

Alpha 5-8 Small Sealed Design

By Jerry McNutt, Eminence Speaker LLC

Limit to 100 Watts; F3 of 132 Hz. Best used with a Highpass Filter at 153 Hz
Small Sealed Midbass



Box Properties

--Description--

Name:

Type: Closed Box

Shape: Prism, square

--Box Parameters--

Vb = 0.122 cu.ft

V(total) = 0.122 cu.ft

Qtc = 0.776

QL = 20

F3 = 131.5 Hz

Fill = normal

Driver Properties

--Description--

Name: Alpha 5-8

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 5" Ferrite Midbass Driver

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 87.04 Hz

Qms = 11.81

Vas = 6.14 liters

Cms = 0.42 mm/N

Mms = 7.96 g

Rms = 0.37 kg/s

Xmax = 5.92 mm

Xmech = 6.4 mm

P-Dia = 113.7 mm

Sd = 102.6 sq.cm

P-Vd = 0.0601 liters

--Electrical Parameters--

Qes = 0.56

Re = 5 ohms

Le = 0.29 mH

Z = 8 ohms

BL = 6.22 Tm

Pe = 125 watts

--Electromech. Parameters--

Qts = 0.54

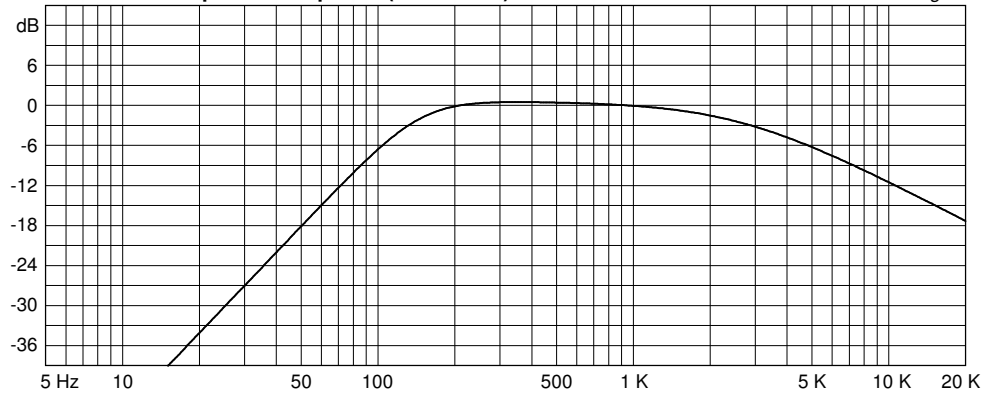
no = 0.697 %

1-W SPL = 90.58 dB

2.83-V SPL = 92.62 dB

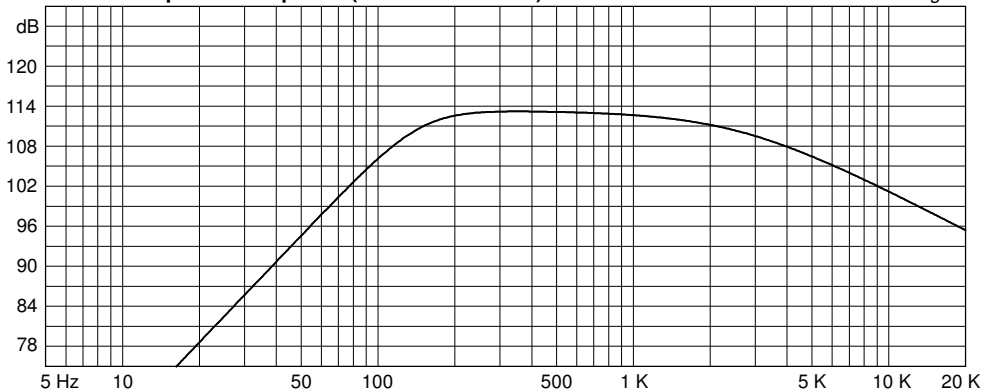
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



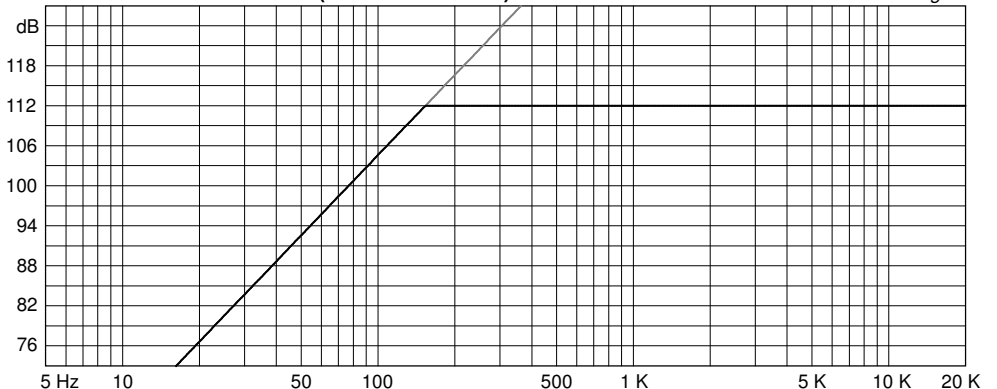
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 100 watts

