CREST AUDIO

CV SERIES

CV301 / CV601
POWER AMPLIFIERS

Product Information

The Crest Models CV301 and CV601 are convection-cooled professional power amplifiers designed specifically to drive constant-voltage distributed speaker systems.

The model CV601 is the convection-cooled equivalent of the fan-cooled Crest 7001, and offers the same sonic performance and reliability that has made Crest amplifiers the choice of professionals worldwide. The CV601's power supply enables it to provide dual 625 watt, 70-volt line outputs for large distributed loudspeaker systems.

Each of the CV301's two channels provides 300 watts into a 70 or 100 volt line, as well as a conventional 4 ohm speaker load. Internal autoformers provide the necessary step-up voltage required for distributed lines. Internal output isolation transformers are available as an option.

Both the CV301 and the CV601 are fully compatible with other Crest amplifiers, Octal Socket Accessories, and the NexSys computer-controlled audio system.

Stereo, parallel, and bridged mono modes are chosen with a rear-panel Mode Select switch. Actively balanced XLR input connections are provided for each channel. On both the CV301 and the CV601, Input and Output barrier strips are provided. On the CV601, 5-way output binding posts are also provided.

The CV Series protection features are numerous:

- Clip Limiting
- IGM Impedance Sensing
- Thermal Protection
- Short Circuit Protection
- DC Voltage Protection
- Turn-On/Turn-Off Transient Protection
- Auto-Ramp Signal Control

In addition, the AC Power Switch incorporates a circuit breaker for extra electrical protection. LED indicators (Clip/Limit, Signal, Temp/DC, and Active) are located on the front panel to keep the user informed as to each channel's operating status and to warn of abnormal conditions. A Signal Ground Lift barrier strip is provided on the rear panel to help solve ground loops.

NexSys® COMPUTER CONTROLLED AUDIO SYSTEMS

Crest Audio CV Series Amplifiers are fully compatible with the NexSys® Computer-Controlled Audio system.

Model CV301: 40Hz-20kHz and EIA figures shown below are for 70.7 volts, 100 volts, or 4 ohms.

Power Specifications	**40 Hz - 20 kHz** <0.1% THD	**EIA** @ 1 kHz, <0.05% THD	**Bridged Mode** 8 Ohms, 40Hz - 20kHz.
CV301	300 Watts	340 Watts	600 Watts

Model CV601: 20Hz-20kHz and EIA figures shown below are for 70.7 volts, or 8 ohms.

Power Specifications	**20 Hz - 20 kHz** <0.1% THD	**EIA** @ 1 kHz, <0.05% THD	**Bridged Mode** 16 Ohms, 20Hz - 20kHz.
CV601	625 Watts	650 Watts	1250 Watts

CV301 / CV601 POWER AMPLIFIERS

SPECIFICATIONS

	CV301	CV601
Frequency Response	40 Hz-20 kHz; +0, -.3dB (300W)	20 Hz-20 kHz; +0, -.3dB (600W)
THD	<0.05% @ 300W into a 70V line, 1kHz	<0.05% (600W into a 70V line, 1kHz)
SMPTE IMD	<0.02% @ 300W into a 70V line, 60 Hz & 7kHz	<0.02% (600W into a 70V line, 60 Hz & 7kHz)
Slew Rate	35V / µs, input filter bypassed	35V / µs, input filter bypassed
Damping Factor	400:1, @ 1kHz, 8 Ohms	400:1, @ 1kHz, 8 Ohms
Input CMRR	>90 dB	>90 dB
Voltage Gain	40x standard, others upon request	40x standard, others upon request
Input Sensitivity	.87V RMS for rated power at 70 volts	1.77V RMS for full power at 4 ohms
Input Impedance	>20k Ohms, actively balanced	>20k Ohms, actively balanced
Hum and Noise ("A" Weighted)	>100 dB	>100 dB
Cross Talk	>80 dB	>80 dB
Connectors (per channel)	Female XLR (pin 3+), Input/Output Barrier Strips, Octal Socket	Female XLR (pin 3+), Input /Output Barrier Strips, Octal Socket, 5-way output binding posts
Power Supply	1.0 kVA power transformer, 38,000 µf filter capacitance	2.3 kVA power transformer, 30,000 µf filter capacitance
Max Current Draw	13A/7A (120/240VAC)	20A/10A (120/240VAC)
Cooling	Convection	Convection
Controls	2 front panel attenuators, circuit breaker/power switch, rear panel mode switch, signal ground lift jumper.	2 front panel attenuators, circuit breaker/power switch, rear panel mode switch, signal ground lift jumper.
LED Indicators (per channel)	Clip/Limit, Signal, Temp/DC, Active	Clip/Limit, Signal, Temp/DC, Active
Protection	High Temp, DC, turn-on/off transient, short-circuit, subsonic, ultrasonic, IGM™, Auto-Ramp™.	High Temp, DC, turn-on/off transient, short-circuit, subsonic, ultrasonic, IGM™, Auto-Ramp™.
Construction	16 ga. single pc. steel chassis, .187" (.475cm) front panel.	16 ga. single pc. steel chassis, .187" (.475cm) front panel.
Dimensions (H x W x L)	5.25"x19"x14" 13.33cm x 48.26cm x 35.56cm	5.25"x19"x14" 13.33cm x 48.26cm x 35.56cm
Gross Weight	60.2 lbs (27.33 kg)	56.0 lbs (25.42 kg)
Net Weight	54.5 lbs (24.74 kg)	50.5 lbs (29.90 kg)
Warranty	Five years, parts and labor	Five years, parts and labor

