Specification

Nominal Basket Diameter	6.5”, 165.1mm
Nominal Impedance*	8 ohms
Power Rating**	
Watts	100W
Music Program	200W
Resonance	125.55Hz
Usable Frequency Range***	74Hz-5.5kHz
Sensitivity	94
Magnet Weight	3.5 oz.
Gap Height	0.25”, 6.35mm
Voice Coil Diameter	1.5”, 38.1mm

Thiele & Small Parameters

Resonant Frequency (fs)	126Hz
DC Resistance (Re)	7.3
Coil Inductance (Le)	.53mH
Mechanical Q (Qms)	6.30
Electromagnetic Q (Qes)	0.61
Total Q (Qts)	0.56
Compliance Equivalent Volume (Vas)	4.92 liters / .17 cu.ft.
Peak Diaphragm Displacement Volume (Vd)	46 cc
Mechanical Compliance of Suspension (Cms)	0.21mm/N
BL Product (BL)	8.5 T-M
Diaphragm Mass inc. Airload (Mms)	7.7 grams
Efficiency Bandwidth Product (EBP)	204.9
Maximum Linear Excursion (Xmax)	3.5mm
Surface Area of Cone (Sd)	129.9 cm2
Maximum Mechanical Limit (Xlim)	4.0mm

Mounting Information

Recommended Enclosure Volume	
Sealed	2.83-8liters/.1-.3 cu.ft.
Vented	3-16 liters/.1-.6 cu.ft.
Driver Volume Displaced	15.1 cu.in. / 0.25 liters
Overall Diameter	6.59”, 167.39mm
Baffle Hole Diameter	5.69”, 144.53mm
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”, 153.9mm
Depth	2.40”, 61mm
Net Weight	2.2 lbs, 1.00 kg
Shipping Weight	2.9 lbs, 1.3 kg

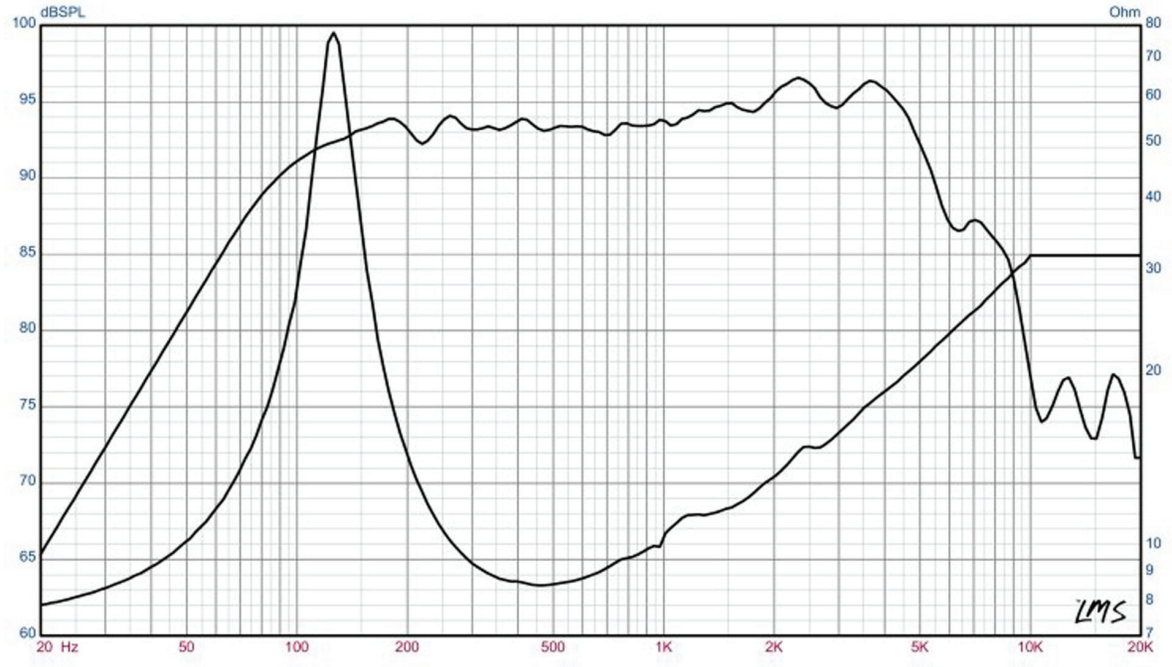
Materials of Construction

Round Copper voice coil
Kapton
Neodymium magnet
Vented and Extended core
Pressed steel basket
Paper Cone
Cloth cone edge
Treated paper dust cap

EMINENCE®
The Art and Science of Sound

ALPHALITE™ 6A Neodymium Series

Pro Audio mid/bass driver. For sealed, vented, or infinite baf. Applications. Neo makes it very light.



* Please inquire about alternative impedances.

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

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

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 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)

Alphalite 6A Small Sealed Midrange Cabinet

By Jerry McNutt, Eminence Speaker LLC
Limit to 90 Watts; F3 of 193Hz. High Pass at 200 Hz.

EMINENCE

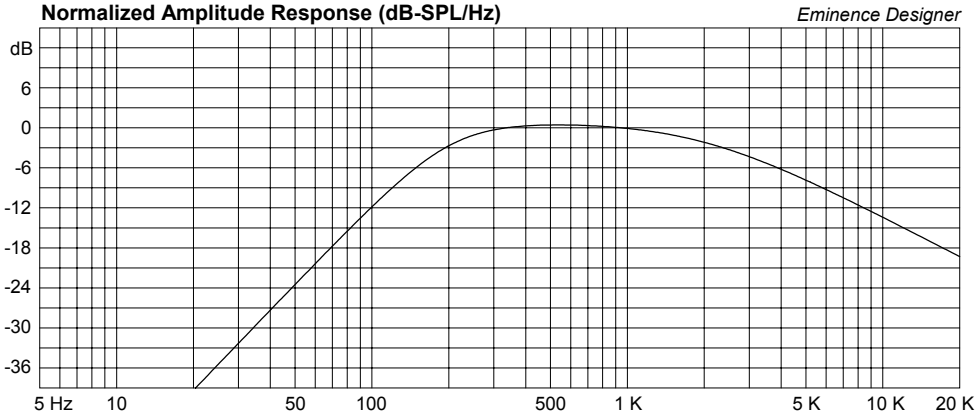
Box Properties

--Description--
Name:
Type: Closed Box
Shape: Prism, square
--Box Parameters--
Vb = 0.11 cu.ft
V(total) = 0.11 cu.ft
Qtc = 0.699
QL = 20
F3 = 193 Hz
Fill = heavy

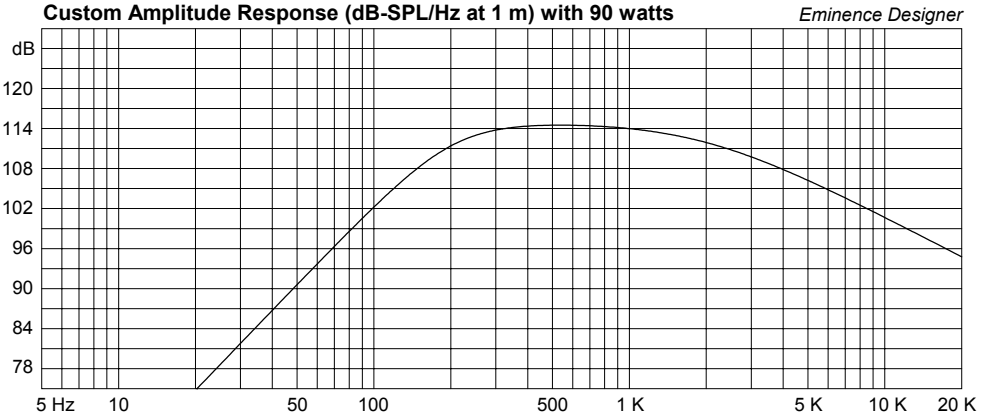
Driver Properties

--Description--
Name: AlphaLite6A
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: 6.5" Neo Mid/bass Driver
--Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 125.6 Hz
Qms = 6.3
Vas = 0.174 cu.ft
Xmax = 0.138 in
Sd = 20.13 sq.in
Qes = 0.61
Re = 7.25 ohms
Le = 0.53 mH
Z = 8 ohms
Pe = 100 watts