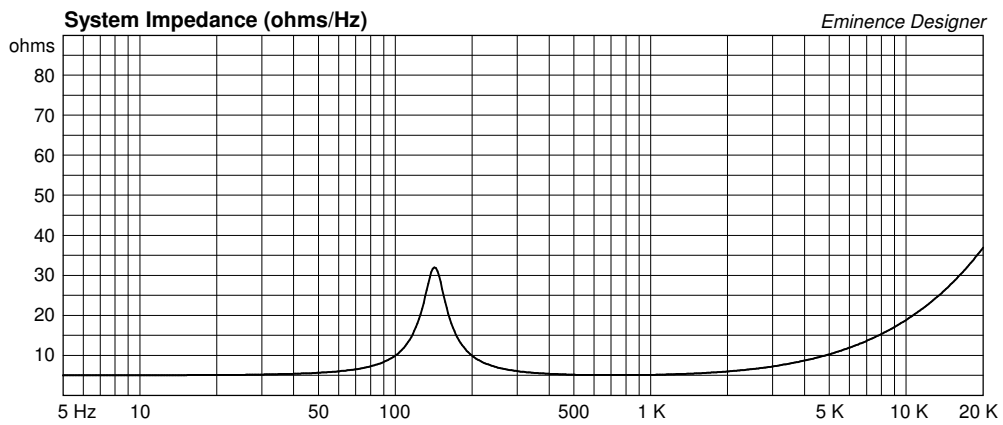
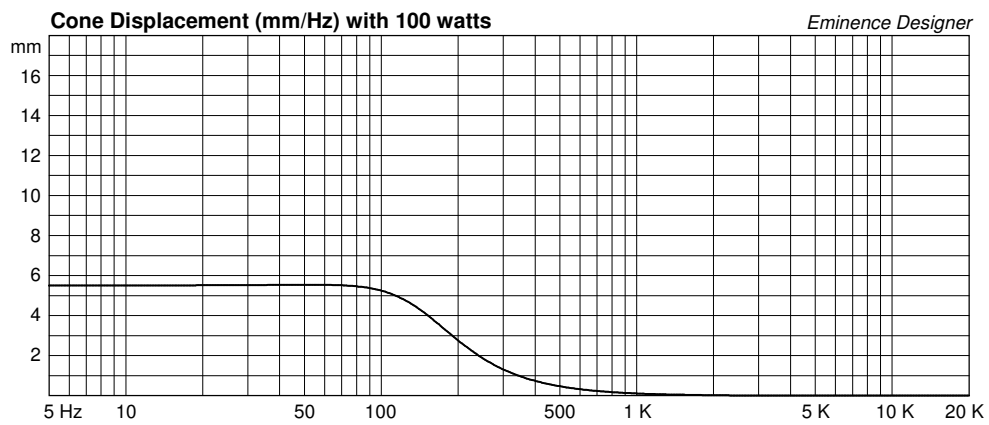
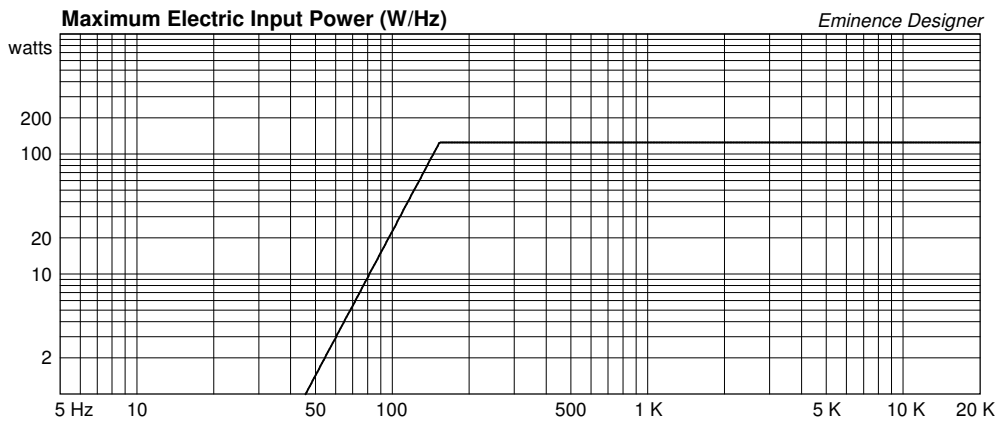
Eminence Designer



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

Eminence Designer





Alpha 5-8 Small Vented Design

By Jerry McNutt, Eminence Speaker LLC
125 Watts; F3 of 87 Hz. Best used with a Highpass Filter at 100Hz
Vented Midbass or Vented PA Satellite or Top Box



