TECHNICAL SPECIFICATIONS

C112-96

Product Group: Installation Group
System Type: 2-Way, 1.4" x 12", 90°x60°



FEATURES & ADVANCES

- **Rotatable Waveguide**
- **3.0” Diaphragm Compression Driver**
- **14 Reinforced 3/8-16 threaded hang points**
- **Third-party mounting locations on 4 sides**
- **U-Bracket factory hardware available**
- **Flush Mount Wrap-Around Grill**

PRODUCT DESCRIPTION

The C112-96 is a two-way, full range loudspeaker, designed specifically for permanent installations. It is comprised of the McCauley 77100 12” cone driver and a 3.0” diaphragm compression driver mounted to a rotatable 90° x 60° waveguide.

The 77100 features a large 4” aluminum voice coil to improve power handling, an FEA optimized, field serviceable ferrite magnet structure, and a lightweight hybrid paper composite cone. The new cone body balances high stiffness, to keep breakup modes above the crossover frequency, with the internal damping that is inherent to paper cone loudspeakers.

The coupling of the cone driver and high frequency waveguide has been specially engineered to produce a rich and fully balanced sound from 50 Hz to 18 kHz. The C112 is available in either a bi-amplified or passive configuration and features a versatile rigging system.

MOUNTING & RIGGING

Mounting locations are distributed across 5 surfaces of the enclosure. Omni-mount™ compatible locations are available on 4 sides of the enclosure, while an additional 14 reinforced 3/8-16 threaded locations are available for other mounting options. iDESIGN iDB™ Series array frames are available to facilitate assembly and suspension of multiple modules as a single cluster. iDESIGN iDB™ Series U-bracket hardware is also available for single unit wall and ceiling mount installation.

APPLICATIONS

- **Houses of Worship**
- **Performing Arts Centers**
- **Dance Clubs**
- **Theme Parks**
- **Auditoriums**
- **Theatrical Sound Design**
- **Live Clubs**
- **Sports Facilities**

CONSTRUCTION

The enclosure is constructed of 18mm 13-ply void-free birch plywood and is coated with a weather and wear resistant ProCoat™ polyurea hybrid finish. Loudspeaker components are protected by a flush mounted, wrap-around perforated steel grill lined with acoustically transparent foam. The grill and rigging components are weather protected with a heat cured epoxy powder coat finish.

PERFORMANCE PARAMETERS

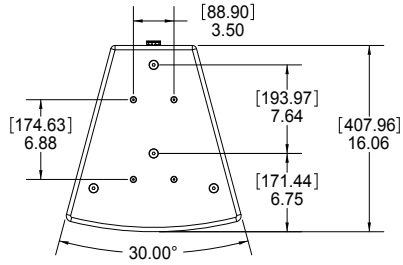
System Type	90°x60°, 2-Way, Full Range
Frequency Response	
-10dB	47Hz - 20kHz
+/- 3dB	50Hz - 18kHz
Sensitivity	
Passive	99dB @ 2.83V 1 m
LF	99dB @ 2.83V 1 m
HF	107dB @ 2.83V 1 m
Maximum SPL	(cont. / peak)
Passive	125dB / 131dB
LF	125dB / 131dB
HF	129dB / 135dB
Crossover Data	1200Hz @ 24dB per octave
Power Ratings	
Passive - AES	425W @ 8Ω
LF - AES	350W @ 8Ω
HF - AES	75W @ 8Ω
Passive - Program	850W @ 8Ω
LF - Program	700W @ 8Ω
HF - Program	150W @ 8Ω

PHYSICAL PROPERTIES

Weight	71lbs / 32.3kgs
Dimensions	
inches	27.5 H x 15.1 W x 16.1 D
centimeters	69.9 H x 38.3 W x 40.8 D
Enclosure Material	18mm 13-ply Birch Laminate
Suspension	(14) 3/8-16 reinforced hang points (4) Third-party compatible mounting locations (3) Horizontal U-Bracket mounting locations (1) Vertical U-Bracket mounting location
Finish	Procoat™ Polyurea-Hybrid Weatherproofing (Black is standard, White and / or Custom Colors Available)
Transducers	(1) 77100-8 12” LF Transducer (1) 3" Diaphragm, 1.4" Exit Compression Driver
Connectors	Pheonix PC_4-4-ST-7.62 4-Position Accepts up to 10AWG Bare or Dual 12AWG Feruled
Compatible Array Frames (for building clusters)	IDB.22-AF, IDB.828-AF, IDB.282-AF, IDB.222-AF, IDB.252-AF
Compatible U-Brackets (for deploying individually)	IDB.112-H, IDB.112-V