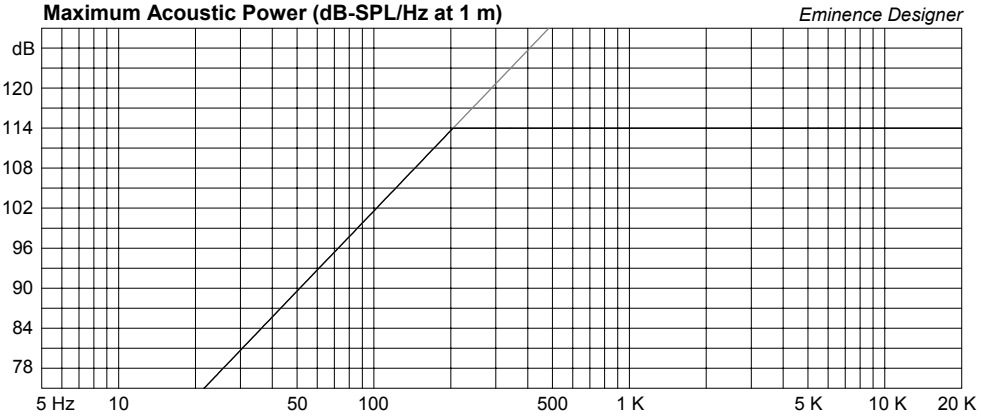
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 90 watts *Eminence Designer*

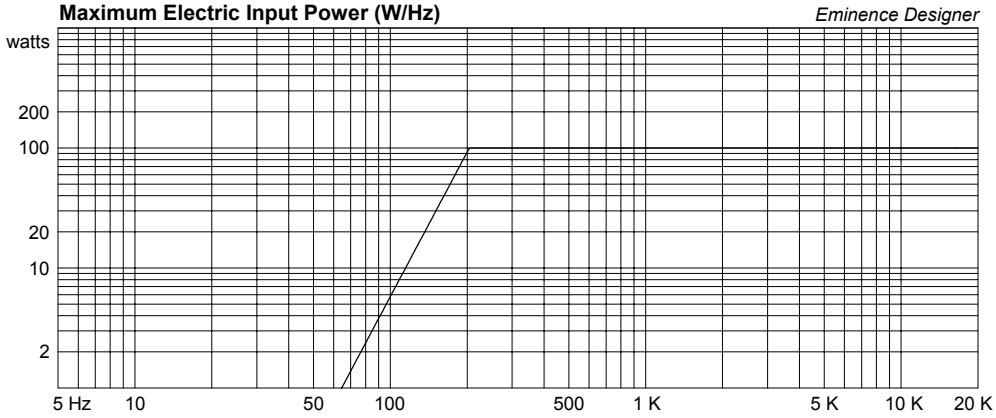


Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



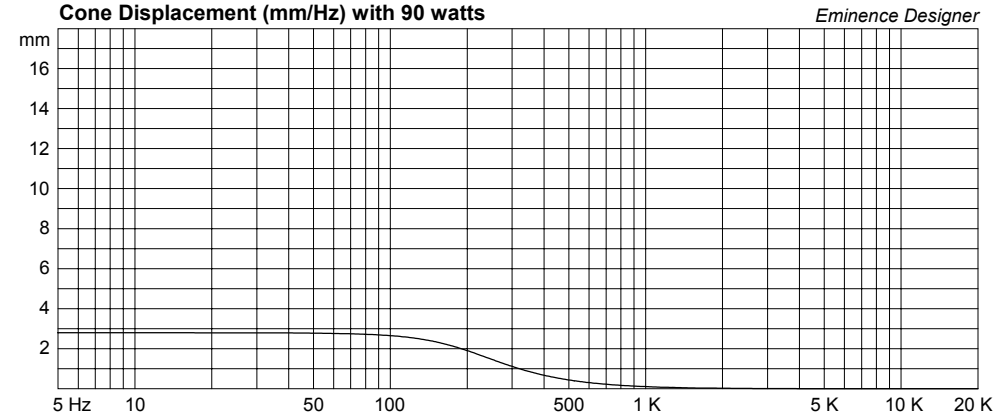
Maximum Electric Input Power (W/Hz)

Eminence Designer



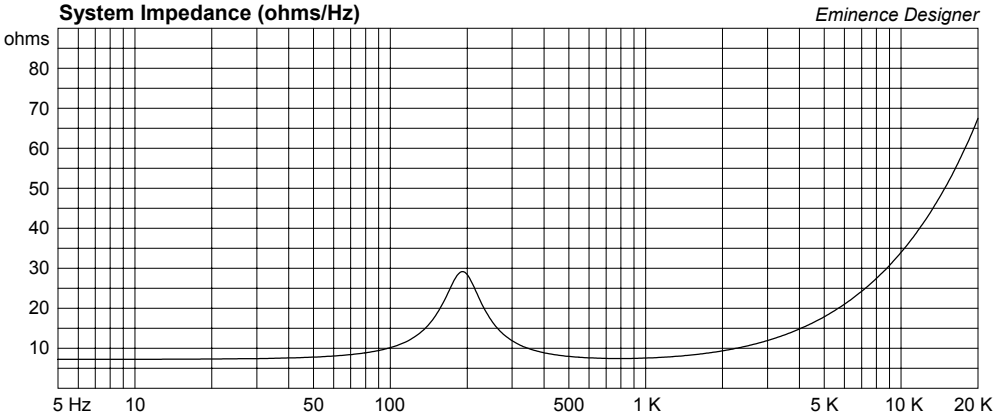
Cone Displacement (mm/Hz) with 90 watts

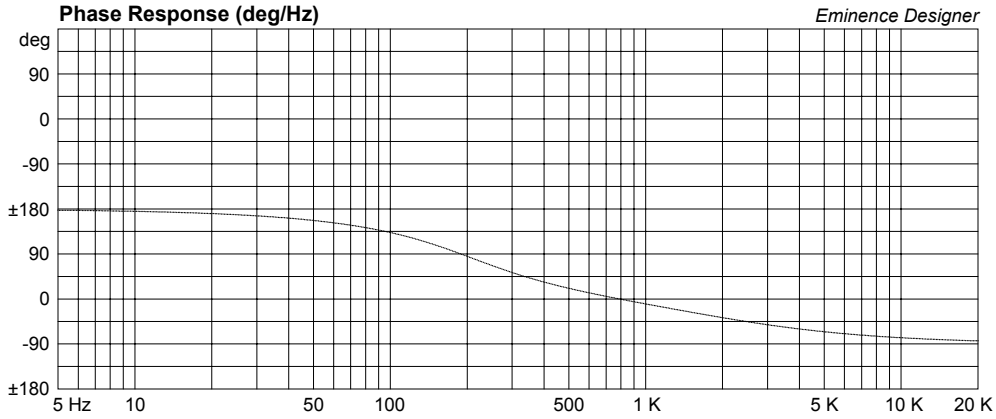
Eminence Designer

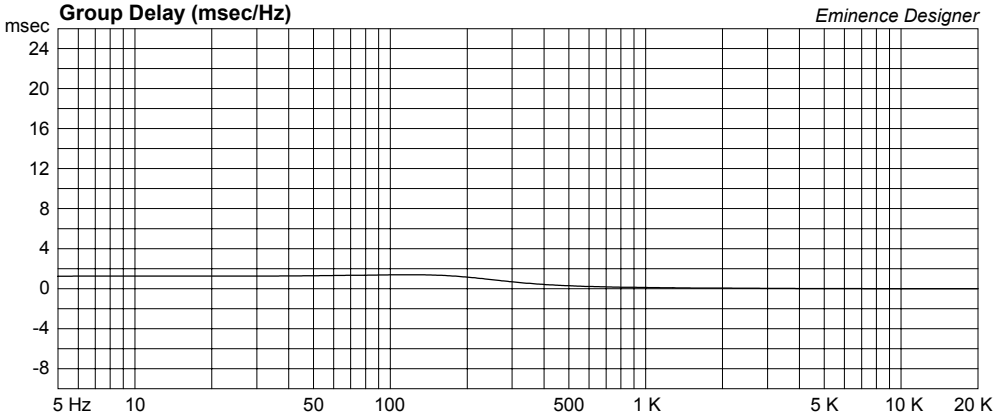


System Impedance (ohms/Hz)

Eminence Designer




Phase Response (deg/Hz)
Eminence Designer
deg
90
0
-90
±180
90
0
-90
±180
5 Hz
10
50
100
500
1 K
5 K
10 K
20 K


Group Delay (msec/Hz)
Eminence Designer
msec
24
20
16
12
8
4
0
-4
-8
5 Hz
10
50
100
500
1 K
5 K
10 K
20 K

Alphalite 6A Medium Sealed Midrange Cabinet

By Jerry McNutt, Eminence Speaker LLC
Limit to 90 Watts; F3 of 189 Hz. High Pass at 190 Hz or higher.

