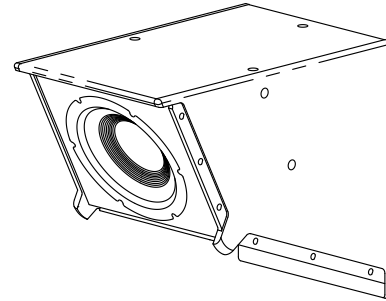




# EVC Variable-Intensity Loudspeaker EN54

- High quality transformer and patented Automatic Saturation Control (ASC) preserve low end in 70V/100V lines
- 12-inch two-way loudspeaker with asymmetrical horn uniformly covers a defined rectangular area
- Power rating: 150 W Continuous, (600 W Peak)



The EVC-1122/VI is a unique offering that is constructed in a variable-intensity (VI) configuration. In a variable intensity loudspeaker, the downward angle of the front-facing woofer and the asymmetrical wave guide work together to evenly cover a clearly defined, rectangular audience area with a single loudspeaker system.

The size of the coverage area is determined by the mounting height and the vertical mounting angle of the loudspeaker. The advantage of the VI approach is that there is reduced variation in sound level from the front to the back of the audience, compared to typical point source solutions. In most situations, the change is so gradual that the sound level will seem almost constant as you walk the coverage pattern. The EVC-1122/VI delivers clear, articulate speech reproduction but, in addition, is an excellent choice for foreground music applications.

The high frequency section of the EVC 1122/VI loudspeaker comprises a single 1¼-inch pure titanium dome compression driver directly coupled to a compound waveguide that combines long-throw and short-throw behavior in a single acoustical device. This unique waveguide creates uniform pattern control and smooth, linear response.

The low frequency section employs a high-output woofer that was developed using state-of-the-art, computer-aided optimization to provide low distortion, high efficiency, and maximum intelligibility at high sound pressure levels. The passive crossover implements a fourth-order Linkwitz Riley design with

slopes of 24 dB per octave for smooth off-axis response and improved definition through the critical vocal range.

The enclosures are constructed of weather-resistant plywood and finished with EVCoat for enhanced durability. The EVC-1122/VI has been designed with three M10 rigging points as well as attachment points for an optional U-bracket that can be mounted to the ceiling or the wall behind the loudspeaker. Input connectors accept wire gauges up to 10 AWG (5.26 sq mm).

EN-54 versions of EVC loudspeakers ship with the high quality Electro-Voice TK-150 audio transformer pre-installed. The TK-150 works in conjunction with EV's patented Automatic Saturation Compensation (ASC), which preserves low frequency performance while presenting a stable load to the amplifier regardless of how many loudspeakers are connected in parallel. This results in transformer and non-transformer EVC loudspeakers that sound virtually identical.

## Technical specifications

Frequency response (-3 dB) <sup>1,3</sup> :	70 Hz - 20 kHz
Frequency range (-10 dB) <sup>1,3</sup> :	50 Hz - 25 kHz
Rec. high-pass frequency:	50 Hz
Passive crossover frequency:	1.6 kHz
Axial sensitivity <sup>1</sup> :	79 dB (1 W/4 m)

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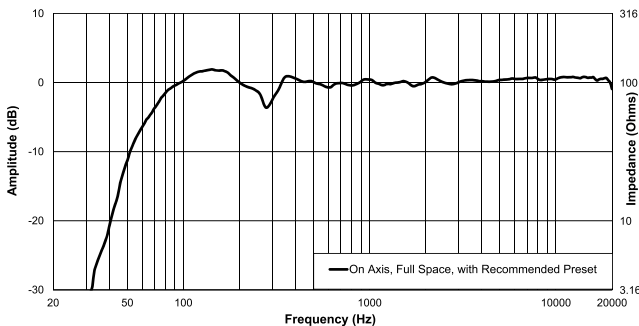
MAX SPL:	100.5 dB <sup>1</sup>
Power handling <sup>2</sup> :	150 W (Continuous), 600 W (Peak)
LF transducer:	EVS-12M
HF transducer:	DH-3
Connectors:	Dual four-pin 10 AWG Phoenix/ Euro Block screw-terminals
Enclosure:	15-mm plywood with EVCoat
Grille:	18 GA powder-coated steel with rotatable logo
Environmental:	INDOOR ONLY
Suspension:	(8) M10 suspension points
Color:	Black or white
Dimensions (H x W x D):	528 mm x 411 mm x 648 mm (20.78 in x 16.18 in x 25.50 in)
Net weight:	24.1 kg (53.1 lb)
Shipping weight:	26.8 kg (59.1 lb)

<sup>1</sup>Full-space measurement.

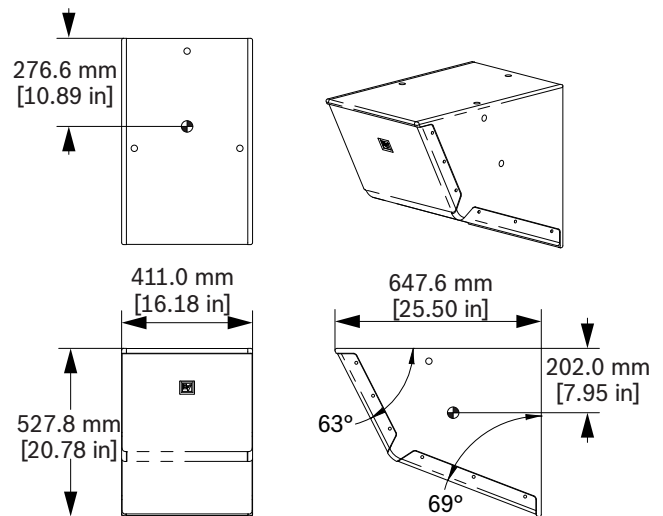
<sup>2</sup>Per EN-54 test standard.

