EMINENCE®

AMERICAN STANDARD SERIES

ALPHA-12A

Recommended for professional audio mid-bass applications in a small sealed or medium vented enclosure.

SPECIFICATION

Nominal Basket Diameter	12.0", 305 mm
Nominal Impedance*	8 Ω
Power Rating**	
Watts	150 W
Music Program	300 W
Resonance	49 Hz
Usable Frequency Range	51 Hz – 4.3 kHz
Sensitivity***	95.6 dB
Magnet Weight	20 oz.
Gap Height	.250", 6.4 mm
Voice Coil Diameter	1.5", 38 mm

THIELE & SMALL PARAMETERS*

Fs	49 Hz
Re	6.30 Ω
Le	0.79 mH
Qms	6.53
Qes	0.88
Qts	0.77
Vas	4.29 cu.ft., 121.50 liters
Vd	125.0 cc
Cms	0.32 mm/N
BL	8.50 T-M
Mms	33 grams
EBP	56
Xmax	2.40 mm
Sd	519.5 cm2
Xlim	6.6 mm

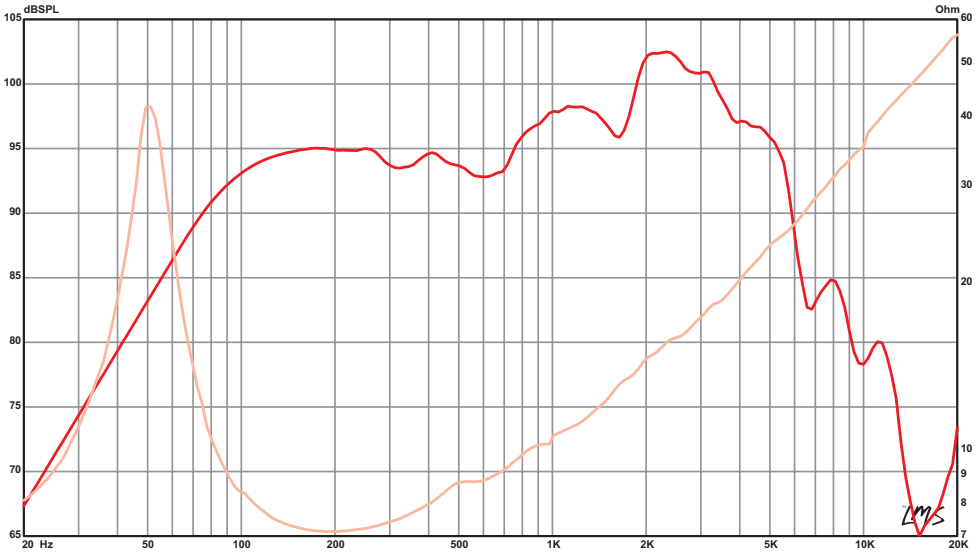
MOUNTING INFORMATION

Recommended Enclosure Volume	
Sealed	17.00–22.70 liters, 0.60–0.80 cu.ft.
Vented	56.60–113.30 liters, 2.00–4.00 cu.ft.
Driver Volume Displaced	0.063 cu.ft., 1.78 liters
Overall Diameter	12.26", 311.4 mm
Baffle Hole Diameter	11.06", 280.9 mm
Front Sealing Gasket	Yes
Rear Sealing Gasket	Yes
Mounting Holes Diameter	0.25", 6.4 mm
Mounting Holes B.C.D.	11.71", 297.4 mm
Depth	4.73", 120.1 mm
Net Weight	5.30 lbs , 2.40 kg
Shipping Weight	7.40 lbs , 3.36 kg

MATERIALS OF CONSTRUCTION

- Copper voice coil
- Polyimide former
- Ferrite magnet
- Vented and extended core
- Pressed steel basket
- Paper cone
- Cloth cone edge
- Solid composition felt dust cap

FREQUENCY RESPONSE & IMPEDANCE CURVE*



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EMINENCE®

The Art and Science of Sound

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 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

DESIGNED AND ASSEMBLED IN THE USA

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Alpha12A Large Vented FR or Bass Guitar Cab

By Jerry McNutt, Eminence Speaker LLC
50 Watts Displacement Limit; F3 of 51 Hz.

