

ARCHITECTURAL SPECIFICATIONS

Ashby-5C Ceiling Loudspeaker



The loudspeaker shall be self-powered and include one 5-inch (127 mm) diameter coaxial transducer and one 0.75-inch (20 mm) dome tweeter mounted concentrically in a wave guide in front of the 5-inch driver. Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: operating frequency range, 100 Hz – 18 kHz; phase response, 290 Hz – 16 kHz $\pm 45^\circ$ and a conical coverage of 110°. The loudspeaker shall be capable of a linear peak SPL of 112 dB with 19 dB crest factor, measured at 4 m referred to 1 m using M-noise.

The loudspeaker shall be equipped with two Phoenix 5-pin male connectors (pins 1, 2 for 48 V DC power, pins 3, 4, 5 for balanced audio). One shall be the input, the second connector shall be hardwired for looping. The loudspeaker shall have looping capabilities, and when connected to one channel of the required power supply up to three units can be powered. The audio input shall be electronically balanced with a 10 k Ω impedance and shall accept a nominal -2.5 dBV (0.25 V rms) signal.

The loudspeaker shall incorporate a highly efficient Class-D power amplifier with a total output power of 440 W peak. The approved power source shall be a Meyer Sound 48 V DC multi-channel power supply model.

Current draw for the loudspeaker shall be 0.16 A in idle state and its maximum long-term continuous current draw shall be 0.32 A with a duration of less than 3 seconds. The loudspeaker shall tolerate voltage drops up to 30% caused by long cable runs when connected to one channel of the required power supply.

Maximum cable run for a single unit is 450 ft with 18 AWG (135 m with 1.0 mm²) and the maximum cable run for three looped units is 150 ft with 18 AWG (45 m with 1.0 mm²).

Loudspeaker components shall be housed in a zinc-plated steel-back can enclosure which shall also include a UL94 V-0 rated baffle. The enclosure shall incorporate 4 mounting clamps for flush-mount installations in ceilings and walls with a minimum depth of 7.17 in (182 mm). Grille shall be made of perforated steel and its diameter shall be 9.34 in (237.3 mm).

Dimensions shall be 8.92 in (226.5 mm) in diameter and 7.17 in (182 mm) in depth (front of ceiling surface to built-in safety attachment ring). Cutout diameter range shall be 7.60 – 7.875 in (193–200 mm).

Weight shall be 7.8 lb (3.53 kg).

The loudspeaker shall be the Meyer Sound Ashby-5C.

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