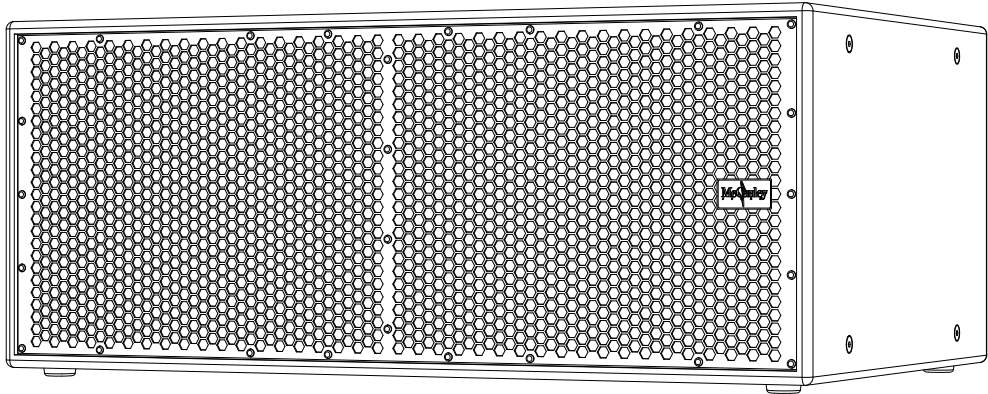


TECHNICAL SPECIFICATIONS

M55i

Product Group: Installation Class
System Type: Subwoofer, Dual 15"



PRODUCT DESCRIPTION

The M55i is a high efficiency, high power handling sub-bass loudspeaker designed specifically for permanent installations. The M55i features two McCauley 8141 15" cone drivers mounted in a mechanically and acoustically optimized bass reflex enclosure with large vent area to reduce port turbulence.

The 8141 incorporates McCauley Sound's latest long excursion neodymium motor with an industry first hybrid paper composite cone. The 8141 motor has an FEA optimized Bl vs. displacement profile to improve linearity and reduce distortion, a large aluminum heat sink, and 4" aluminum voice coil to improve power handling. The new cone body balances high stiffness with the internal damping that is inherent to paper cone loudspeakers, leading to a low distortion punchy sound even at high power levels.

The M55i enclosure was designed with installation in mind. Its ultra-low 17" profile allows it to fit where other subwoofers cannot. It features 24 integrated fly points and optional array frames that allow for mounting to ceilings and the creation of traditional and cardioid flown arrays.

FEATURES AND ADVANCES

- High Output, High Performance
- Heavy Duty Tour-Grade Construction
- Low Profile Compact Design
- Integrated Locking Feet
- Weather and Wear Resistant

APPLICATIONS

- Stadiums and Arenas
- Night Clubs and Concert Halls
- Theme Parks
- Theatrical Sound Reinforcement
- House of Worship

CONSTRUCTION

The enclosure is constructed of 13-ply void-free birch hardwood plywood and is coated with a weather and wear resistant ProCoat™ polyurea hybrid finish. All rigging components are weather protected with a heat cured epoxy powder coat finish. Components in the front of the enclosure are protected by a flat grill made from perforated steel that is coated with heat cured epoxy powder, and lined with acoustically transparent foam.