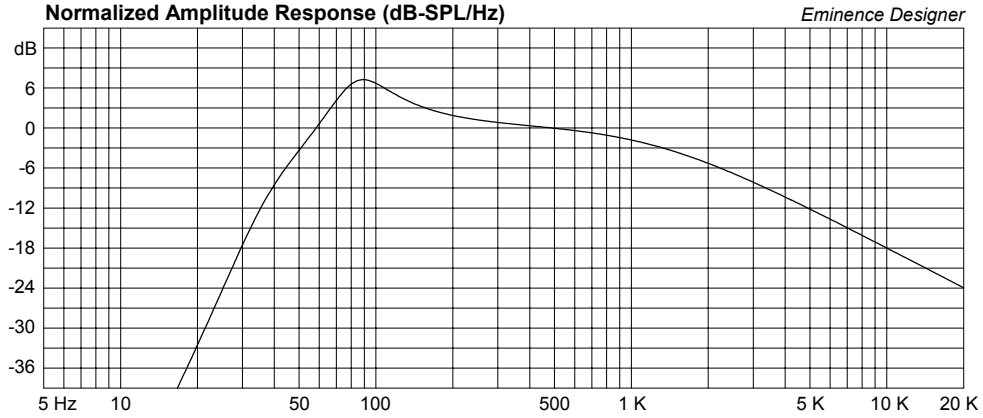
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square (optimum)
--Box Parameters--
Vb = 3.8 cu.ft
V(total) = 3.883 cu.ft
Fb = 62.88 Hz
QL = 7
F3 = 50.77 Hz
Fill = minimal
--Vents--
No. of Vents = 1
Vent shape = round
Vent ends = one flush
Dv = 7.508 in
Lv = 0.75 in

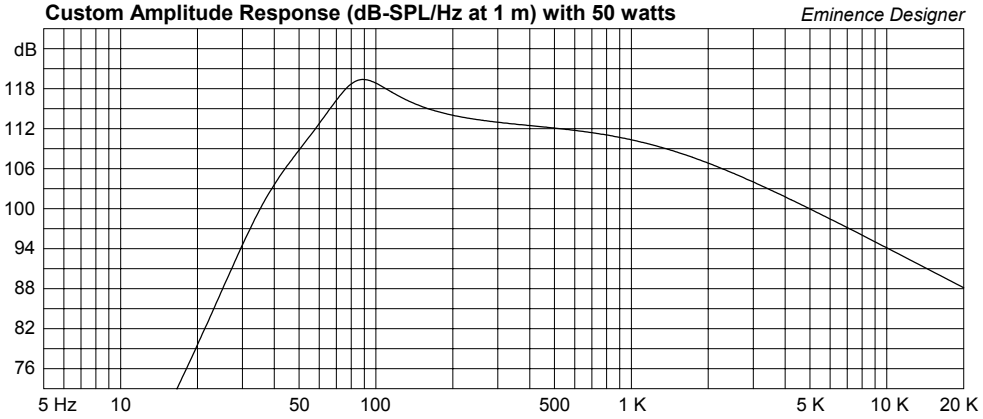
Driver Properties

--Description--
Name: Alpha-12
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: Revised OCT 2005
Piston: Paper cone.
Suspension: Cloth surround.
Dust Cap: Solid paper dust cap.
Frame: Pressed steel basket.
Voice Coil: 1.5 inch (38.1 mm) copper.
Magnet: 20 oz ferrite magnet.
--Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 49 Hz
Qms = 6.53
Vas = 121.5 liters
Xmax = 2.4 mm
Sd = 519.5 sq.cm
Qes = 0.88
Re = 6.3 ohms
Le = 0.79 mH
Z = 8 ohms
Pe = 150 watts

