

Specification

Nominal Basket Diameter	6.5", 165mm
Nominal Impedance*	4 ohms
Power Rating**	
Watts	100W
Music Program	200W
Resonance	107Hz
Usable Frequency Range***	81Hz-5.5kHz
Sensitivity	93.3
Magnet Weight	20 oz
Gap Height	0.25", 6.35mm
Voice Coil Diameter	1.5", 38.1mm

Thiele & Small Parameters

Resonant Frequency (fs)	107Hz
DC Resistance (Re)	3.2
Coil Inductance (Le)	0.28mH
Mechanical Q (Qms)	6.12
Electromagnetic Q (Qes)	0.49
Total Q (Qts)	0.45
Compliance Equivalent Volume (Vas)	5.7 ltr/0.2 cu. ft.
Peak Diaphragm Displacement Volume (Vd)	45cc
Mechanical Compliance of Suspension (Cms)	0.24mm/N
BL Product (BL)	6.4 T-M
Diaphragm Mass inc. Airload (Mms)	9.3 grams
Efficiency Bandwidth Product (EBP)	221
Maximum Linear Excursion (Xmax)	3.5mm
Surface Area of Cone (Sd)	129.9cm ²
Maximum Mechanical Limit (Xlim)	4.0mm

Mounting Information

Recommended Enclosure Volume	
Sealed	4-23 ltr/0.2-0.8 cu. ft.
Vented	6-11 ltr/0.2-0.4 cu. ft.
Overall Diameter	6.59", 167.4mm
Baffle Hole Diameter	5.69", 144.5mm
Front Sealing Gasket	Fitted as Standard
Rear Sealing Gasket	Fitted as Standard
Mounting Holes Diameter	0.23", 5.8mm
Mounting Holes B.C.D.	6.06", 154mm
Depth	2.8", 71mm
Net Weight	4.1 lbs, 1.9 kg
Shipping Weight	4.8 lbs, 2.2 kg

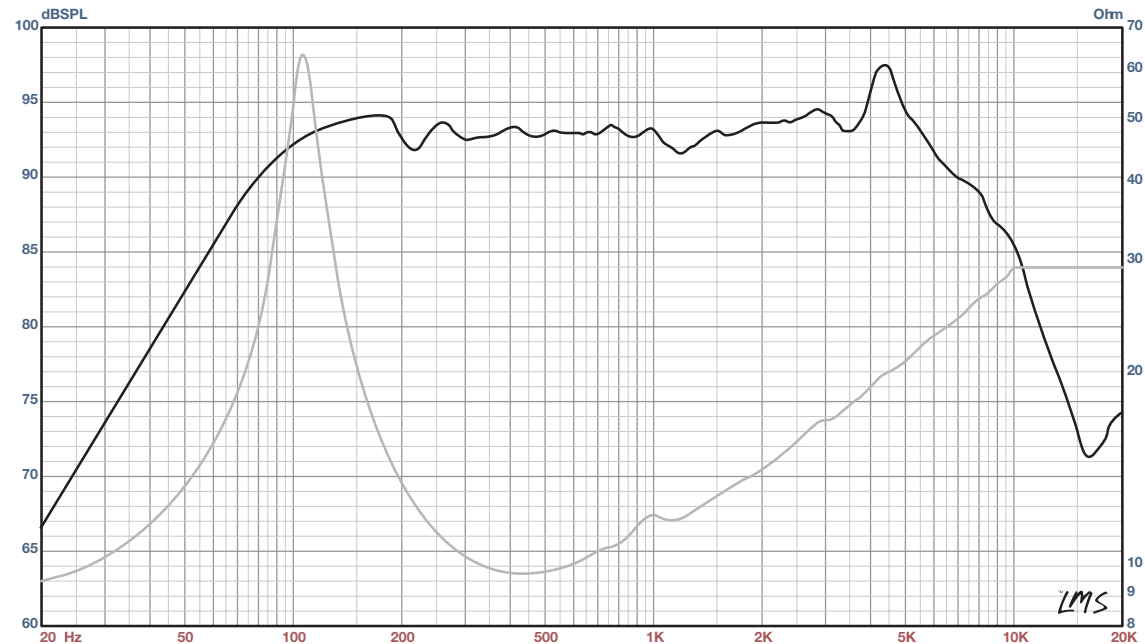
Materials of Construction

Coil Construction	Copper
Coil	Polyimide
Magnet Composition	Ferrite
Core Details	Vented And Extended
Basket Materials	Pressed Steel
Cone Composition	Paper
Cone Edge Composition	Cloth
Dust Cap Composition	Solid Composition Paper



ALPHA-6C American Standard Series

Recommended for professional audio mid-range applications in a sealed cabinet, or as a mid-bass in a vented satellite enclosure.



