

# Xi-1123A/106F

## 12-Inch Three-Way, Full-Range 100° x 60° Sound Reinforcement System



### Key Features:

- Compact/High-Level, Three-Way Design
- VBS Capable
- DL12ST 12" Slot-Loaded Low-Frequency Driver
- DL10X 10" Horn-Loaded Mid-Bass Driver
- ND6-16 3" Diaphragm HF Compression Driver
- 100° x 60° High-Frequency Coverage
- Triamp or Biamp Operation
- Fully Rotatable HF and MB Sections for Vertical or Horizontal Suspension
- Ring-Mode Decoupling / RMD™
- Built-In L-Track Rigging
- Available in Black or White



### General Description:

The Electro-Voice® Xi-1123A/106F is a triamp-ready, three-way system in a unique two-element-line-array configuration designed for use in reverberant spaces. The orientation of LF section and the mid-bass horn create a two-element line array that extends vertical pattern control to below 350 Hz. Using VBS (Vertical Beam Shaping) technology this benefit can be increased by another 20° to 30° of pattern control above 300 Hz. VBS uses filters to overlap the LF section bandpass with mid-bass bandpass. By carefully phase matching the acoustic response in the overlap region, the vertical pattern control is dramatically improved as seen in the graphs on Page 2. Frequency response on-axis is unaffected, while gain before feedback is increased by 10 to 15 dB for microphones located under the loudspeaker. The DL10X 10-inch mid-bass driver features RMD™ and is coupled to a rotatable 100° x 60° vertical horn. The high-frequency system uses an ND6-16 large-format compression driver with a rotatable 100° x 60° horn. It is mounted within the upper woofer enclosure to provide a compact vertical size. The Xi-1123A/106 is ideally suited for high-level, high-fidelity applications. The system is particularly suited where extended vertical polar control is necessary. Its low-frequency capability allows the system to be used in many applications without a subwoofer. For applications requiring very high low-frequency sound pressure levels as well as very accurate vocal reproduction, the Xi-1123A/106 may be coupled with the Electro-Voice Xi-1191A or Xi-2181A.

### Technical Specifications:

Freq. Response <sup>1</sup> (-3 dB):	75 Hz - 17 kHz
Freq. Range <sup>1</sup> (-10 dB):	53 Hz - 19 kHz
Max Calculated SPL <sup>2</sup> :	138 dB
Coverage:	100° x 60° (Rotatable)
LF Power Handling:	300W Continuous, 1200W Peak
MB Power Handling:	300W Continuous, 1200W Peak
HF Power Handling:	75W Continuous, 300W Peak
LF Sensitivity:	96 dB, 1W/1m
MB Sensitivity:	107 dB, 1W/1m
HF Sensitivity:	112 dB, 1W/1m
LF Impedance:	8 ohms (Nominal)
MB Impedance:	8 ohms (Nominal)
HF Impedance:	16 ohms (Nominal)
LF Transducer:	DL12ST 12" (305mm) Driver, 8 ohms
MB Transducer:	DL10X 10" (254mm) Driver, 8 ohms
HF Transducer:	ND6-16 3" (76mm) Diaphragm Comp. Driver, 16 ohms
Crossover Frequency <sup>3</sup> :	Use Recommended Parameters
Connectors:	Two Neutrik Speakon® NL8MPR
Enclosure Material:	13-ply Birch plywood
Grille:	16 GA steel
Dim (H x W x D):	801 x 458 x 473 mm (31.5" x 18.0" x 18.6")
Net Weight:	52.2 kg (115 lbs)
Shipping Weight:	54.5 kg (120 lbs)

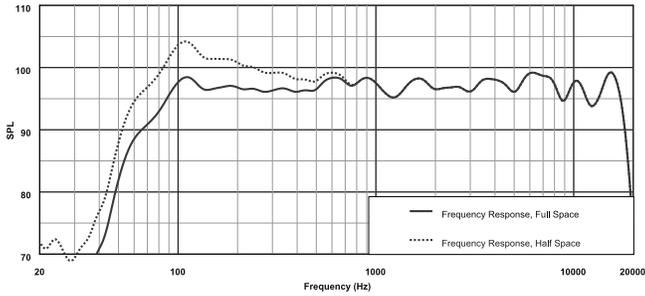
<sup>1</sup> Full Space measurement with a Dx38 Controller