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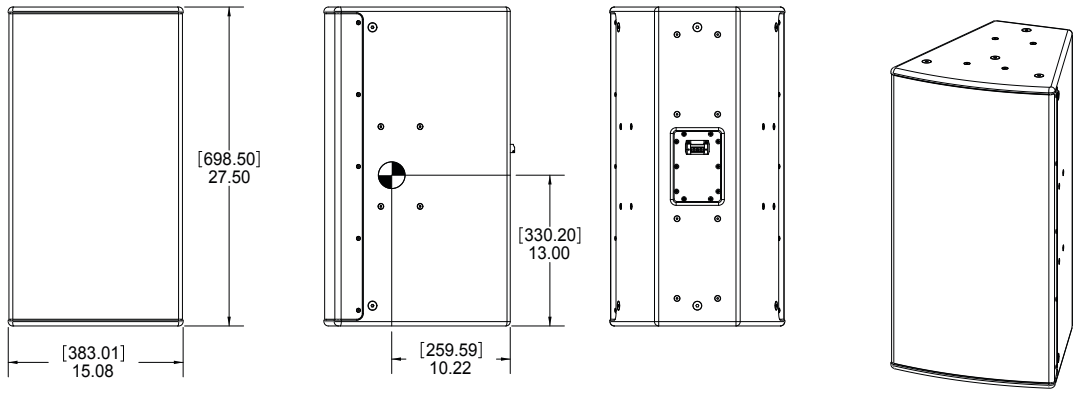
DIMENSIONAL ILLUSTRATIONS



Attachment points for 3rd Party Accessories
Top and Bottom
Allen Products MM-120-BTM
OmniMount 60.0 Series

Sides
OmniMount 60.0 Series
Allen Products MM-120-BT

Rear
OmniMount 60.0 Series
Allen Products MM-120-BT



NOTES:
A. CABINET WEIGHT 71 LBS [32.3 KG]
B. SHIPPING WEIGHT 78 LBS [35.5 KG]

ARCHITECTS AND ENGINEERS SPECIFICATIONS

The two-way full range loudspeaker system shall incorporate one (1) McCauley 77100-8, 4" (102 mm) voice coil, 12" (303 mm) diameter LF transducer, and one (1), 1.4" (36 mm) exit, 3" (76 mm) diaphragm compression driver HF transducer. The LF driver shall be mounted in an optimally vented enclosure tuned for maximum low frequency response with vent area of such size that distortion is minimized at the rated continuous power. The high frequency transducer shall be mounted to a true constant directivity acoustic horn with a nominal horizontal coverage pattern of 90°. The vertical coverage pattern of the horn shall be 60° and shall also provide true constant directivity. The HF horn shall feature a square mounting flange, allowing the horn to be rotated by 90°.

The system frequency response shall vary no more than ±3 dB from 50 Hz to 18 kHz measured on axis. The low frequency transducer shall produce a Sound Pressure Level (SPL) of 99 dBSPL at a distance of 1 meter with an electrical power input of 2.83 Vrms, and shall be capable of producing a maximum peak output of 131 dBSPL on axis at 1 meter. The high frequency transducer shall produce a SPL of 107 dBSPL on axis at 1 meter with an electrical power input of 2.83 Vrms, and shall be capable of producing a peak output of 135 dBSPL on axis at 1 meter.

The low frequency transducer shall handle 350W of amplifier power (per AES ref Standard AES2-2012) and shall have a nominal impedance of 8.0 Ohms. The high frequency transducer shall handle 75W of amplifier power (per AES ref Standard AES2-2012) and shall have a nominal impedance of 8.0 Ohms.

The loudspeaker enclosure shall have a maximum weight of 71 lbs.(32.3 kg) and shall measure 15.08" (383 mm) wide at front, 6.66" (169 mm) in width at rear, 27.5" (699 mm) in height, and 16.06"(408 mm) in depth. The enclosure sides shall taper at 15° from a maximum frontal width, narrowing to the rear. The structure of the enclosure shall be constructed of 18mm, 13-ply void-free birch hardwood plywood, and shall have a weather and wear resistant ProCoat(tm) polyurea hybrid finish.

The input connection shall be, one (1) 4-Position, 20A rated, Pheonix PC_4-4-ST-7.62, which accepts single bare wires up to 10AWG or dual 12AWG wires with a ferule. Pins (1+, 1-) shall be wired to the LF transducer, while pins (2+, 2-) shall be wired to the HF transducer. When configured with a passive network, pins (1+, 1-) shall be in parallel with (2+, 2-).

A total of fourteen 3/8"-18 UNC threaded mounting/suspension points (four on top, four on bottom, two per side and two rear) shall be provided. Six additional mounting points shall be provided on the top, bottom, and each side configured to accept an Omnimount™ Series 120 bracket or other third party hardware.

Components in the front of the enclosure are to be protected by a curved grill made from perforated steel that is coated with heat cured epoxy powder, and lined with acoustically transparent foam.

The 2-way full range loudspeaker shall be the McCauley Sound model C112-96.