* Please inquire about alternative impedances.

** Multiple units exceed published rating evaluated under EIA 426A noise source and test standard while in a free-air, nontemperature-controlled environment.

*** The average output across the usable frequency range when applying 1W/1m into the nominal impedance. Ie: 2.83 V/8 ohms, 4 V/16 ohms.

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 | Hafler P1500 Trans-Nova amplifier | 2700 cu.ft. chamber with fiberglass on all six surfaces (three with custom-made wedges).

Custom Closed Box Design

By Jerry McNutt, Eminence Speaker LLC

Thermally limited to 100 Watts; F3 of 199 Hz. Best if high passed at 225 Hz or higher.



Box Properties

--Description--

Name:

Type: Closed Box

Shape: Prism, square

--Box Parameters--

Vb = 0.16 cu.ft

V(total) = 0.16 cu.ft

Qtc = 0.554

QL = 20

F3 = 198.5 Hz

Fill = heavy

Driver Properties

--Description--

Name: Alpha-6C

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: Updated 03/08/07

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 107 Hz

Qms = 6.12

Vas = 0.201 cu.ft

Xmax = 0.138 in

Sd = 19.64 sq.in

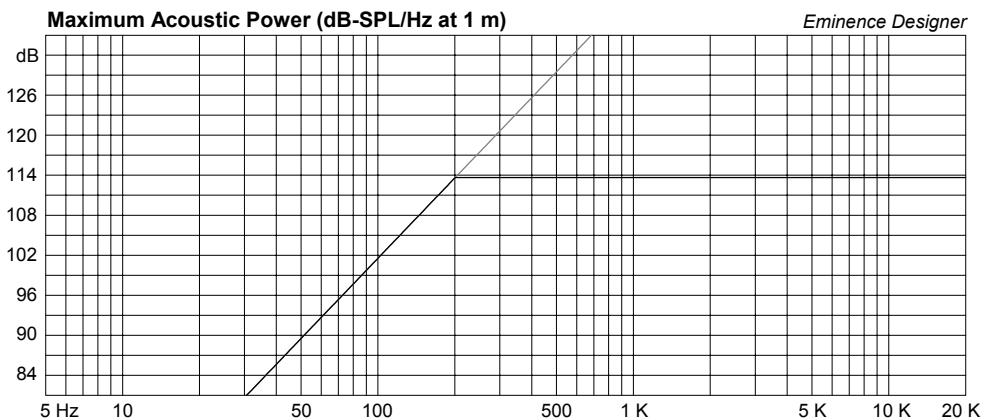
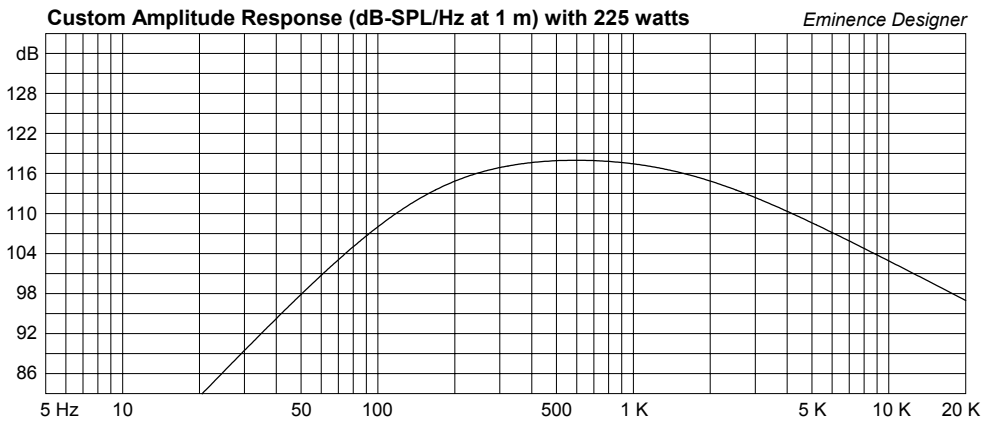
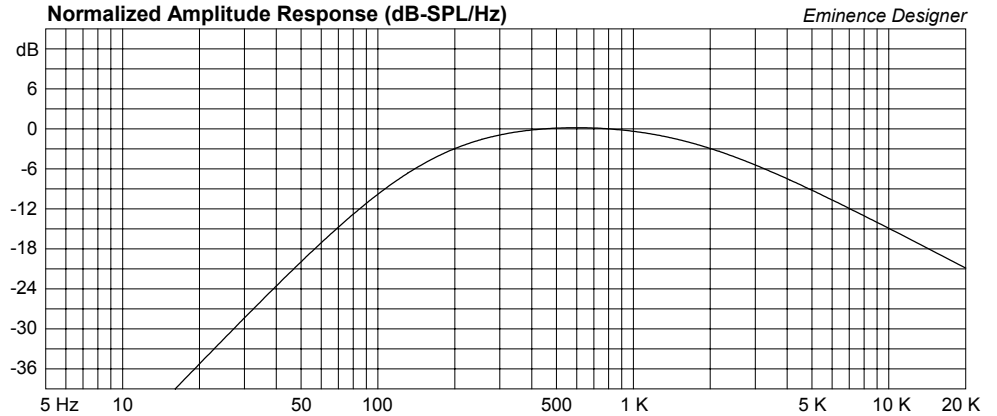
Qes = 0.49