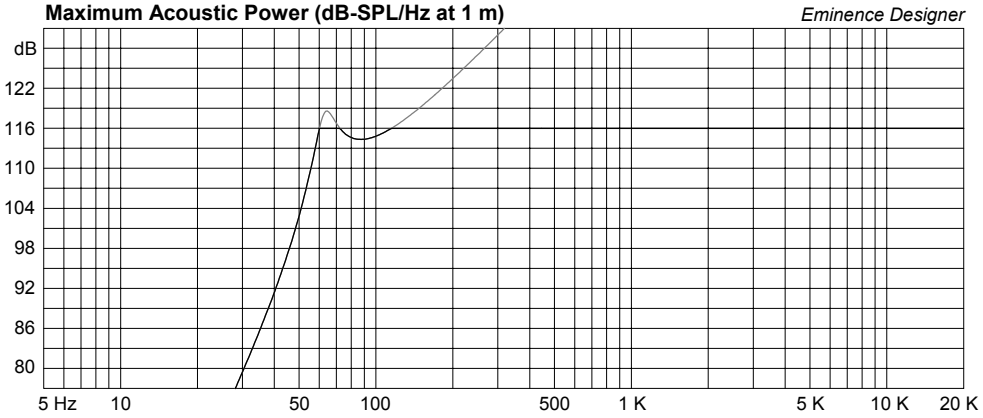
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



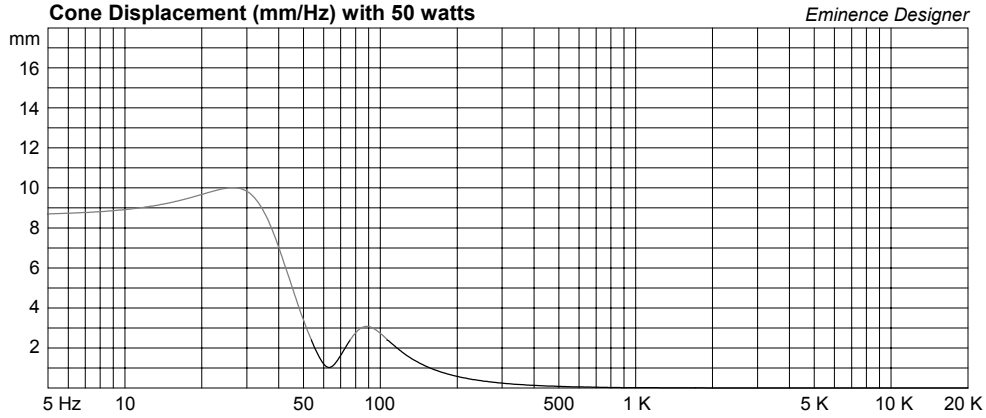
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 50 watts *Eminence Designer*



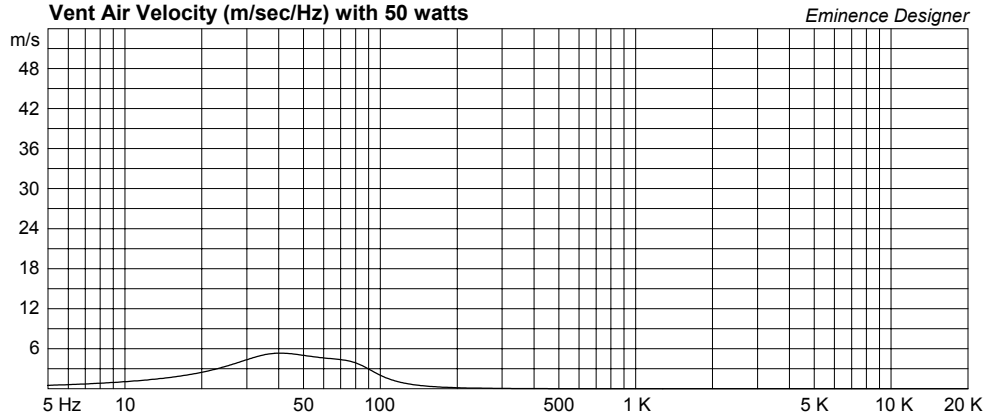
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