<sup>2</sup> Max Calculated SPL of MB Section

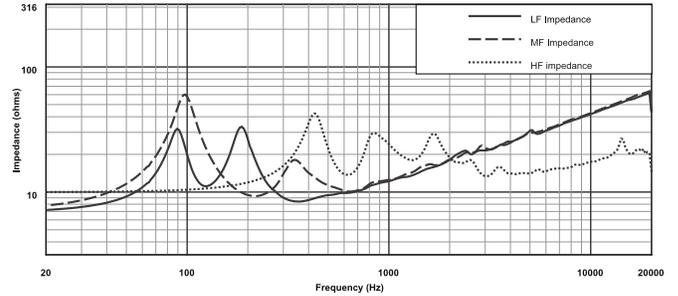
<sup>3</sup> Download at [www.electrovoice.com](http://www.electrovoice.com)

# Xi-1123A/106F Full Range Loudspeaker (3-Way)

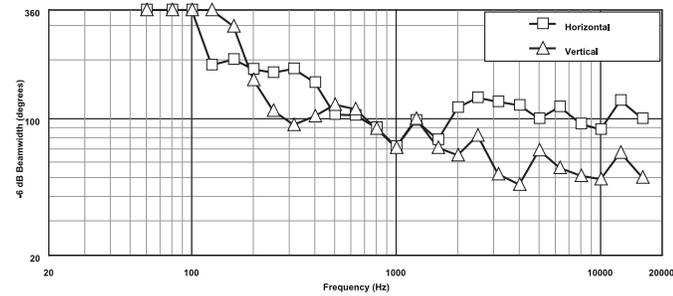
## Frequency Response (Full & Half Space):



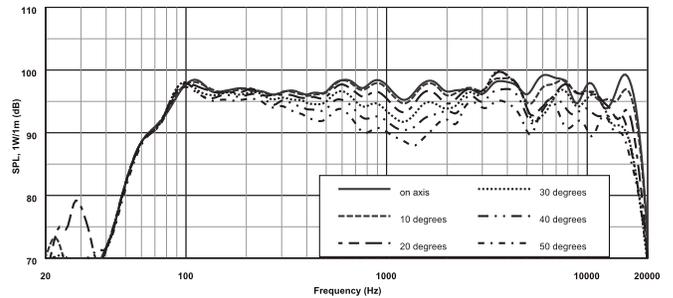
## Impedance:



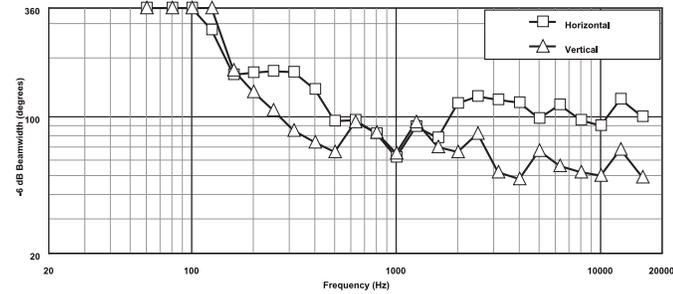
## Beamwidth (3-Way):



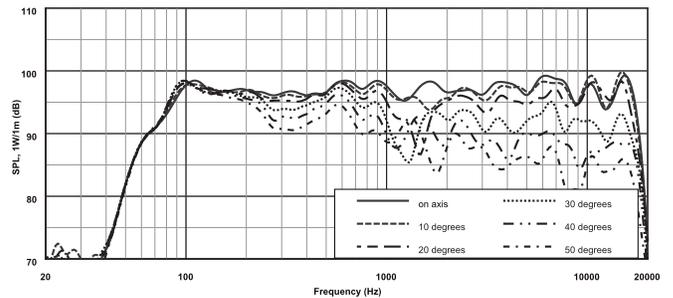
## Horizontal Off Axis Frequency Response:



