



# 8" COAXIAL LOUDSPEAKER AVAILABLE WITH TRANSFORMER

C803A  
Series

ONE



**C803A**  
(shown with transformer)

## SPECIFICATIONS

<b>Speaker Size:</b>	LF: 8" (203mm), HF: 3" (76mm)
<b>Power Rating:</b>	16 Watts RMS
<b>Sensitivity (SPL at 1W/1M):</b>	98dB (peak), 95dB (avg)
<b>Impedance:</b>	Nominal, 8 ohms
<b>Frequency Response:</b>	70 Hz - 15.5 kHz ( $\pm 5$ dB)
<b>Crossover Frequency:</b>	2,800 Hz, First Order
<b>Dispersion:</b>	120°
<b>Mounting Dimensions:</b>	7 $\frac{5}{8}$ " (194mm) B.C.
<b>Cone Material:</b>	Treated Paper
<b>Surround Material &amp; Damping:</b>	Self Edge with Dampener
<b>Flux Density:</b>	10,600 Gauss, 1.06 Tesla
<b>Magnet Weight:</b>	Nominal, 10 oz. (260g)
<b>Basket Material:</b>	20 ga. Stamped Steel
<b>Voice Coil Diameter:</b>	1" (25mm)
<b>Voice Coil Material:</b>	Copper
<b>Voice Coil Former Material:</b>	Black Anodized Aluminum
<b>Voice Coil Winding Width:</b>	.265 (7mm)
<b>Top Plate Thickness:</b>	.239 (6mm)
<b>Weight:</b>	2.4 lbs. (1060g)
<b>Diameter &amp; Depth Less Xfmr:</b>	8 $\frac{1}{8}$ " (206mm) Dia. & 2 $\frac{7}{8}$ " (73mm) Deep

## THIELE-SMALL PARAMETERS

<b>Pe:</b> 16 Watts	<b>Qes:</b> .556	<b>Sd:</b> 33.1 in. <sup>3</sup>
<b>Fs:</b> 105 Hz	<b>Qms:</b> 6.58	<b>Le@1kHz:</b> .74 mH
<b>Xmax:</b> .05 in.	<b>BL:</b> 8.9 N/A	<b>Mms:</b> .369 oz
<b>Resistance:</b> 6.4 ohms	<b>Efficiency:</b> 2.9%	<b>Cms:</b> .039 in./lb.
<b>Qts:</b> .513	<b>Vas:</b> .507 Ft. <sup>3</sup>	

## FEATURES

- Industry Standard 8" (203mm) Coaxial, 16-Watt, Loudspeaker
- Offers Proven Performance with Wide Frequency Response
- Post-Mounted Tweeter Adds Strength and a More Attractive Appearance
- Ideal for Multi-Purpose Commercial, Industrial, and Institutional Use

## APPLICATIONS

Use Atlas Sound 8" (203mm) dia., multi-purpose, coaxial loudspeaker Model C803A for voice transmission, music and signal reproduction in high-quality commercial, industrial and institutional applications.

## GENERAL DESCRIPTION

Model C803A. High-quality, 16-watt Model C803A utilizes a post-mounted tweeter which adds strength to the assembly and provides an attractive appearance. This coaxial loudspeaker features a 70 Hz-15.5 kHz,  $\pm 5$ dB frequency response and a broad, uniform dispersion pattern of 120°. Such provisions allow for highly intelligible sound reproduction and better distribution for high-quality sound systems. The C803A combines a full-size 8" (203mm) dia. low-frequency reproducer and a 3" (76mm) high-frequency reproducer. The two sections are coupled via a built-in crossover network. The woofer has a 10 oz. (260g) ceramic magnet; the tweeter has a 2.35 oz. (67g) ceramic magnet and the unit has a peak sensitivity of 98dB (at 1 watt, 1 meter).

The loudspeaker is available with six different factory-installed line-matching transformers to meet a variety of project requirements (see chart below). Model C803A mounts a wide variety of Atlas Sound baffles and enclosures, with the optimum sealed enclosure size being .36 cu. ft.