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 0.25 cu.ft

V(total) = 0.283 cu.ft

Fb = 100 Hz

QL = 7

F3 = 86.86 Hz

Fill = normal

--Vents--

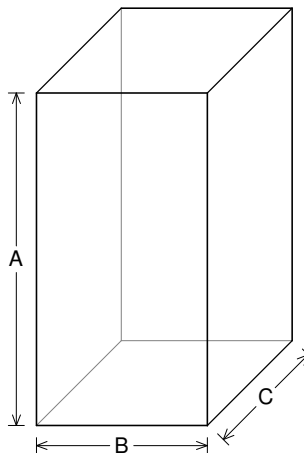
No. of Vents = 1

Vent shape = round

Vent ends = one flush

Dv = 3 in

Lv = 4.632 in



--External Dimensions--

A = 15.09 in

B = 7.75 in

C = 7.25 in

--Internal Dimensions--

A = 13.59 in

B = 6.25 in

C = 5.75 in

--Wall Thickness--

Front = 0.75 in

Side = 0.75 in

Driver Properties

--Description--

Name: Alpha 5-8

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 5" Ferrite Midbass Driver

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 87.04 Hz

Qms = 11.81

Vas = 6.14 liters

Cms = 0.42 mm/N

Mms = 7.96 g

Rms = 0.37 kg/s

Xmax = 5.92 mm

Xmech = 6.4 mm

P-Dia = 113.7 mm

Sd = 102.6 sq.cm

P-Vd = 0.0601 liters

--Electrical Parameters--

Qes = 0.56

Re = 5 ohms

Le = 0.29 mH

Z = 8 ohms

BL = 6.22 Tm

Pe = 125 watts

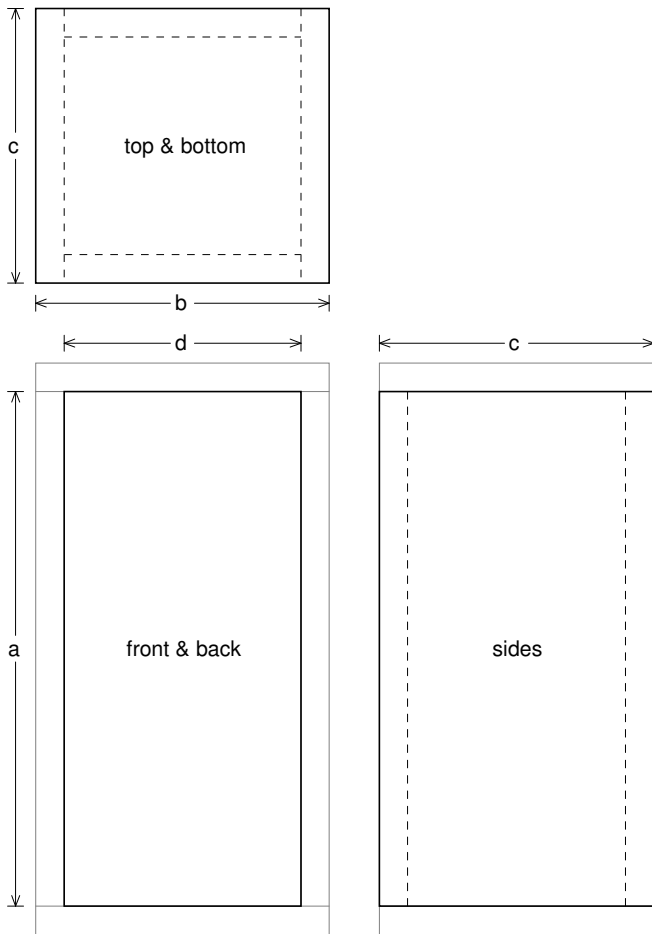
--Electromech. Parameters--

Qts = 0.54

no = 0.697 %

1-W SPL = 90.58 dB

2.83-V SPL = 92.62 dB



Box Parts

Box Shape: Square Prism

1 Top, 1 Bottom: depth (c) = 7.25 in

width (b) = 7.75, thickness = 0.75 in

1 Front, 1 Back: height (a) = 13.59 in

width (d) = 6.25, thickness = 0.75 in

2 Sides: height (a) = 13.59 in

depth (c) = 7.25, thickness = 0.75 in

--Vent Parts--

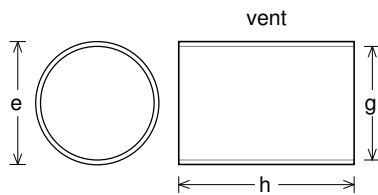
1 Duct: outside diameter (e) = 3.25 in

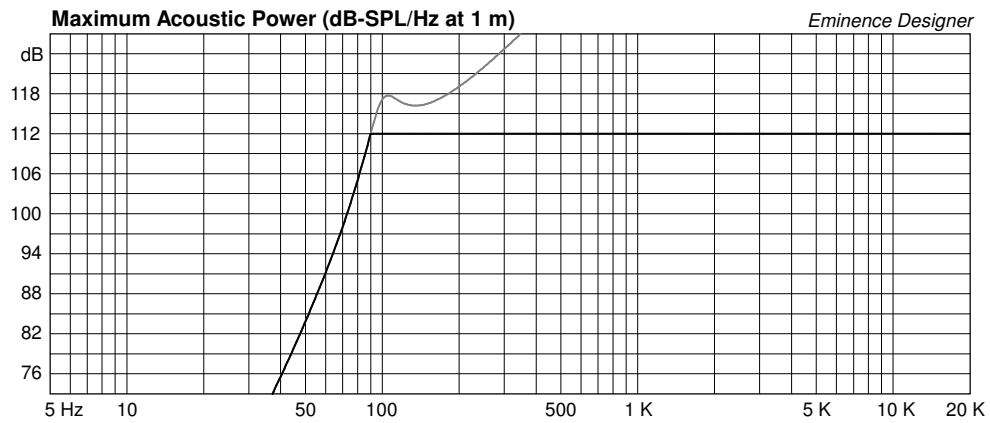
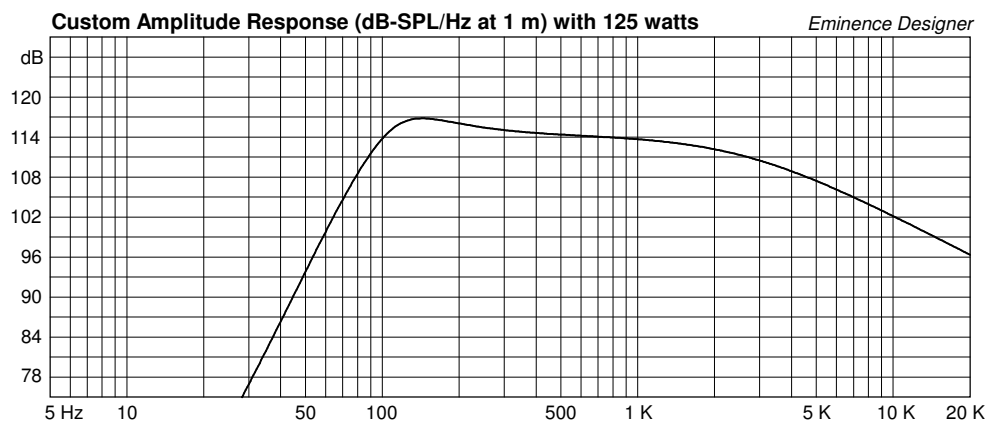
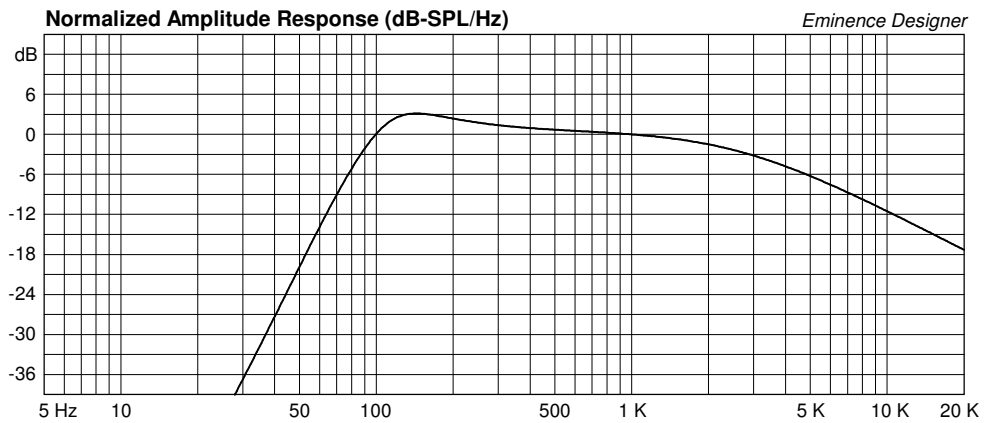
inside diameter (g) = 3 in

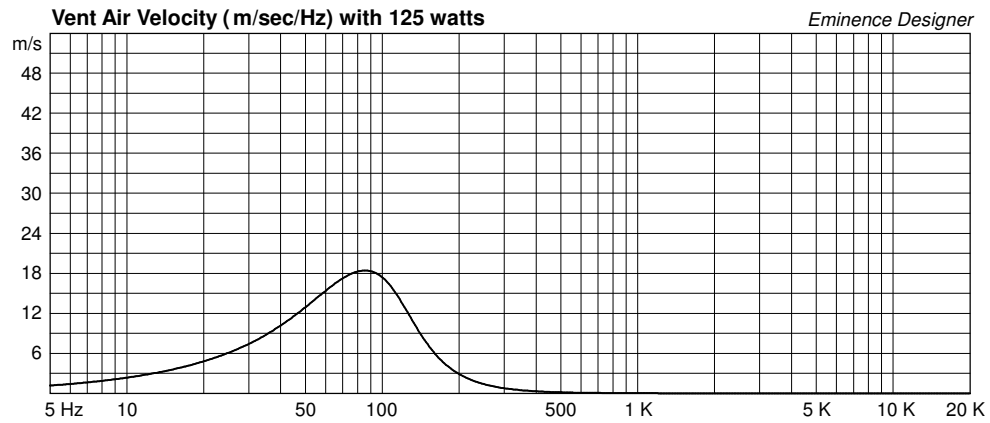
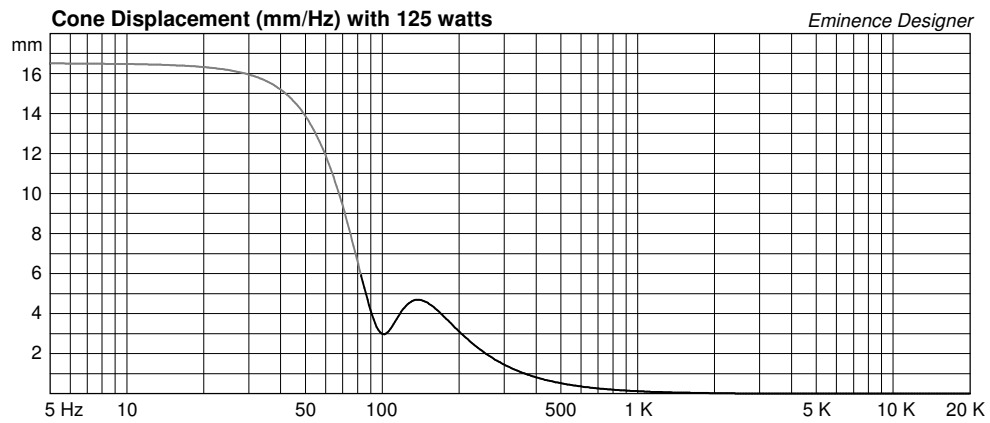
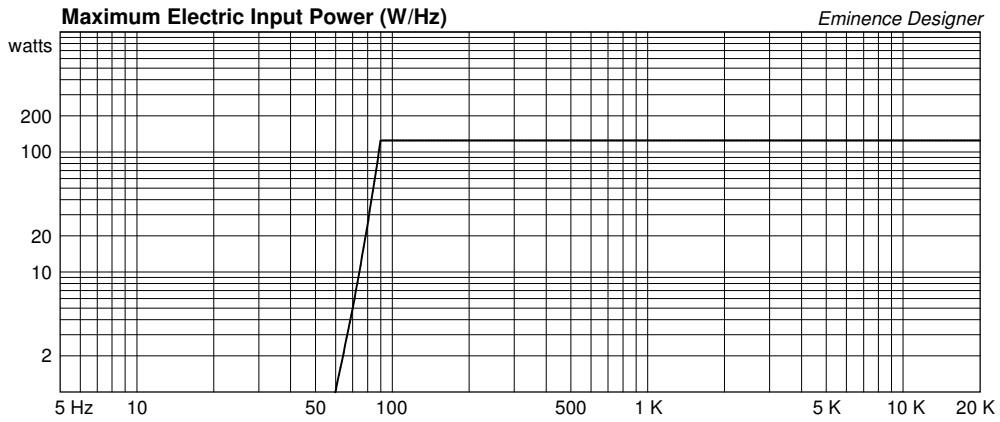
length (h) = 4.632 in