EMINENCE

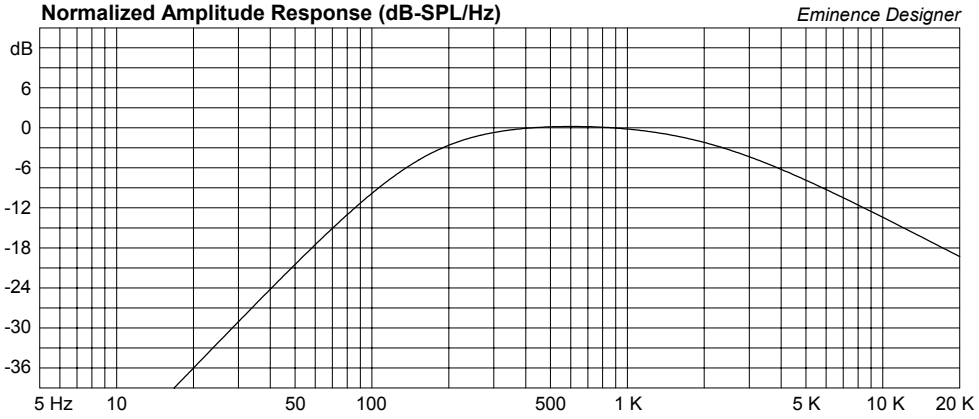
Box Properties

--Description--
Name:
Type: Closed Box
Shape: Prism, square
--Box Parameters--
Vb = 0.25 cu.ft
V(total) = 0.25 cu.ft
Qtc = 0.595
QL = 20
F3 = 188.7 Hz
Fill = heavy

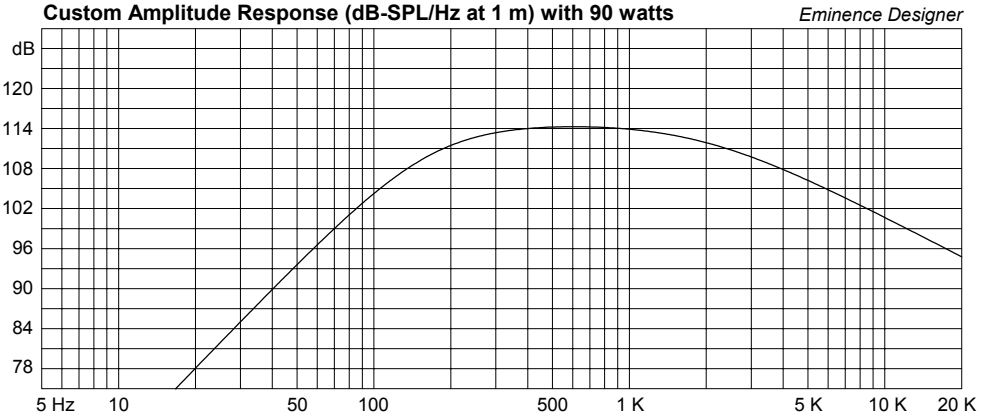
Driver Properties

--Description--
Name: AlphaLite6A
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: 6.5" Neo Mid/bass Driver
--Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 125.6 Hz
Qms = 6.3
Vas = 0.174 cu.ft
Xmax = 0.138 in
Sd = 20.13 sq.in
Qes = 0.61
Re = 7.25 ohms
Le = 0.53 mH
Z = 8 ohms
Pe = 100 watts

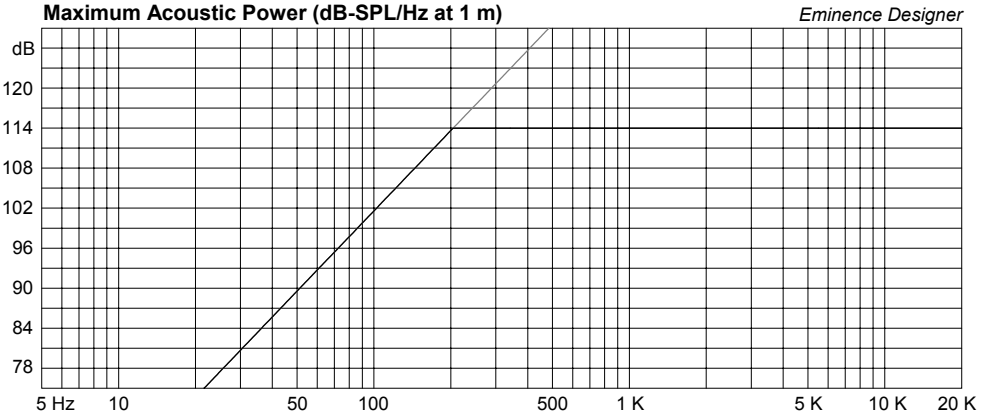
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 90 watts *Eminence Designer*

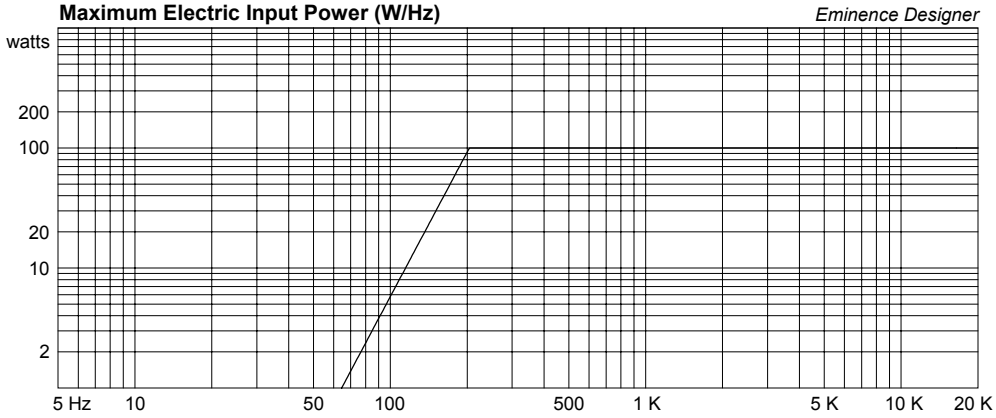


Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



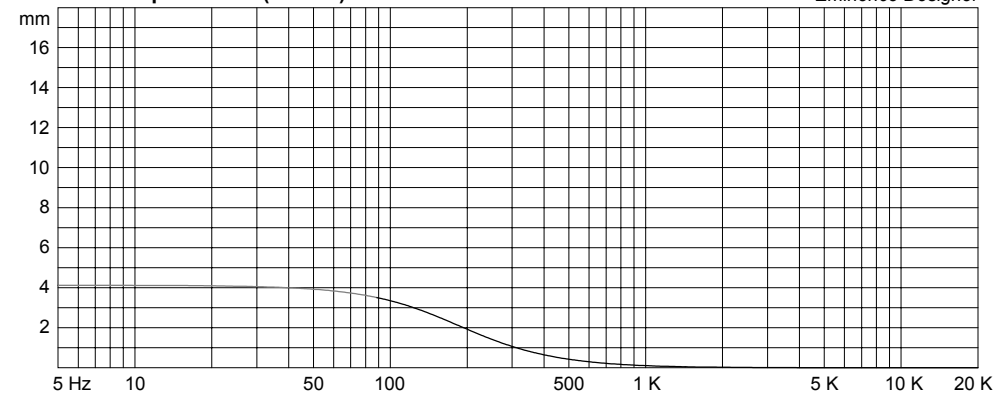
Maximum Electric Input Power (W/Hz)

