SPECIFICATIONS AS690e

DESCRIPTION

A bi-amplified (passive mid/high crossover) or tri-amplified 3-way full range system in a trapezoidal enclosure. Includes 2x 12-in woofers (separated vertically), a horn-loaded 10-in MF cone with Radial Phase Plug™ and a 1.4-in exit/2.5-in voice coil HF neodymium compression driver on a 90° x 45° constant directivity horn.

APPLICATION

The AS690e is engineered for use in permanent installations. Optimized subsections provide excellent full range frequency response in a medium format enclosure. Includes comprehensive 3/8"-16 mounting/suspension points. Six year warranty.

Applications include:

Stadiums	Arenas
Performing Arts Centers	Houses of Worship

PERFORMANCE

Frequency Response (Hz)	
±3 dB	67 Hz to 15 kHz
-10 dB	50 Hz
Axial Sensitivity (dB SPL, 1 Watt @ 1m)	
Passive MF/HF	107
LF	102
MF	109
HF	109
Impedance (Ohms)	
Passive MF/HF	8
LF	4
MF	8
HF	8
Power Handling (Watts, Continuous)	
Passive MF/HF	450
LF	800
MF	400
HF	125
Recommended High-Pass Frequency	
24 dB/Octave	40 Hz
Calculated Maximum Output (dB SPL @ 1m)	
Passive MF/HF Peak	139
LF Peak	137
MF Peak	141
HF Peak	136
Passive MF/HF Long term	133
LF Long Term	131
MF Long term	135
HF Long Term	130

Nominal Coverage Angle/-6 dB points (degrees)	
Horizontal	90
Vertical	45

PHYSICAL

Product Group	I
System Configuration	3-way, full range
Powering Configuration(s)	Bi-amplified (passive MF/HF crossover) or tri-amplified
LF Subsystem & Loading	2x 12-in, vented
MF Subsystem & Loading	1x 10-in cone, Radial Phase Plug™/ horn-loaded
HF Subsystem & Loading	1x 1.4-in exit/2.5-in voice coil neodymium compression driver on constant directivity horn
Cabinet Type (shape)	Trapezoidal
Enclosure Materials	Exterior grade Baltic birch plywood
Finish	Wear-resistant textured black paint
Connectors	2x 6-Contact terminal barrier strip, jumpers used for powering configuration
Suspension Hardware	(18) 3/8"-16 threaded mounting/ suspension points (4 each on top, bottom and sides, 2 on back)
Grille	Powder coated perforated steel

Dimensions	**inches**	**millimeters**
Height	36.0	914
Width (Front)	24.6	626
Width (Rear)	12.3	312
Depth	23.0	584
Trapezoid Angle	15 degrees per side	

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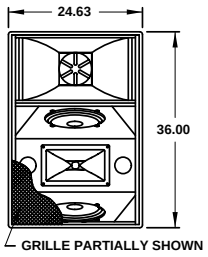
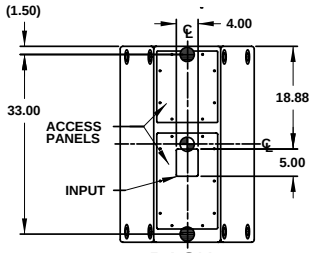
DIMENSIONAL DRAWING

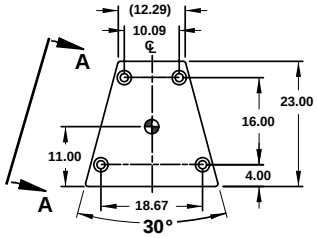
◎ INDICATES MOUNTING POINT, 3/8-16 THREADED HOLE (PI ANGLE).
● INDICATES MOUNTING POINT, 3/8-16 THREADED HOLE (NUT PLATE).
⊕ SYMBOL INDICATES CENTER OF BALANCE



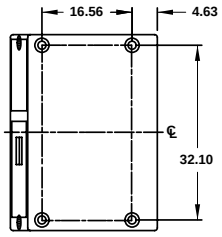
FRONT



BACK



TOP/BOTTOM



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SIDE VIEW (VIEW A-A)
DIMENSIONS APPLY TO BOTH SIDES

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

Weights	pounds	kilograms
Net Weight	169	76.0
Shipping Weight	184	83.7

A & E SPECIFICATIONS

The bi-amplified or tri-amplified 3-way full range loudspeaker system shall incorporate 2x 12-in LF vented transducers, a horn-loaded 10-in MF cone with Radial Phase Plug™ and a 1.4-in exit/2.5-in voice coil HF neodymium compression driver.

The LF drivers shall be mounted in slanted baffles and separated vertically. The MF driver shall be loaded into a midrange horn constructed of 1/8-in birch plywood backed with high density polyurethane foam. The HF driver shall be loaded on a constant directivity horn with a nominal coverage pattern of 90° (h) x 45° (v). An internal passive filter network shall provide fourth order acoustical crossover and system equalization between the MF and HF subsystems.

System frequency response shall vary no more than ±3 dB from 67 Hz to 15 kHz measured on axis. The mid/high section shall produce a Sound Pressure Level (SPL) of 107 dB SPL on axis at 1 meter with a power input of 1 Watt, and shall be capable of producing a peak output of 139 dB SPL on axis at 1 meter. The low frequency section shall produce a Sound Pressure Level (SPL) of 102 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. The mid frequency section shall produce a Sound Pressure Level (SPL) 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 141 dB SPL on axis at 1 meter. The high frequency section shall produce a Sound Pressure Level (SPL) 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 136 dB SPL on axis at 1 meter. The mid/high section shall handle 450 Watts of amplifier power (continuous) and shall have a nominal impedance of 8 Ohms. The low frequency section shall handle 800 Watts of amplifier power (continuous) and shall have a nominal impedance of 4 Ohms. The mid frequency section shall handle 400 Watts of amplifier power (continuous) and shall have a nominal impedance of 8 Ohms. The high frequency section shall handle 125 Watts of amplifier power (continuous) and shall have a nominal impedance of 8 Ohms.

The loudspeaker enclosure shall be trapezoidal in shape. It shall be constructed of multi-ply, void-free, cross-grain-laminated, 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 2x 6-Contact terminal barrier strips, jumpers used for powering configuration. Eighteen (18) 3/8"-16 threaded mounting/suspension points (4 each on top, bottom and sides, 2 on back) shall be provided. The front of the loudspeaker shall be covered with a powder coated perforated steel grille.

The bi-amplified or tri-amplified 3-way full range loudspeaker shall be the EAW model AS690e.

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