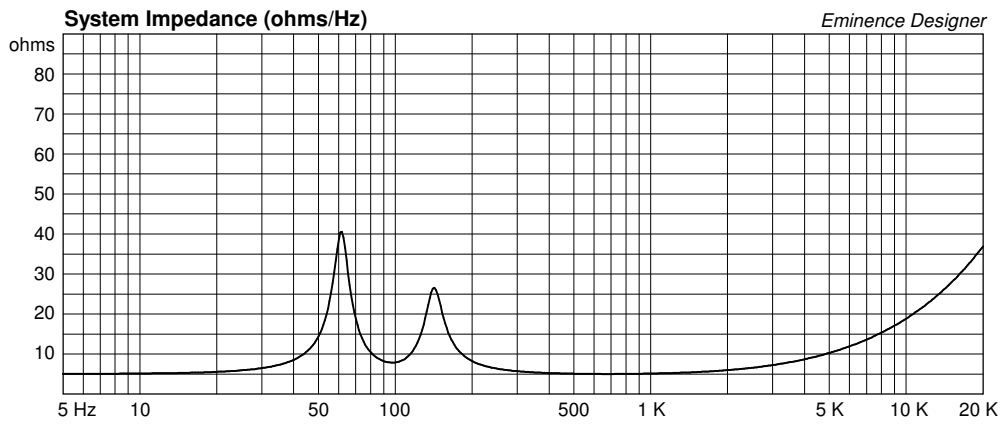
--Driver Mounting--

Mounting: Flush









Alpha 5-8 Large Sealed Midbass

By Jerry McNutt, Eminence Speaker LLC

Limit to 100 Watts; F3 of 127Hz. Best used with a Highpass Filter at 156 Hz
Sealed Midbass



Box Properties

--Description--

Name:

Type: Closed Box

Shape: Prism, square

--Box Parameters--

Vb = 0.25 cu.ft

V(total) = 0.25 cu.ft

Qtc = 0.654

QL = 20

F3 = 127.4 Hz

Fill = normal

Driver Properties

--Description--

Name: Alpha 5-8

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 5" Ferrite Midbass Driver

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 87.04 Hz

Qms = 11.81

Vas = 6.14 liters

Cms = 0.42 mm/N

Mms = 7.96 g

Rms = 0.37 kg/s

Xmax = 5.92 mm

Xmech = 6.4 mm

P-Dia = 113.7 mm

Sd = 102.6 sq.cm

P-Vd = 0.0601 liters

--Electrical Parameters--

Qes = 0.56

Re = 5 ohms

Le = 0.29 mH

Z = 8 ohms

BL = 6.22 Tm

Pe = 125 watts

--Electromech. Parameters--

Qts = 0.54

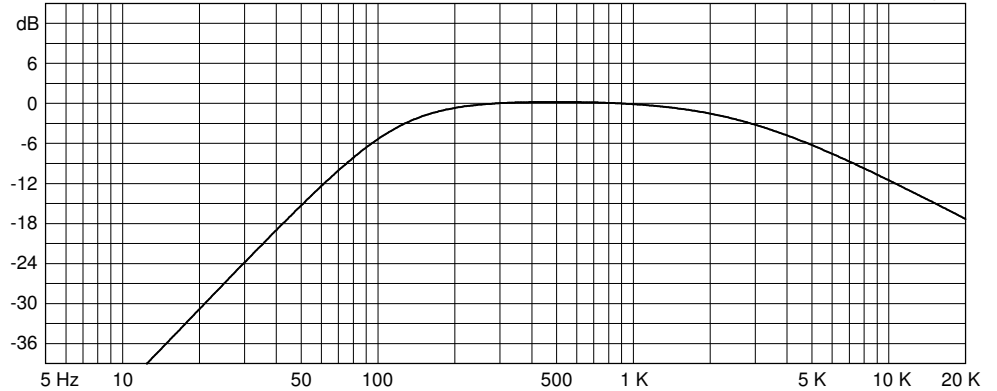
no = 0.697 %

1-W SPL = 90.58 dB

2.83-V SPL = 92.62 dB

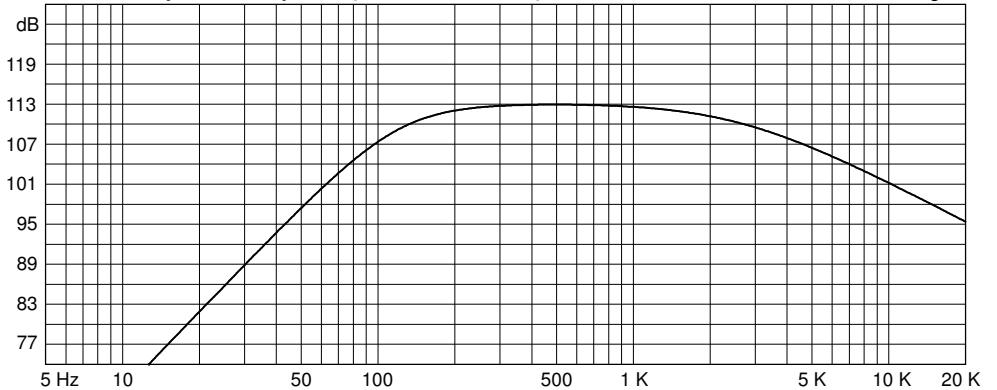
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



