



## AMERICAN STANDARD SERIES

# BETA-12CX

Recommended for professional audio as a mid-bass in either vented, or sealed satellite or floor monitor enclosures. Also works nicely in vented two-way enclosures used for small coverage areas.



The data for this coaxial woofer was calculated with the ASD:1001 driver screwed into the woofer, but not active.

### SPECIFICATION

Nominal Basket Diameter	12.0", 305 mm
Nominal Impedance*	8 $\Omega$
Power Rating**	
Watts	250 W
Music Program	500 W
Resonance	47 Hz
Usable Frequency Range	57 Hz – 4.6 kHz
Sensitivity***	97.3 dB
Magnet Weight	38 oz.
Gap Height	.312", 7.9 mm
Voice Coil Diameter	2.0", 51 mm

### THIELE & SMALL PARAMETERS\*

Fs	47 Hz
Re	5.42 $\Omega$
Le	0.64 mH
Qms	5.64
Qes	0.52
Qts	0.48
Vas	4.27 cu.ft., 120.94 liters
Vd	188.6 cc
Cms	0.30 mm/N
BL	10.79 T-M
Mms	38 grams
EBP	90
Xmax	3.50 mm
Sd	538.9 cm <sup>2</sup>
Xlim	10.4 mm

### MOUNTING INFORMATION

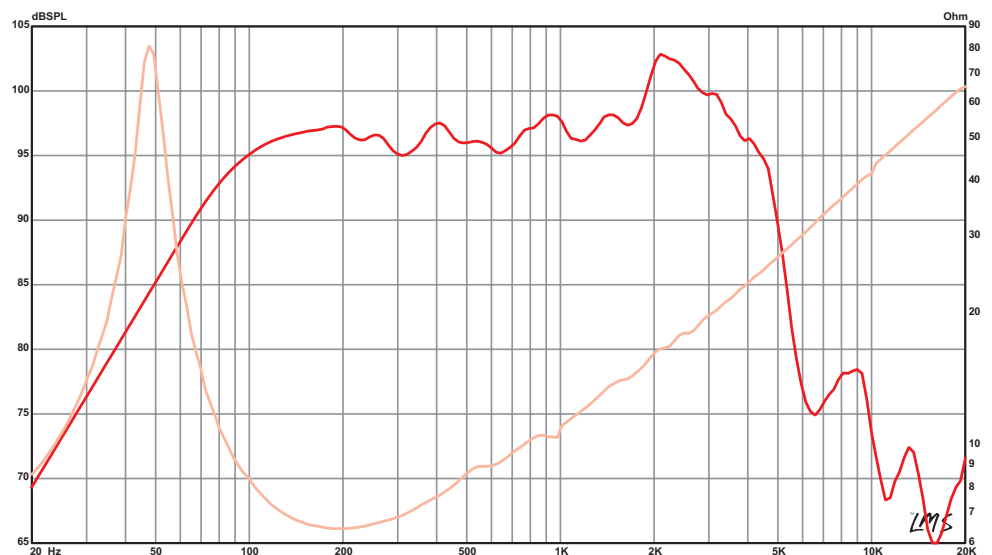
Recommended Enclosure Volume	
Sealed	26.90–70.79 liters, 0.95–2.50 cu.ft.
Vented	32.85–158.58 liters, 1.16–5.60 cu.ft.
Driver Volume Displaced	0.071 cu.ft., 2.00 liters
Overall Diameter	12.03", 305.6 mm
Baffle Hole Diameter	11.07", 281.2 mm
Front Sealing Gasket	Yes
Rear Sealing Gasket	Yes
Mounting Holes Diameter	0.25", 6.4 mm
Mounting Holes B.C.D.	11.59", 294.4 mm
Depth	4.47", 113.5 mm
Net Weight	7.80 lbs, 3.54 kg
Shipping Weight	10.00 lbs, 4.54 kg

### MATERIALS OF CONSTRUCTION

Copper voice coil  
Kapton former  
Ferrite magnet  
Tapered Coax  
Pressed steel basket  
Paper cone  
Cloth cone edge  
Screened cloth dust cap



### FREQUENCY RESPONSE & IMPEDANCE CURVE\*



LEARN MORE AT [EMINENCE.COM](http://EMINENCE.COM)



*From design and manufacturing to the stage or studio. Once you've experienced the performance of Eminence, you'll never accept anything else.*

## MISSION STATEMENT

*Eminence is dedicated to providing the best Quality, Value and Service to meet our customers' needs.*

## FOOTNOTES

- \* Please consult [www.eminence.com](http://www.eminence.com) for specifications of models with alternative impedances.
- \*\* Multiple units exceed published ratings evaluated under EIA 426A specification while tested in a free-air, non-temperature-controlled environment.
- \*\*\* The average output across the usable frequency range when applying 1W/1m into the nominal impedance. i.e: 2.83V/8Ω, 4V/16Ω. Eminence response curves are measured under the following conditions: All speakers are tested at 1W/1m using a variety of test set-ups for the appropriate impedance | LMS using 0.25" supplied microphone (software calibrated) mounted 1m from wall/baffle | 2 ft. x 2 ft. baffle is built into the wall with the speaker mounted flush against a steel ring for minimum diffraction | Carver PM-120 amplifier | 2700 cu. ft. chamber with fiberglass on all six surfaces (three with custom-made wedges).
- \*\*\*\* BETA 8CX, 10CX, and 12CX are coaxial speakers with tweeter sold separately. Published usable frequency response contingent upon use of ASD:1001 HF Driver.
- \*\*\*\*\* Multiple units exceeded published ratings evaluated under EIA-426A or AES specification while mounted on Eminence's H290, H290S, or H2EA horn in a non-temperature-controlled environment.
- \*\*\*\*\*The average on axis output across the entire usable frequency range when applying 1W/1m into the nominal impedance, i.e. 2.83V/8Ω, 4V/16Ω. Eminence response curves are measured under the following conditions: All speakers are tested at 1W/1m using a variety of test set-ups for the appropriate impedance | LMS using 0.25" supplied microphone (software calibrated) mounted 1m from wall/baffle | 2ft x 2ft baffle is built into the wall with horn front mounted | Carver PM-120 amplifier | 2700 cu.ft. chamber with fiberglass on all six surfaces (three with custom-made wedges).