Eminence Designer



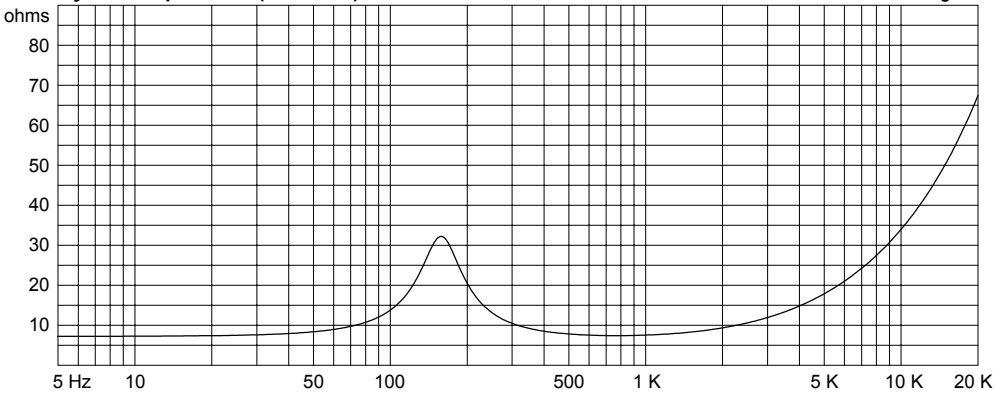
Cone Displacement (mm/Hz) with 90 watts

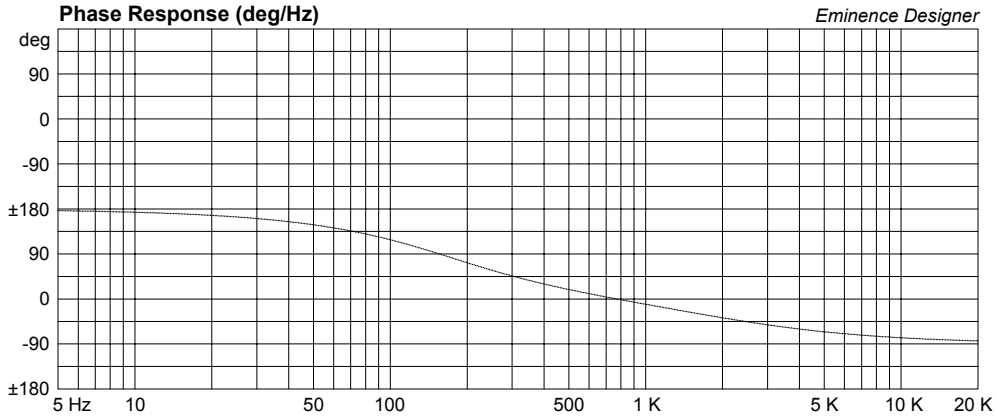
Eminence Designer

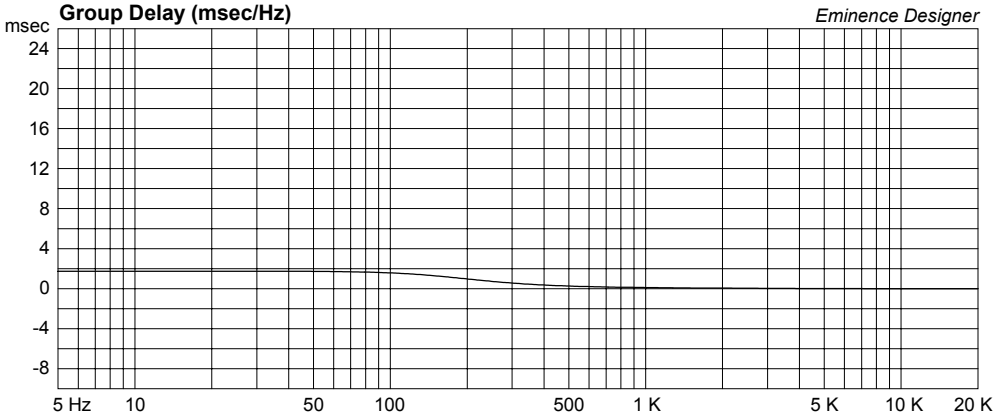


System Impedance (ohms/Hz)

Eminence Designer




Phase Response (deg/Hz)
Eminence Designer
deg
90
0
-90
±180
90
0
-90
±180
5 Hz
10
50
100
500
1 K
5 K
10 K
20 K


Group Delay (msec/Hz)
Eminence Designer
msec
24
20
16
12
8
4
0
-4
-8
5 Hz
10
50
100
500
1 K
5 K
10 K
20 K

Alphalite 6A Larger Vented Mid/Bass Design

By Jerry McNutt, Eminence Speaker LLC
Limit to 75 Watts; F3 of 74 Hz. High Pass at 75 Hz or higher.

EMINENCE

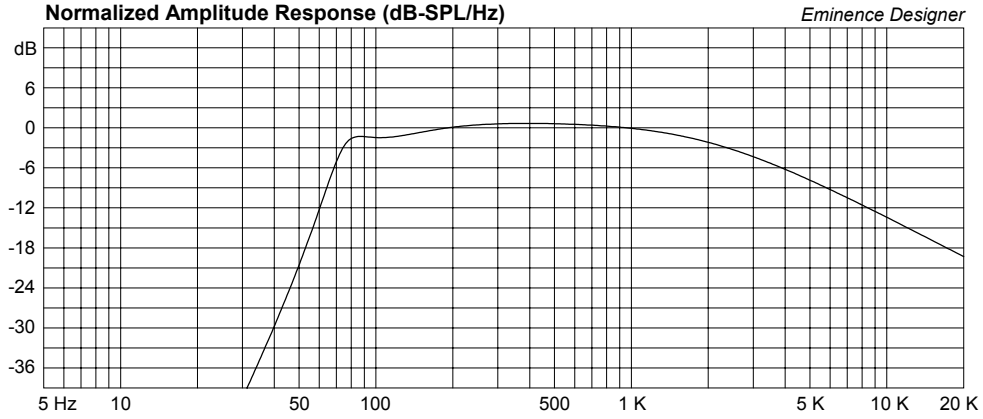
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 0.55 cu.ft
V(total) = 0.588 cu.ft
Fb = 82.51 Hz
QL = 7
F3 = 74.23 Hz
Fill = none
--Vents--
No. of Vents = 1
Vent shape = round
Vent ends = one flush
Dv = 3 in
Lv = 2.503 in

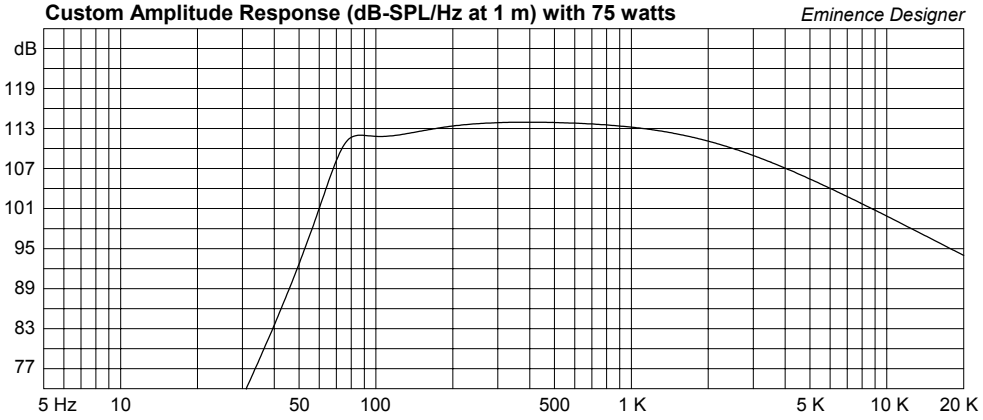
Driver Properties

--Description--
Name: AlphaLite6A
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: 6.5" Neo Mid/bass Driver
--Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 125.6 Hz
Qms = 6.3
Vas = 0.174 cu.ft
Xmax = 0.138 in
Sd = 20.13 sq.in
Qes = 0.61
Re = 7.25 ohms
Le = 0.53 mH
Z = 8 ohms
Pe = 100 watts

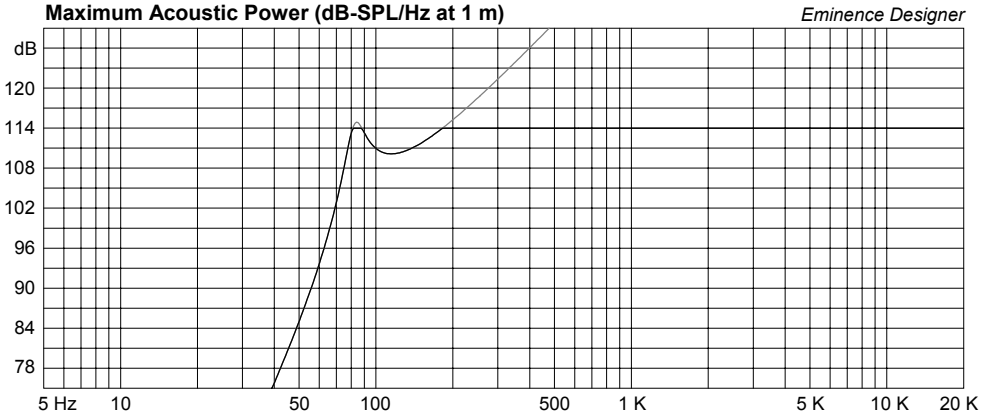
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 75 watts *Eminence Designer*