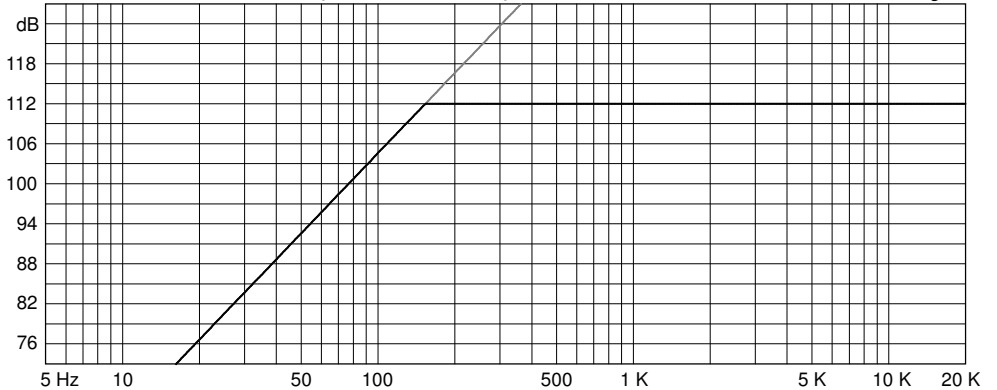
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 100 watts

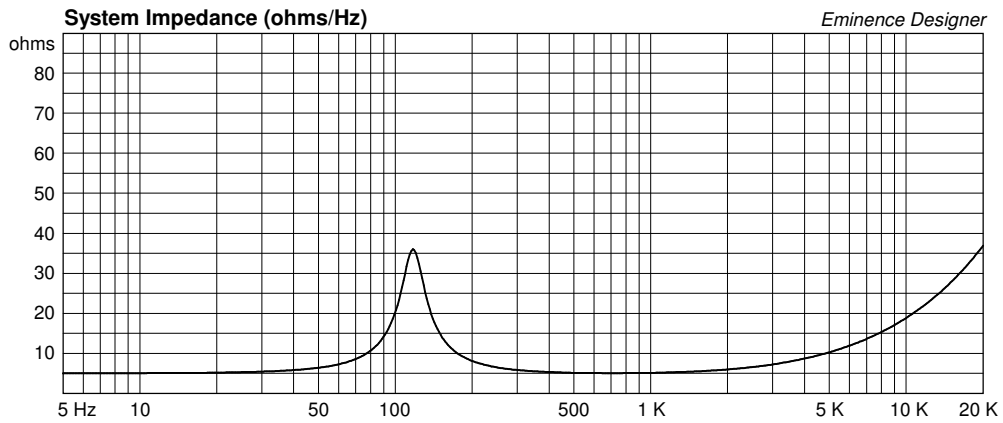
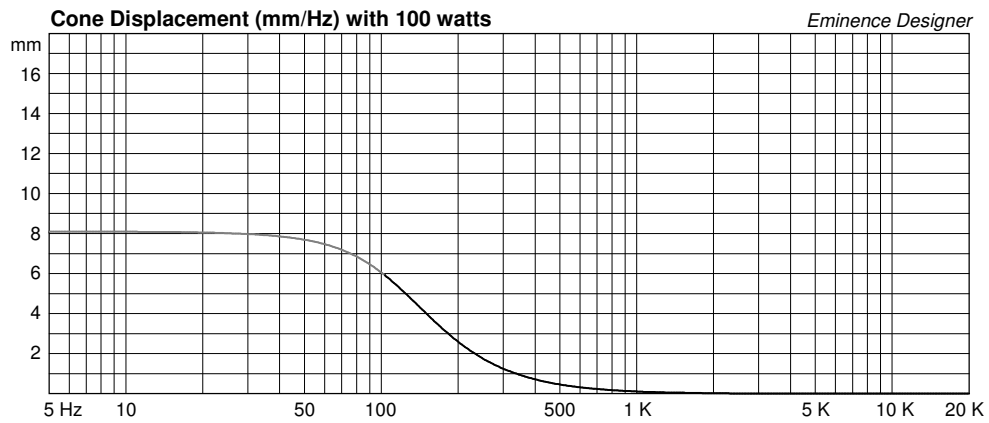
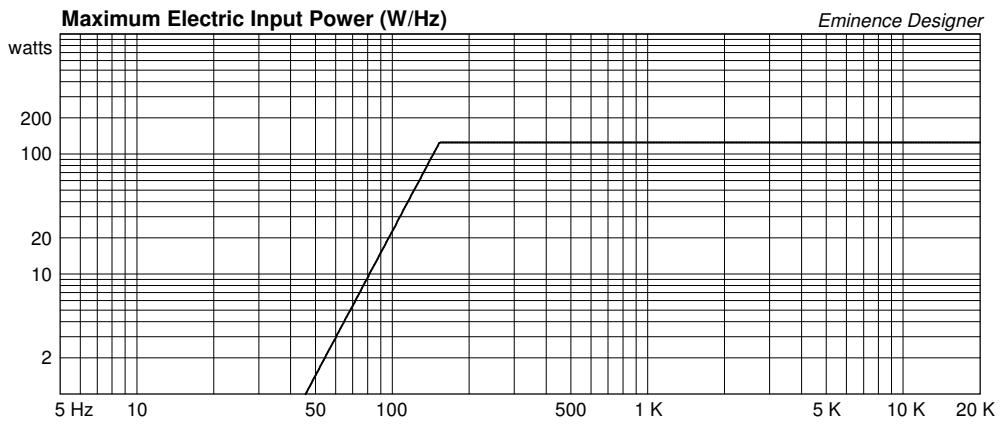
Eminence Designer



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

Eminence Designer





Alpha 5-8 Large Vented Design

By Jerry McNutt, Eminence Speaker LLC
125 Watts; F3 of 76 Hz. Best used with a Highpass Filter at 90 Hz
Vented Midbass or Vented PA Satellite or Top Box



