOTE</b>	(1) 2-pin 3.5 mm detachable terminal block; Connect to dry contact closure to place amplifier in standby mode
<b>Chassis Ground</b>	(1) 6-32 screw; Chassis ground lug
<b>100-240V~ 1.2- 0.6A 50/60 Hz</b>	(1) IEC 60320 C14 main power inlet; Mates with removable power cord, included

### Controls & Indicators

<b>PWR</b>	(1) White/Red LED; White indicates amplifier is on and ready for use; Red indicates amplifier is in standby
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<b>HI-Z</b>	(2) White LEDs (one per output); Indicates when Hi-Z mode is enabled (70V or 100V);
<b>SIGNAL</b>	(2) White LEDs (one per output); Indicates when an audio signal is present
<b>FAULT</b>	(2) Red LEDs (one per output); Indicates that the output channel is faulted or clipping
<b>GAIN 1-2</b>	(2) Screwdriver-adjustable rotary controls, one per output channel; Adjusts the attenuation level for the corresponding output channel
<b>INPUT SEL 1-2</b>	(2) Rotary controls, one per output channel; Selects input source from RCA, Balanced, BUS left/right, or BUS mono
<b>OUTPUT 1-2</b>	(2) Rotary controls, one per output channel; Selects 4-8 $\Omega$ 250 W, 8 $\Omega$ 500W, 70V, or 100V operation
<b>Power Mode</b>	(1) Slide switch; 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>	115 W, (2 channels driven at 1/8th output power, 4 $\Omega$ ); 8.8 W, idle; 0.31 W, power saver (115VAC/60 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>	149 BTU/hr @ 4 $\Omega$ , all channels driven at 1/8th output power; 21 BTU/hr all channels idle; 1 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 or 1 RU 19 in. rack mountable; Stackable with other Crestron AMP series products (adhesive feet and rack mounting hardware all included)

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### Dimensions

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Height	1.75 in (44 mm) without feet; 1.89 in (48 mm) with feet
Width	19.00 in (483 mm)
Depth	14.57 in (370 mm)

### Weight

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9.93 lb (4.5 kg)

### Compliance

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

### Model

**AMP-X500**  
Modular Amplifier

### Available Accessories

For a list of available accessories, visit the [AMP-X500](#) product page.

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.

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

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