TECHNICAL SPECIFICATIONS MQH1346e

FEATURES

- Full-range, 3-way system
- 2x slot-loaded 15-in LF; horn-loaded 10-in MF; 2-in Neodymium HF
- LF woofers spaced for directional control to below 200 Hz
- Asymmetrical (down-angled) 40° x 60° beamwidth

DESCRIPTION

A 3-way, quad-amplified full-range system in a vented trapezoidal enclosure. Includes dual, slot-loaded 15-in woofers, a horn-loaded 10-in MF cone with Radial Phase Plug™, and a 2-in exit/3-in diaphragm Neodymium compression driver. The MF and HF horns provide an asymmetrical 40° x 60° beamwidth. The enclosure is vertically configured for arraying in horizontal rows, and features a comprehensive system of 3/8"-16 threaded suspension points.

APPLICATIONS

The MQH1346e represents a highly specialized approach developed to solve difficulties in larger venues. It provides unique, down-angled coverage by using specially designed asymmetrical MF and HF horns. Dual 15-in woofers are separated at an optimal distance to provide significant off-axis attenuation to below 200 Hz. To avoid problematic lobing in the upper LF range, discrete signal processing reduces the input to one LF driver while allowing the other to continue to work up into the lower midrange. This more evenly matches the MF horns beamwidth while assisting in maintaining pattern control through the entire crossover region. The MQH1346e requires four separate amplifier channels (quad-amplification) and digital signal processing in order to achieve the pattern control described.

Application Usage: Install

Houses of Worship	Auditoriums
Theatres	Arenas
Performing Arts Centers	Stadiums

PERFORMANCE

Frequency Response	
±3 dB	75 Hz to 15 kHz
-10 dB	42 Hz
Axial Sensitivity (dB SPL, 1 Watt @ 1m)	
LowerLF	92
Upper LF	94
MF	110
HF	109
Impedance (Ohms)	
Lower LF	8
Upper LF	8
MF	8
HF	8
Power Handling, AES Standard (Watts)	
Lower LF	600
Upper LF	600
MF	400
HF	150
Calculated Maximum Output (dB SPL @ 1m)	
Lower LF Peak	126.0
Upper LF Peak	128.0
MF Peak	142.0
HF Peak	137.0
Lower LF Long Term	120.0
Upper LF Long term	122.0
MF Long Term	136.0
HF Long Term	131.0
Nominal Coverage Angle, -6 dB Points (degrees)	
Horizontal	40
Vertical	60
Recommended High-Pass Frequency	
24 dB/Octave	45 Hz

EASTERN ACOUSTIC WORKS

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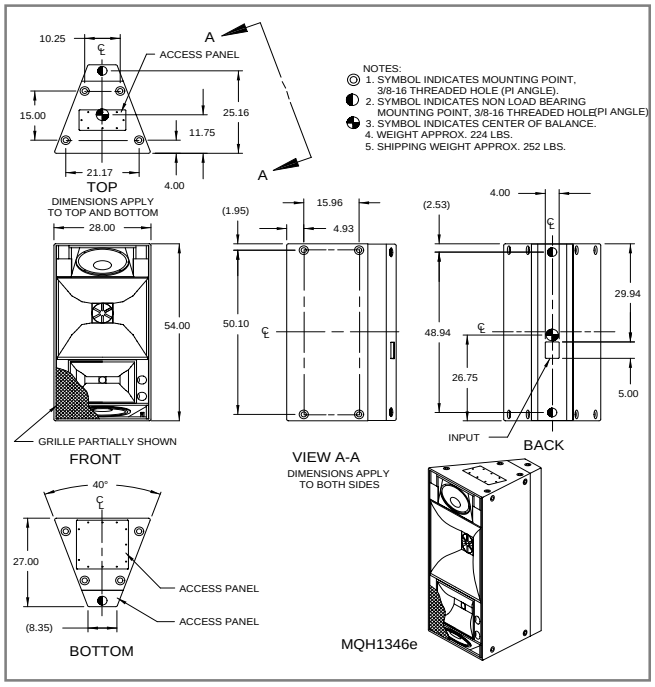
SPECIFICATIONS MQH1346e

DIMENSIONAL DRAWING



Manufacturing tolerances are +/-0.13 ans +/-1°

PHYSICAL

LF Subsystem	2x 15-in cones, vented	
MF Subsystem	10-in horn loaded cone, Radial Phase Plug™	
HF Subsystem	1x 2-in exit/3-in diaphragm voice coil compression driver on a constant directivity horn	
Configuration	3-way, full-range	
Powering	Quad-amplified	
Enclosure Material	Exterior grade Baltic birch plywood	
Finish	Wear-resistant textured black paint	
Connectors	Terminal barrier strip	
Suspension Hardware	16x 3/8"-16 threaded mounting points (4 each on top, bottom and sides)	
Grille	Powder coated perforated steel	
Dimensions	**Inches**	**Millimeters**
Height (front)	54.0	1372
Width (Front)	27.0	711
Width (Rear)	8.4	213
Depth	27.0	686
Trapezoid Angle	20 degrees per side	
Weights	**Pounds**	**Kilograms**
Net Weight	224	101.8
Shipping Weight	252	114.5

ARCHITECTURAL SPECIFICATIONS

The 3-way full-range loudspeaker shall incorporate 2x 15-in slot-loaded woofers, a 10-in MF cone with Radial Phase Plug™, and a 2-in exit/3-in diaphragm HF compression driver. The MF and HF devices shall be loaded on asymmetrical, down-angled horns with a 40° x 60° beamwidth. The LF woofers shall be optimally spaced to provide significant off-axis attenuation to below 200 Hz.

System frequency response shall vary no more than 63 dB from 75 Hz to 15 kHz measured on axis. The lower LF section shall produce a sound pressure level of 92 dB SPL on axis at 1 meter with a power input of 1 watt, and shall be capable of producing a peak output of 126 dB SPL on axis at 1 meter. The upper LF section shall produce a sound pressure level of 94 dB SPL on axis at 1 meter with a power input of 1 watt, and shall be capable of producing a peak output of 128 dB SPL on axis at 1 meter. The MF section shall produce a sound pressure level of 110 dB SPL on axis at 1 meter with a power input of 1 watt, and shall be capable of producing a peak output of 142 dB SPL on axis at 1 meter. The HF section shall produce a sound pressure level of 109 dB SPL on axis at 1 meter with a power input of 1 watt, and shall be capable of producing a peak output of 137 dB SPL on axis at 1 meter. Both LF sections shall handle 600 watts of amplifier power (AES Standard) and shall have a nominal impedance of 8 ohms. The MF section shall handle 400 watts of amplifier power (AES Standard) and shall have a nominal impedance of 8 ohms. The HF section shall handle 150 watts of amplifier power (AES Standard) and shall have a nominal impedance of 8 ohms.

The loudspeaker enclosure shall be trapezoidal in shape. It shall be constructed of exterior grade Baltic birch plywood and shall employ extensive internal bracing. It shall be finished in wear-resistant textured black paint. Input connectors shall be a terminal strip. A total of 16x 3/8"-16 threaded mounting/suspension points (4 each top, bottom, and sides) shall be provided. The front of the loudspeaker shall be covered with a powder coated perforated steel grille.

The 3-way full-range loudspeaker shall be the EAW model MQH1346e.

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