The loudspeaker shall be self-powered and include one 8-inch (203.2 mm) diameter coaxial transducer and one 0.75-inch (20 mm) dome tweeter mounted concentrically in a wave guide in front of the 8-inch driver. Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: operating frequency range, 60 Hz – 18 kHz; phase response, 190 Hz – 16 kHz ±45° and a conical coverage of 100°. The loudspeaker shall be capable of maximum linear peak SPL of 114 dB peak 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, and 5 for balanced audio). One shall be the input, the second connector shall be hardwired for looping. The audio input shall be electronically balanced with a 10 kΩ 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 0.78 A. 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 300 ft with 18 AWG (90 m with 1.0 mm²) and the maximum cable run for two units (one looped) is 150 ft with 18 AWG (45 m with 1.0 mm²).

Loudspeaker components shall be housed in a zinc-plated steel enclosure which shall also include a UL94 V-0 rated baffle. The enclosure shall also incorporate four mounting clamps for flush-mount installations in ceilings and walls with a minimum depth of 8.87 in (225.3 mm). The grille shall be made of perforated steel and its diameter shall be 12.97 in (329.3 mm).

Dimensions shall be 12.64 in (321 mm) in diameter and 8.87 in (225.3 mm) in depth (front of ceiling surface to built-in safety attachment ring). Cutout diameter range shall be 11.32 – 11.75 in (287.6 – 298.4 mm).

Weight shall be 13.8 lb (6.26 kg).

The loudspeaker shall be the Meyer Sound Ashby-8C.