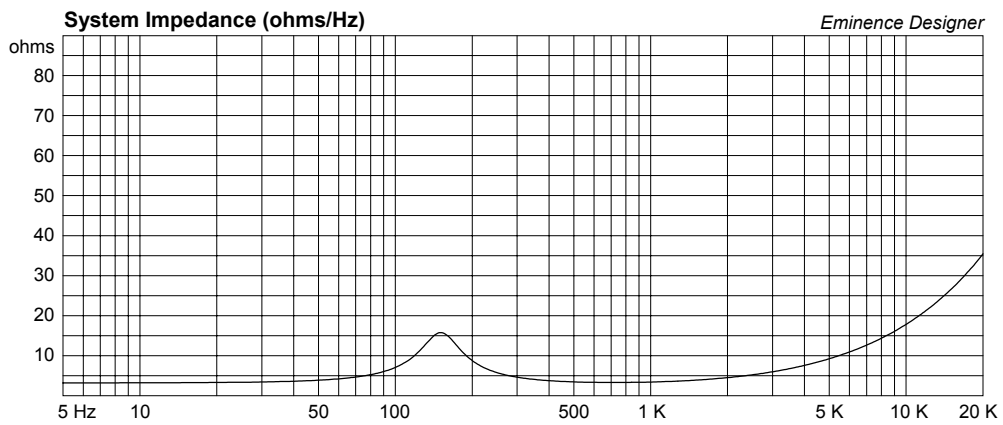
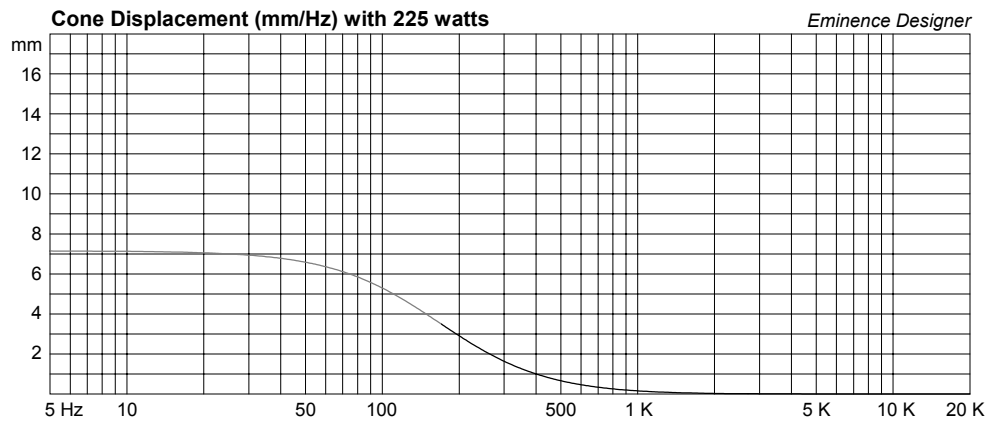
Re = 3.2 ohms

Le = 0.28 mH

Z = 4 ohms

Pe = 100 watts





Custom Closed Box Design

By Jerry McNutt, Eminence Speaker LLC

Thermally limited to 100 Watts; F3 of 204 Hz. Best if high passed at 225 Hz or higher.