Prices, specifications and product cosmetics are subject to change without notice.

**EMINENCE SPEAKER LLC**

838 Mulberry Pike, Eminence, KY 40019



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# Beta12CX Small High Pwr Mid/High or Floor Monitor.

By McJerry, Eminence Speaker LLC

Displacement and thermally limited to 250 Watts. Use a 24 dB per octave high pass filter set to 150 Hz or higher. Will need some EQ to flatten out. High SPL, compact Floor Monitor.

## Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 1.25 cu.ft

V(total) = 1.332 cu.ft

Fb = 100 Hz

QL = 7

F3 = 88.32 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 3.919 in

Lv = 0.75 in

## Driver Properties

--Description--

Name: Beta-12CX - LF

Type: Two-way coaxial driver

Company: Eminence Speaker LLC

Comment: Revised Nov 2005

Piston: Paper cone.

Suspension: Cloth surround.

Dust Cap: Solid paper dust cap.

Frame: Pressed steel basket.

Voice Coil: 2 inch (50.8 mm) coated copper.

Magnet: 38 oz ferrite magnet.

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 43 Hz

Qms = 6.69

Vas = 161 liters

Xmax = 3.5 mm

Sd = 532.4 sq.cm

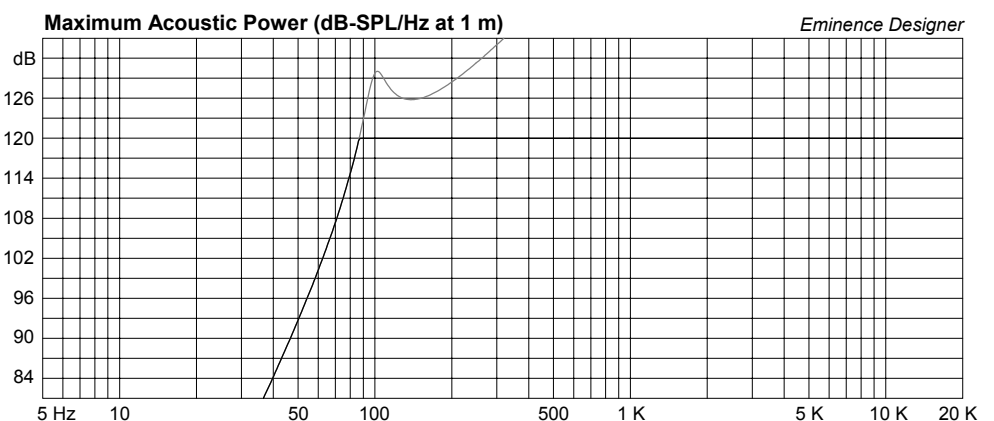
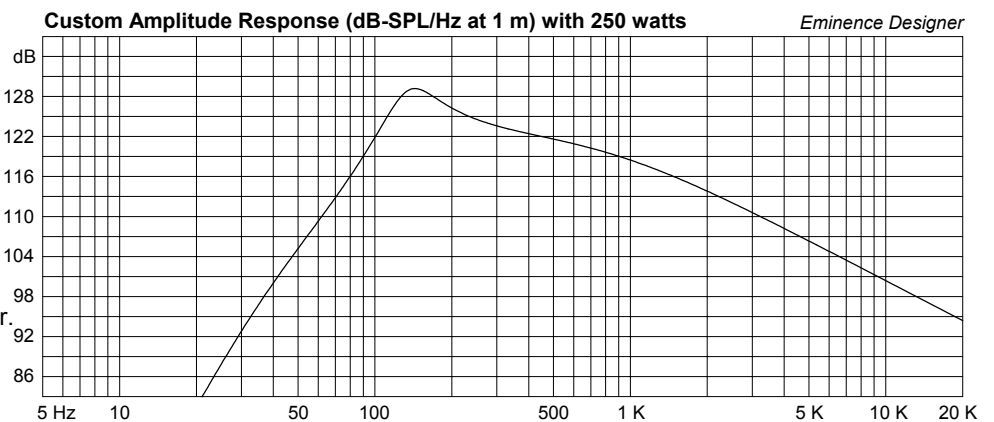
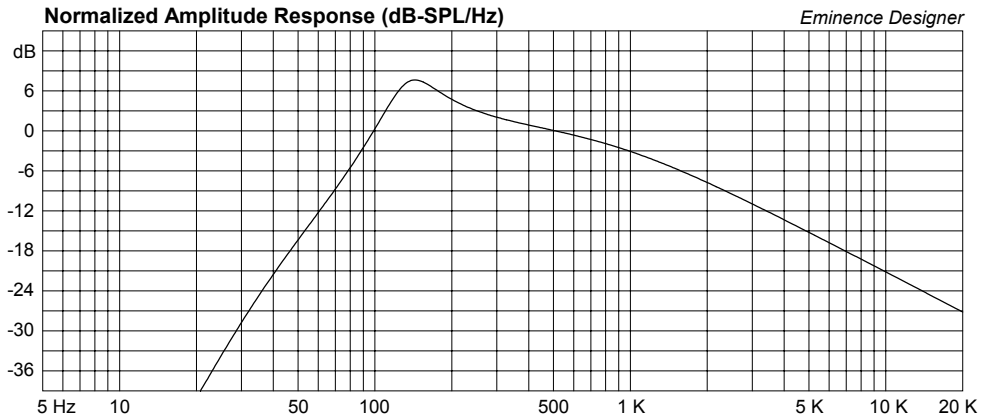
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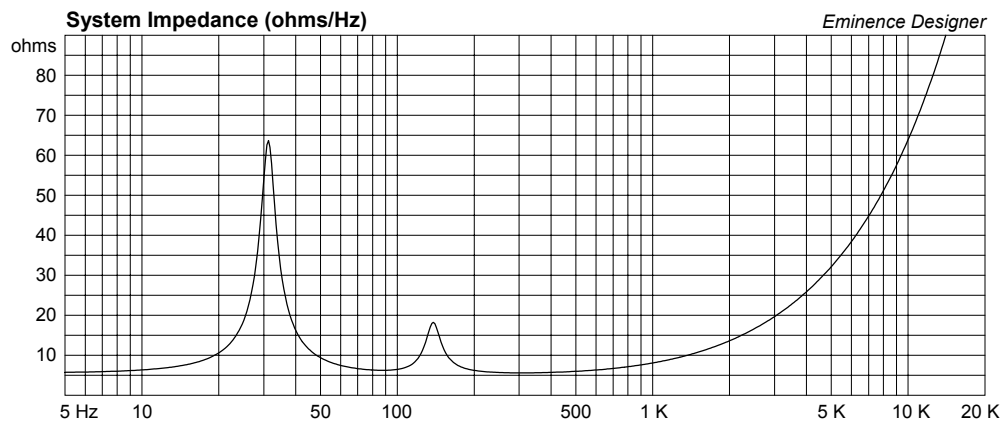
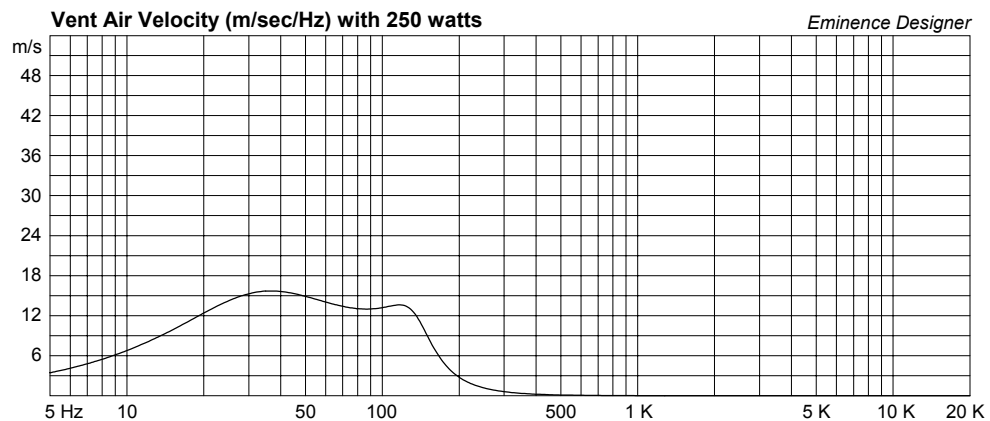
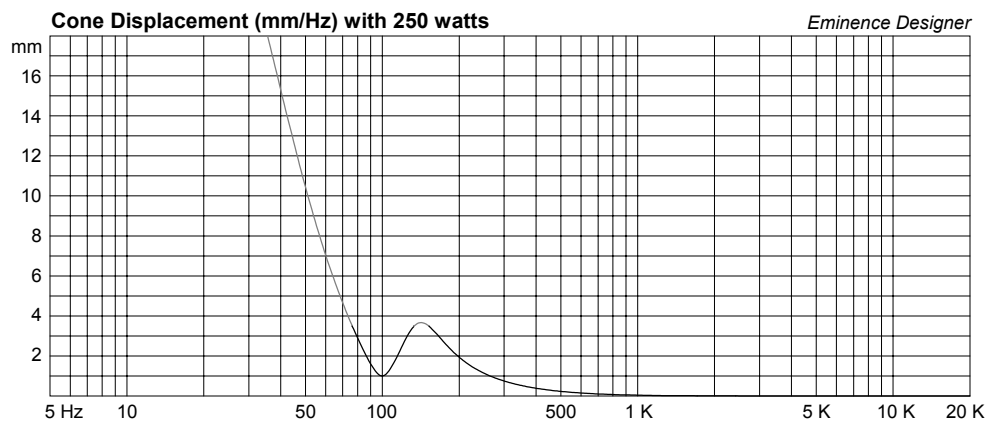
Re = 5.57 ohms

Le = 1.01 mH

Z = 8 ohms

Pe = 250 watts





# Beta12CX Large Home HiFi Enclosure, For Wall or Corner Placement

By McJerry, Eminence Speaker LLC

For Low Power Use. Displacement limited to 40 Watts.

Corner load for deep bass. Great for use with small tube amps.

## Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 3.5 cu.ft

V(total) = 3.66 cu.ft

Fb = 44.37 Hz

QL = 7

F3 = 50.49 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 4 in

Lv = 5.466 in

## Driver Properties

--Description--

Name: Beta-12CX - LF

Type: Two-way coaxial driver

Company: Eminence Speaker LLC

Comment: Revised Nov 2005

Piston: Paper cone.

