

EX15 Technical Data Sheet

Introduction

The New EX15 introduces a three way design to the successful EX loudspeaker range. Incorporating a unique coaxial 15" transducer with a 1.75" Nitride Titanium Compression Driver, while many coaxial speakers struggle in their attempt to cover the entire frequency range, the EX15's coaxial driver is only required to deliver the low and high frequencies. This leaves the all important mid range to a dedicated horn loaded 6" neodymium speaker, allowing the 15" to deliver accurate and deep bass, an area in which it excels, rather than trying to also reproduce a compromised mid range above its natural frequency window for optimum speed and dynamic musical performance. The EX15's unique approach, featuring 1000W of dedicated Tri-amplified electronics, provides an extremely natural, truly full range sound from a compact yet powerful package that out performs many speakers twice its size.



Features

- Unique coaxial 15" transducer with a 1.75" Nitride Titanium Compression Driver on a wide dispersion horn covering low and high frequencies
- 6" neodymium speaker mounted on a large 80 x 60 degree horn covers mid range
- 1000W of dedicated Tri-amplified electronics
- Compact Three way Full range solution
- Extremely natural full range sound from a compact yet powerful package, that out performs many speakers twice its size

Applications

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	129dB
Max SPL Peak	132dB
-3dB Response	44Hz to 18kHz
-10dB Response	38Hz to 22kHz
Crossover Point	500Hz, 2.7kHz

High Frequency Section	
Acoustic Design	Horn Loaded
High Horn Coverage Horizontal / Vertical	80° x 60°
Throat Exit Diameter / Diaphragm Size	1" / 1.75"
Diaphragm Material	Nitride Titanium
Magnet Type	Neodymium
Protection	RMS Limiter

High Frequency Amplifier Specification	
Type	Class AB Push-Pull
Rated Continuous Power	50W
Distortion	<0.05%
Operating Bandwidth	2.7kHz to 22kHz

Mid Range Section	
Acoustic Design	Horn Loaded
High Horn Coverage Horizontal / Vertical	80° x 60°
Woofers Size / Voice Coil Diameter / Design	6" / 1.5"
Diaphragm Material	Epoxy Reinforced Cellulose
Magnet Type	Neodymium
Protection	RMS Limiter

Mid Frequency Amplifier Specification	
Type	High efficiency, High Power Bandwidth
Rated Continuous Power	100W
Distortion	<0.05%
Operating Bandwidth	500Hz to 2.7kHz

Low Frequency Section	
Acoustic Design	Front Loaded, Bass Reflex
Woofers Size / Voice Coil Diameter / Design	15" / 4"
Diaphragm Material	Epoxy Reinforced Cellulose
Magnet Type	Neodymium
Protection	RMS Limiter

Low Frequency Amplifier Specification	
Type	High efficiency, Current-enhancing switch mode
Rated Continuous Power	850W
Distortion	<0.05%
Operating Bandwidth	38Hz to 500Hz

Signal Input	
Input Sensitivity	1V RMS
Input Impedance	20 kΩ

Power Requirements	
Power Connector	Neutrik PowerCon®
Operating Voltage Range	100 to 120V@60Hz 205 to 240V@50Hz 225 to 260V@50Hz
Recommended Amperage	8A 115V 4A 230V 4A 250V

Cabinet	
Cabinet Material	Baltic birch
Handles	3
Pole Mount	35 mm
Color	"Orange peeled" Matt Black or any RAL

Physical Dimensions	
Height	700 mm (27.55")
Width	450 mm (17.71")
Depth	450 mm (17.71")
Weight	43 kg (94.8lbs)

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Architectural Specifications

The Loudspeaker shall be a 3-way Active driven design, using SLA Technology - (Super Live Audio).

Amplifier power, electronic crossovers, phase alignment, equalisation and speaker protection are integrated into the EX15's amplifier module. The Loudspeaker enclosure shall consist of one coaxial 15" Neodymium transducer with 1.75" Nitride Titanium Compression high frequency driver mounted to a low compression, constant directivity horn assembly. The Loudspeaker enclosure shall also have one 6" Neodymium Mid-Range 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 either side of the enclosure. The handle provides an M10 hang point as well as four additional M6 points. There are two side-mounted M10 hang points that can be used with the EX15 Vertical Bracket or eyebolts. For pole mount applications, use the integral Stand Adapter.