## MODEL COMBINATIONS / TRANSFORMER SPECIFICATIONS

SPKR. / XFMR. COMBINATIONS AVAILABLE	XFMR.	PRIMARY VOLTAGE	XFMR. FREQUENCY RESPONSE	PRIMARY TAPS (WATTS)	SECONDARY IMPEDANCE	INSERTION LOSS (MAX)	CORE SIZE	POWER RATING
C803AT25	LT-25	25 V	100 Hz - 10 kHz, $\pm 1.5$ dB	.5, 1, 2 & 5	8 Ohms	1.5dB	1/2" x 5/8" (16 x 16mm)	5 Watts
C803AT47	HT-47	70.7 V	60 Hz - 12 kHz, $\pm 1.0$ dB	.5, 1, 2 & 4	8 Ohms	1.0dB	5/8" x 5/8" (16 x 16mm)	4 Watts
C803AT70	LT-70	70.7 V	100 Hz - 10 kHz, $\pm 1.5$ dB	.5, 1, 2 & 5	8 Ohms	1.5dB	1/2" x 5/8" (16 x 16mm)	5 Watts
C803AT72	LT-72	25/70 V	100 Hz - 10 kHz, $\pm 1.5$ dB	.5, 1, 2 & 4	8 Ohms	1.5dB	1/2" x 5/8" (16 x 16mm)	4 Watts
C803AT82	HT-82	25 V	50 Hz - 15 kHz, $\pm 1.0$ dB	1, 2, 4, 8	4 & 8 Ohms	0.6dB	1" x 3/4" (25 x 19 mm)	8 Watts
C803AT87	HT-87	70.7 V	50 Hz - 15 kHz, $\pm 1.0$ dB	1, 2, 4, 8	4 & 8 Ohms	0.6dB	1" x 3/4" (25 x 19mm)	8 Watts

For additional information on Atlas Sound transformer models, refer to technical literature #SL1-1369.

*Specifications subject to change without notice*

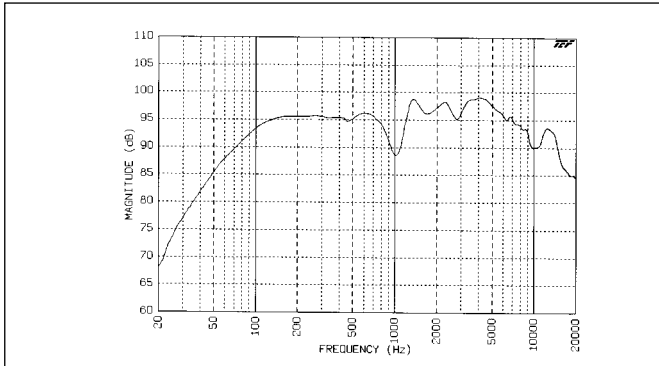


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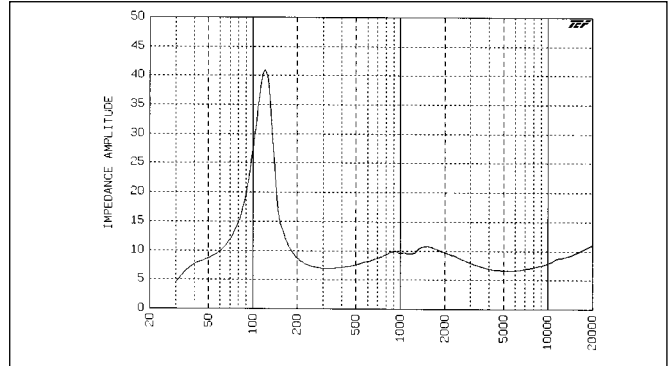
## ARCHITECT & ENGINEER SPECIFICATIONS