Suspension: Cloth surround.

Dust Cap: Solid composition paper dust cap.

Frame: Pressed steel basket.

Voice Coil: 2 inch (50.8 mm) coated copper.

Magnet: 38 oz ferrite magnet.

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 43 Hz

Qms = 6.69

Vas = 161 liters

Xmax = 3.5 mm

Sd = 532.4 sq.cm

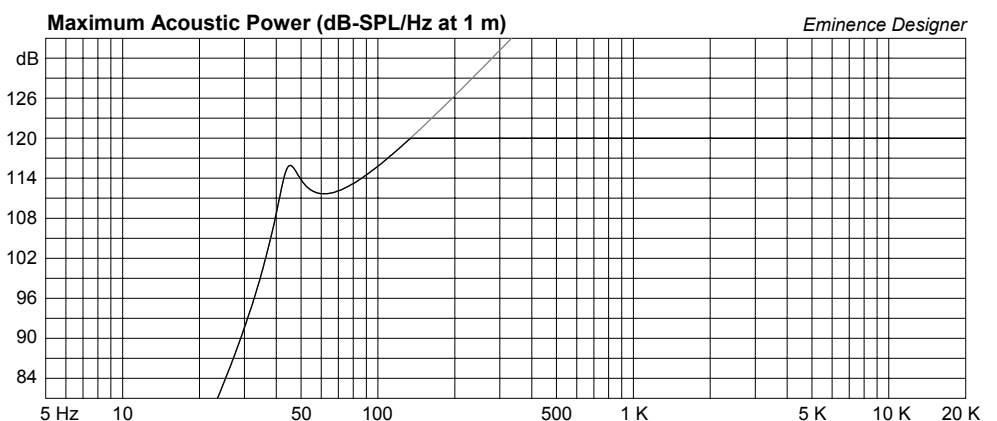
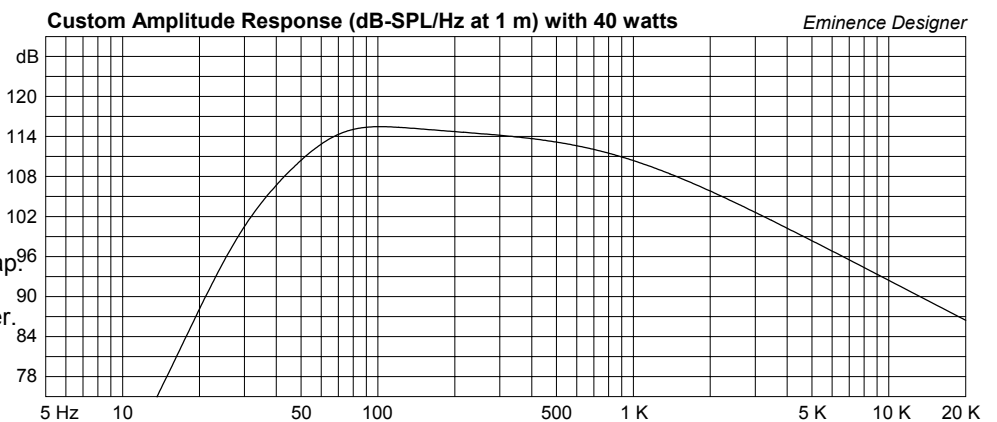
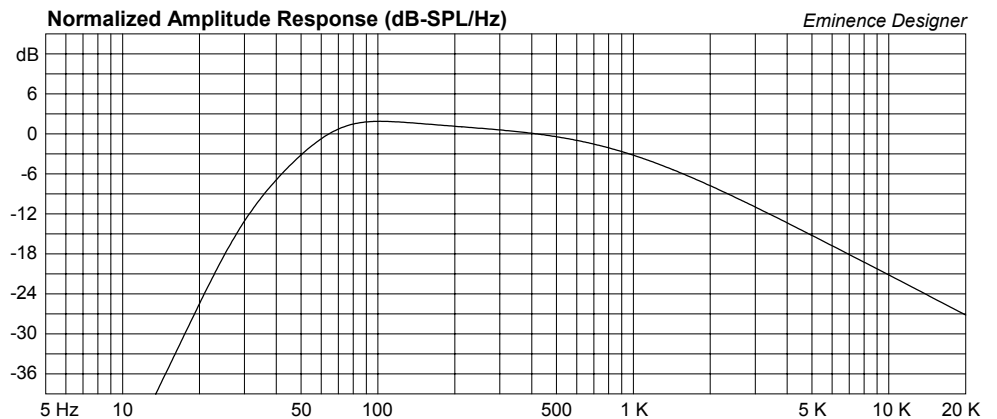
Qes = 0.51

