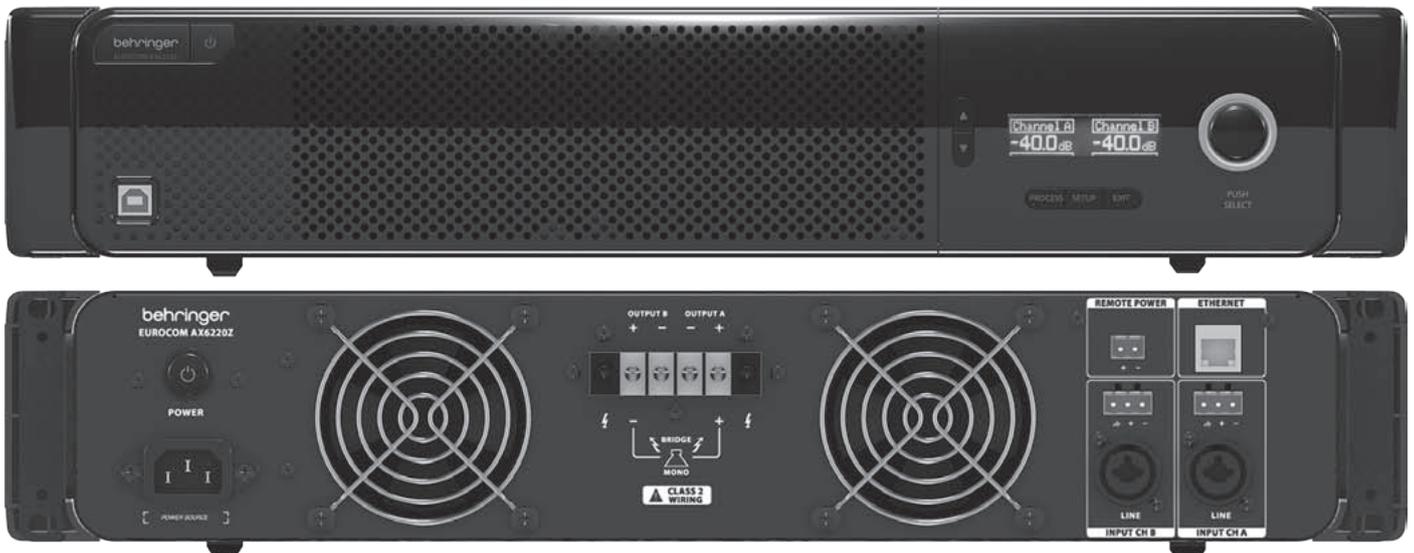


AX6220Z/AX6240Z

Energy-Efficient, DSP-Powered and Ethernet/USB-Controlled
1000/900-Watt 70/100 V High-Impedance Power Amplifier



Features

- Ultra-reliable, dual-channel 2*500/2*900-Watt power amplifier with 70/100 V technology, designed for continuous operation in distributed music, paging and AV applications
- State-of-the-art, energy-saving Switch-Mode Power technology with up to 85% power efficiency drastically reduces energy cost
- 2 transformerless, cool-running Class-D amplifiers drive 70 V or 100 V loads, selectable via rear panel switch
- High-performance DSP and 24-bit/96 kHz converters deliver ultimate signal integrity and extreme dynamic range
- DSP section features sophisticated delay, crossover, EQ (8 parametric, 2 dynamic), dynamics processing and lockable security settings
- Can be set up, controlled and monitored through standard Ethernet network or on-site via front panel USB connector
- Front panel LCD display enables setup and adjustment without PC
- 2 line level inputs via 3-pin Euroblock or XLR/TRS combination connectors
- Secure 4-position terminal strip speaker output connector with plastic cover and phenolic barriers
- Front panel VU metering, mute indication, system fault, over-current or overdrive indicators and illuminated master volume ring with clipping indication
- “Zero”-attack Limiters on all output channels with independent DC and thermal overload protection automatically protects amplifier and speakers
- Integrated rack ears, screw covers, IEC-type AC power cord and all mating Euroblock connectors included
- Remote power terminal for sequential power control and power switch with power amplifier cycling via alternate actuation
- “Back-to-front” ventilation system prevents thermal buildup for reliable operation
- Ultra-light, high-efficiency switch-mode power supply for noise-free audio, superior transient response and low-loss green technology
- High-quality components and exceptionally rugged construction ensure long life

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Product Overview

Featuring comprehensive digital signal processing (DSP) and remote setup via Ethernet/USB, the Eurocom AX6240Z and AX6220Z are professional high-performance 2-channel power amplifiers for installation with 70/100 V distributed speaker systems. The AX6240Z delivers up to 700 watts RMS per channel at 70 V (7 Ω), and up to 1000 watts RMS per channel at 100 V (10 Ω). The AX6240Z delivers up to 350 watts RMS per channel at 70 V (14 Ω), and up to 500 watts RMS per channel at 100 V (20 Ω). Both models utilize transformerless Class-D topology and state-of-the-art switch-mode power technology to provide low noise and superior transient response while reducing amplifier energy costs by up to 85%. Dual variable-speed fans create back-to-front ventilation to keep racks running cool, and “zero-attack” limiters combine with independent DC and thermal overload protections to safeguard the amplifiers and connected speaker systems.