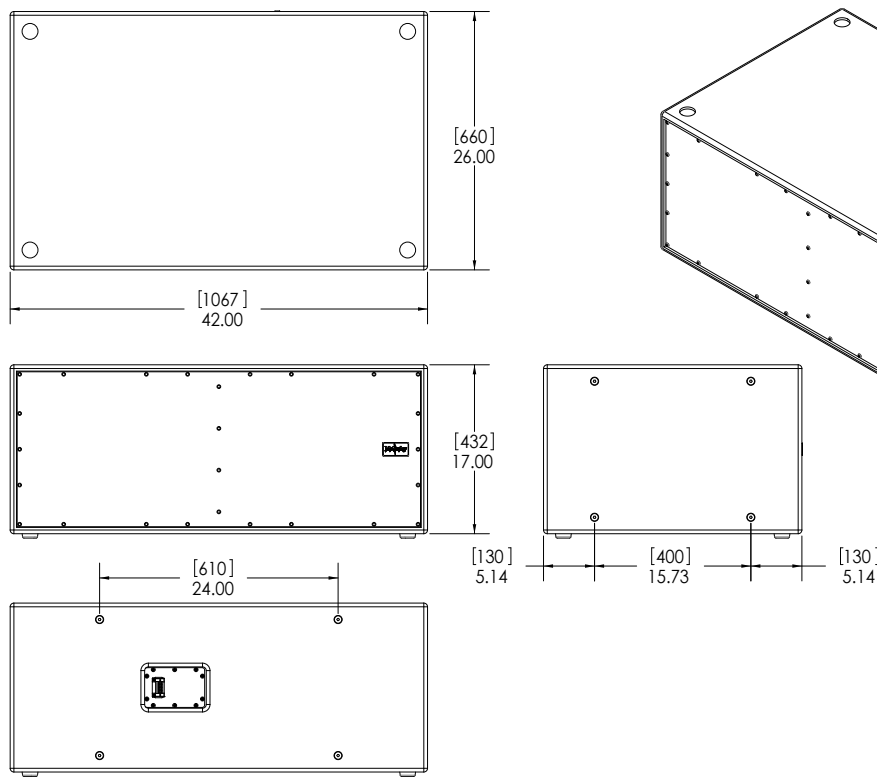
PERFORMANCE PARAMETERS

| | |
|--------------------|--|
| System Type | Subwoofer, Dual 15" |
| Frequency Response | |
| -10dB | 35Hz - 1kHz |
| +/- 3dB | 40Hz - 250Hz |
| Sensitivity | |
| LF 1 | 99dB @ 2.83V 1 m |
| LF 2 | 99dB @ 2.83V 1 m |
| LF | 102dB @ 2.83V 1 m both drivers |
| Maximum SPL | (cont. / peak) |
| LF 1 | 131dB / 134dB calculated ground plane |
| LF 2 | 131dB / 134dB calculated ground plane |
| LF | 137dB / 140dB calculated 2m ground plane |
| Power Ratings | (AES / Program) |
| LF 1 | 800w / 1600w @ 8Ω |
| LF 2 | 800w / 1600w @ 8Ω |
| LF | 1600w / 3200w @ 4Ω |

PHYSICAL PROPERTIES

| | |
|--------------------|---|
| Weight | 140lbs / 63.6kg |
| Dimensions | |
| inches | 17.0 H x 42.0 W x 26.0 D |
| centimeters | 43.2 H x 106.7 W x 66.1 D |
| Enclosure Material | 5/8" 13 ply birch laminate |
| Hardware | 24 3/8-16 reinforced hang points Optional Flown Rigging Systems for Conventional and Cardioid Arrays |
| Finish | Procoat™ Polyurea-Hybrid Weatherproofing (Black is standard, White and / or Custom Colors Available) |
| Transducers | (2) 8141-8 15" Cone Transducers |
| Connectors | Phoenix PC_4-4-ST-7.62 4-Position Accepts up to 10AWG Bare or Dual 12AWG Feruled Optional Neutrik™ Speakon NL4 LF1 1+/1- LF2 2+/2- |
| Ordering Options | M55i-4 NL4 Connectors M55i-W White Finish M55i-C Custom Color M55i-X Weather Resistant |

DIMENSIONAL ILLUSTRATIONS



ARCHITECTS AND ENGINEERS SPECIFICATIONS

The subwoofer loudspeaker system shall incorporate two (2) McCauley 8141, long excursion, 4" (102 mm) voice coil, 15" (457 mm) diameter transducers, mounted in an optimally vented bass reflex enclosure. The enclosure shall be tuned for maximum low frequency response and have a vent area large enough such that distortion is minimized at the rated continuous power. The horizontal and vertical beam width for a single unit shall be the 360°. Directional characteristics can be achieved with an array of multiple cabinets.

The unprocessed system frequency response shall vary no more than ± 3 dB from 40 Hz to 250 Hz measured on axis. Each transducer shall produce a Sound Pressure Level (SPL) of 99 dB SPL at a distance of 1 meter with an electrical input of 2.83Vrms, and shall be capable of producing a maximum peak output of 134 dB SPL on axis at 1 meter.

Each low frequency transducer shall handle 800W of amplifier power for 2hr (per AES Standard AES2-2012) and shall have a nominal impedance of 8.0 Ohms.

The loudspeaker enclosure shall have a maximum weight of 140lbs (63.6 kg) and shall measure 42.0" (1067 mm) wide, 17.0" (432 mm) in height, and 26.0" (661 mm) in depth. The structure of the enclosure shall be constructed of 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, Phoenix PC_4-4-ST-7.62, which accepts single bare wires up to 10AWG or dual 12AWG wires with a ferule. Optionally the input connector shall be two (2) Neutrik Speakon NL4 locking connectors wired in parallel. The loudspeakers shall be wired so that LF1 is on pins 1+/1- and LF2 is on 2+/2-.

The enclosure shall include twenty-four (24) 3/8"-16 UNC threaded mounting/suspension points. Components in the front of the enclosure are to be protected by a flat grill made from perforated steel that is coated with heat cured epoxy powder, and lined with acoustically transparent foam.

The high performance subwoofer loudspeaker system shall be the McCauley Sound model M55i.