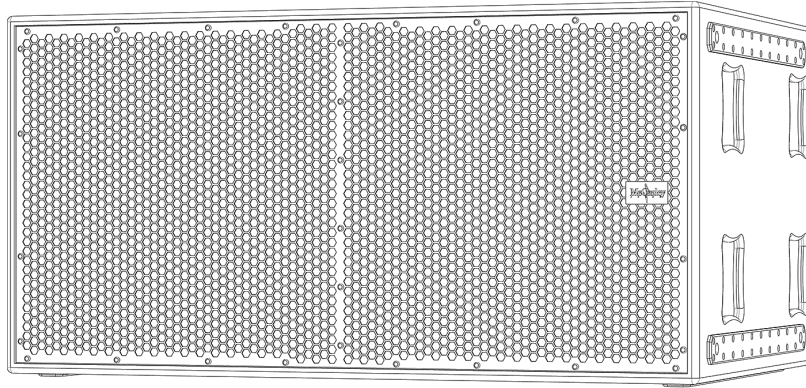


TECHNICAL SPECIFICATIONS

M882

Product Group: Touring Class

System Type: Subwoofer, Dual 18"



PRODUCT DESCRIPTION

The M882 is a high efficiency, high power handling sub-bass loudspeaker designed for touring sound applications. The M882 features two McCauley 8251 18" cone drivers mounted in a mechanically and acoustically optimized bass reflex enclosure with large vent area to reduce port turbulence.

The 8251 incorporates McCauley Sound's latest long excursion neodymium motor with an industry first hybrid paper composite cone. The 8251 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 M882 enclosure features integrated handles, casters and locking skids on two faces which allow for easy setup, loading and transportation. Optionally, the M882 can be ordered with either 3 pole mount locations and/ or tour grade rigging to create flown arrays in a variety of configurations, both traditional and cardioid.

FEATURES AND ADVANCES

- High Efficiency and High Power Handling
- Light Weight Neodymium Motor Loudspeakers
- Heavy Duty Tour-Grade Construction
- Integrated Casters, Handles and Locking Skids
- Weather and Wear Resistant
- Optional Flown Rigging

APPLICATIONS

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

CONSTRUCTION

The enclosure is constructed of multi-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.

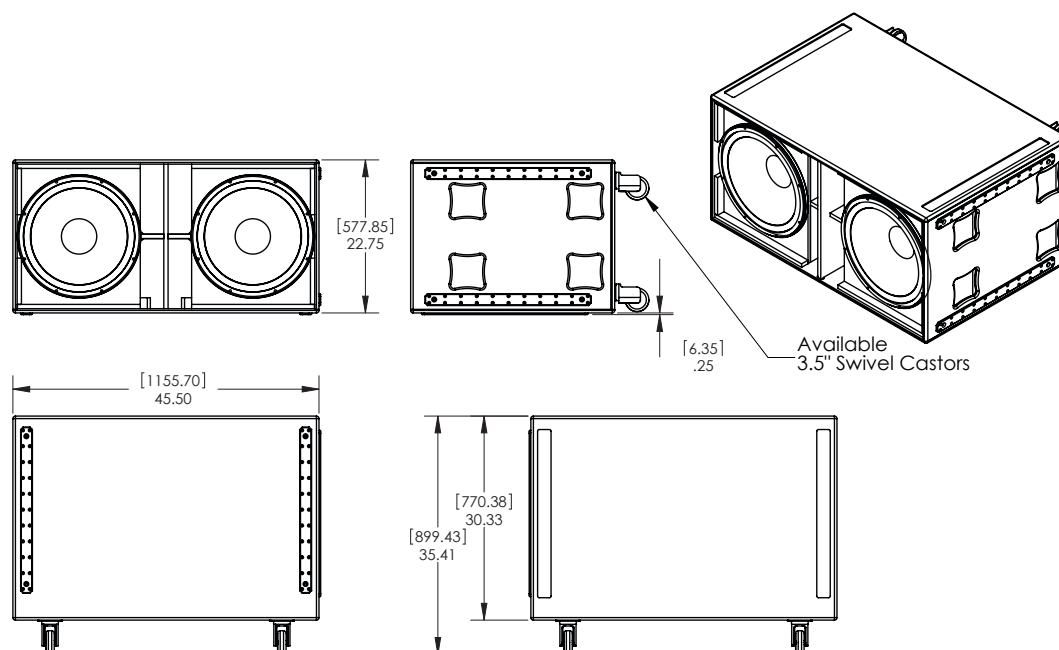
PERFORMANCE PARAMETERS

System Type	Subwoofer, Dual 18"
Transducers	(2) 8251-8 18" Cone Transducers
Frequency Response	
-10dB	26Hz
+/- 3dB	32Hz - 150Hz
Sensitivity	2.2V@40Hz 1W/1m drivers parallel
LF	105dB SPL
Maximum SPL	(average / peak) measured 1m ground plane
LF	138dB SPL / 141dB SPL
Power Ratings	(AES / Program)
LF Individual AES2-2012	1012W / 2025W @ 90Vrms/8.0 Ω
LF Parallel AES2-2012	2025W / 4050W @ 90Vrms/4.0 Ω
LF Parallel AES2-1984(r2003)	2400W / 4800W @ 90Vrms/Zmin=3.33 Ω