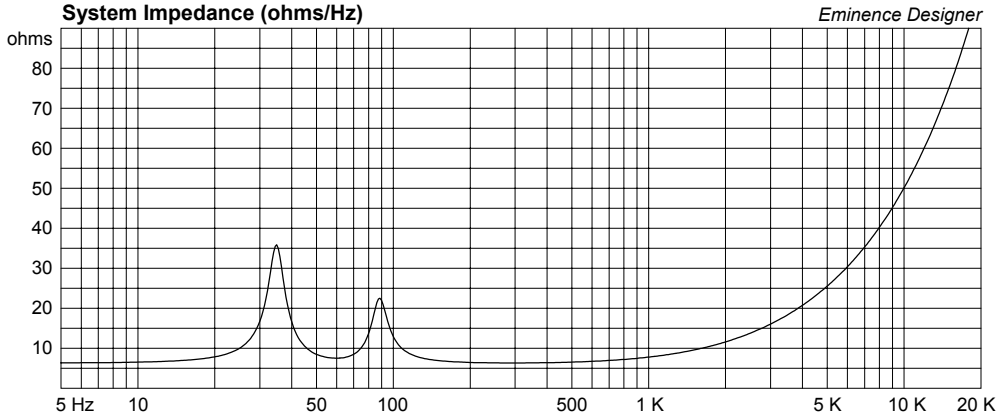
Cone Displacement (mm/Hz) with 50 watts



Vent Air Velocity (m/sec/Hz) with 50 watts



System Impedance (ohms/Hz)



Alpha12A Med Vented, High Pwr Sat or Low Pwr FR Use

By Jerry McNutt, Eminence Speaker LLC
High Power Sat: 150 Watt Thermal Limit, use steep High Pass Filter 150 Hz or above.
Low Power Full Range use: 60 Watts Displacement Limit.

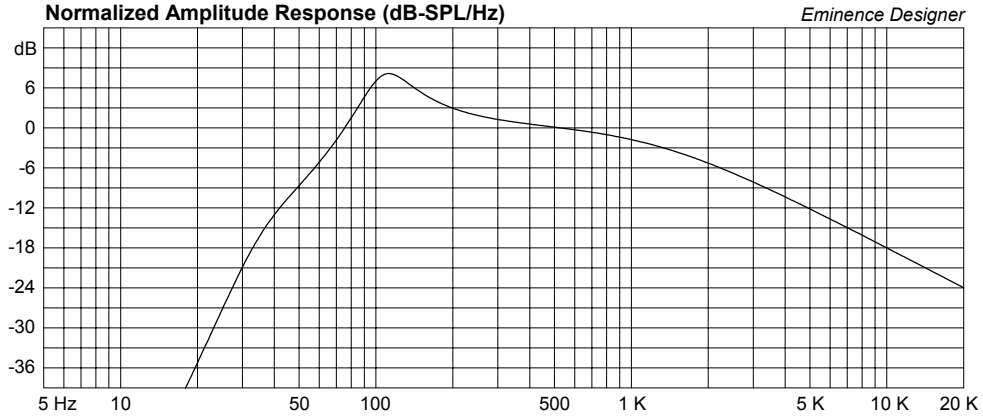
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square (optimum)
--Box Parameters--
Vb = 2 cu.ft
V(total) = 2.075 cu.ft
Fb = 75 Hz
QL = 7
F3 = 66.36 Hz
Fill = minimal
--Vents--
No. of Vents = 1
Vent shape = round
Vent ends = one flush
Dv = 5.774 in
Lv = 0.75 in