Architect's Specifications CV301

The amplifier shall consist of two channels. Each channel shall deliver a minimum of 300 watts into a 70 volt, 100 volt, or 4 ohm load, per channel, both channels driven 40Hz - 20kHz. In bridged mode, the amplifier shall deliver 600 watts at 8 ohms, 40Hz - 20kHz. The amplifier shall be convection-cooled. It shall have circuitry to protect itself and the speaker load from output short circuits, DC voltage on outputs, and thermal overload. It shall have RMS clip limiting, Auto-Ramp™ signal control, and impedance sensing circuitry. Output relays shall protect the speakers from any type of amplifier failure. The amplifier shall have a voltage gain of 40x with an input sensitivity of 0.87V for rated power at 70 volts. The hum and noise level shall be greater than 100 dB below rated output, "A" weighted. SMPTE IND shall be less than 0.02% at rated power, 60Hz and 7kHz. The amplifier shall have a class AB output stage, a bi-polar power supply and a combination power switch/magnetic circuit breaker. The frequency response shall be greater than 40Hz - 20kHz, +0, -.3dB at rated power. The amplifier will operate at either 100, 120, 220, or 240 volts, 50-60 Hz AC (configured at factory). Maximum current draw shall not exceed 13 amperes at 120VAC or 7 amperes at 240VAC (limited by front panel breaker for bench tests), both channels driven continuously into a 4 ohm resistor. Front panel indicators shall include Active, Temp/DC, Signal Present and Clip/Limit LED's for each channel. Front panel gain pots shall be recessed and detented. The inputs shall be actively balanced, with female XLR-type 3-pin connectors (pin 3+) and barrier strips. Output connectors shall be barrier strips. Octal Sockets for optional accessory modules and a signal ground lift jumper will be provided. The packaging of the amplifier shall be modular and allow for standard rack mounting without requiring space between similar units. Dimensions shall be 5.25" (13.33cm) high x 19" (48.26cm) wide x14" (35.56cm) deep. The amplifier shall have a net weight of 54.5 lbs (24.74 kg). The amplifier shall be designated the Crest Audio Model CV301.

Architect's Specifications CV601

The amplifier shall consist of two channels. Each channel shall deliver a minimum of 625 watts into a 70 volt or 8 ohm load, per channel, both channels driven 20Hz - 20kHz. In bridged mode, the amplifier shall deliver 1250 watts at 16 ohms, 20Hz - 20kHz. The amplifier shall be convection-cooled. It shall have circuitry to protect itself and the speaker load from output short circuits, DC voltage on outputs, and thermal overload. It shall have RMS clip limiting, Auto-Ramp™ signal control, and impedance sensing circuitry. Output relays shall protect the speakers from any type of amplifier failure. The amplifier shall have a voltage gain of 40x with an input sensitivity of 1.77V for rated power at 70 volts. The hum and noise level shall be greater than 100 dB below rated output, "A" weighted. SMPTE IND shall be less than 0.02% at rated power, 60Hz and 7kHz. The amplifier shall have a class H output stage, a bi-polar power supply and a combination power switch/magnetic circuit breaker. The frequency response shall be greater than 20Hz - 20kHz, +0, -.3dB at rated power. The amplifier will operate at either 100, 120, 220, or 240 volts, 50-60 Hz AC (configured at factory). Maximum current draw shall be no greater than 20 amperes at 120VAC or 10 amperes at 240VAC (limited by front panel breaker for bench tests), both channels driven continuously into a 8 ohm resistor. Front panel indicators shall include Active, Temp/DC, Signal Present and Clip/Limit LED's for each channel. Front panel gain pots shall be recessed and detented. The inputs shall be actively balanced and have female XLR-type, 3-pin connectors (pin 3+) and barrier strips. Output connectors shall be five-way binding posts and barrier strips. Octal Sockets for optional accessory modules and a signal/ground lift jumper shall be provided. The packaging of the amplifier shall be modular and allow for standard rack mounting without requiring space between similar units. Dimensions shall be 5.25" (13.33cm) high x 19" (48.26cm) wide x 14" (35.56cm) deep. The amplifier shall have a net weight of 50.5 lbs (29.90 kg). The amplifier shall be designated the Crest Audio Model CV601.

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