PHYSICAL PROPERTIES

Weight	200Lbs/90.7kg Without Casters
Dimensions	
inches	22.75 H x 45.50 W x 30.33 D Without Casters
centimeters	57.8 H x 115.6 W x 77.0 D
Enclosure Material	5/8" 13 ply birch laminate
Hardware	Integrated Locking Skids on Two Faces Optional 3/8-16 reinforced hang points
Finish	Procoat™ Polyurea-Hybrid Weatherproofing (Black is standard, White and / or Custom Colors Available)
Connectors	Neutrik™ Speakon NL4 LF1 1+/1- LF2 2+/2-
Configurations	M882 - Standard with Handles, Skids, and Casters. M882A - Add 3 Pole Mounts M882B - Without Casters M882C - Without Casters with Fly Rigging
Options	X - Extreme Weather Proofing
Optional Accessories	M882CB - Wood Dolly Board M882K - Tig Welded Aluminum Dolly Board

DIMENSIONAL ILLUSTRATIONS



ARCHITECTS AND ENGINEERS SPECIFICATIONS

The subwoofer loudspeaker system shall consist of two (2) McCauley 8251-8, 18 in. (460 mm) diameter transducers, mounted in an optimally vented bass reflex enclosure. Each transducer shall have a 4 in. (102 mm) diameter voice coil, high flux density Neodymium motor, Aluminum heat sink, and a linear excursion of least ± 0.6 in (15 mm). The enclosure shall be tuned for maximally flat low frequency response and have a vent area large enough such that distortion is minimized at the rated continuous power. Multiple loudspeaker systems in an array shall be capable of producing a directional coverage pattern.

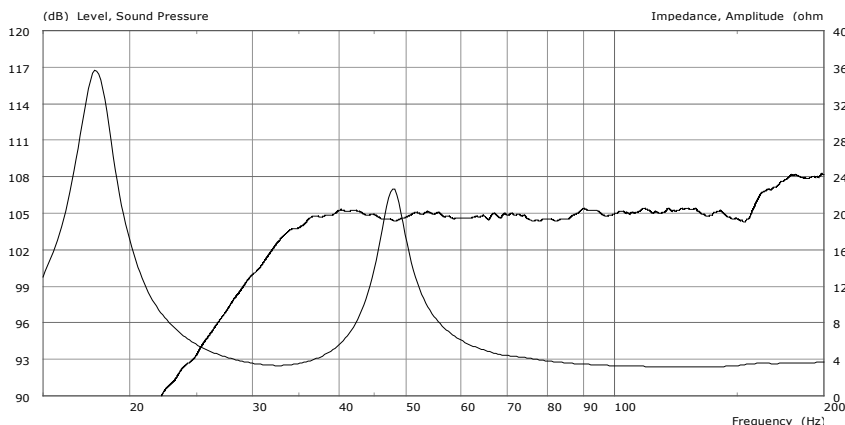
The typical performance specifications shall be as follows: The unprocessed system frequency response shall vary no more than ± 3 dB from 32 Hz to 150 Hz measured on axis. The measured sensitivity¹ shall be at least 105 dB SPL at 1 m ground-plane, from 40 Hz to 150 Hz. Each transducer shall have a power rating of 1000W AES² and a rated impedance of 8 ohms inside the operating band.

The loudspeaker enclosure shall have a maximum weight of 200 lbs. (90.7 kg) and shall measure 45.5" (1156 mm) wide, 22.75" (578 mm) in height, and 30.33" (770 mm) in depth without casters. The enclosure shall be constructed of multi-ply void-free birch hardwood plywood and coated with a weather and wear resistant ProCoat™ polyurethane hybrid finish.

Components in the front of the enclosure shall be protected by a flat grill made from perforated steel and coated with heat cured epoxy powder. All rigging and other hardware pieces shall be weather protected with a heat cured epoxy powder coat finish.

Input connectors shall be two locking Neutrik NL4 wired in parallel with 12 AWG wire. The connectors shall have a contact resistance of less than 3 mΩ, insulation rating of at least 250 Vrms, and rated continuous current rating of 30 A per contact. The lifetime of the connectors shall be at least 5000 mating cycles. The connectors shall meet or exceed UL 94 HB flammability standards.

The high performance subwoofer loudspeaker system shall be the McCauley Sound model M882.



1) Drive voltage of 2.2Vrms chosen to provide 1W to the loudspeaker at 40Hz. $Z_{min}=3.2\Omega$, $Z_{nom}=5.9\Omega$ from 32Hz to 150Hz.
2) 1012W @ 90Vrms / 8Ω AES2-2013 2hr test. 2400W @ 90Vrms / $Z_{min}=3.3\Omega$ AES2-1984(r2003) 2hr test