Box Properties

--Description--

Name:

Type: Closed Box

Shape: Prism, square

--Box Parameters--

Vb = 0.75 cu.ft

V(total) = 0.75 cu.ft

Qtc = 0.443

QL = 20

F3 = 203.7 Hz

Fill = heavy

Driver Properties

--Description--

Name: Alpha-6C

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: Updated 03/08/07

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 107 Hz

Qms = 6.12

Vas = 0.201 cu.ft

Xmax = 0.138 in

Sd = 19.64 sq.in

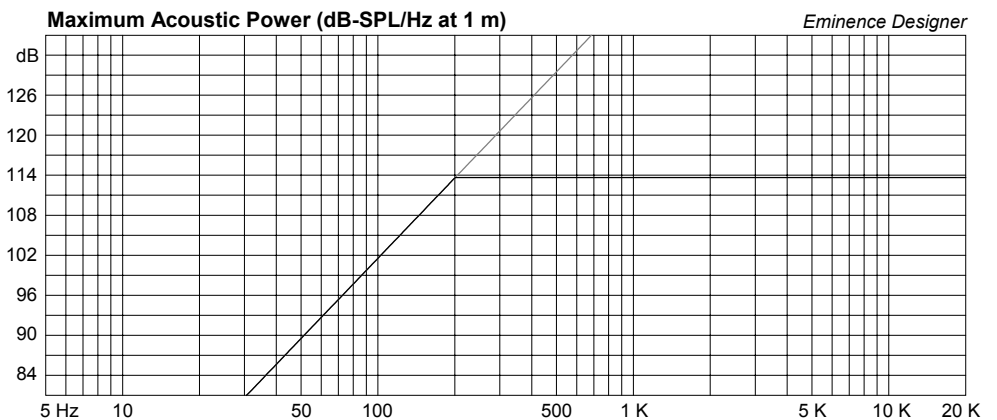
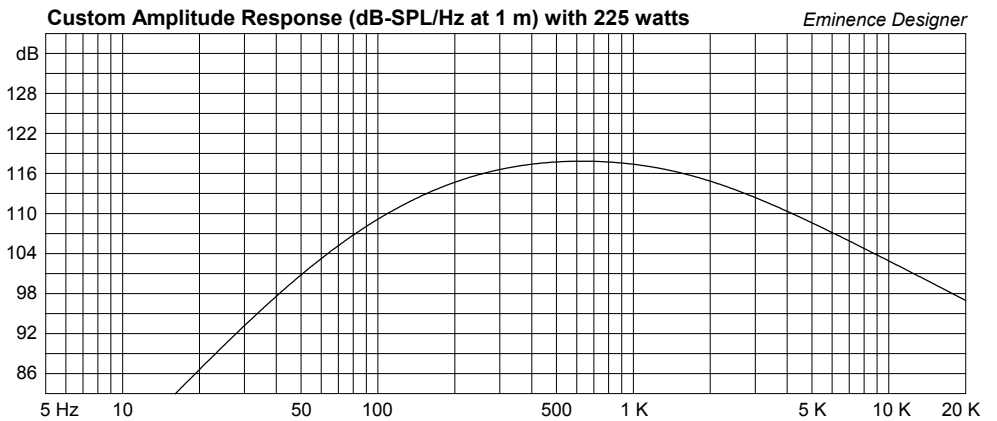
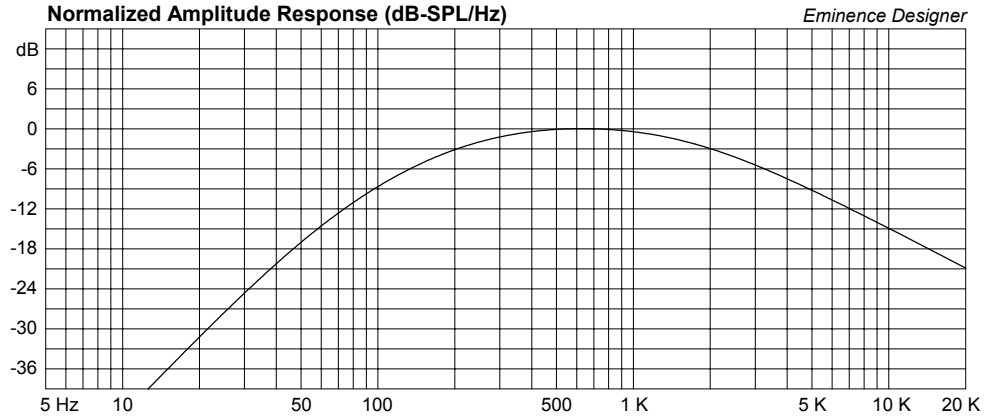
Qes = 0.49