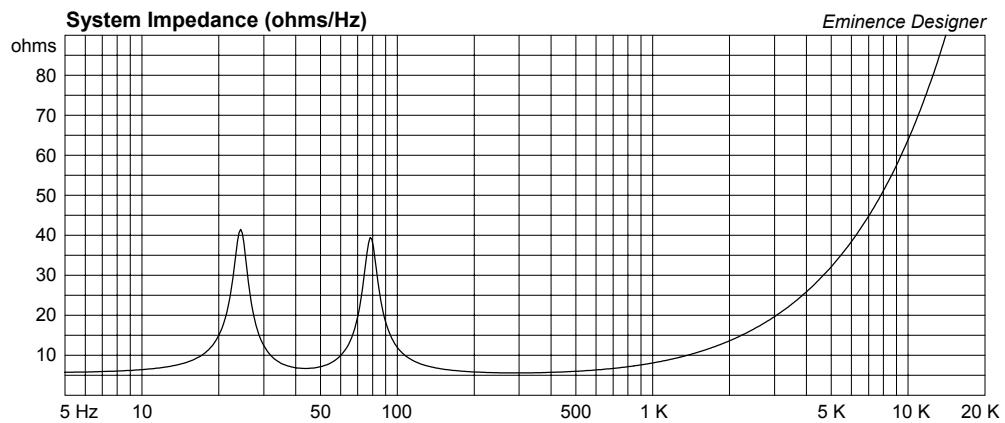
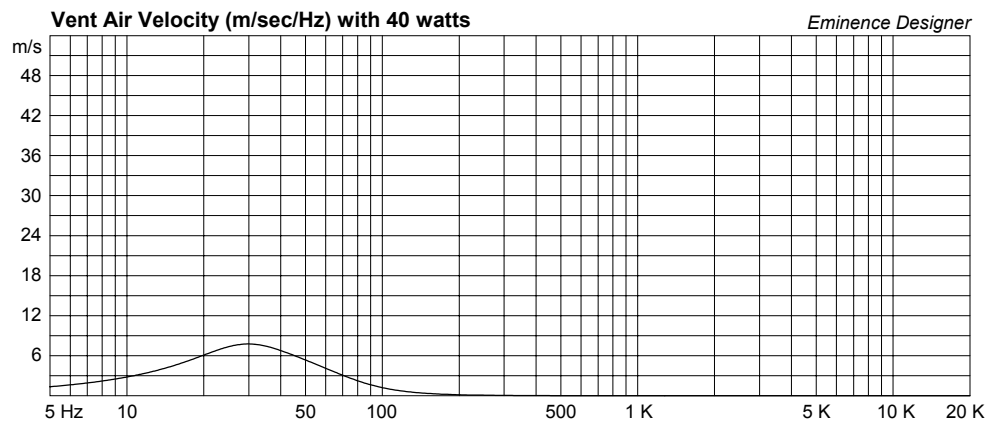
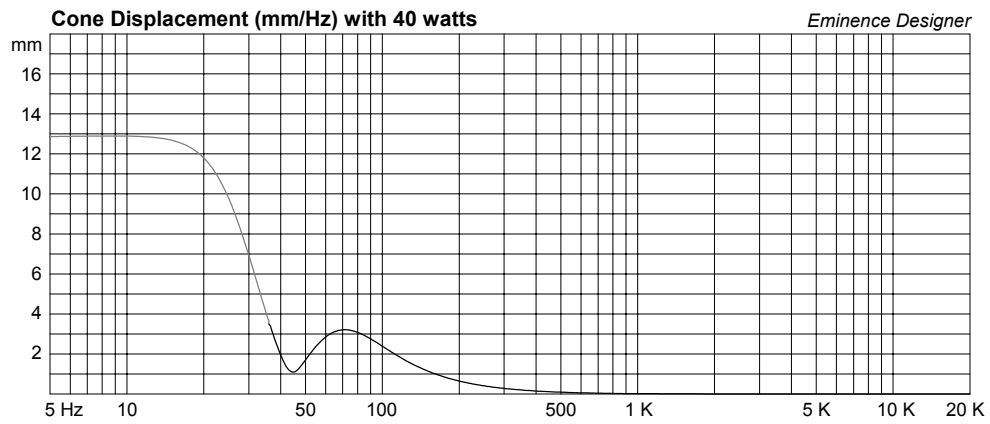
Re = 5.57 ohms

Le = 1.01 mH

Z = 8 ohms

Pe = 250 watts





# Beta12CX Med Vented Cabinet

By McJerry, Eminence Speaker LLC

Displacement limited to 100 watts. Use a 24 dB per octave high pass filter set to 85 Hz or higher.

Will need some EQ to flatten peak. Will need a sub if you use it as a mid/high box.

## Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 1.9 cu.ft

V(total) = 2.032 cu.ft

Fb = 66 Hz

QL = 7

F3 = 66.51 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 4 in

Lv = 3.755 in

## Driver Properties

--Description--

Name: Beta-12CX - LF

Type: Two-way coaxial driver

Company: Eminence Speaker LLC

Comment: Revised NOV 2005

Piston: Paper cone.

Suspension: Cloth surround.

Dust Cap: Solid paper dust cap.

Frame: Pressed steel basket.

Voice Coil: 2 inch (50.8 mm) coated copper.

Magnet: 38 oz ferrite magnet.

