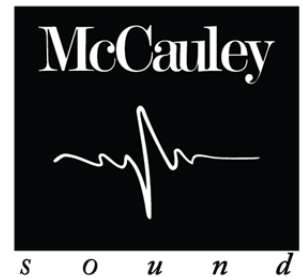


# M82i

## ARCHITECTS' AND ENGINEERS' SPECIFICATIONS



The subwoofer loudspeaker system shall consist of one (1) McCauley 8251-8, 18 in. (460 mm) diameter transducer, mounted in an optimally vented bass reflex enclosure. The 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  $\pm 0.6$  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  $\pm 3$  dB from 35 Hz to 120 Hz measured on axis. The measured sensitivity<sup>1</sup> shall be at least 100 dB SPL at 1 m ground-plane, from 45 Hz to 120 Hz. The transducer shall have a power rating of 1000W AES<sup>2</sup> and a rated impedance of 8 ohms inside the operating band.

The loudspeaker enclosure shall have a maximum weight of 110 lbs. (49.8 kg) and shall measure 28.0" (711 mm) wide, 20.4" (518 mm) in height, and 27.5" (699 mm) in depth. 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.

The enclosure shall include twenty-four (24) 3/8"-16 UNC threaded mounting/suspension points. 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.

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. Optionally the input connector shall be two (2) Neutrik Speakon NL4 locking connectors wired in parallel with 12 AWG wire. The connectors shall have a contact resistance of less than 3 m $\Omega$ , 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 M82i.

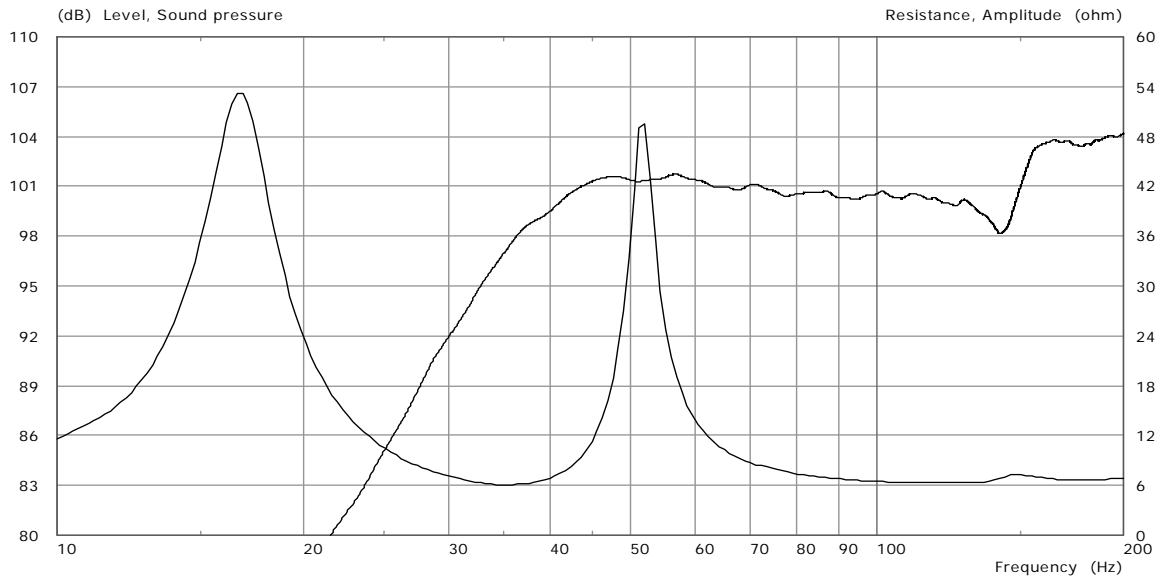
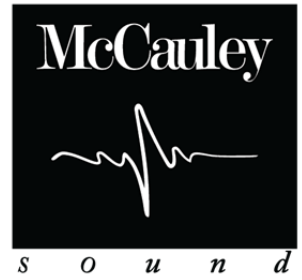
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<sup>1</sup> Drive voltage of 2.5Vrms chosen to provide 1W to the loudspeaker at 100Hz.  $Z_{min}=6.0\Omega$ ,  $Z_{nom}=7.8\Omega$  from 35Hz to 120Hz.

<sup>2</sup> 1012W @ 90Vrms / 8 $\Omega$  AES2-2013 2hr test. 1350W @ 90Vrms /  $Z_{min}=6.0\Omega$  AES2-1984(r2003) 2hr test.

# M82i

## ARCHITECTS' AND ENGINEERS' SPECIFICATIONS



M82i Sensitivity Measurement and Impedance