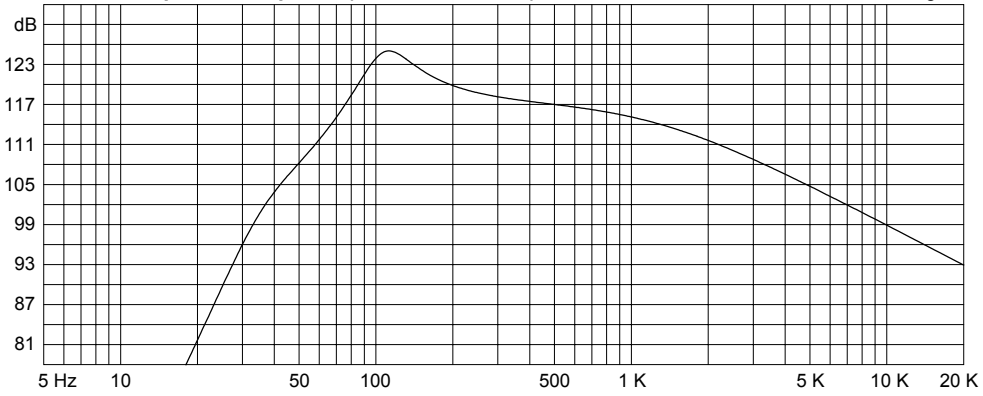
Driver Properties

--Description--
Name: Alpha-12
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: Revised OCT 2005
Piston: Paper cone.
Suspension: Cloth surround.
Dust Cap: Solid paper dust cap.
Frame: Pressed steel basket.
Voice Coil: 1.5 inch (38.1 mm) copper.
Magnet: 20 oz ferrite magnet.
--Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 49 Hz
Qms = 6.53
Vas = 121.5 liters
Xmax = 2.4 mm
Sd = 519.5 sq.cm
Qes = 0.88
Re = 6.3 ohms
Le = 0.79 mH
Z = 8 ohms
Pe = 150 watts

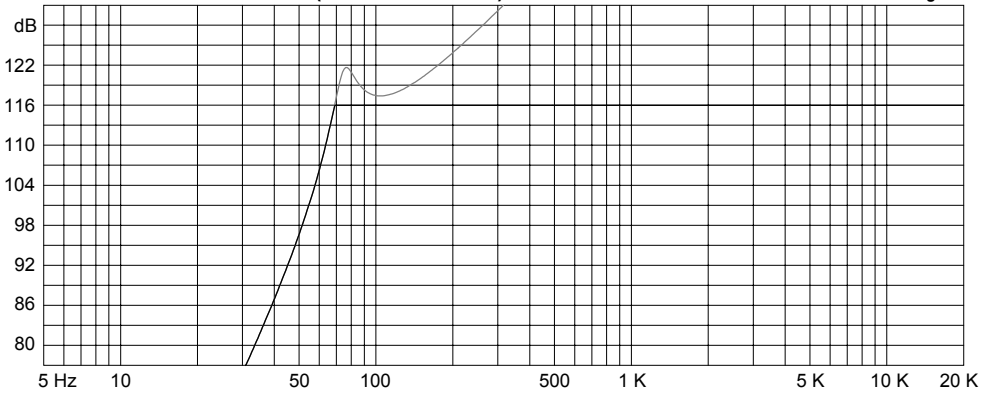
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 150 watts *Eminence Designer*