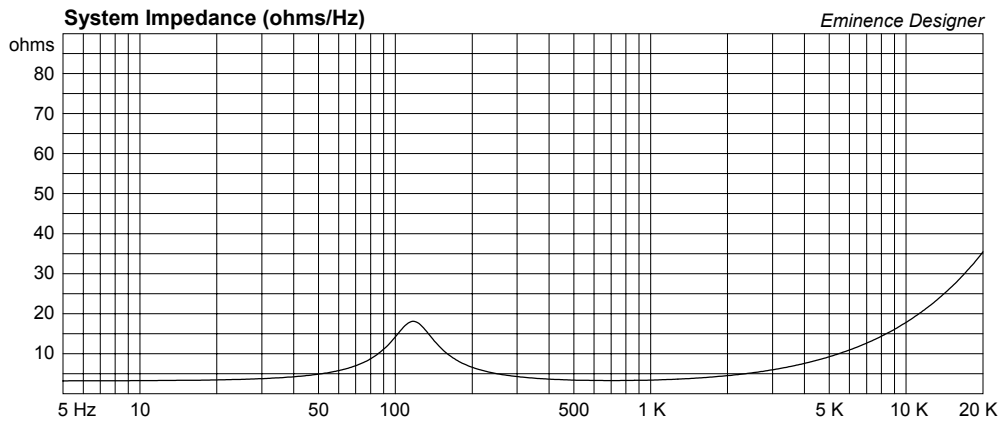
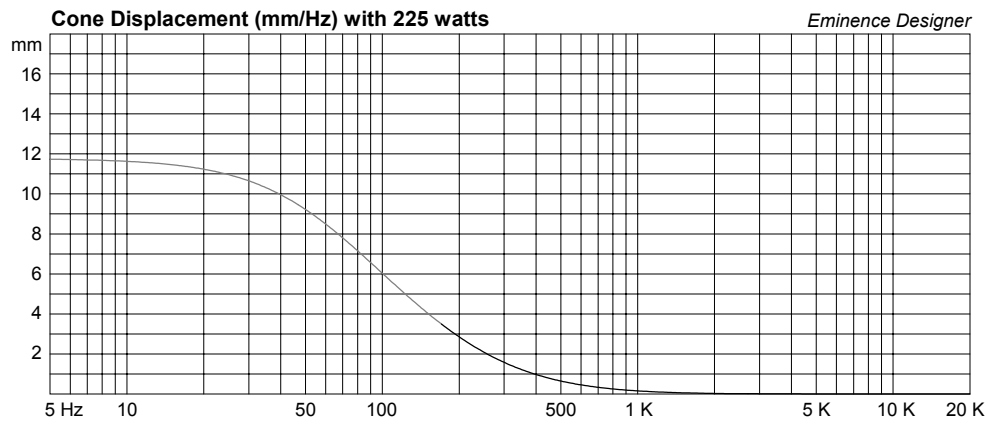
Re = 3.2 ohms

Le = 0.28 mH

Z = 4 ohms

Pe = 100 watts





Custom Vented Box Design

By Jerry McNutt, Eminence Speaker LLC

Thermally limited to 100 Watts; F3 of 106Hz. Best if high passed at 110 Hz or higher. Great for a micro PA/DJ Satellite or a tiny floor wedge.