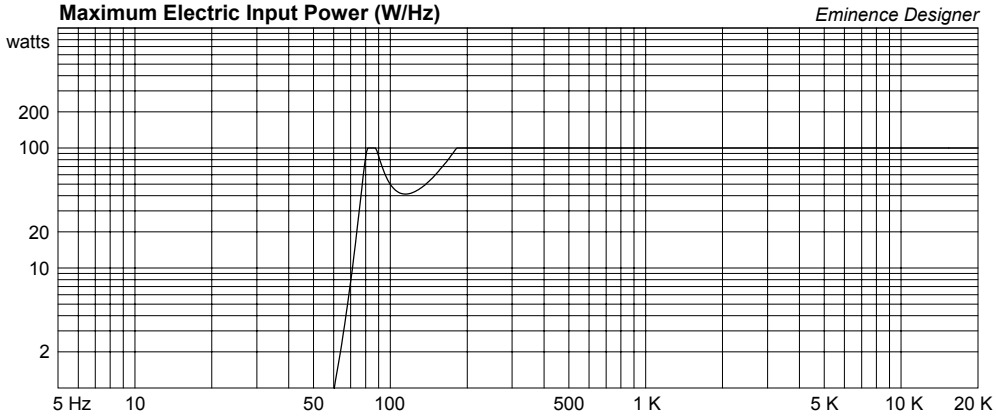


Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



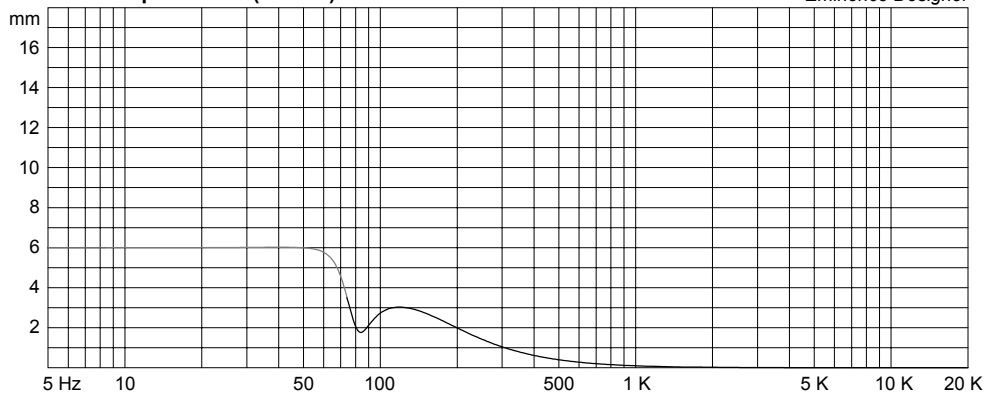
Maximum Electric Input Power (W/Hz)

Eminence Designer



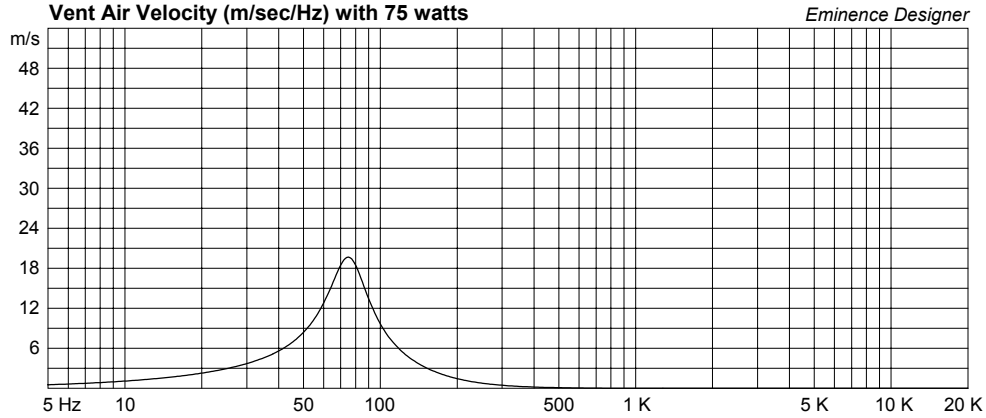
Cone Displacement (mm/Hz) with 75 watts

Eminence Designer



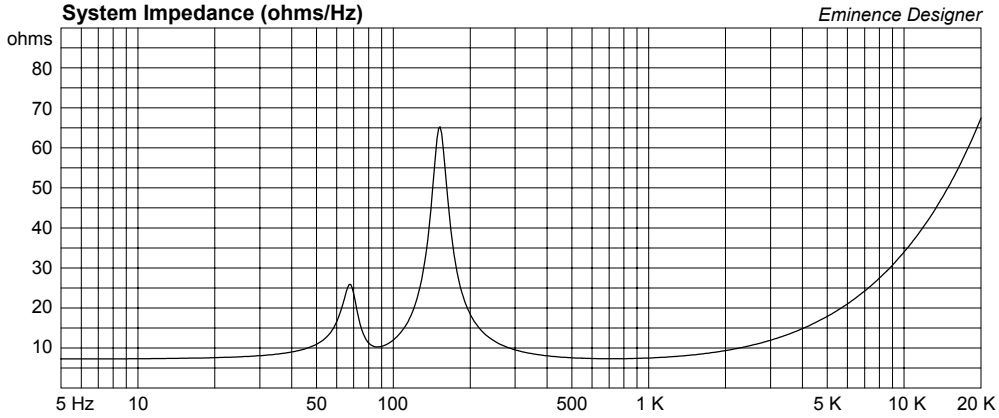
Vent Air Velocity (m/sec/Hz) with 75 watts

Eminence Designer



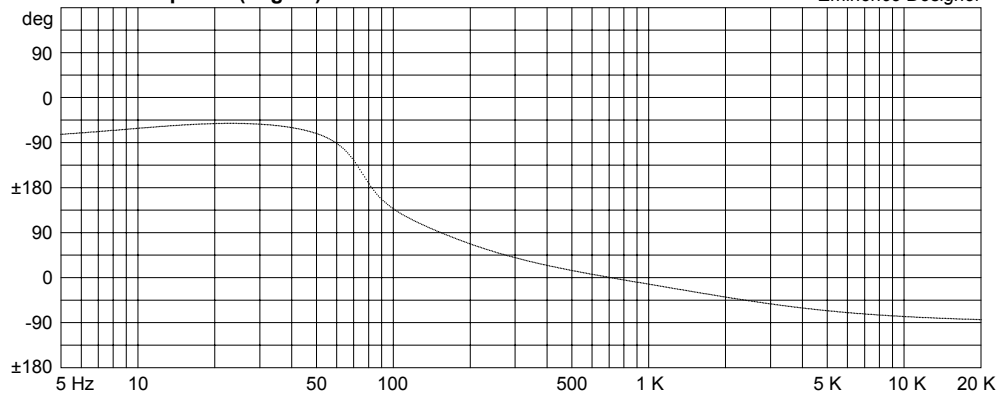
System Impedance (ohms/Hz)

Eminence Designer



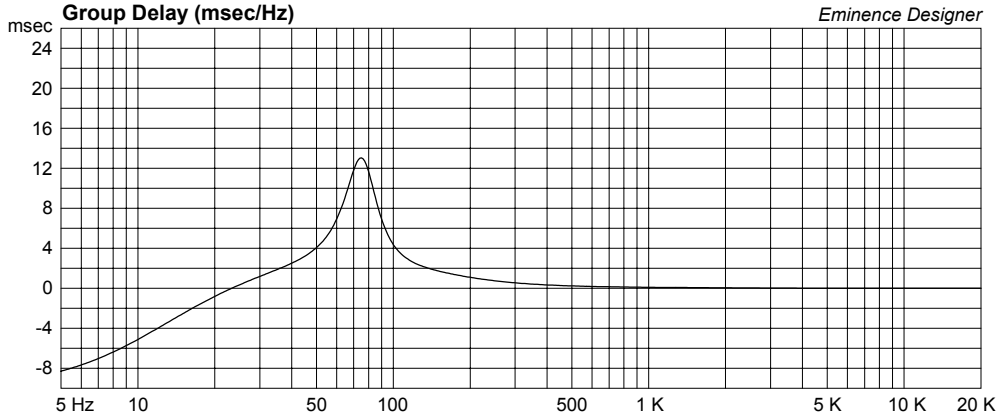
Phase Response (deg/Hz)

Eminence Designer



Group Delay (msec/Hz)

Eminence Designer



Alphalite 6A Small Vented Midrange

By Jerry McNutt, Eminence Speaker LLC
100 Watts; F3 of 133 Hz. High Pass at 140 Hz or higher.

