

# ALTEC

SOUND PRODUCTS DIVISION

## 409-8C LOUDSPEAKER



### DESCRIPTION

The ALTEC 409-8C Loudspeaker is a full-range, low-distortion, coaxial transducer. Its wide dispersion angle and compact shape make it ideal for use in indoor public address speaker systems, distributed sound systems, paging facilities, background music networks, and monitoring installations.

The wide distribution angle of this speaker enables larger areas to be covered with fewer

units, affording a considerable saving in cost while sustaining uniformity in response and intelligibility of speech.

The 409-8C may be flush-mounted in any type of wall, ceiling or baffle. If the 409-8C is to be used in a distributed sound system, an ALTEC 25- or 70-volt transformer may be installed on the mounting bracket attached to the speaker frame.

## SPECIFICATIONS

|  |   |  |   |
|--|---|--|---|
| <b>Type:</b>                                       | Full-range coaxial loudspeaker  | <b>Dispersion Angle:</b>                       | 120°  |
| <b>Power Rating:</b>                               | 16 watts, based on continuous operation with band-limited pink noise from 60-12,000 Hz  | <b>Voice Coil Diameter:</b>                    | LF section — 1"<br>HF section — $\frac{3}{8}$ "                           |
| <b>Frequency Response:</b>                         | 50-14,000 Hz  | <b>Magnet Assembly — Magnet Weight:</b>        | LF section — 10 ounces<br>HF section — 0.68 ounce                         |
| <b>Pressure Sensitivity:</b>                       | 96 dB SPL measured at 4' on axis with 1 watt input of band-limited pink noise from 500-3000 Hz (Ref.: 0 dB = 0.0002 dyne/cm <sup>2</sup> ). Equal to EIA rating of 49 dB SPL at 30' with 1 milliwatt input. | <b>Flux Density:</b>                           | LF section — 8500 gauss<br>HF section — 7500 gauss                        |
| <b>Impedance:</b>                                  | 8 ohms  | <b>Connections:</b>                            | 2 solder lugs   |
| <b>Nominal Free-Air Cone Resonance LF Section:</b> | 84 Hz   | <b>Dimensions:</b>                             | 8 $\frac{1}{8}$ " (20.64 cm) diameter<br>3 $\frac{1}{4}$ " (8.26 cm) deep |
| <b>Crossover Frequency:</b>                        | 2500 Hz   | <b>Weight:</b>                                 | 3 pounds (1.36 kg)  |
|  |   | <b>Mounting Data — Mounting Hole Diameter:</b> | 7 $\frac{1}{8}$ " (18.10 cm)  |
|  |   | <b>Mounting Bolt Centers:</b>                  | 4 holes equally spaced on 7 $\frac{3}{8}$ " (19.52 cm) diameter circle    |

## ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The loudspeaker shall be the full-range coaxial type with an 8" low-frequency (LF) cone radiator, a 3" high-frequency (HF) cone radiator, and a dividing network. The loudspeaker shall meet the following performance criteria. Power rating, 16 watts based on continuous operation with band-limited pink noise from 60-12,000 Hz. Frequency response, 50-14,000 Hz. Pressure sensitivity, 96 dB SPL when measured at 4' on axis with 1 watt input of band-limited pink noise from 500-3000 Hz (Ref.: 0 dB = 0.0002 dyne/cm<sup>2</sup>). Impedance, 8 ohms. Nominal free-air cone resonance of LF cone, 84 Hz. Crossover frequency, 2500 Hz. Dispersion angle, 120°. Voice coil diameters; 1" LF section,  $\frac{3}{8}$ " HF section. Magnet weight; 10 ounces LF section, 0.68 ounce HF section. Flux density; 8500 gauss LF section, 7500 gauss HF section. The loudspeaker shall be 8 $\frac{1}{8}$ " in diameter by 3 $\frac{1}{4}$ " deep and shall weigh 3 pounds.

The loudspeaker shall be the ALTEC Model 409-8C Loudspeaker.

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