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 0.175 cu.ft

V(total) = 0.218 cu.ft

Fb = 103.7 Hz

QL = 7

F3 = 106.3 Hz

Fill = minimal

--Vents--

No. of Vents = 1

Vent shape = round

Vent ends = one flush

Dv = 2.5 in

Lv = 4.81 in

Driver Properties

--Description--

Name: Alpha-6C

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: Updated 03/08/07

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 107 Hz

Qms = 6.12

Vas = 0.201 cu.ft

Xmax = 0.138 in

Sd = 19.64 sq.in

Qes = 0.49

Re = 3.2 ohms

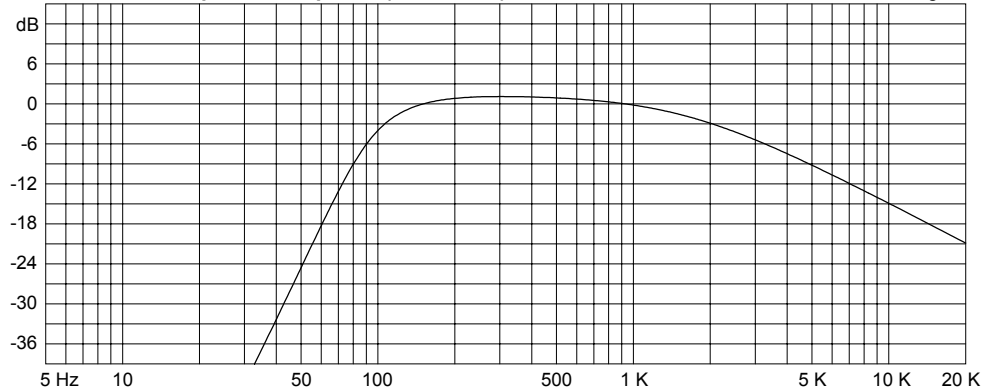
Le = 0.28 mH

Z = 4 ohms

Pe = 100 watts

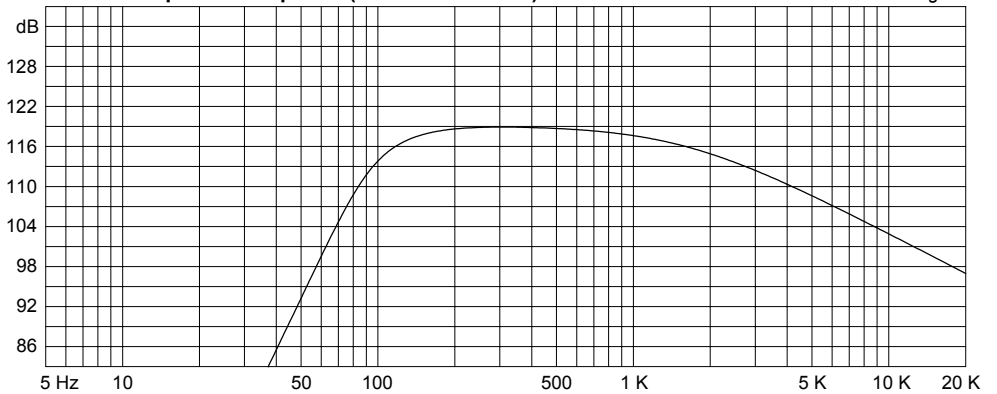
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



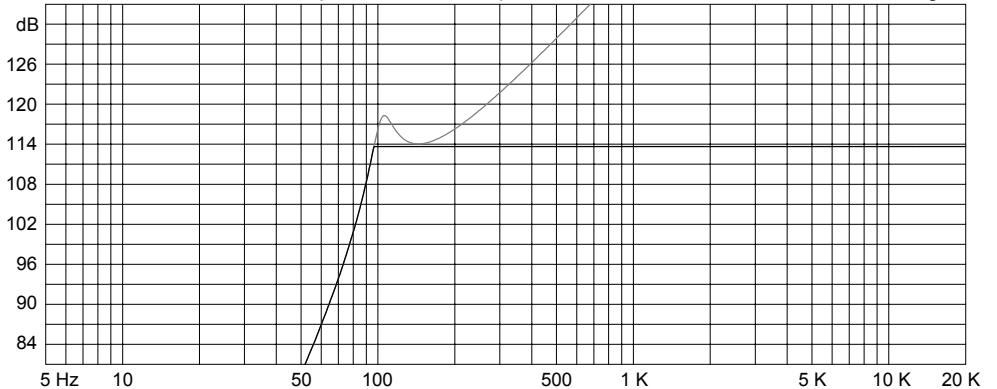
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 225 watts

