

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
- Configurable for either Lo-Z (4/8 Ω) 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 allows constant on connection 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 Ω) and Hi-Z (70V or 100V) Operation

The AMP-X500 is a 2-channel amplifier with a BUS line input and output. Using the BUS line, a signal can be passed through to multiple amps with a single RCA connection from the source. A choice of Lo-Z output settings to drive 4- or 8-Ω speakers, or Hi-Z output settings to drive a distributed speaker system (70V or 100V) can be used. Balanced/Unbalanced inputs are provided for connection to stereo or two 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-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. The 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. 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-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 controlled standby mode.

Specifications

Audio

Input Signal Types	Balanced or unbalanced analog line-level
Output Power	Total output power from all channels combined (simultaneously) is up to 500 W; Output power per channel is 250 W (4 or 8 Ω), 500 W (8 Ω Bridged), 250 W (70V/100V)
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

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Input Sensitivity	1.23 Vrms, +4 dBu balanced; 0.316 Vrms, -10 dBV unbalanced
Gain	29 dB @ 8 Ohms
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-CH2 (OUTPUT)	(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)
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NOTE: Output is direct-coupled, not transformer isolated.

AUDIO IN (UNBALANCED)	(2) RCA connectors, female; Maximum Input Level: 2.24 Vrms, +7 dBV (+9.2 dBu)
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AUDIO IN (BALANCED)	(2) 3-pin 3.5 mm detachable terminal block; Balanced line-level audio inputs; Maximum Input Level: 7.75 Vrms, +20 dBu; Input Impedance: 20k Ohms
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BUS INPUT	(2) paired RCA connectors, female; Unbalanced line-level audio inputs
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BUS OUTPUT	(2) paired RCA connectors, female; Unbalanced line-level audio outputs, buffered
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REMOTE	(1) 2-pin 3.5 mm detachable terminal block; Connect to dry contact closure to place amplifier in standby mode
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G	(1) 6-32 screw; Chassis ground lug
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100-240V~ 1.2-0.6A 50/60 Hz	(1) IEC 60320 C14 main power inlet; Mates with removable power cord, included
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Controls & Indicators

PWR	(1) White/Red LED; White indicates amplifier is on and ready for use; Red indicates amplifier is in standby
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HI-Z	(1) White LED; Indicates when Hi-Z mode is enabled (70V or 100V);
SIGNAL	(2) White LEDs (one per input); Indicates when an active input signal is present
FAULT	(2) Red LEDs (one per input); Indicates that the input channel is faulted or clipping
GAIN 1-2	(2) Screwdriver-adjustable rotary controls, one per input channel; Adjusts the input attenuation level for the corresponding input channel
INPUT SEL 1-2	(4) Rotary controls, one per input channel; Selects input source from RCA, Balanced, BUS left/right, or BUS mono.
OUTPUT 1-2	(4) Rotary controls, one per input channel; Selects 4+8 Ω 250 W, 8 Ω 500W, 70V, or 100V operation.
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	115 W, (2 channels driven at 1/8th output power, 4 Ohms); 8.8 W, idle; 0.3043 W, power saver (115VAC/60 Hz)

Environmental

Temperature	41 to 104°F (5° to 40°C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	149 BTU/hr @ 4 Ohms, all channels driven at 1/8th output power; 21 BTU/hr all channels idle; 1 BTU/hr in standby

Construction

Chassis	Metal, convection cooled (fanless)
Front Panel	Metal, black finish with polycarbonate label overlay
Mounting	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

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

9.93 lb (4.5 kg)

Compliance

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 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.

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