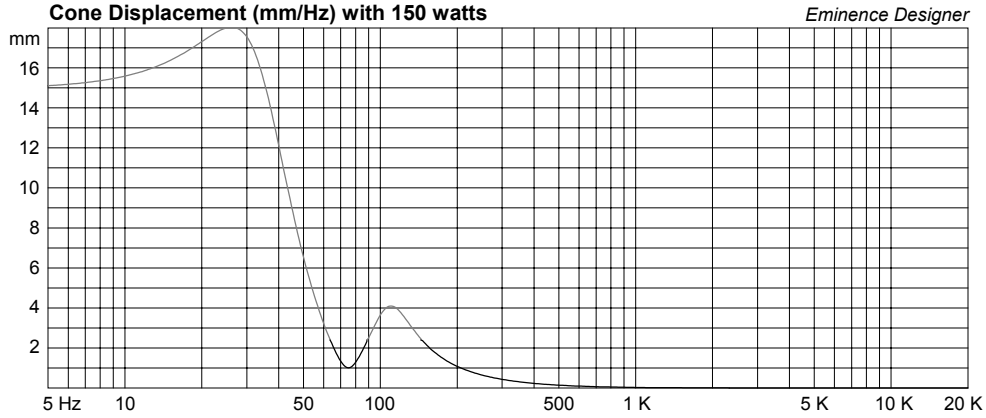


Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



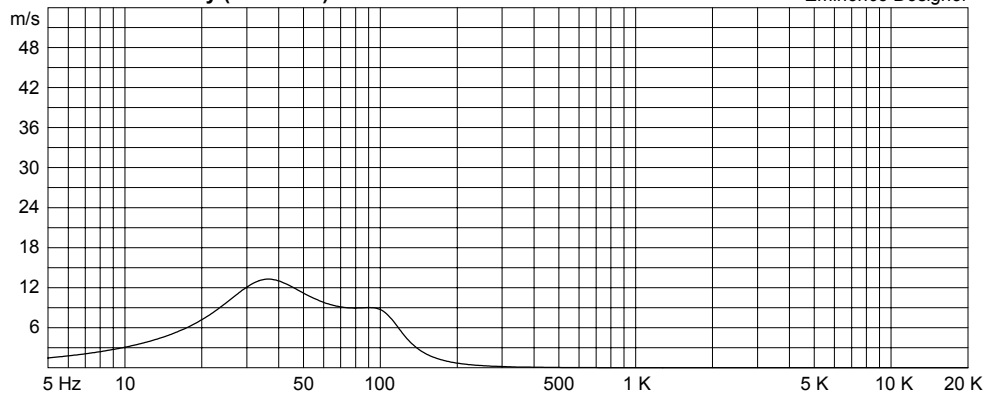
Cone Displacement (mm/Hz) with 150 watts

Eminence Designer



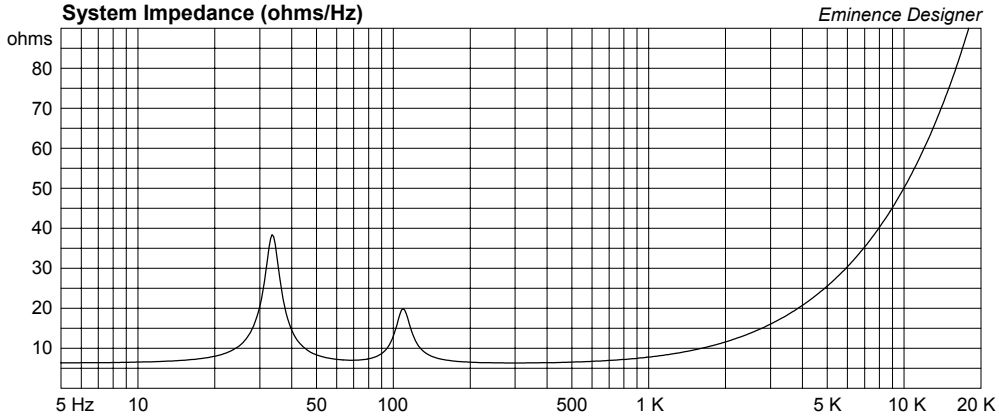
Vent Air Velocity (m/sec/Hz) with 150 watts

Eminence Designer



System Impedance (ohms/Hz)

Eminence Designer



Alpha12A Small Sealed Mid/High or Floor Monitor

By Jerry McNutt, Eminence Speaker LLC
150 Watt Thermal Limit; Use with a steep High Pass Filter set to 150 Hz or higher.