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 0.4 cu.ft

V(total) = 0.424 cu.ft

Fb = 90 Hz

QL = 7

F3 = 76.33 Hz

Fill = normal

--Vents--

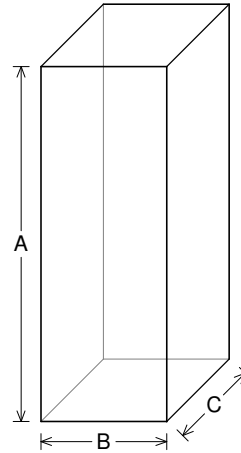
No. of Vents = 1

Vent shape = round

Vent ends = one flush

Dv = 3 in

Lv = 2.889 in



--External Dimensions--

A = 21.9 in

B = 7.75 in

C = 7.25 in

--Internal Dimensions--

A = 20.4 in

B = 6.25 in

C = 5.75 in

--Wall Thickness--

Front = 0.75 in

Side = 0.75 in

Driver Properties

--Description--

Name: Alpha 5-8

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 5" Ferrite Midbass Driver

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 87.04 Hz

Qms = 11.81

Vas = 6.14 liters

Cms = 0.42 mm/N

Mms = 7.96 g

Rms = 0.37 kg/s

Xmax = 5.92 mm

Xmech = 6.4 mm

P-Dia = 113.7 mm

Sd = 102.6 sq.cm

P-Vd = 0.0601 liters

--Electrical Parameters--

Qes = 0.56

Re = 5 ohms

Le = 0.29 mH

Z = 8 ohms

BL = 6.22 Tm

Pe = 125 watts

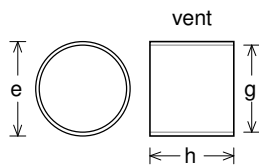
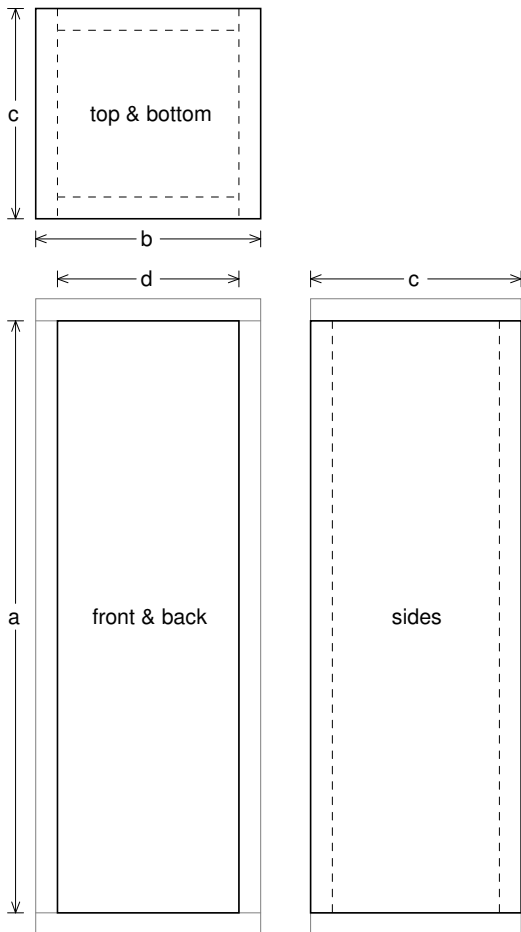
--Electromech. Parameters--

Qts = 0.54

no = 0.697 %

1-W SPL = 90.58 dB

2.83-V SPL = 92.62 dB



Box Parts

Box Shape: Square Prism

1 Top, 1 Bottom: depth (c) = 7.25 in
width (b) = 7.75, thickness = 0.75 in

1 Front, 1 Back: height (a) = 20.4 in
width (d) = 6.25, thickness = 0.75 in

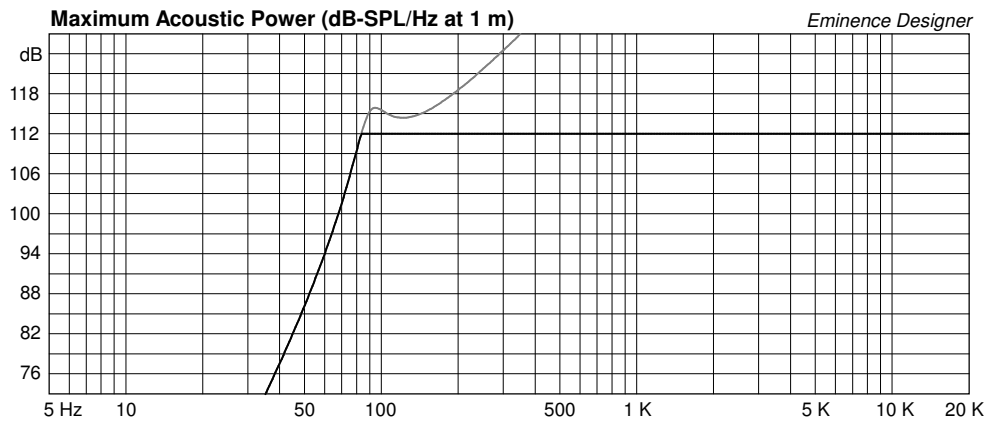
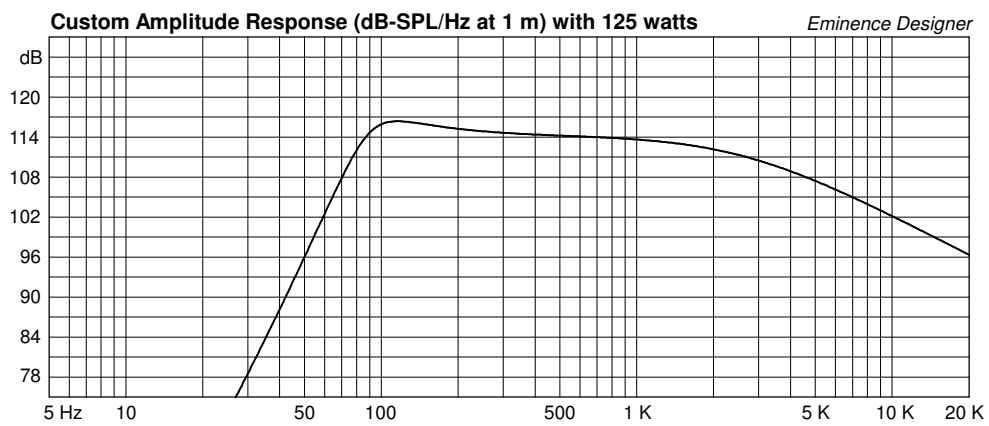
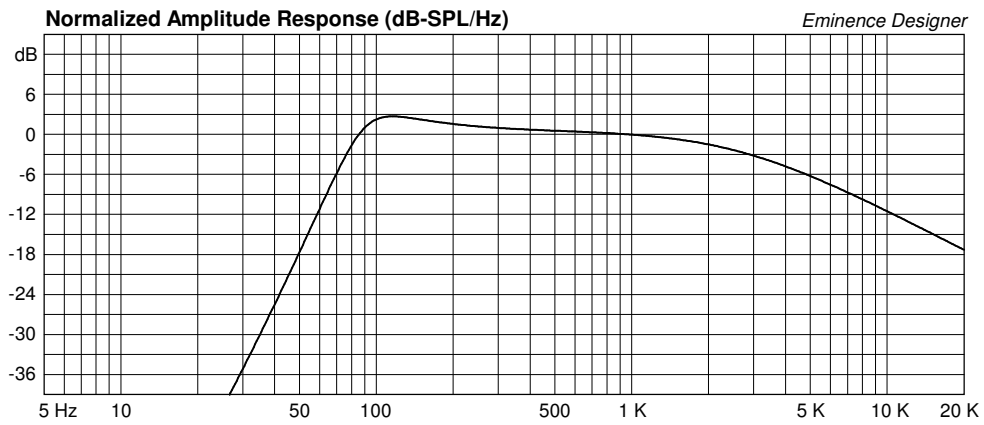
2 Sides: height (a) = 20.4 in
depth (c) = 7.25, thickness = 0.75 in