<sup>3</sup>With recommended preset.

### Frequency response and impedance:



### Dimensions:



### Architectural and engineering specifications:

The loudspeaker shall be a two-way passive system with Euro block input connectors that accept wire sizes up to AWG 10 (5.26 sq mm). The two Euro block connectors on the input panel should be configured for a speaker-level, two-conductor input that is connected in parallel to terminals on a second Euro block connector so that additional loudspeakers can be connected in parallel. The remaining pair of terminals on each of the two connectors should be configured for a pass-through audio connection. A weatherized dual gland nut cover shall be provided with the loudspeaker, to protect electrical directions from rain and other sources of moisture.

The loudspeaker shall include a pre-installed, high-quality audio transformer in series with the direct low-impedance connection to the loudspeaker dividing network. The input circuit network shall be augmented with a high-pass filter with a current-dependent corner frequency in order to preserve the full bass response of the loudspeaker while protecting system amplifiers from the drop in load impedance that commonly occurs when audio transformers are driven into saturation.

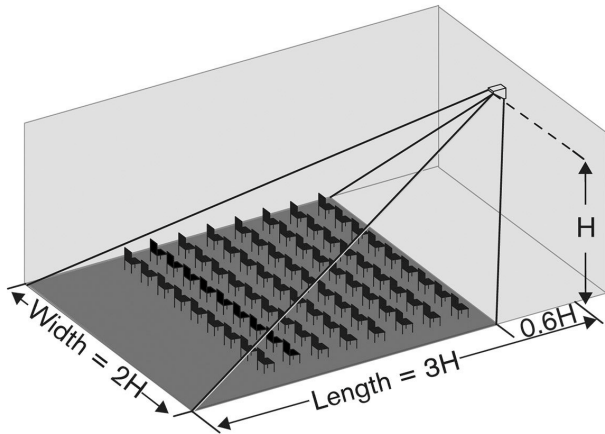
The passive dividing network shall employ an enhanced 4th-order filter topology with response-shaping equalization and high frequency protection, resulting in acoustical crossover slopes of 24 dB per octave or steeper. The system shall have a 12-inch low-frequency transducer with a nominal impedance of 8 ohms, a 2-inch diameter voice coil. System continuous average power rating shall be 150 watts (EN54-24 Standard). The high-frequency section shall employ a compression driver with a 1.25-inch voice coil and 1.25-inch titanium diaphragm, mounted on a compound waveguide that has been optimized to evenly cover a rectangular listening area, the dimensions of which are determined by the mounting height and aiming angle of the loudspeaker. The loudspeaker enclosure shall be constructed of 15-mm

plywood. The speaker is designed to be oriented with the compound horn on the underside of the cabinet and the woofer set at an angle on the front face of the cabinet. The enclosure shall be finished with a polyurea coating. The grille shall be constructed from 18 GA powder-coated cold-rolled steel backed with acoustically transparent fabric. The system shall be capable of high-level operation with a bandwidth of 70 Hz to 20 kHz (-3 dB down points). The system dimensions shall be 411.0 mm (16.18 in) wide by 527.8 mm (20.78 in) high by 647.6 mm (25.50 in) deep. The system shall employ facilities for mounting with a U-bracket or pan/tilt wall bracket, as well as facilities for suspension from M10 mounting points. Net weight shall be 24.1 kg (53.1 lb). The loudspeaker shall be the EVC-1122-VIBTEN54 or EVC-1122-VIWTEN54 from Electro-Voice.

## System overview

### Variable Intensity (VI) coverage pattern (3-2-1 rule):

If speaker mount-height = H, then coverage length = 3H, coverage width = 2H and first row coverage = 1H



## Ordering information

**EVC-UB3-BLK U-bracket for EVC-1122/VI, black**  
 U-Bracket for EVC Variable Intensity loudspeaker, black  
 Order number **EVC-UB3-BLK**

**EVC-UB3-WHT U-bracket for EVC-1122/VI, white**  
 U-Bracket for EVC Variable Intensity loudspeaker, white  
 Order number **EVC-UB3-WHT**

**EBK-M10-3PACK EBK-M10, FORGED M10 EYEBOLT KIT SET OF 3**  
 Forged M10 eyebolt kit, set of 3  
 Order number **EBK-M10-3PACK**

**EVC-1122-VIWTEN54 12" speaker VI XFRM white EN54**  
 12" Speaker Variable Intensity with Pre-installed transformer, EN-54 certified, white  
 Order number **EVC-1122-VIWTEN54**

**EVC-1122-VIBTEN54 12" speaker VI XFRM black EN54**  
 12" Speaker Variable Intensity with Pre-installed transformer, EN-54 certified, black  
 Order number **EVC-1122-VIBTEN54**

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