The EX15 Amplifier module consists of an 850W, high efficiency amplifier for low frequency, a 100W high efficiency amplifier for mid-range frequency and 50W low distortion amplifier for high frequency.

The EX15 Amplifier module has a control panel featuring AC power in, XLR connector audio input and output, overall level control potentiometer +/- 6dB, Low frequency level control potentiometer +/- 3dB, High frequency level control potentiometer +/- 3dB, LED status light (power, limit/thermal signal input indicator).

The EX15 amplifier shall have an input Impedance of 20Kohm. The input sensitivity shall be 1.0V RMS.

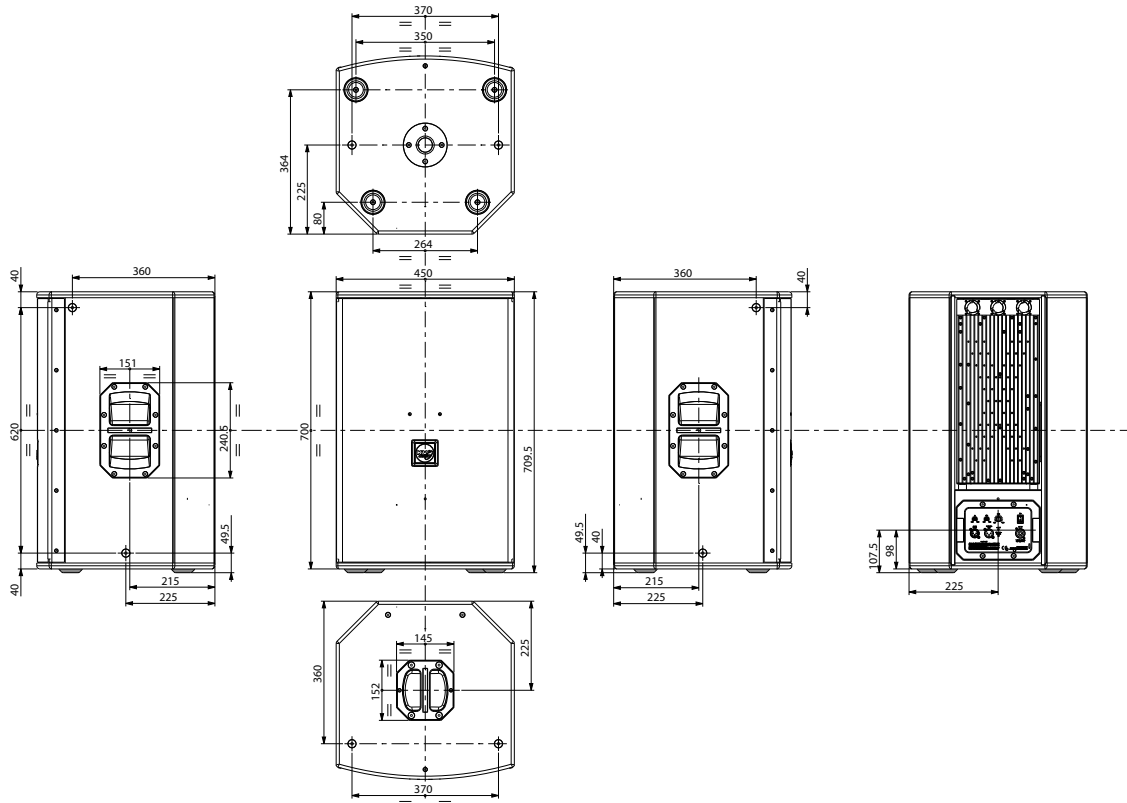
The EX15 Amplifier shall have a Neutrik PowerCon connector for mains supply, with an operating voltage range of 100 to 120V @ 60Hz, 205 to 240V @ 50Hz and 225 to 260V @ 50Hz. The power amplifier shall have recommended amperage of 8A @115V, 4A @230V and 4A @250V. Temperature controlled variable speed fans will assist internal convection cooling systems.

The system acoustic performance shall be -3dB 44Hz -18kHz. The system maximum long term SPL shall be 129dB.

The Speaker shall have dimensions of: Height 700mm / 27.55", Width 450mm / 17.71", Depth 450mm / 17.71", The weight shall not exceed 43 kg / 94.8lbs.

The Speaker shall be the EX15.

Dimensional Drawings



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KV2 Audio International, Nádražní 936, Milevsko 399 01, Czech Republic

Tel.: +420 383 809 320

Email: info@kv2audio.com | Web: www.kv2audio.com