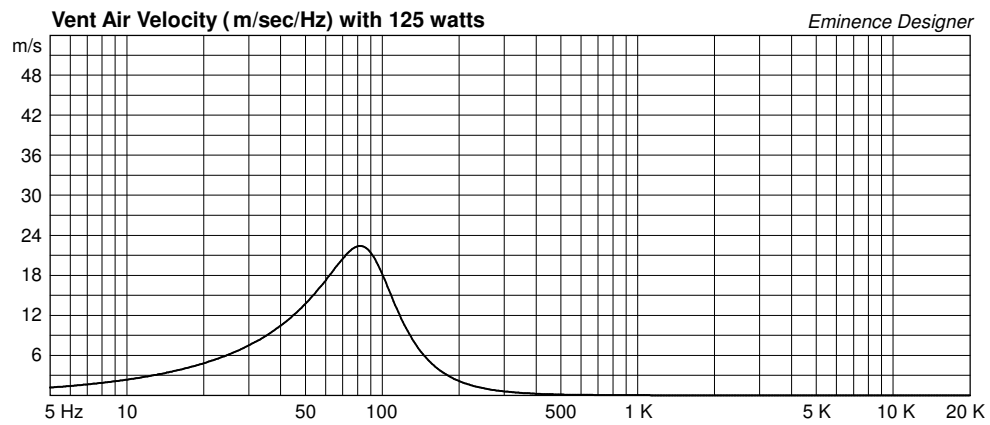
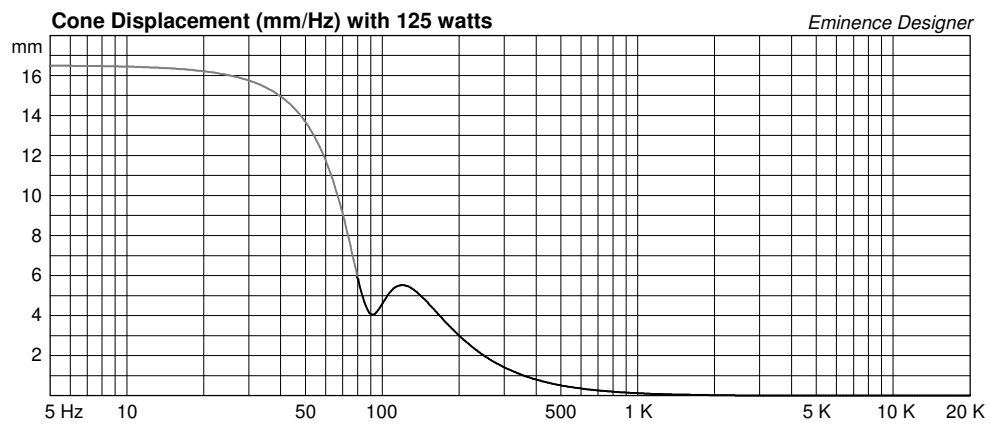
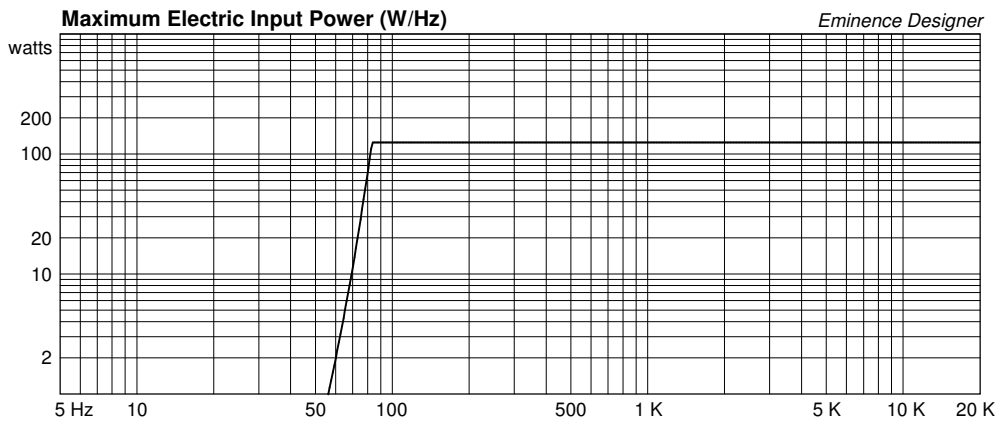
--Vent Parts--

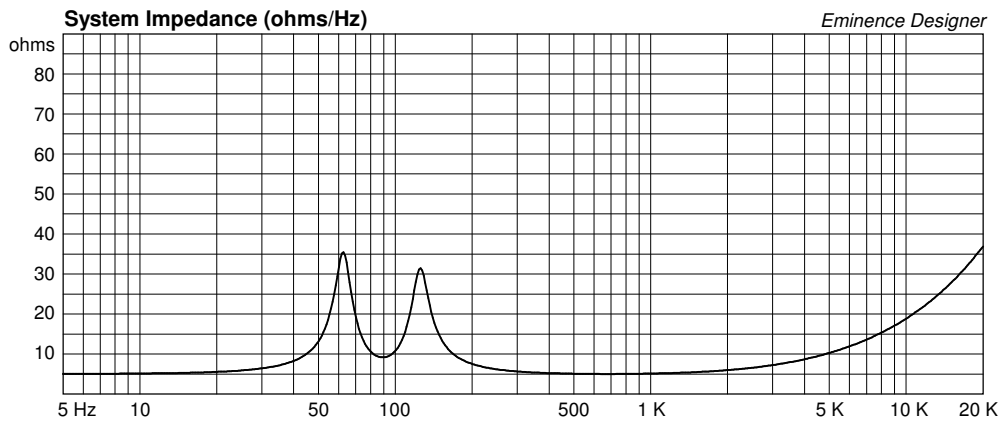
1 Duct: outside diameter (e) = 3.25 in
inside diameter (g) = 3 in
length (h) = 2.889 in

--Driver Mounting--

Mounting: Flush







Alpha 5-8 High Power Mini Column Satellite Design

By Jerry McNutt, Eminence Speaker LLC
500 Watts; F3 of 91 Hz. Best used with a Highpass Filter at 126 Hz
High Power Mini Column Satellite or Top Box



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 0.75 cu.ft

V(total) = 0.872 cu.ft

Fb = 90.91 Hz

QL = 7

F3 = 90.46 Hz

Fill = normal

--Vents--

No. of Vents = 2

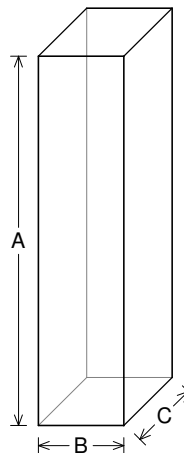
Vent shape = rectangle

Vent ends = one flush

Hv = 1.5 in

Wv = 6.5 in

Lv = 5.584 in



--External Dimensions--

A = 34.6 in

B = 8 in

C = 8.5 in

--Internal Dimensions--

A = 33.1 in

B = 6.5 in

C = 7 in

--Wall Thickness--

Front = 0.75 in

Side = 0.75 in

Driver Properties

--Description--

Name: Alpha 5-8

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 5" Ferrite Midbass Driver

--Configuration--

No. of Drivers = 4

Mounting = Standard

Wiring = Series-Parallel

Drivers sum coherently = Yes

--Mechanical Parameters--

Fs = 87.04 Hz

Qms = 11.81

Vas = 6.14 liters [24.56]

Cms = 0.42 mm/N [0.105]

Mms = 7.96 g [31.84]

Rms = 0.37 kg/s [1.48]

Xmax = 5.92 mm

Xmech = 6.4 mm

P-Dia = 113.7 mm [227.3]

Sd = 102.6 sq.cm [410.4]

P-Vd = 0.0601 liters [0.24]

--Electrical Parameters--

Qes = 0.56

Re = 5 ohms [5]

Le = 0.29 mH [0.29]

Z = 8 ohms [8]

BL = 6.22 Tm [12.47]

Pe = 125 watts [500]

