

EX12 Technical Data Sheet

Introduction

The EX12 further builds on the success of the EX6 and EX10 by implementing the revolutionary 3" NVPD large format compression driver found in our flagship VHD range of products. This makes for one of the most perfectly balanced and accurate, compact, 2-way active boxes available on the market today. Complete onboard control courtesy of electronic crossovers, phase alignment, equalization and speaker protection are all integrated into the EX12's amplifier module.

Features

- Professional, Baltic birch construction with wear resistant polymer coating
- 127dB sustained output, 130dB peak with very high dynamic range and low noise floor
- 500W of total power with complete on-board speaker management system
- 450W high efficiency, current enhancing, switching low frequency amplifier
- Very high quality 50W, low IM distortion, Class AB, high frequency amplifier with transformer balanced output
- Compact asymmetrical trapezoidal design allows for use in stage monitor or under balcony applications with high pass filter to adjust equalisation and phase response
- Wide dispersion 80° H x 40° V horn
- New state of the art 3" (76 mm) Nitride Titanium diaphragm compression driver with complex geometry phase plug and neodymium magnetic structure for higher output, exceptionally low distortion and extended frequency response
- 12" woofer with revolutionary Active Impedance Control (AIC) voice coil technology and neodymium magnetic motor structure dramatically increases force, lowers distortion and provides increased frequency response linearity
- Proprietary top and side handle designs for simplified handling and carrying, integrates one M10 hang point, OmniMount™ bracket point and four M6 bracket points
- Ten additional M10 suspension points for flexible rigging and installation options
- Top hat for pole mounting applications
- LED indicators for signal present, limiter, thermal condition and power ON status



Application

Designed for the highest quality vocal and full range live performance in medium size applications

- Suitable for medium to large conference, Theatre and small to medium scale concerts
- Scalable from stand alone to full range large systems incorporating EX subwoofers
- Fixed installations
- Stage monitoring

System Acoustic Performance

Max SPL Long-term	127dB
Max SPL Peak	130dB
-3dB Response	55Hz to 22kHz
-10dB Response	45Hz to 30kHz
Crossover Point	1.1kHz

High Frequency Section

Acoustic Design	Horn Loaded
High Horn Coverage Horizontal / Vertical	80° x 40°
Rotatable Horn	NO
Throat Exit Diameter / Diaphragm Size	1.4" / 3"
Diaphragm Material	Nitride Titanium
Magnet Type	Neodymium

High Frequency Amplifier Specification

Type	Class AB Push-Pull
Rated Continuous Power	50W
Distortion	<0.05%
Operating Bandwidth	1.1kHz to 30kHz

Low Frequency Section

Acoustic Design	Front Loaded, Bass Reflex
Woofer Size / Voice Coil Diameter / Design	12" / 3.0" / Trans Coil
Magnet Type	Neodymium
Diaphragm Material	Epoxy Reinforced Cellulose

Low Frequency Amplifier Specification

Type	High efficiency, Current-enhancing switch mode
Rated Continuous Power	450W
Distortion	<0.05%
Operating Bandwidth	45Hz to 1.1kHz

Signal Input

Input Sensitivity	1.0V RMS
Input Impedance	20 kΩ

Power

Power Connector	Neutrik PowerCon®
Operating Voltage Range	100 to 120V@60Hz 205 to 240V@50Hz 225 to 260V@50Hz
Recommended Amperage	6A 115V 3A 230V 3A 250V

Cabinet

Cabinet Material	Baltic birch
Handles	2
Pole Mount	35 mm
Color	"Orange peeled" Matt Black or any RAL

Physical Dimensions

Height	596 mm (23.46")
Width	368 mm (14.49")
Depth	368 mm (14.49")
Weight	29 kg (63.8lbs)

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Architectural Specifications

The Loudspeaker shall be a 2-way Active driven design, using SLA Technology - (Super Live Audio). Amplifier power, electronic crossovers, phase alignment, equalisation and speaker protection are integrated into the EX12's amplifier module.

The Loudspeaker enclosure shall consist of one 12" Neodymium magnet structure Mid Bass driver featuring Active impedance control technology and one 3" Nitride Titanium Compression high frequency driver mounted to a low compression, constant directivity horn assembly. The cabinet enclosure shall be made from re-enforced Baltic Birch Ply, with toughened impact and wear resistant paint finish.

The Loudspeaker woofer components shall be protected by an acoustically full size transparent rigid metal grille.

