



# CA12 POWER AMPLIFIER SERIES

## Product Description

The Crest Audio CA12 professional power amplifier is designed to achieve unsurpassed sonic performance and long-term reliability—even when operating under extreme stress—in touring or fixed installation applications.

Absolute sonic accuracy is the hallmark of every Crest amplifier. Bass is solid and defined to the limits of audibility, with ample current reserves delivered by an “over-engineered” power supply and advanced Class H circuitry. Wide-bandwidth output devices assure detailed, transparent high frequency response. And, thanks to Crest’s exclusive IGM circuit, the CA12 will drive 2Ω loads safely without compromise in performance.

## Construction and Quality Control

The CA12 is built exclusively in Crest’s own USA manufacturing facility, with internal components selected for premium quality and proven durability. Each modular subassembly is pre-tested, and the assembled CA12 receives a rigorous “hot room” burn-in before thorough final checkout on precision test equipment.

## CA12 Features

- Crest’s legendary “overbuilt” power supply
- Toroidal power transformer
- Latest generation of high-speed, wide-bandwidth output devices
- Twin tunnel cooling with back-to-front air flow
- Dual, variable speed DC fans
- Massive, extruded aluminum heat sinks
- Balanced XLR and 1/4-inch (TRS) inputs
- 5-Way Binding Post Outputs or Speakon™ connectors (market dependent)
- Stereo/parallel/bridged mono mode selector switch
- Ground lift switch
- TourClass® protection circuits:
  - ACL (Active Clip Limiting) prevents speaker damage with gentle gain reduction at clip threshold.
  - IGM (Instantaneous Gain Modulation) monitors speaker loads to detect conditions that may overstress output devices, allowing safe operation into nominal 2Ω impedances.
  - AutoRamp gradually increases gain to attenuator setting level when amplifier is turned on.
  - TourClass also includes comprehensive thermal management, and short circuit, DC voltage, turn-on/off transient, current inrush and sub/ultrasonic input protection.
- Input sensitivity selection
- Recessed, stepped attenuators
- Front panel circuit breaker switch
- Modular construction
- Five-year warranty\*

## Power Specifications:

### Other CA Series Power Amplifiers

| 4Ω Stereo              | CA2   | CA4   | CA6   | CA9   | CA18   |
|------------------------|-------|-------|-------|-------|--------|
| 1kHz, .01% THD+N       | 250 W | 435 W | 600 W | 900 W | 1800 W |
| 20Hz-20kHz, 0.1% THD+N | 200 W | 400 W | 500 W | 800 W | 1700 W |



| Power Specifications   | 8Ω Stereo | 4Ω Stereo | 2Ω Stereo | 8Ω Bridged | 4Ω Bridged |
|------------------------|-----------|-----------|-----------|------------|------------|
| 1kHz, 0.01% THD+N      | 700 W     | 1200 W    | 1400 W    | 2400 W     | 2800 W     |
| 20Hz-20kHz, 0.1% THD+N | 650 W     | 1100 W    | 1100 W    | 2200 W     | 2200 W     |

Figures are watts per channel, both channels driven.