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 43 Hz

Qms = 6.69

Vas = 161 liters

Xmax = 3.5 mm

Sd = 532.4 sq.cm

Qes = 0.51

Re = 5.57 ohms

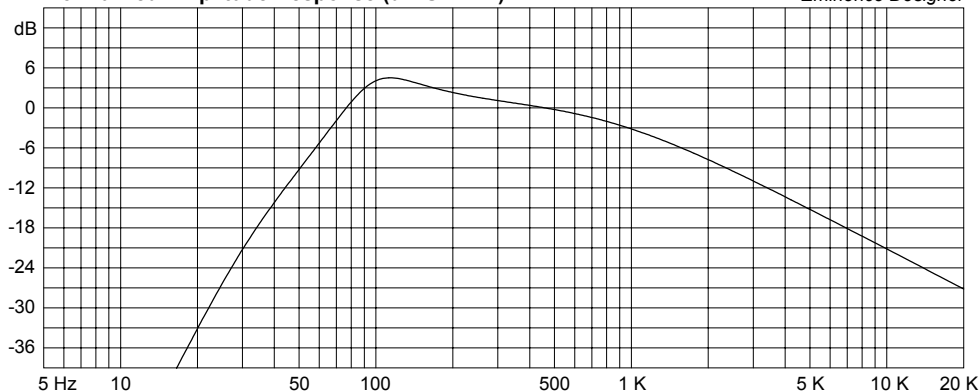
Le = 1.01 mH

Z = 8 ohms

Pe = 250 watts

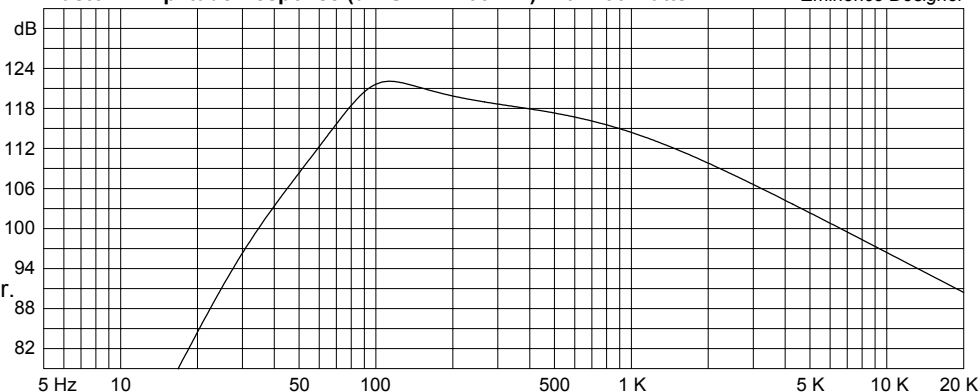
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



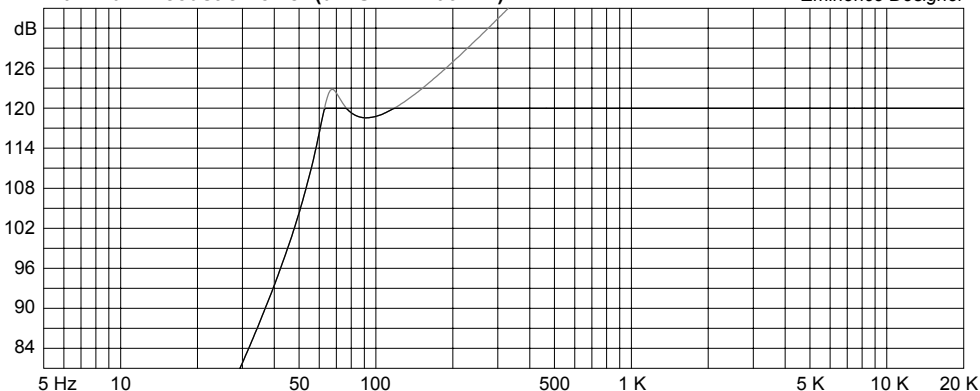
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 100 watts

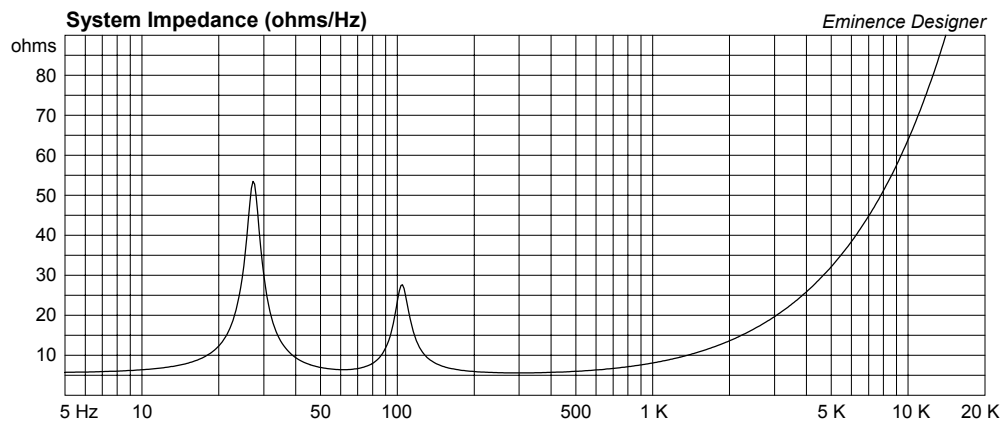
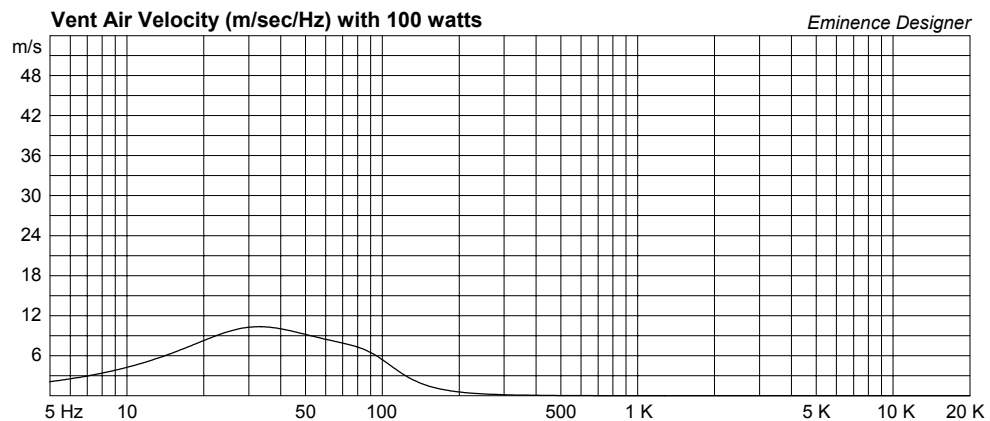
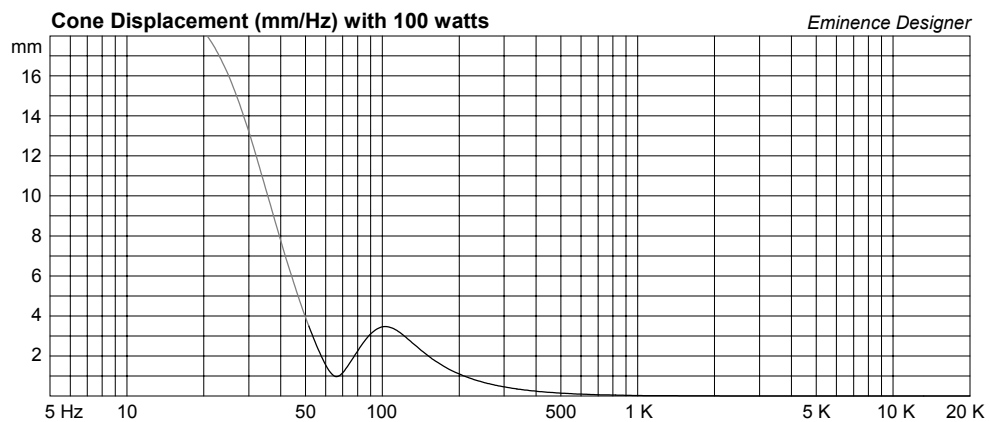
Eminence Designer