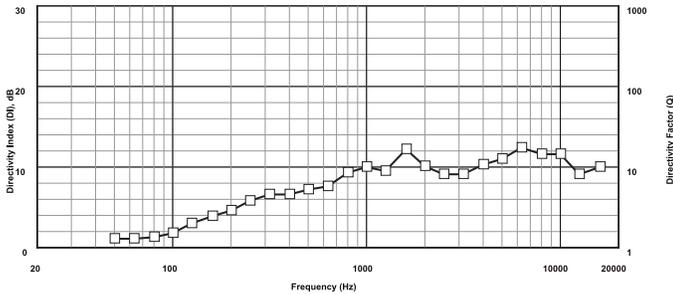
## Beamwidth with VBS (Dipole):



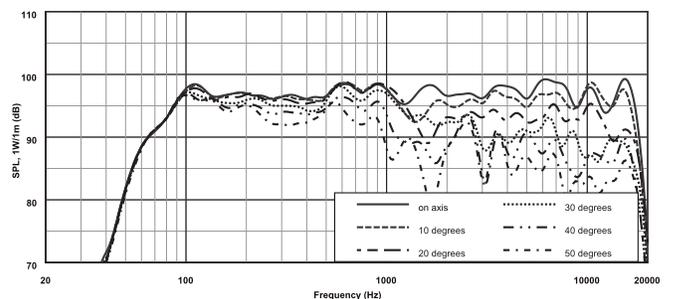
## Vertical Off Axis Frequency Response (Up):



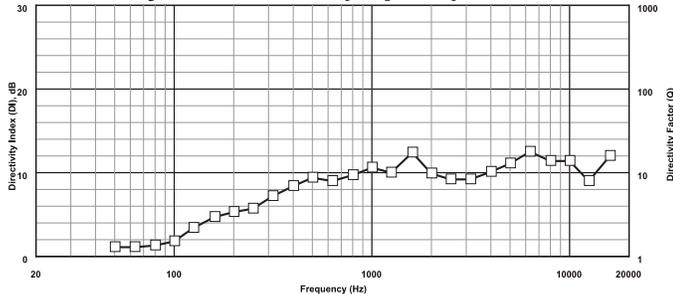
## Directivity (3-Way):



