**EdgeMax EM90 in-ceiling premium loudspeaker**

ARCHITECTS’ & ENGINEERS’ SPECIFICATIONS

JULY 2023

The 2-way, full-range loudspeaker shall contain a single 1.3-inch voice coil mid-high-frequency compression driver firing through a PhaseGuide device and a single 8-inch cone transducer. The loudspeaker shall contain a passive crossover network with a 1000 Hz crossover point.

The 2-way, full-range loudspeaker shall meet the following performance specifications: On-axis system frequency response shall be 45 Hz to 20 kHz (-10 dB) with the use of recommended active equalization. The loudspeaker sensitivity shall be 96 dB SPL in a one-eighth-space (corner-loaded) environment with recommended active EQ with 1 W input at 1 meter. The long-term power handling rating shall be 150 W (AES test methodology using IEC system noise, 2-hour duration). Maximum continuous output shall be 118 dB SPL and the maximum peak output shall be 124 dB SPL, both in one-eighth-space (corner-loaded) environment with recommended active EQ. The nominal coverage pattern shall be 90° horizontal and 75° vertical (0° to 75° referenced to wall). The loudspeaker shall be designed to be mounted near wall-ceiling boundaries, eliminating the need for center-of-ceiling downward firing loudspeakers.

The loudspeaker shall be constructed of an engineered-plastics front baffle with an integrated steel formed enclosure. The loudspeaker shall be plenum rated for use in air handling spaces and in compliance with the following safety standards: UL1480A, UL2043. The transducers shall be located behind a perforated steel grille with a powder-coated finish that is magnetically attached. The finish of the grille shall be white (paintable), and a black grille accessory is available for purchase. Input connectors shall be a Euroblock 6-pin connector with loop-through, located on the front baffle. The loudspeaker shall have a nominal rated impedance of 8 ohms and shall be wired in parallel with a line voltage matching (stepdown) transformer with a level selector appropriate for output taps of 2.5, 5, 10, 20, 40 and 80 W and bypass (8 ohms). The loudspeaker input connections shall allow for direct connection to 70-volt, 100-volt, or low-impedance amplifiers. Loudspeaker backcan dimensions shall be 345 × 345 mm (13.6 × 13.6 in, length by width) with a 236 mm (9.3 in) backcan depth and net weight shall be 10.1 kg (22.2 lb) with grille. Outward front grille dimensions shall be 390 × 390 mm (15.4 × 15.4 in).

The loudspeaker shall be the EdgeMax EM90 in-ceiling premium loudspeaker.