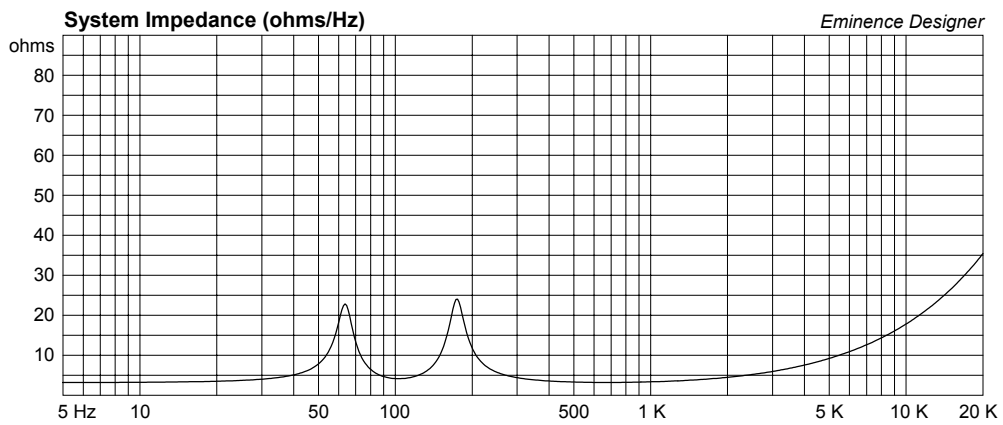
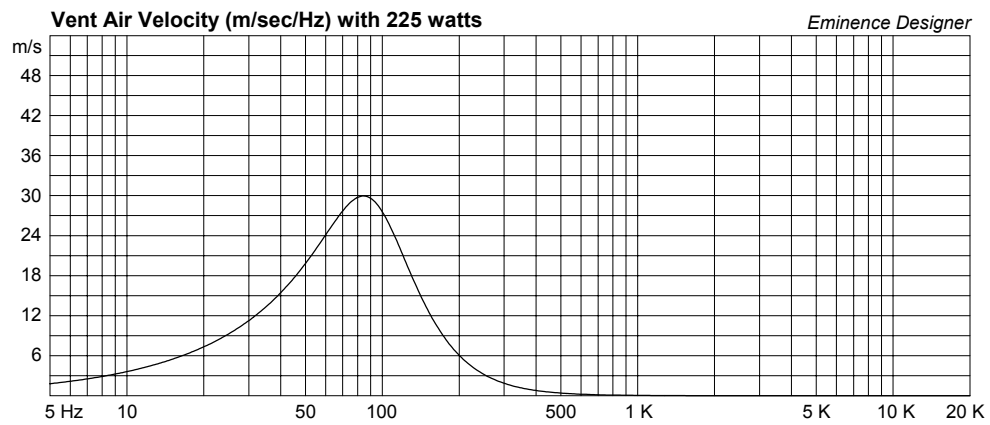
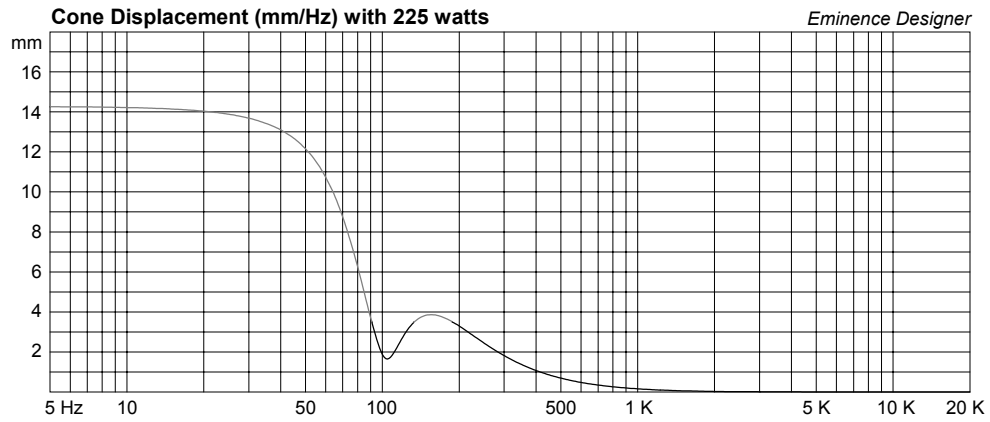
Eminence Designer