Maximum Acoustic Power (dB-SPL/Hz at 1 m)

Eminence Designer







# Beta12CX Small Sealed Enclosure

By McJerry, Eminence Speaker LLC

Displacement limited to 125 Watts. Use a 24 dB per octave high pass filter set to 100 Hz or higher.

Great floor monitor. Can be used as a mid/high box if you use a sub.

## Box Properties

--Description--

Name:

Type: Closed Box

Shape: Prism, square

--Box Parameters--

Vb = 1 cu.ft

V(total) = 1.071 cu.ft

Qtc = 0.893

QL = 20

F3 = 87.58 Hz

Fill = heavy

## Driver Properties

--Description--

Name: Beta-12CX - LF

Type: Two-way coaxial driver

Company: Eminence Speaker LLC

Comment: Revised NOV 2005

Piston: Paper cone.

Suspension: Cloth surround.

Dust Cap: Solid paper dust cap.

Frame: Pressed steel basket.

Voice Coil: 2 inch (50.8 mm) coated copper.

Magnet: 38 oz ferrite magnet.

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 43 Hz

Qms = 6.69

Vas = 161 liters

Xmax = 3.5 mm

Sd = 532.4 sq.cm

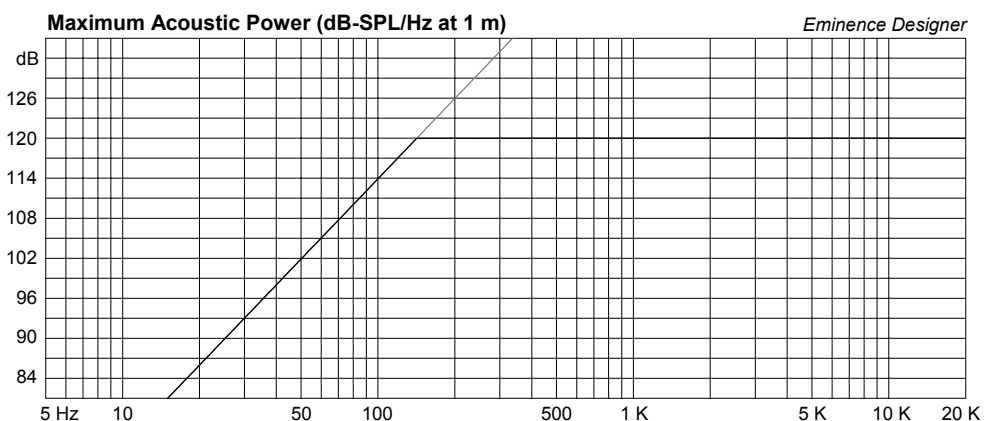
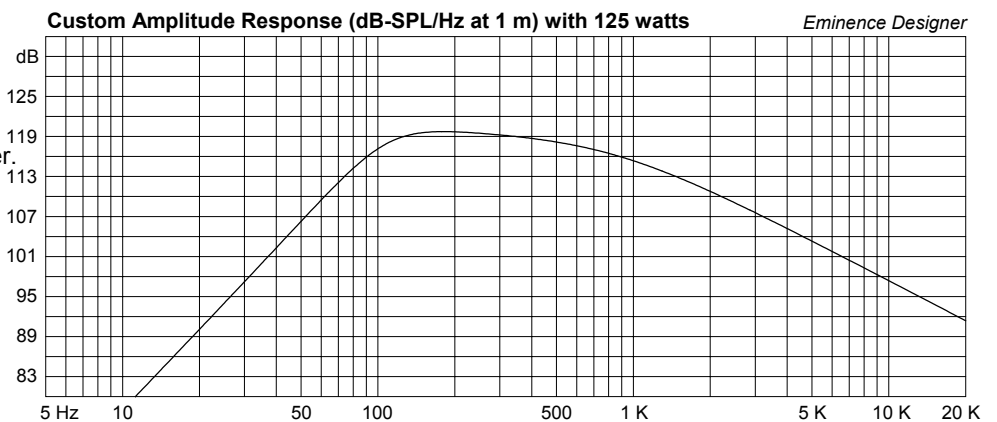
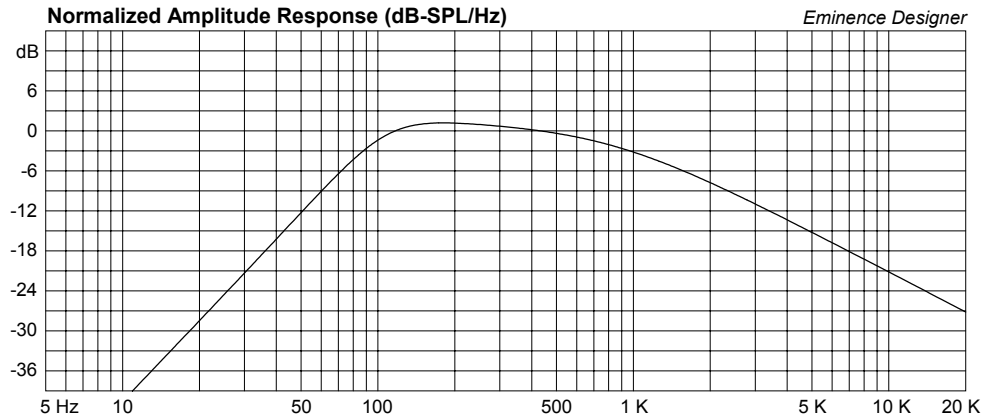
Qes = 0.51

