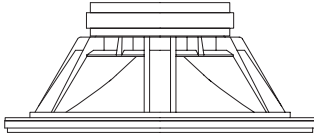


ALTEC LANSING®

PROFESSIONAL

4156-8A

High Performance
15" Low Frequency Speaker



FEATURES - THE ALTEC LANSING DIFFERENCE

- High Performance 250W AES / 1,000W Peak Power Handling
- Designed For Direct Radiator Vented Cabinets
- Linear Low Frequency Reproduction
- High Efficiency

GENERAL PRODUCT DESCRIPTION

The 4156-8A is the latest in a 60 year Altec Lansing tradition of quality loudspeaker components. High power, high efficiency and linear response make this 15" (381 mm) transducer a very capable low frequency component for conventional cluster designs or subwoofers.

Possibly the most celebrated legacy of Altec Lansing is dependability. The 4156-8A loudspeaker is constructed from a reinforced corrosion-resistant die-cast frame, a rugged ferrite magnet structure, and a weather-resistant cone.

The 4156-8A loudspeaker is designed for direct radiator vented enclosures. An internal enclosure volume of just under 4 cubic feet (113 liters) is all that is required for the 4156-8A loudspeaker to provide 3 dB down frequency response to 50 Hz. Installation of this low frequency loudspeaker is made simple with 0.25 inch (6 mm) blade type wire terminals on a two position barrier strip, allowing bare wire leads, solder connections or crimp type quick-connect wire terminals.

The Altec Lansing model 4156-8A is an excellent component for custom subwoofers and a perfect complement to our high frequency compression drivers when the requirements are high power capability, linear low frequency response, high acoustic output level, and absolute reliability.

FREQUENCY RESPONSE ^{1, 2}

27 Hz - 3.4 kHz

SENSITIVITY ³

99 dB SPL

POWER HANDLING ⁴

250 W continuous; 1,000 W peak

MAXIMUM OUTPUT (1 m) ⁵

123 dB SPL continuous; 129 dB SPL peak

IMPEDANCE ⁷

Nominal: 8.0 Ohms

Minimum: 6.5 Ohms at 160 Hz

HARMONIC DISTORTION ⁸

1% rated power		10% rated power	
2nd Harmonic	0.57%	2nd Harmonic	2.25%
3rd Harmonic	0.54%	3rd Harmonic	0.94%
THD	0.91%	THD	2.49%

INPUT CONNECTIONS

1 x 2 position barrier strip with 0.250 in. blades

DIMENSIONS

Outside Diameter:	15.875 in. (403 mm)
Bolt Circle Diameter:	15.063 in. (383 mm)
Cut-out Diameter	
Front Mount:	14.375 in. (365 mm)
Rear Mount:	14.000 in. (356 mm)
Depth:	6.625 in. (168 mm)

WEIGHT

Net:	21 lbs. (9.5 kg)
Shipping:	26 lbs. (11.8 kg)

THEILE-SMALL PARAMETERS:

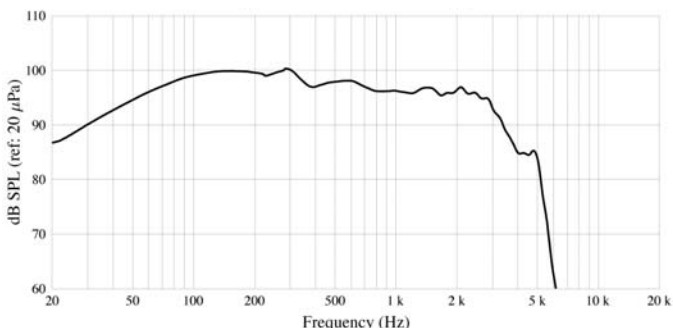
R_e	5.6 Ohms
f_s	29.0 Hz
Q_{ts}	0.280
Q_{ms}	2.91
Q_{es}	0.310
V_{as}	353.7 liters (12.49 ft. ³)
S_d	850.0 cm ² (131.75 in. ²)
X_{max}	4.3 mm (0.17 in.)
V_d	365.5 cm ³ (22.30 in. ³)
L_e	1.05 mH
η_0	2.72%
Bl	17.1 Tm
M_{ms}	87.3 g
C_{ms}	350 μ m/N

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

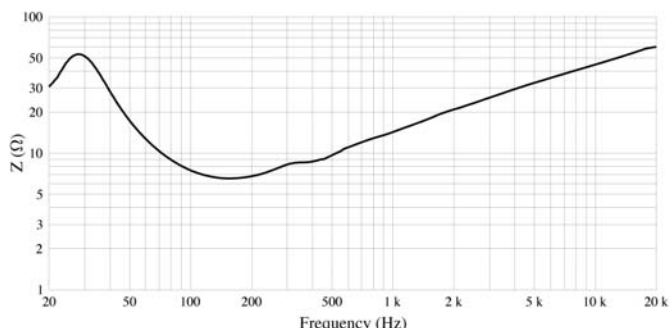
The loudspeaker shall be a multi-purpose 15 inch / 381 mm low frequency cone driver. The loudspeaker shall have an operating bandwidth of 27 Hz - 3.4 kHz with a sensitivity of 99 dB when measured at a distance of one meter. The power handling capability shall be 250 W AES (1,000 W peak). Nominal impedance shall be 8 ohms with a minimum impedance of 6.5 ohms at 160 Hz. The nominal free-air resonance shall be 29 Hz.

The dimensions shall be 15.875 inches (403 mm) in diameter by 6.625 inches (168 mm) deep. The loudspeaker shall weigh 21 pounds (9.5 kg). The loudspeaker shall be the Altec Lansing Professional model 4156-8A.

FREQUENCY RESPONSE



IMPEDANCE



As we are continually striving to improve Altec Lansing products, specifications are subject to change without notice. Please visit www.altecp.com for the latest information on Altec Lansing Professional products.

SPECIFICATION NOTES

- 1 The frequency response of the loudspeaker is measured at a distance of no less than 3 meters to obtain full range data. The level is then corrected to be equivalent to a 2.83 V 1 m measurement. A near field measurement of the loudspeaker is performed for frequencies below 500 Hz. This data is then combined with the full range measurement to give an accurate composite frequency response curve.
- 2 The limits of the frequency response are referenced to -10 dB of the loudspeakers rated sensitivity.
- 3 The sensitivity of the loudspeaker is the log based average SPL taken over the intended bandwidth of operation for the loudspeaker with a 2.83 V swept sine stimulus. The data is measured and level corrected in a manner consistent with note 1.
- 4 The power handling capacity of the loudspeaker is tested using AES Standard 2-1984. The test stimulus is band limited (30 Hz – 300 Hz) pink noise with a 6 dB crest factor. The applied RMS voltage is determined using the minimum impedance of the loudspeaker. The amplifier used to drive the loudspeaker has a minimum operating headroom of 6 dB referenced to the RMS voltage.
- 5 The maximum output level of the loudspeaker is calculated based on the sensitivity and the power handling capabilities of the system.
- 7 The minimum impedance of the loudspeaker is taken over its intended band of operation.
- 8 The distortion measurements of the loudspeaker are performed at a distance of 1 m with RMS input voltages corresponding to 1% and 10% of rated power handling calculated using minimum loudspeaker impedance. The distortion percentages are log based averages from 50 Hz – 1 kHz.

VISIT WWW.ALTECPRO.COM FOR

- Authorized EASE data on all Altec Lansing Professional loudspeakers
- Specification sheets in .pdf format. Download page 1 of the specification sheet for you submittals.
- One paragraph A&E Specifications in .doc format

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