## Vertical Off Axis Frequency Response (Down):

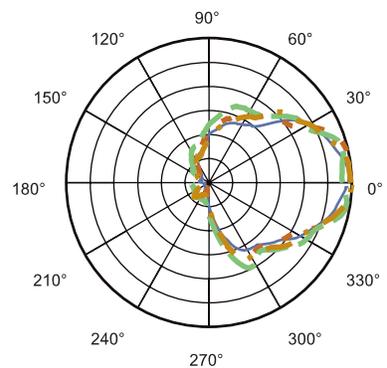
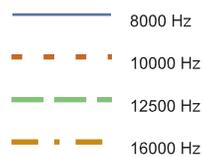
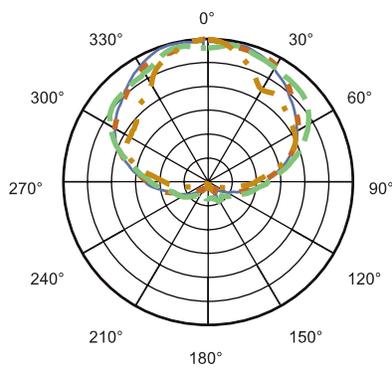
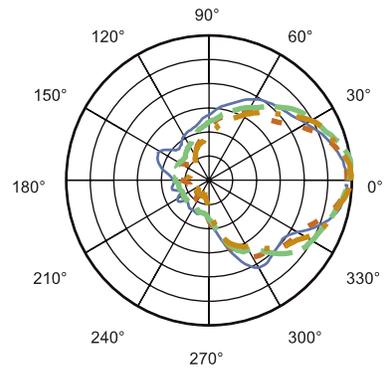
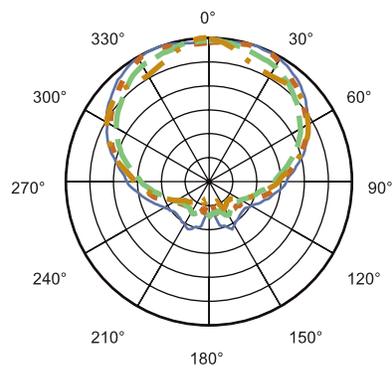
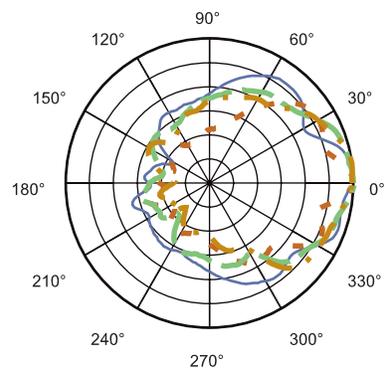
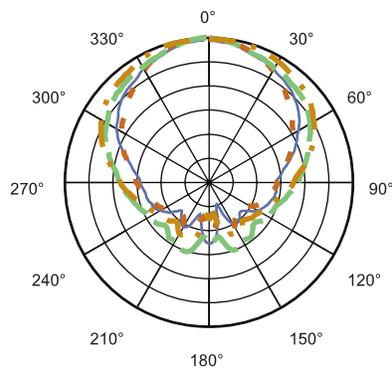
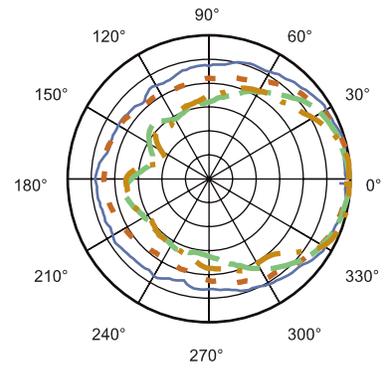
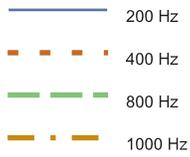
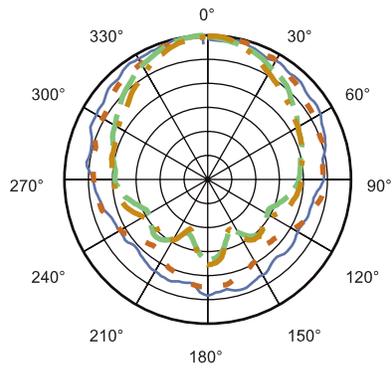


## Directivity with VBS (Dipole):



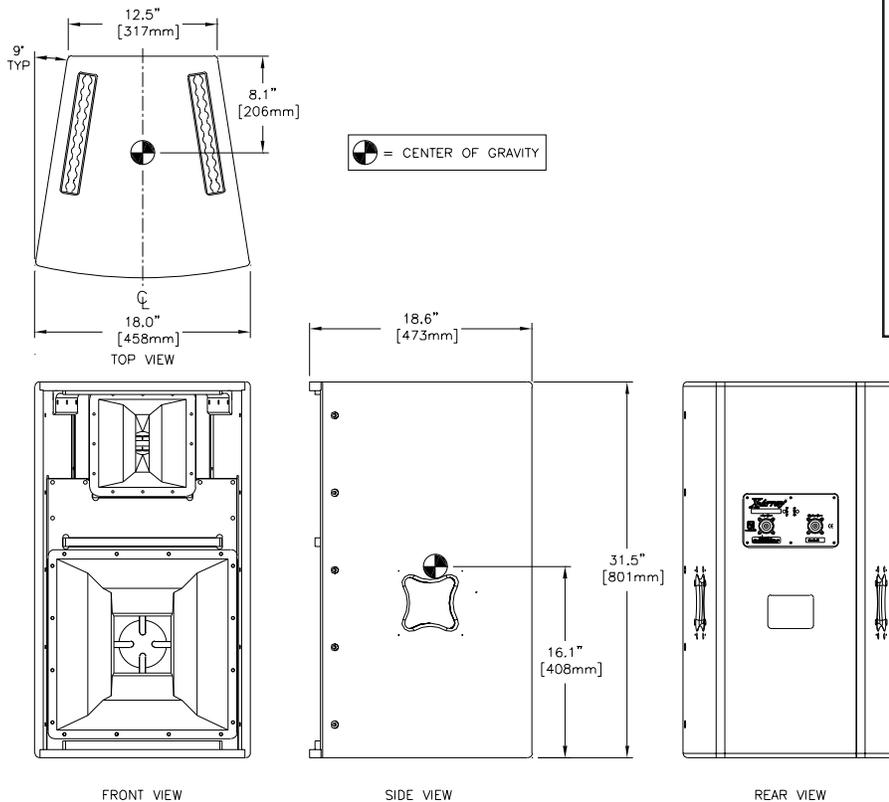
Horizontal 1/3 Octave Polars (3-Way):