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

Eminence Designer





Custom Vented Box Design

By Jerry McNutt, Eminence Speaker LLC

Thermally limited to 100 Watts; F3 of 81Hz. Best if high passed at 100 Hz or higher. Great for a micro PA/DJ Satellite or a tiny floor wedge.



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 0.35 cu.ft

V(total) = 0.399 cu.ft

Fb = 85 Hz

QL = 7

F3 = 80.18 Hz

Fill = minimal

--Vents--

No. of Vents = 1

Vent shape = round

Vent ends = one flush

Dv = 3 in

Lv = 4.835 in

Driver Properties

--Description--

Name: Alpha-6C

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: Updated 03/08/07

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 107 Hz

Qms = 6.12

Vas = 0.201 cu.ft

Xmax = 0.138 in

Sd = 19.64 sq.in

Qes = 0.49

Re = 3.2 ohms

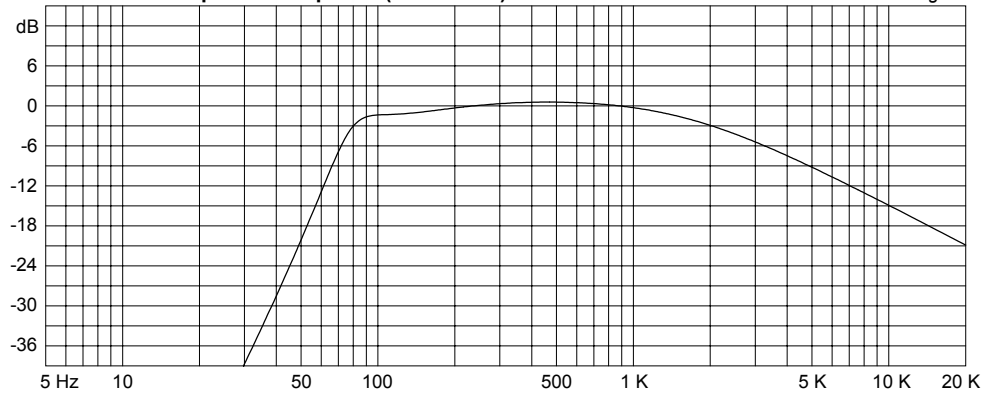
Le = 0.28 mH

Z = 4 ohms

Pe = 100 watts

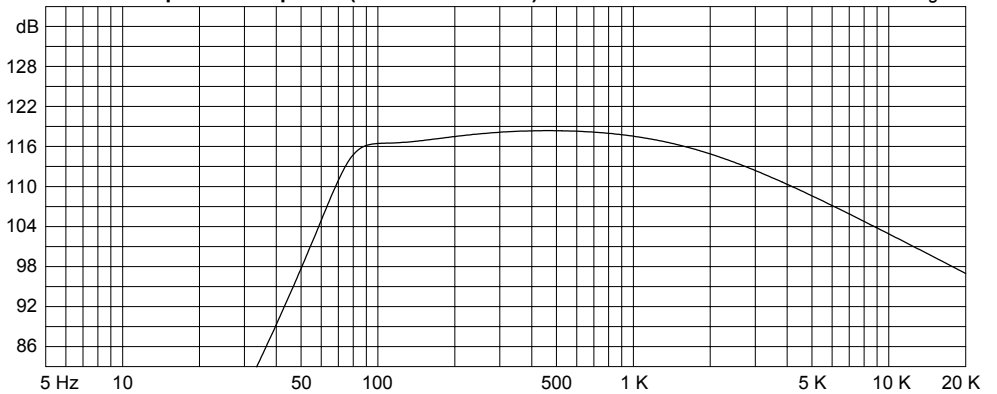
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 225 watts

Eminence Designer



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

Eminence Designer