# CA12 POWER AMPLIFIER SPECIFICATIONS

|   |   |                               |
|---|---|-------------------------------|
|   | <b>1kHz, 0.01% THD+N</b>  | <b>20Hz-20kHz, 0.1% THD+N</b> |
| <b>8Ω Stereo Power</b>                                  | 700W  | 650W                          |
| <b>4Ω Stereo Power</b>                                  | 1200W   | 1100W                         |
| <b>2Ω Stereo Power</b>                                  | 1400W   | 1100W                         |
| <b>8Ω Bridged Mono Power</b>                            | 2400W   | 2200W                         |
| <b>4Ω Bridged Mono Power</b>                            | 2800W   | 2200W                         |
| <b>Max RMS Output Voltage (each channel)</b>            | 90V   |                               |
| <b>Peak Output Voltage (each channel)</b>               | 126V  |                               |
| <b>Frequency Response (+0 / -0.3dB, 1W/8Ω)</b>          | 20Hz-20kHz, -3dB @ 135kHz   |                               |
| <b>Power Bandwidth (rated power at 4Ω, 1% THD+N)</b>    | 20Hz-20kHz, -23dB/+85dB   |                               |
| <b>TourClass® Protection</b>                            | ACL, IGM, AutoRamp, short circuit, DC voltage, turn-on/off transient, current inrush, sub/ultrasonic input. |                               |
| <b>THD+N (rated power at 4Ω, 1kHz)</b>                  | <0.01%  |                               |
| <b>SMPTE IMD (rated power at 8Ω, 60Hz &amp; 7kHz)</b>   | <0.01%  |                               |
| <b>Damping Factor (10-400Hz at 8Ω)</b>                  | 800:1   |                               |
| <b>Input CMRR (1kHz)</b>                                | > -60dB   |                               |
| <b>Input Sensitivity (rated power at 8Ω)</b>            | 0.775V standard (see table below)   |                               |
| <b>Voltage Gain</b>                                     | X97.5 standard (see table below)  |                               |
| <b>Input Impedance (balanced/unbalanced)</b>            | >20kΩ/>10kΩ   |                               |
| <b>Hum and Noise ("A" weighted, full power, 4Ω)</b>     | -105dB  |                               |
| <b>Crosstalk ("A" weighted, full power, 4Ω)</b>         | > -60dB   |                               |
| <b>Class</b>  | H   |                               |
| <b>Input Connectors (per channel)</b>                   | Female XLR (pin 2+, dealer configurable for pin 3+), TRS (tip+)   |                               |
| <b>Output Connectors (per channel)</b>                  | 5-way output binding posts or Speakon connectors (market dependent)   |                               |
| <b>Filter Storage</b>                                   | 140,000 μF  |                               |
| <b>Power Supply (factory configured)</b>                | 100V-240V, 50-60Hz  |                               |
| <b>Idle Current Draw 120V</b>                           | 2.8A  |                               |
| <b>1/8 Power Curr. Draw (typical music, 120V/4Ω)</b>    | 10.5A   |                               |
| <b>1/3 Power Curr. Draw (continuous music, 120V/4Ω)</b> | 23.0A   |                               |
| <b>Max Curr. Draw (circuit breaker rating, 120V/4Ω)</b> | 30A   |                               |
| <b>Thermal Emissions (1/8 Power, 4Ω)</b>                | 4750 BTU/hr   |                               |
| <b>Thermal Emissions (1/3 Power, 4Ω)</b>                | 6300 BTU/hr   |                               |
| <b>Cooling</b>  | Back-to-front via 2 rear panel mounted variable-speed DC fans (filters removable without tools)             |                               |
| <b>Controls</b>   | Front Panel: 2 attenuators<br>Rear Panel: signal ground lift switch, mode select switch                     |                               |
| <b>LED Indicators (per channel)</b>                     | Clip/Limit, Signal, Temp/DC, Active   |                               |
| <b>Construction</b>                                     | Steel chassis, 16 gauge. Double thickness in rack ear areas.  |                               |
| <b>Dimensions (Height x Width x Depth)</b>              | 5.25" x 19" x 18" / 133 x 483 x 457mm   |                               |
| <b>Gross Weight, Net Weight</b>                         | 72 lbs. (32.68 kg.), 67 lbs. (30.42 kg.)  |                               |
| <b>Warranty</b>   | 5 years*  |                               |

## Architect's & Engineer's Specifications

The power amplifier shall have two channels. At 8 ohms, 20Hz - 20kHz, 0.1% THD+N, it shall deliver a minimum of 650 watts per channel. At 4 ohms, 20Hz - 20kHz, 0.1% THD+N, it shall deliver a minimum of 1100 watts per channel. In bridged mono mode with an 8 ohm load, 20Hz - 20kHz, 0.1% THD+N, it shall deliver a minimum of 2200 watts.

