

# 8" COAXIAL LOUDSPEAKER AVAILABLE WITH TRANSFORMER



C803A (shown with transformer)

#### **SPECIFICATIONS**

**Speaker Size:** LF: 8" (203mm), HF: 3" (76mm)

Power Rating: 16 Watts RMS

Sensitivity (SPL at 1W/1M): 98dB (peak), 95dB (avg) Impedance: Nominal, 8 ohms

Frequency Response: Nominal, 8 onms 70 Hz - 15.5 kHz (±5dB)

Crossover Frequency: 2,800 Hz, First Order

Dispersion: 120°

Mounting Dimensions: 7%" (194mm) B.C. Cone Material: Treated Paper

Surround Material & Damping: Self Edge with Dampener Flux Density: 10,600 Gauss, 1.06 Tesla Magnet Weight: Nominal, 10 oz. (260g) Basket Material: 20 ga. Stamped Steel

Voice Coil Diameter: 1" (25mm) Voice Coil Material: Copper

Voice Coil Former Material: Black Anodized Aluminum

Voice Coil Winding Width: .265 (7mm)
Top Plate Thickness: .239 (6mm)
Weight: 2.4 lbs. (1060g)

Diameter & Depth Less Xfmr: 81/8" (206mm) Dia. & 21/8" (73mm) Deep

### THIELE-SMALL PARAMETERS

 Pe:
 16 Watts
 Qes:
 .556
 Sd:
 33.1 ln.³

 Fs:
 105 Hz
 Qms:
 6.58
 Le@1kHz:
 .74 mH

 Xmax:
 .05 in.
 BL:
 8.9 N/A
 Mms:
 .369 oz

 Resistance:
 6.4 ohms
 Efficiency:
 2.9%
 Cms:
 .039 in./lb.

**Qts**: .513 **Vas**: .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, ±5dB 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.				PRIMARY				
COMBINATIONS	XFMR.	PRIMARY	XFMR. FREQUENCY	TAPS	SECONDARY	INSERTION	CORE	POWER
AVAILABLE		VOLTAGE	RESPONSE	(WATTS)	IMPEDANCE	LOSS (MAX)	SIZE	RATING
C803AT25	LT-25	25 V	100 Hz - 10 kHz, ±1.5dB	.5, 1, 2 & 5	8 Ohms	1.5dB	½" x %" (16 x 16mm)	5 Watts
C803AT47	HT-47	70.7 V	60 Hz - 12 kHz, ±1.0dB	.5, 1, 2 & 4	8 Ohms	1.0dB	%" x %" (16 x 16mm)	4 Watts
C803AT70	LT-70	70.7 V	100 Hz - 10 kHz, ±1.5dB	.5, 1, 2 & 5	8 Ohms	1.5dB	½" x %" (16 x 16mm)	5 Watts
C803AT72	LT-72	25/70 V	100 Hz - 10 kHz, ±1.5dB	.5, 1, 2 & 4	8 Ohms	1.5dB	½" x %" (16 x 16mm)	4 Watts
C803AT82	HT-82	25 V	50 Hz - 15 kHz, ±1.0dB	1, 2, 4, 8	4 & 8 Ohms	0.6dB	1" x ¾" (25 x 19 mm)	8 Watts
C803AT87	HT-87	70.7 V	50 Hz - 15 kHz, ±1.0dB	1, 2, 4, 8	4 & 8 Ohms	0.6dB	1" x ¾" (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

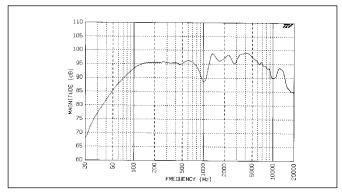


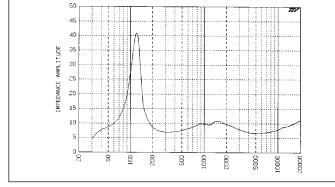
1601 JACK MCKAY BLVD. / ENNIS, TEXAS 75119 U.S.A. / TELEPHONE: (800) 876-3333 / FAX (800) 765-3435

#### **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

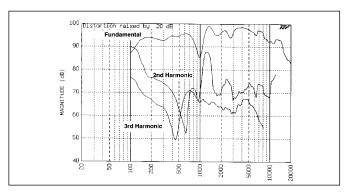
15.5 kHz, ±5dB. Sensitivity shall be 98dB at 1 watt, 1 meter. Voice coil impedance shall be 8 ohms. Low frequency voice coil diameter shall be 1" (25mm) and operate in a magnet field of at least 10,600 gauss. Transformer primary voltage shall be \_\_\_\_\_\_ (25V, 70.7V, 70/25) with a frequency response range of \_\_\_\_\_\_ and power taps at \_\_\_\_\_ watts. Insertion loss shall not exceed \_\_\_\_\_dB. The maximum depth of the loudspeaker shall not exceed 2½" (73mm).

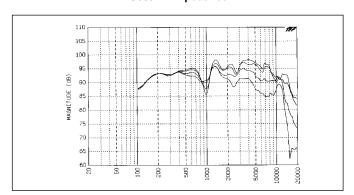




C803A: Frequency Response

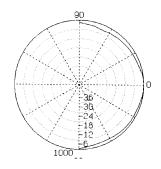
C803A: Impedance

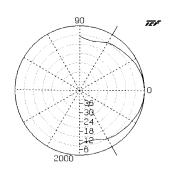


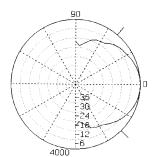


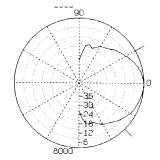
C803A: Fundamental vs 2nd & 3rd Harmonics (Raised 20dB) @ 1 watt

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









Octave Bands Normalized to Zero On Axis

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