EMINENCE

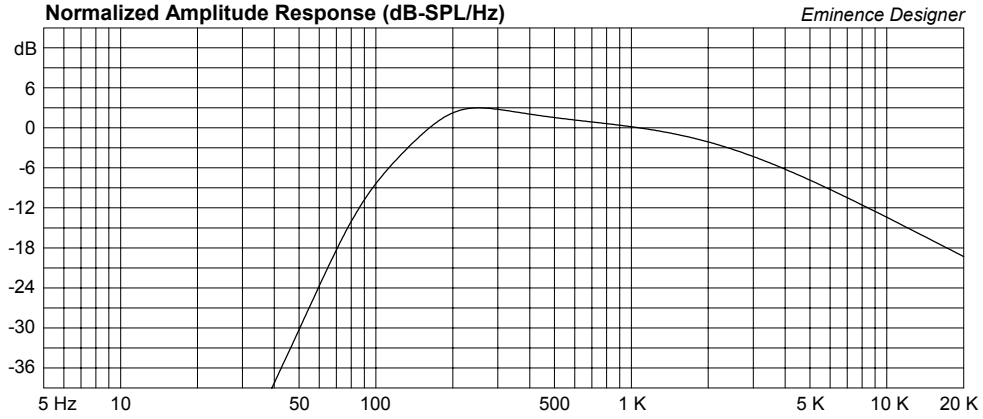
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 0.135 cu.ft
V(total) = 0.166 cu.ft
Fb = 130 Hz
QL = 7
F3 = 133.1 Hz
Fill = none
--Vents--
No. of Vents = 1
Vent shape = round
Vent ends = one flush
Dv = 2 in
Lv = 2.014 in

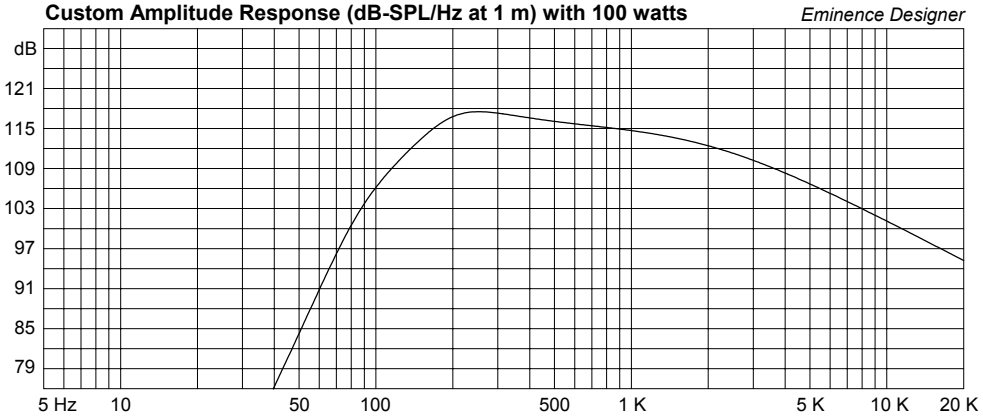
Driver Properties

--Description--
Name: AlphaLite6A
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: 6.5" Neo Mid/bass Driver
--Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 125.6 Hz
Qms = 6.3
Vas = 0.174 cu.ft
Xmax = 0.138 in
Sd = 20.13 sq.in
Qes = 0.61
Re = 7.25 ohms
Le = 0.53 mH
Z = 8 ohms
Pe = 100 watts

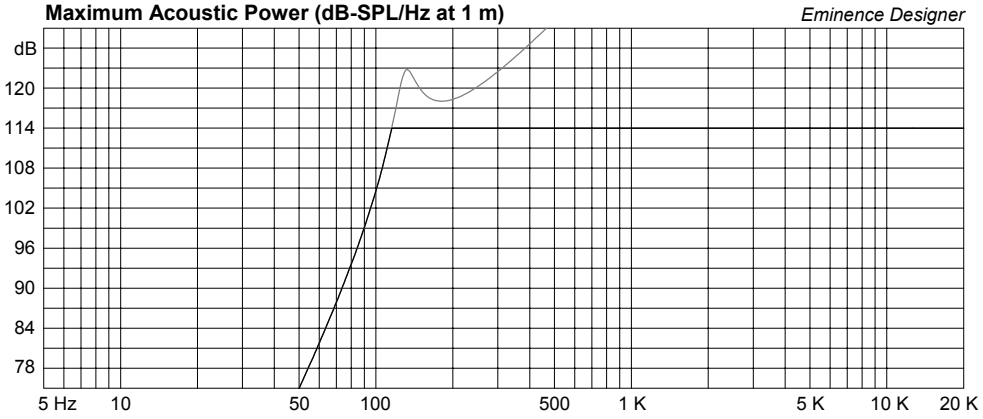
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



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

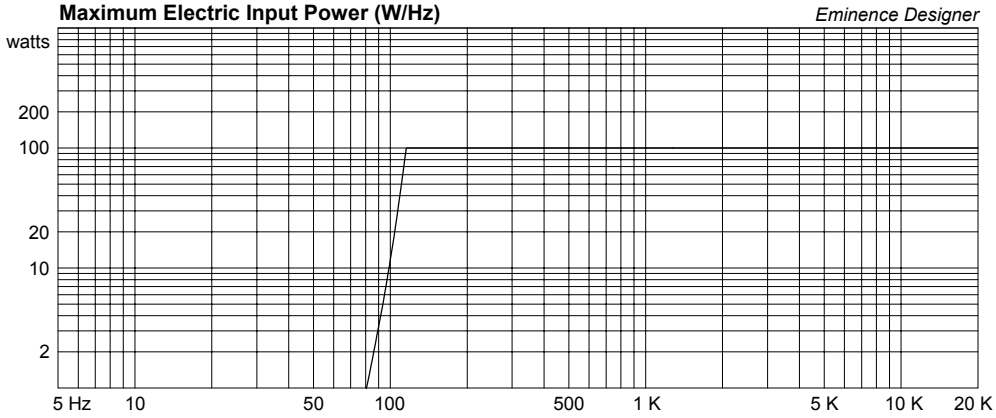


Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



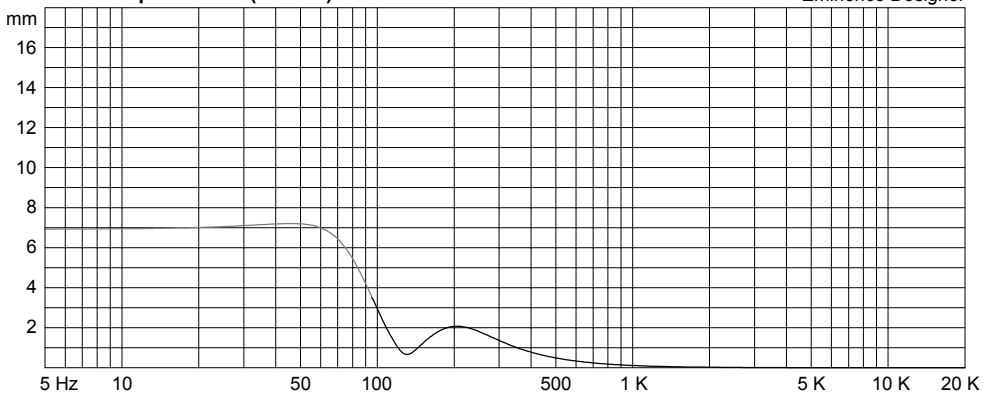
Maximum Electric Input Power (W/Hz)

Eminence Designer



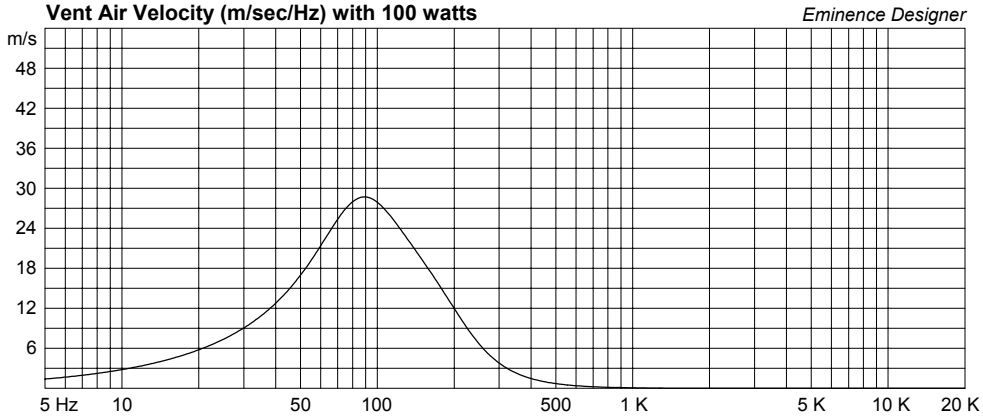
Cone Displacement (mm/Hz) with 100 watts