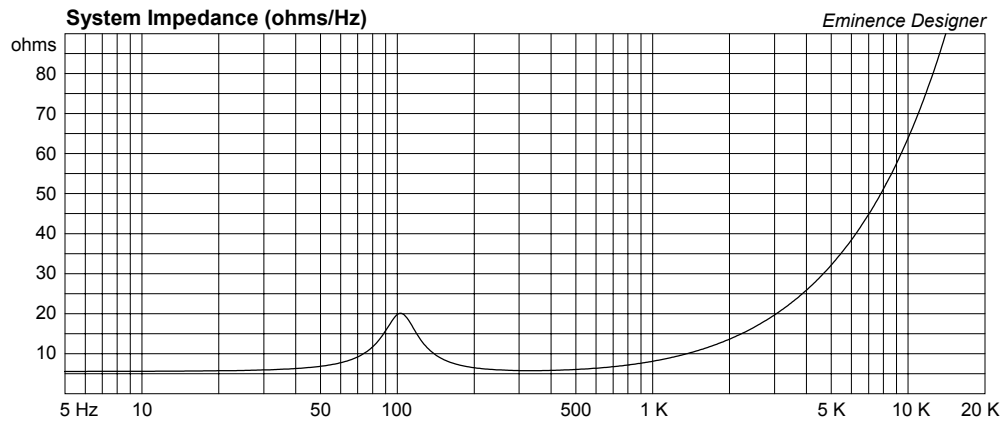
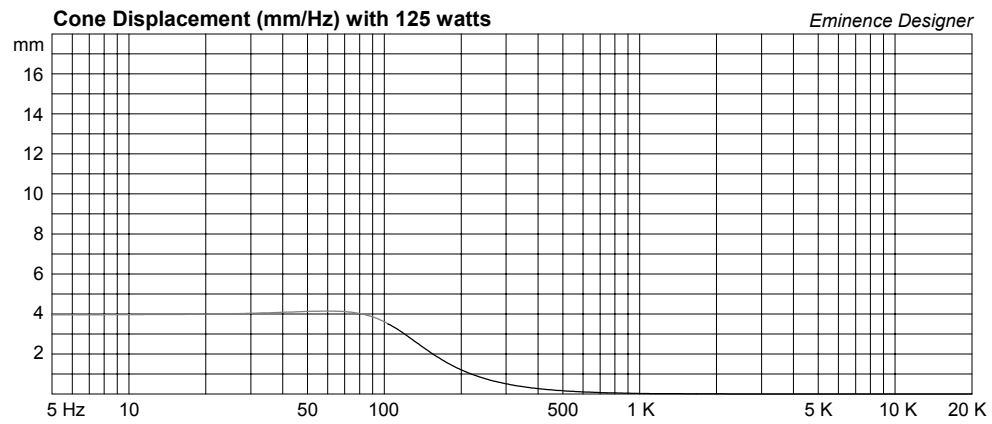
Re = 5.57 ohms

Le = 1.01 mH

Z = 8 ohms

Pe = 250 watts





# Beta12CX Med Vented Cabinet

By McJerry, Eminence Speaker LLC

Displacement limited to 100 watts. Use a 24 dB per octave high pass filter set to 85 Hz or higher.

Will need some EQ to flatten peak.

## Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 1.9 cu.ft

V(total) = 2.032 cu.ft

Fb = 66 Hz

QL = 7

F3 = 66.51 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 4 in

Lv = 3.755 in

## Driver Properties

--Description--

Name: Beta-12CX - LF

Type: Two-way coaxial driver

Company: Eminence Speaker LLC

Comment: Revised NOV 2005

Piston: Paper cone.

Suspension: Cloth surround.

Dust Cap: Solid paper dust cap.

Frame: Pressed steel basket.

Voice Coil: 2 inch (50.8 mm) coated copper.

Magnet: 38 oz ferrite magnet.

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 43 Hz

Qms = 6.69

Vas = 161 liters

Xmax = 3.5 mm

Sd = 532.4 sq.cm

Qes = 0.51

Re = 5.57 ohms

Le = 1.01 mH

Z = 8 ohms

Pe = 250 watts