The enclosure is a compact asymmetrical design. The enclosure shall incorporate one ergonomically designed recessed handle on the top of the enclosure and one on the side of the enclosure. The handle provides a M10 hang point as well as four additional M6 bracket points a similar M10 point is on the bottom of the enclosure when utilising an EX12 Horizontal Bracket. There are two side-mounted M10 hang points that can be used with the EX12 Vertical Bracket or eyebolts. For pole mount application, use the optional Stand Adapter.

The EX12 Amplifier provides a 450W, high efficiency amplifier for low-mid and 50W low distortion amplifier for high frequency.

The EX12 Amplifier features a control panel featuring AC power in, XLR connector audio input and output, level control potentiometer +/- 6dB, LED status light (power, limit/thermal signal input indicator) and a 90Hz high pass filter switch.

The EX12 amplifier shall have an input Impedance of 20Kohm. The input sensitivity shall be 1.0V RMS.

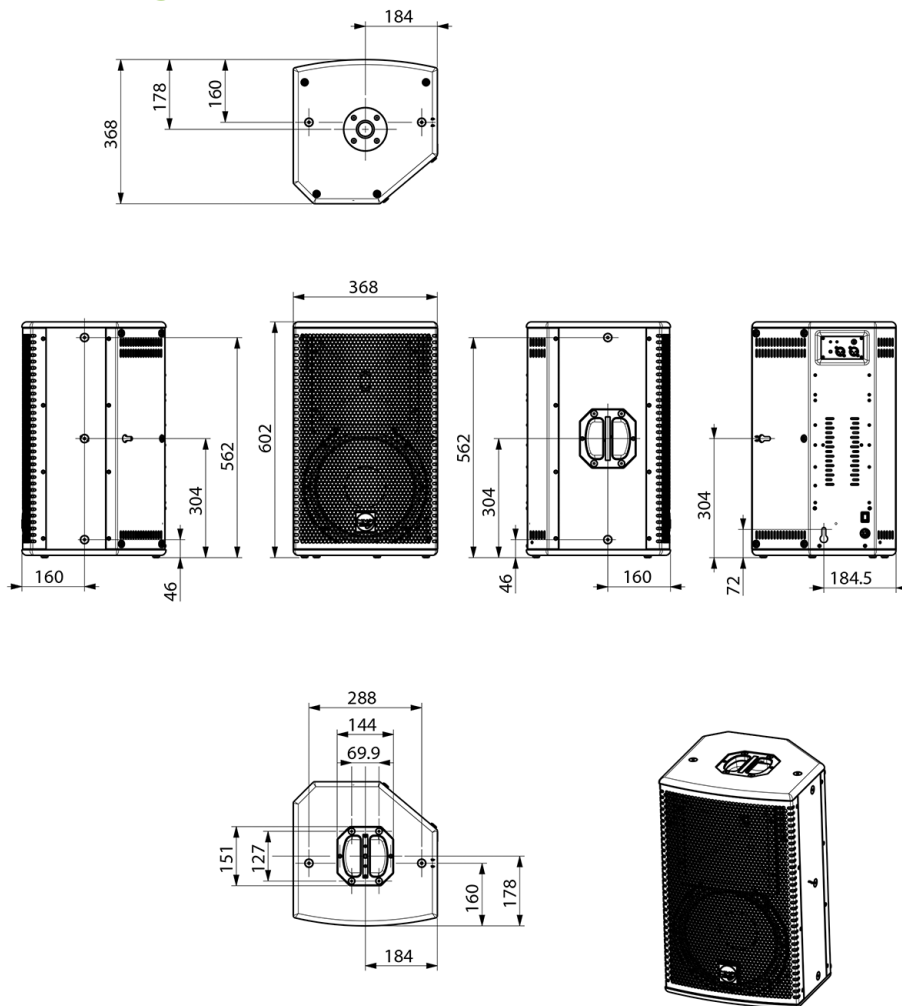
The EX12 Amplifier shall have a Neutrik PowerCon connector for mains supply, with an operating voltage range of 100 to 120V @ 60Hz or 230 to 250V @ 50Hz. The power amplifier shall have recommended amperage of 6A @115V, 3A @230V.

Temperature controlled variable speed fan will assist internal convection cooling systems.

The system acoustic performance shall be -3dB 55Hz -22kHz. The system maximal long term SPL shall be 127dB.

The Speaker shall have dimensions of: Height 596 mm / 23.46", Width 368 mm / 14.49", Depth 368 mm / 14.49", The weight shall not exceed 29 kg / 63.8lbs. The Speaker shall be the EX12.

Dimensional Drawings



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