



## DESCRIPTION

The ALTEC 416-8B is a 16" low-frequency loudspeaker of professional quality that is ideal for use in wide-range sound reinforcement and high-fidelity systems. Performance is characterized by smooth response with extraordinary linearity.

A structurally reinforced frame, rigid enough to permit front or rear mounting, supports a heavy permanent magnet providing high flux density.

The low-mass voice coil is made from edge-wound copper ribbon to provide more turns of wire in the voice-coil gap. The cone suspension has exceptionally high compliance for accurate reproduction of low frequencies.

The 416-8B loudspeaker complements a wide selection of ALTEC-designed enclosures.

## SPECIFICATIONS

Frame Diameter:	16"
*Power Rating:	150 watts program material 75 watts continuous pink noise band-limited
Frequency Response (Hz):	30-1600
Pressure Sensitivity (1 watt ( $E^2/Z$ min) with pink noise band-limited 100-1000 Hz):	98 dB at 1 meter
Maximum Sound Pressure (Full power ( $E^2/Z$ min) with pink noise band-limited 100-1000 Hz):	117 dB at 1 meter
Impedance:	8 ohms minimum
Maximum Excursion Before Damage (Peak to Peak):	.70 in.
Voice Coil Diameter:	3 in.
Thiele-Small Parameters —	
Free-Air Resonance ( $f_s$ ):	24 Hz
Equivalent Volume Compliance ( $V_{AS}$ ):	22.9 ft <sup>3</sup>
Total Q ( $Q_{TS}$ ):	.23
Electrical Q ( $Q_{ES}$ ):	.24
Mechanical Q ( $Q_{MS}$ ):	6.4
Reference Efficiency ( $\eta_0$ ):	3.6%
D.C. Resistance ( $R_E$ ):	6.5 ohms
Peak Linear Displacement ( $X_{MAX}$ ):	0.13 in.
Peak Linear Volume Displacement ( $V_D$ ):	16.6 in. <sup>3</sup>
Effective Surface Area of Driver Diagram ( $S_D$ ):	128 in. <sup>2</sup>
Additional Parameters —	
Effective Piston Diameter:	12.75 in.
Voice Coil Inductance:	2.5 m H.
BL Factor:	16.0
Magnet Type:	Alnico
Magnet Weight:	39 oz.
Flux Density:	1.1 Tesla
Mounting Information —	
Baffle Opening Diameter:	14 1/8" (35.87 cm)
Mounting Bolt Circle Diameter:	15" (38.1 cm)
Loudspeaker Depth (front mounting):	6 1/4" (15.88 cm)
Loudspeaker Depth (rear mounting):	7" (17.78 cm)
Weight:	17.5 lbs (7.94 kg)

\*AES power rating measured  $E^2/Z$  min where  $E = 25V$ ,  $Z = 8\Omega$ , band-limited 40-400 Hz.

(AES Recommended Practice Specification of Loudspeaker Components Used in Professional Audio and Sound Reinforcement. See J. Audio Eng. Soc., Vol. 30, No. 3, 1982 March.)