Unit shall be Atlas Sound 8" dia. loudspeaker Model C803A or loudspeaker/transformer combination Model \_\_\_\_\_ (utilizing Atlas Sound line-matching transformer Model \_\_\_\_\_). The low-frequency reproducer cone shall be a full 8" (203mm) in diameter and the high frequency reproducer cone shall be 3" (76mm) in diameter. The woofer shall have a 10 oz. (260g) ceramic magnet; the tweeter shall have a 2.35 oz. (67g) ceramic magnet. The two reproducer sections shall be coupled through a built-in crossover network. The crossover frequency shall be at 2800 Hz. Frequency response range shall be 70 Hz to

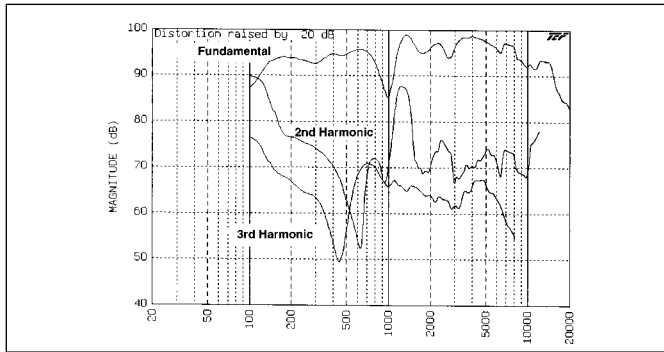
15.5 kHz,  $\pm 5$ dB. Sensitivity shall be 98dB at 1 watt, 1 meter. Voice coil impedance shall be 8 ohms. Low frequency voice coil diameter shall be 1" (25mm) and operate in a magnet field of at least 10,600 gauss. Transformer primary voltage shall be \_\_\_\_\_ (25V, 70.7V, 70/25) with a frequency response range of \_\_\_\_\_ and power taps at \_\_\_\_\_ watts. Insertion loss shall not exceed \_\_\_\_\_ dB. The maximum depth of the loudspeaker shall not exceed 2 1/4" (73mm).



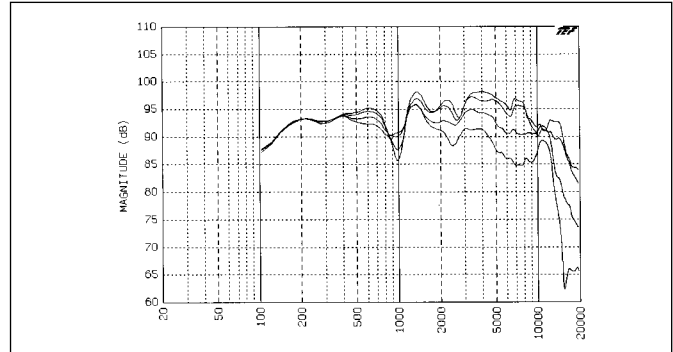
**C803A: Frequency Response**



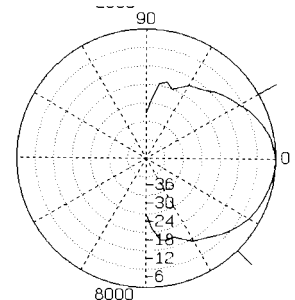
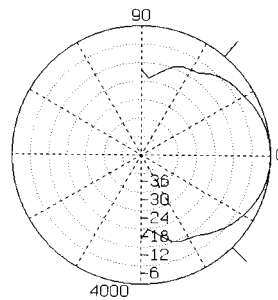
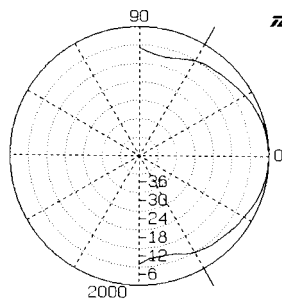
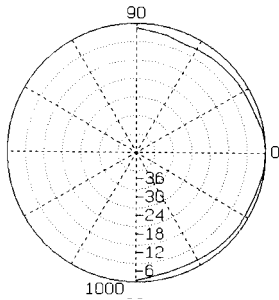
**C803A: Impedance**



**C803A: Fundamental vs 2nd & 3rd Harmonics (Raised 20dB) @ 1 watt**



**C803A Frequency Response Overlay at 0, 15, 30 & 45 degrees**



**Octave Bands Normalized to Zero On Axis**

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