Featuring 24-bit/96 kHz converters to ensure flawless signal integrity, the AX6240Z/AX6220Z processing section maintains an extremely broad dynamic range while offering sophisticated DSP options including delay, crossover, dynamics, and both parametric (8-band) and dynamic (2-band) EQ. Parameters may be set and stored using intuitive front-panel controls and the amber backlit LCD, which also displays meters and indicates muting, system fault, over-current, and overdrive. The front panel also has an illuminated master volume knob with a clipping indicator. A front-panel USB connector is included to allow setup on a local PC, while a rear-panel Ethernet connection enables remote control and monitoring using the BEHRINGER Amp Remote software application. Changes to settings may be prevented with secure lockout.

Input channels accept balanced or unbalanced microphone or line-level signals via XLR/TRS combination jacks or 3-pin Euroblock connectors. Outputs are connected to speakers via a 4-screw terminal strip. A 2-pin Euroblock socket is provided for sequential power control and remote power on/off. All mating Euroblock connectors are included, as are integrated rack ears and screw covers. Designed for high-power applications in the most demanding distributed speaker installations, the Eurocom AX6240Z and AX6220Z offer maximum performance and unsurpassed value.

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Technical Specifications

Power Output HI-Z	AX6220Z	AX6240Z
Peak, 1% THD, 1 kHz sine wave		
Stereo (both channels driven)		
• 70 V	500 W	900 W
• 100 V	700 W	1300 W
RMS, 1% THD, 1 kHz sine wave		
Stereo (both channels driven)		
• 70 V	350 W	700 W
• 100 V	480 W	1000 W
Audio Inputs / Outputs		
• Line level inputs	2 x 3-pin Euroblock and XLR / TRS combo	
• PC control	Type B USB on front or IEEE 802.3 Ethernet network connector on back panel	
• Input impedance	10 k Ω unbalanced, 20 k Ω balanced	
• Input sensitivity	1 V @ 20 Ω	
• Input clipping	11 Vrms (+23 dBu)	
• Overall system gain @ 10 Ω	37 dB (70 V) / 40 dB (100 V)	
• Outputs	4-position barrier strip	
• Output circuit type	Class D	
• Minimum load impedance	14 Ω (70 V) / 20 Ω (100 V)	
System Information		
• Frequency response	30 Hz – 20 kHz (-0.3 / -2 dB) (70 V) 30 Hz – 20 kHz (-0.3 / -1 dB) (100 V)	
• THD+N	< 0.25% @ 1 W, 1 kHz dB into 14 Ω load	
• Signal-to-noise ratio	87 dB (@ input 2 dBu) 93 dB (@ +22 dBu)	
• Damping factor	> 200 @ 62 Ω	
• Crosstalk	> 68 dB below rated power 1 kHz	
• Indicators	Power indicator LED ring illumination (yellow) Overload/Protection LED ring (red) LCD display with VU meters, system fault, overheating, overcurrent / overdrive indicators	
• Operating temperature	14° F to 104° F (-10° C to +40° C)	
• Cooling method	Automatic variable speed fan	

Digital Signal Processing (DSP)

• Display	LCD 128 x 32, amber backlit
• Digital delay function (per channel)	0 – 300 ms
• Digital crossover function	3 filter types, up to 48 dB/octave
• Digital EQ function	8-band parametric, (per channel) 2-band dynamic equalizer
• Digital dynamics function (per channel)	Zero attack limiter
• Presets	20 total presets, 19 user-definable

Power Supply

• Power consumption @ 1/8 rated power	200 W
• Power efficiency	84 %
• AC power source	100~120 V AC 50/60 Hz

220~240 V AC 50/60 Hz

Dimensions / Weight

• Dimensions (H x W x D)	3.5 x 17 x 16" / 88 x 432 x 406 mm
• Weight	21.4 lbs / 9.7 kg

Materials

• Case material	Cold-rolled steel
• Face plate material	Perforated steel
• Included accessories	Rack mount brackets

AX6220Z/AX6240Z

Energy-Efficient, DSP-Powered and Ethernet/USB-Controlled 1000/900-Watt 70/100 V High-Impedance Power Amplifier

Architect's and Engineer's Specifications

Summary description: The amplifier shall be of Class D design with an energy-efficient switch-mode power supply and shall provide two high-impedance (selectable 70/100 V) output channels in a 2U rack-mountable fan-cooled chassis with integrated DSP and remote Ethernet/USB control.

Digital signal processing (DSP) incorporated into the amplifier shall include delay, crossover, dynamics, parametric EQ (8-band), and dynamic EQ (2-band). The amplifier's A/D and D/A converters shall be 24-bit/96 kHz.