The amplifier shall have circuitry to protect itself from output short circuits, thermal overload or other adverse load conditions. The amplifier shall protect speaker loads from DC voltage on outputs. The amplifier shall have active clip limiting and impedance sensing circuitry. Output relays shall protect the speakers from amplifier failure.

Two rear panel mounted variable speed DC fans (filters detachable without tools) shall provide back to front air flow through the chassis.

Each channel shall have a standard (factory-set) input sensitivity of 0.775 Volts, and shall be fitted with an internal jumper which allows the gain to be altered to X20 or X40. The hum and noise level shall be 105 dB below rated output, "A" weighted. SMPTE IMD shall be less than 0.01% at rated power, 60Hz and 7kHz. The amplifier shall have a class H output stage. The frequency response shall be 20Hz-20kHz, +0, -0.3dB (1W/8Ω).

The amplifier will operate at 100V-240V, 50-60 Hz AC (configured at factory). Maximum current draw shall not exceed 30 amperes at 120VAC (limited by front panel breaker for bench tests).

Front panel indicators shall include Active, Protect, Signal, and Clip LED's for each channel. Front panel attenuators shall be recessed and detented.

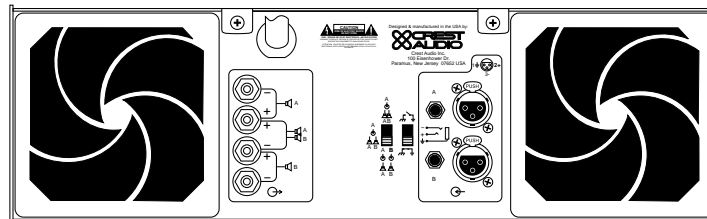
Rear panel input connectors shall be female TRS and XLR type, internally dealer-configurable for pin 2 (factory setting) or pin 3 positive. Output terminations shall be 5-way output binding posts or Speakon output connectors (market dependent). A ground lift switch and a Stereo/Parallel/Bridged Mono mode operation switch shall be provided.

A rear-panel IEC AC mains socket (with power cord) or single AC mains cord having an appropriate AC plug for the intended operating voltage shall be provided (market dependent).

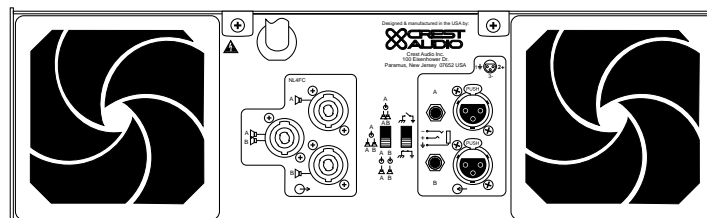
The packaging of the amplifier shall allow for standard rack mounting without requiring space between similar units. Optional rack mount handles will be available. Dimensions shall be 19" (483mm) wide, 5.25" (133mm) high and 18" (457mm) deep. The amplifier shall weigh 67 lbs. (30.42 kg.) net, and shall be designated the Crest Audio model CA12.

| Dealer-Configurable Gain/Sensitivity Options | Factory Standard<br>Option 1<br>Option 2 | Gain  | Sens  |
|--|--|-------|-------|
|  |  | X97.5 | .775V |
|  |  | X40   | 1.87V |
|  |  | X20   | 3.74V |

Rear View, Binding Post Version



Rear View, Speakon Version (not available in North America)



Power figures are watts per channel, both channels driven.

\* 3-Year Warranty with 2 additional years if Registration Card is sent to Crest Audio. (USA, Canada, United Kingdom, and many other countries).

Crest Audio reserves the right to make improvements in manufacturing or design which may affect specification.

Crest Audio specification literature is available in downloadable PDF format; visit our website at: <http://www.crestaudio.com>.

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