Eminence Designer



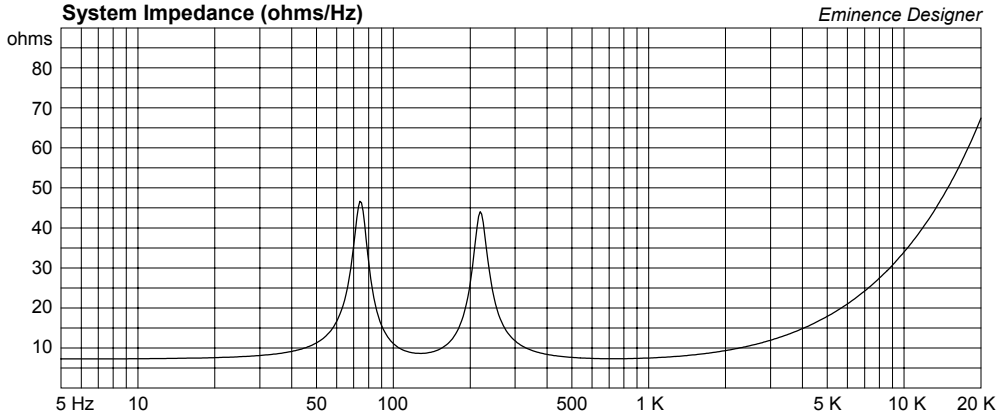
Vent Air Velocity (m/sec/Hz) with 100 watts

Eminence Designer



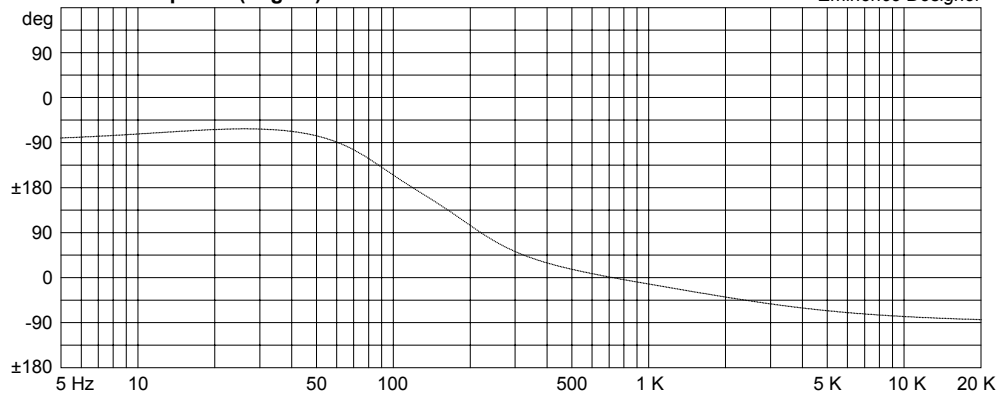
System Impedance (ohms/Hz)

Eminence Designer



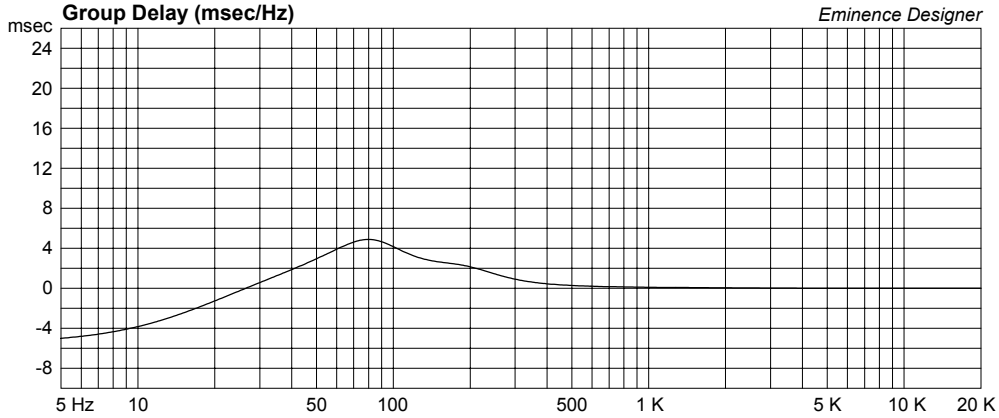
Phase Response (deg/Hz)

Eminence Designer



Group Delay (msec/Hz)

Eminence Designer



Alphalite 6A Infinite Baffle Midrange Cabinet

By Jerry McNutt, Eminence Speaker LLC
Limit to 100 Watts; F3 of 170 Hz. High Pass at 180 Hz or higher.

EMINENCE

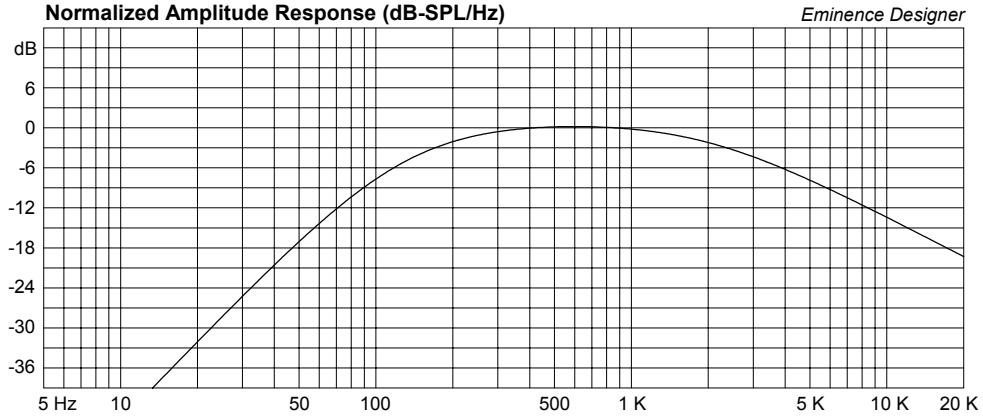
Box Properties

--Description--
Name:
Type: Closed Box
Shape: Prism, square
--Box Parameters--
Vb = 10000 cu.ft
V(total) = 10000 cu.ft
Qtc = 0.538
QL = 20
F3 = 169.8 Hz
Fill = none

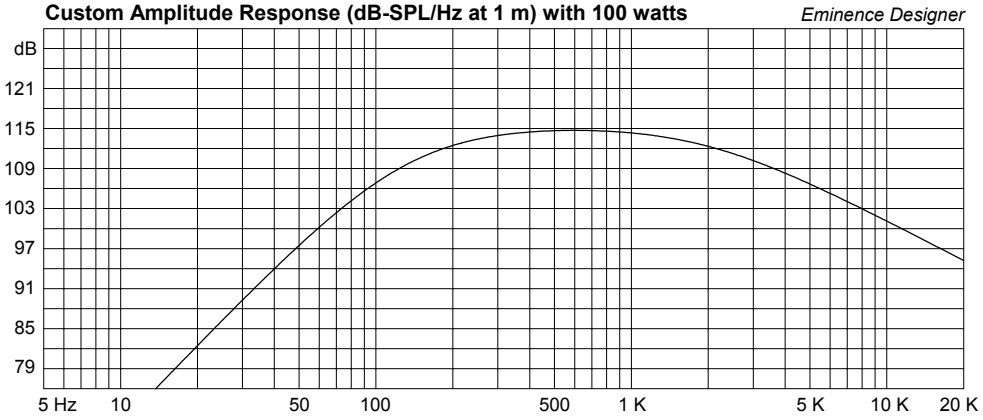
Driver Properties

--Description--
Name: AlphaLite6A
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: 6.5" Neo Mid/bass Driver
--Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 125.6 Hz
Qms = 6.3
Vas = 0.174 cu.ft
Xmax = 0.138 in
Sd = 20.13 sq.in
Qes = 0.61
Re = 7.25 ohms
Le = 0.53 mH
Z = 8 ohms
Pe = 100 watts