Controls and indicators shall include the following:

- Master Encoder knob for setting volume and DSP parameters
- Indicator ring for power (yellow) and clipping (flashing red)
- LCD screen to display current DSP module and settings
- Up and Down buttons to select DSP modules and parameters
- Process button to select DSP processing modules
- Setup button to select DSP parameters
- Exit button to display the top-level DSP menu
- AC power switch on rear-panel to turn amplifier on/off

Connections to the amplifier shall include the following:

- Remote power on/off on 2-pin Euroblock socket
- Inputs A and B, balanced or unbalanced mic or line-level, on XLR /TRS combination jacks and on 3-pin Euroblock sockets
- Outputs A and B on a 4-screw terminal strip
- Ethernet on RJ45 jack for LAN connection
- USB jack for connecting a computer
- AC power on IEC jack

Cooling and protection shall include back-to-front ventilation provided by dual variable-speed fans. Each amplifier output channel shall be protected against overload by a limiter. Each amplifier output channel shall incorporate independent DC and thermal overload protection.

AX6220Z/AX6240Z

Energy-Efficient, DSP-Powered and Ethernet/USB-Controlled 1000/900-Watt 70/100 V High-Impedance Power Amplifier

Architect's and Engineer's Specifications Continued

Performance criteria met by the amplifier shall include:

- RMS power output (1 kHz @ 1% THD, 100 V) of 1000 W/channel for AX6240Z and 700 W/channel for the AX6220Z
- Input sensitivity of 1 V (10 Ω /20 Ω for AX6240Z/AX6220Z)
- Input clipping of 11 Vrms (+23 dBu)
- Overall gain (10 Ω) at 70/100 V of 37/40 dB
- Frequency Response of 30 Hz-20 kHz within +0.3/-2 dB at 70 V and +0.3/-1 dB at 100 V
- Distortion (THD+N; 1 W, 1 kHz) of less than 0.25% at 7 Ω /14 Ω (AX6240Z/AX6220Z)
- Signal to Noise Ratio of 87/93 dB at 2 dBu/+22 dBu
- Damping Factor (62 Ω) of greater than 220
- Crosstalk (1 kHz at rated power) of greater than -70 dB for AX6240Z and -68 dB for AX6220Z

AC power requirements of the amplifier shall be 100~120 V or 220~240 V at 50/60Hz.

Physical characteristics of the amplifier shall be:

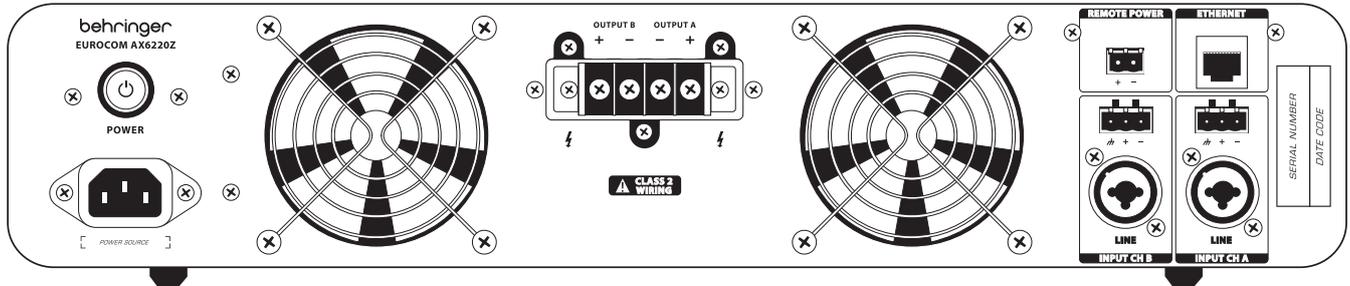
- Height x Width x Depth of 3.5 x 17 x 16" / 89 x 432 x 406 mm
- Net weight of not more than 21.6 lbs / 9.8 kg

Model: The power amplifier shall be the BEHRINGER EUROCOM AX6220Z/AX6240Z.

AX6220Z/AX6240Z

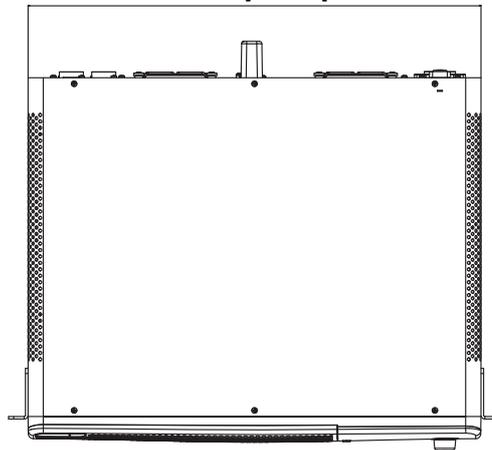
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Dimensional Drawings:



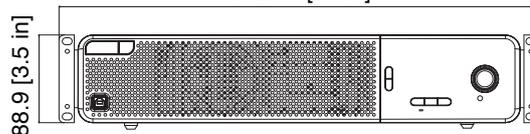
REAR

444.5 [17.5 in]



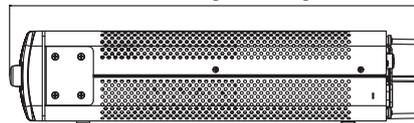
TOP

482.60 [19 in]



FRONT

390.10 [15.36 in]



SIDE