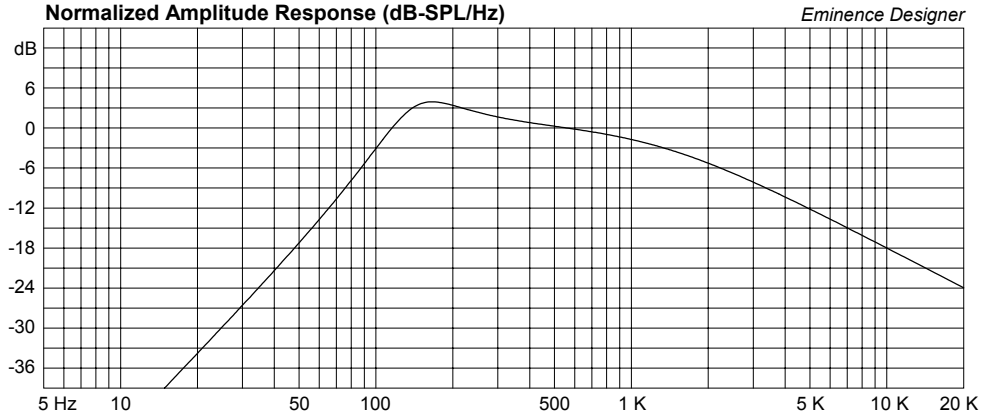
Box Properties

--Description--
Name:
Type: Closed Box
Shape: Prism, square
--Box Parameters--
Vb = 0.496 cu.ft
V(total) = 0.559 cu.ft
Qtc = 1.422
QL = 20
F3 = 100.2 Hz
Fill = heavy

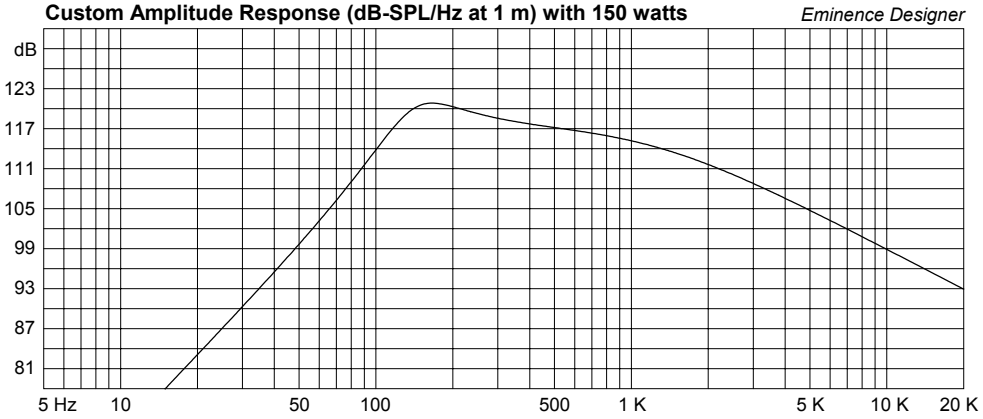
Driver Properties

--Description--
Name: Alpha-12
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: Revised OCT 2005
Piston: Paper cone.
Suspension: Cloth surround.
Dust Cap: Solid paper dust cap.
Frame: Pressed steel basket.
Voice Coil: 1.5 inch (38.1 mm) copper.
Magnet: 20 oz ferrite magnet.
--Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 49 Hz
Qms = 6.53
Vas = 121.5 liters
Xmax = 2.4 mm
Sd = 519.5 sq.cm
Qes = 0.88
Re = 6.3 ohms
Le = 0.79 mH
Z = 8 ohms
Pe = 150 watts

