iDesign Model iD4.212-96

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The two-way full range loudspeaker system shall incorporate two 4” (102 mm) voice coil, 12” (303 mm) diameter LF transducers and one 1.4” (36 mm) exit, 3” (76 mm) diaphragm compression driver HF transducer. The LF drivers shall be mounted in an optimally vented enclosure tuned for maximum low frequency response. 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 100 dB SPL at a distance of 1 meter with an electrical power input of 1 Watt, and shall be capable of producing a maximum peak output of 137 dB SPL on axis at 1 meter. The high frequency transducer shall produce an acoustic Sound Pressure Level (SPL) of 108 dB SPL on axis at 1 meter with an electrical power input of 1 Watt, and shall be capable of producing a peak output of 136 dB SPL on axis at 1 meter.

Each low frequency transducer shall handle 600 Watts of amplifier power (per AES ref Standard AES2-1984-r2003) and shall have a nominal impedance of 8 Ohms. The high frequency transducer shall handle 150 Watts of amplifier power (per AES ref Standard AES2-1984-r2003) and shall have a nominal impedance of 16 Ohms.

The loudspeaker enclosure shall have a maximum weight of 106 lbs.(48.1 kg) and shall measure 15.14” (385 mm) wide at front, 5.16” (131 mm) in width at rear, 40” (1016 mm) in height, and 19.94”(507 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 12-ply void-free birch hardwood plywood and shall have a weather and wear resistant ProCoat(tm) polyurea hybrid finish.

Input connectors shall be two, six-terminal barrier strips, wired together in parallel. For two-way operation, the LF transducers shall be wired in parallel at the terminal strips. To reach the absolute maximum SPL, the loudspeaker may be wired in a three-way configuration to facilitate individual signal processing of each LF transducer.

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. Four additional mounting points shall be provided on the top, bottom, and each side configured to accept an OmniMount brand, Series 120 bracket.

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 iD4.212-96.