Vertical 1/3 Octave Polars (3-Way):



Graph scales are 6 dB per division

## Dimension Drawings:



## Wiring/Connection Chart:

Triamp to Biamp - Switch 4-Pin Connector on inside of Input Panel.

Triamp		Biamp	
LF:	Pins 1 In Pins 2 Out	LF:	Pins 1 In Pins 2 Out
MB:	Pins 3 In Pins 3 Out	MB/HF:	Pins 3 In Pins 3 Out
HF:	Pins 4 In Pins 4 Out	Pins 4 Pass Through	
Pins 2 In Connected to Pins 1 Out			

## ⚠ CAUTION ⚠

This Xi Loudspeaker should be suspended overhead only in accordance with the procedures and limitations specified in the *X-Array Xi Install Flying Manual* and possible manual update notices. This system should be suspended with certified rigging hardware by an authorized rigging professional and in compliance with local, state, and federal overhead suspension ordinances.

### Performance Match

- P3000 (RL)
- P1200 (RL)
- CPS 2.8
- CPS 2.11
- Dx38

### Xi-1123A/106F Part Numbers

- 1149-3415 - Black
- 1149-3404 - White

## Architectural & Engineering Specs:

The loudspeaker system shall be a three-way tri-amp or bi-amp system. The system shall have an 12-inch, low-frequency loudspeaker with a nominal impedance of 8 ohms and a 2.5-inch voice coil. The low-frequency loudspeaker shall have a power handling capacity of 300 watts for 8 hours (as per ANSI/EIA RS-426 A & AES 2-1984). The mid-bass loudspeaker shall be a fully horn loaded, 10-inch driver with a 2.5-inch voice coil and a nominal impedance of 8 ohms. The mid-bass driver shall have a power-handling capacity of 300 watts for 8 hours (as per ANSI/EIA RS-426 A). The high-frequency section shall employ a compression driver capable of handling 75 watts, 1,760- to 20,000-Hz when pink noise of a 6-dB crest factor is applied for 2 hours (as per AES 2-1984 and ANSI S4.26-1984 standards). The loudspeaker shall be constructed of 18-mm, 13-ply birch and shall be trapezoidal in shape. The wedge angle shall be 18-degrees. The grille shall be constructed from 16 GA powder-coated steel backed by acoustically transparent fabric. The system shall be capable of very-high level operation with a band width of 53 to 19,000 Hz. The system dimensions shall be 458 mm (18.05 inches) wide by 801 mm (31.54 inches) high by 473 mm (18.64 inches) deep. The system shall employ flying hardware of a "track" style and have two tracks on the enclosure top and two tracks on the enclosure bottom. Net weight shall be 52.2 kg (115 lbs).

The loudspeaker shall be the Electro-Voice® Xi-1123A/106F.



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[www.electrovoice.com](http://www.electrovoice.com)

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Specifications subject to change without notice.