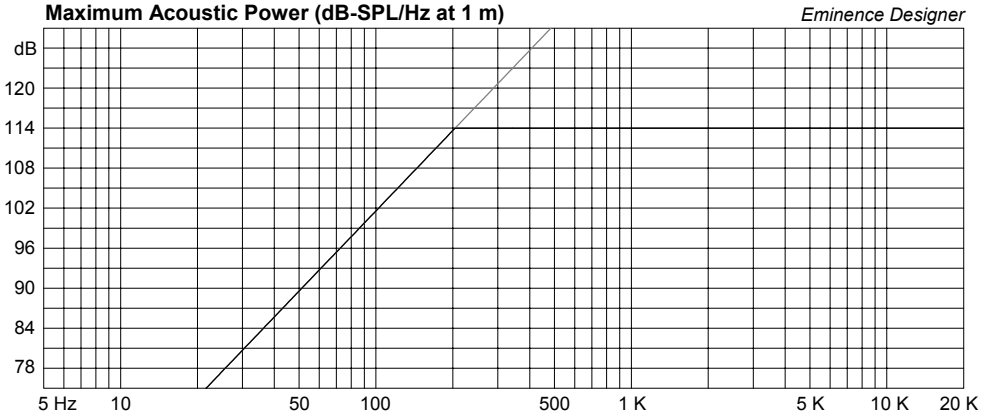
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



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

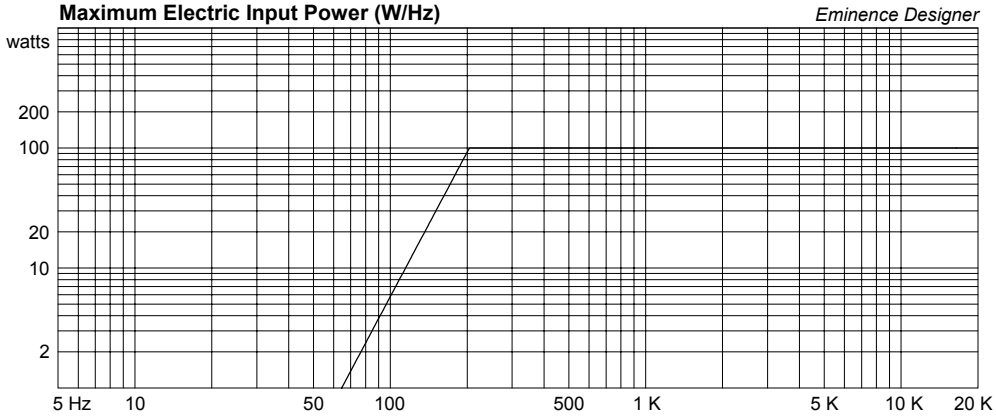


Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



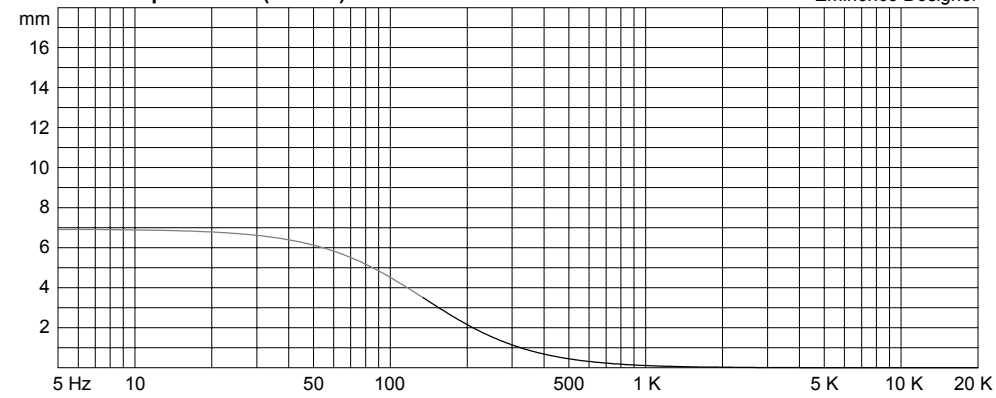
Maximum Electric Input Power (W/Hz)

Eminence Designer



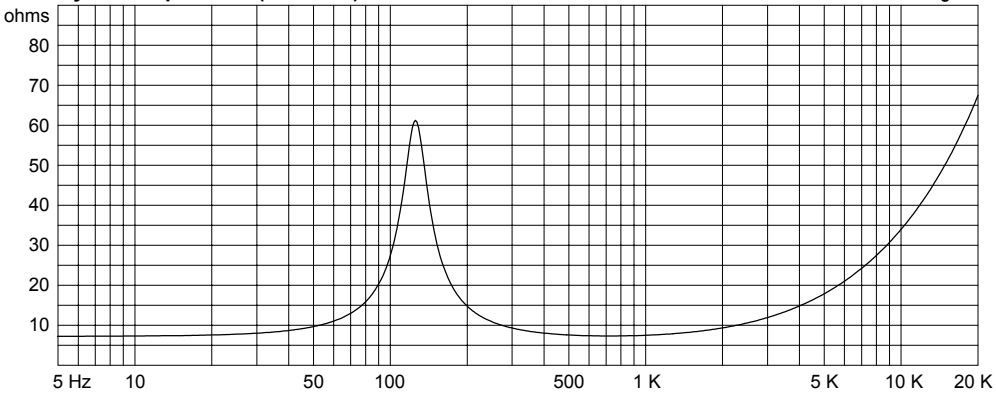
Cone Displacement (mm/Hz) with 100 watts

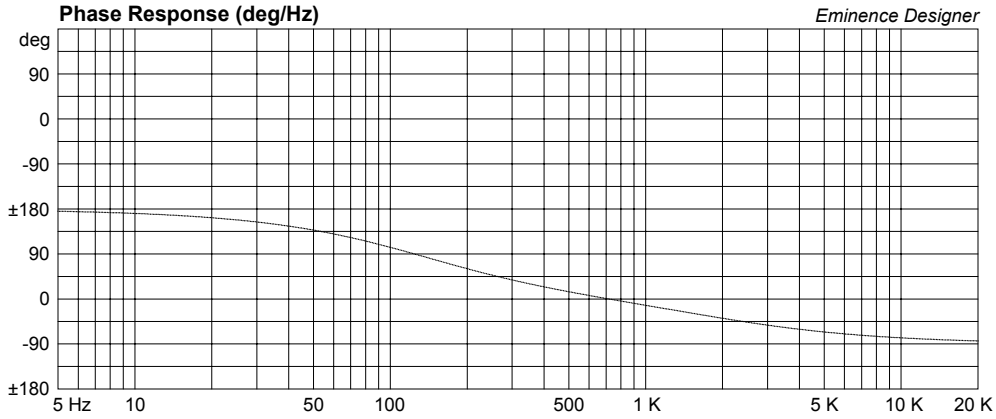
Eminence Designer

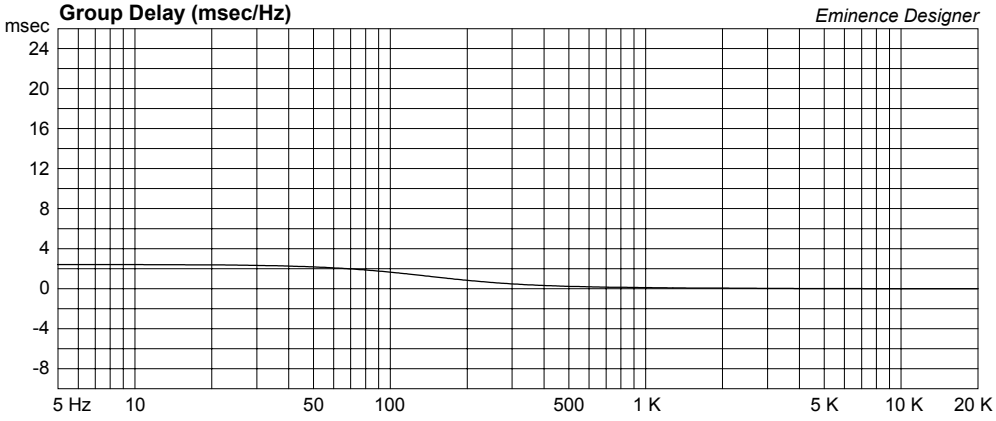


System Impedance (ohms/Hz)

Eminence Designer




Phase Response (deg/Hz)
Eminence Designer
deg
90
0
-90
±180
90
0
-90
±180
5 Hz
10
50
100
500
1 K
5 K
10 K
20 K


Group Delay (msec/Hz)
Eminence Designer
msec
24
20
16
12
8
4
0
-4
-8
5 Hz
10
50
100
500
1 K
5 K
10 K
20 K