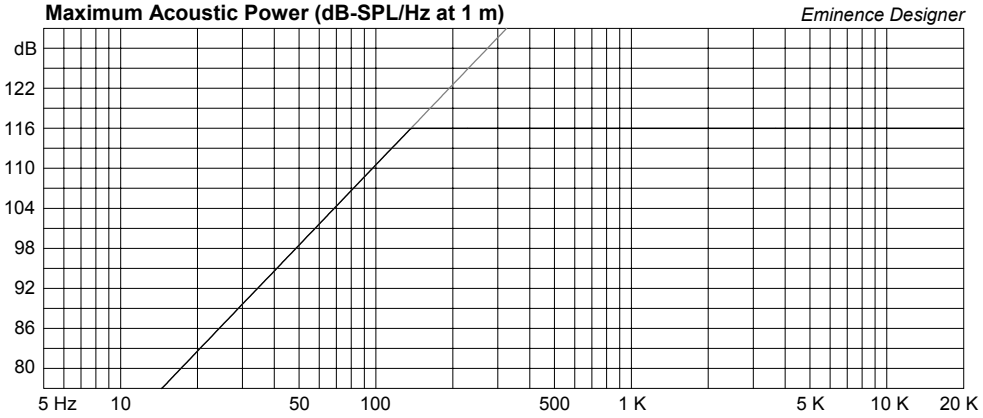
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 150 watts *Eminence Designer*

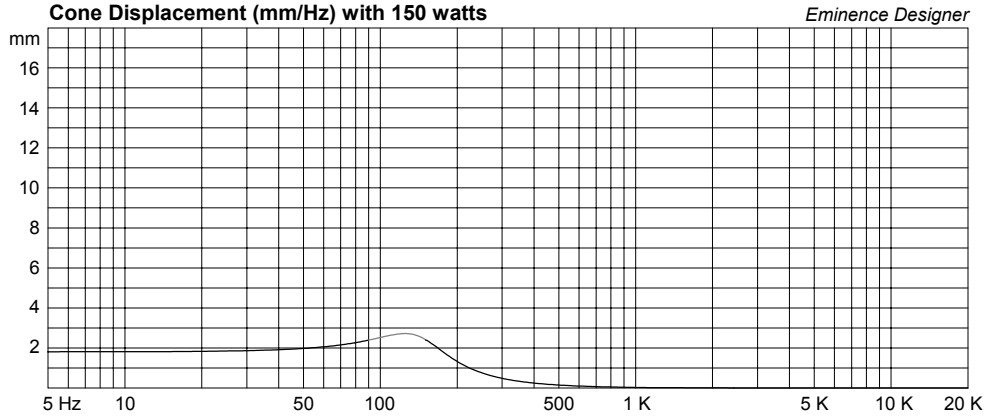


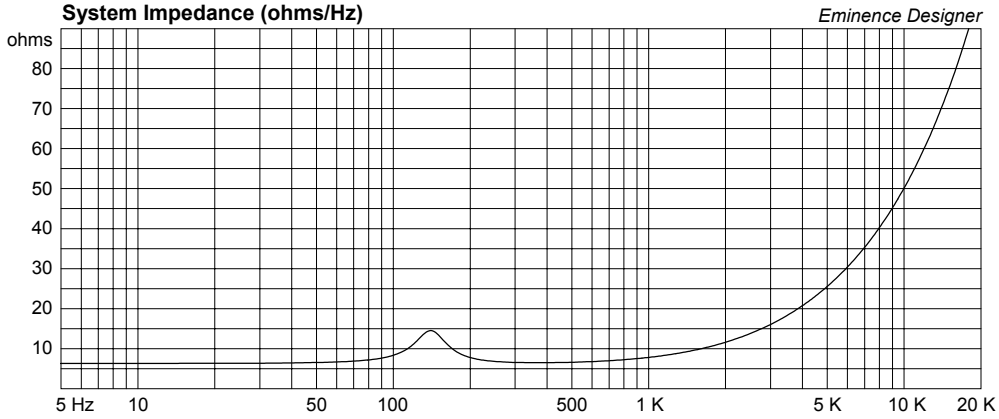
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



Cone Displacement (mm/Hz) with 150 watts

Eminence Designer



System Impedance (ohms/Hz)

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