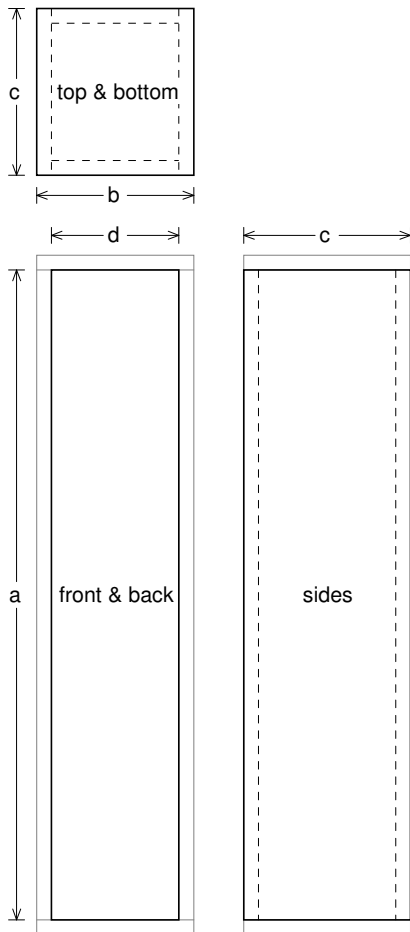
--Electromech. Parameters--

Qts = 0.54

no = 0.697 % [2.788]

1-W SPL = 90.58 dB [96.6]

2.83-V SPL = 92.62 dB [98.64]



Box Parts

Box Shape: Square Prism

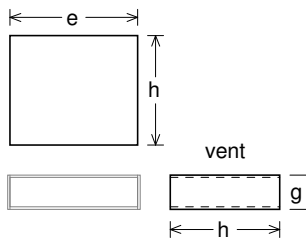
- 1 Top, 1 Bottom: depth (c) = 8.5 in
width (b) = 8, thickness = 0.75 in
- 1 Front, 1 Back: height (a) = 33.1 in
width (d) = 6.5, thickness = 0.75 in
- 2 Sides: height (a) = 33.1 in
depth (c) = 8.5, thickness = 0.75 in

--Vent Parts--

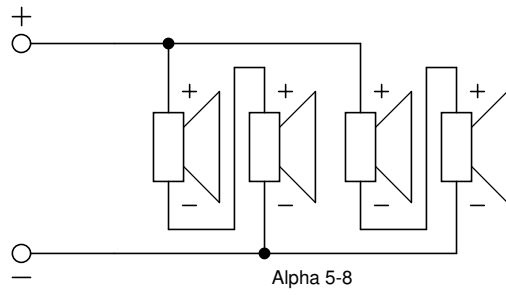
- 2 Tops, 2 Bottoms:
width (e) = 6.5, length (h) = 5.584 in
thickness = 0.125 in
- 4 Sides:
height (g) = 1.75, length (h) = 5.584 in
thickness = 0.125 in

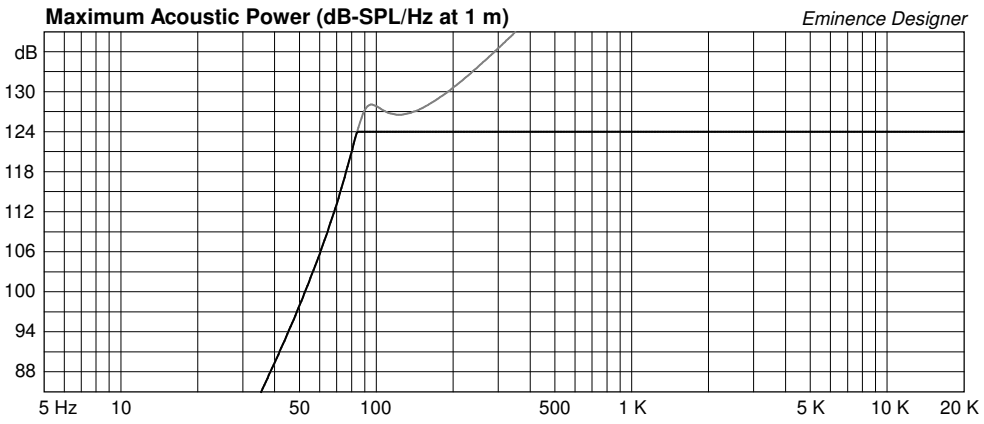
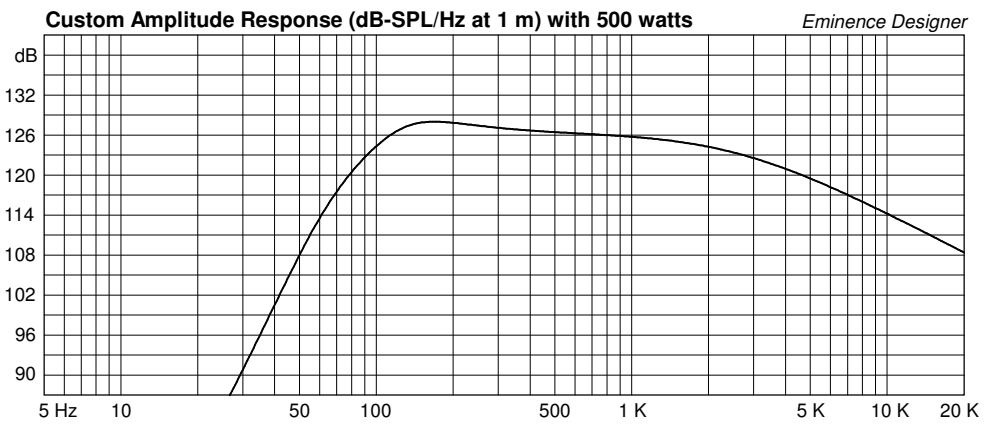
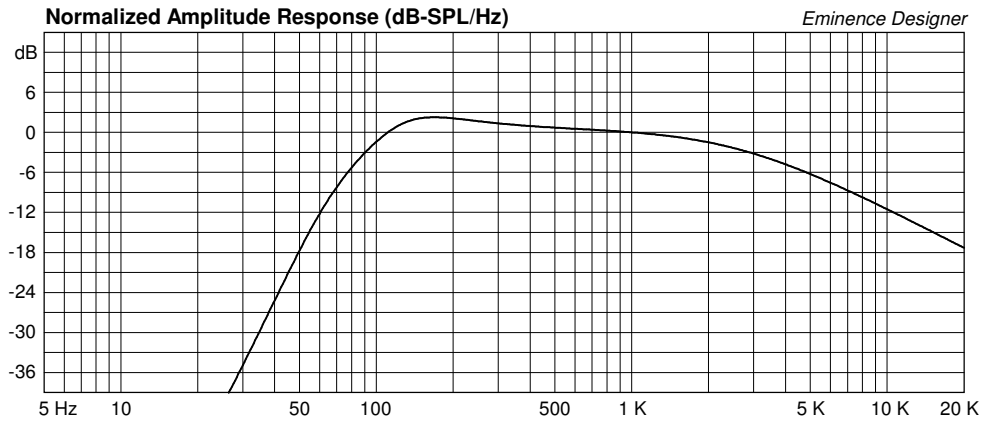
--Driver Mounting--

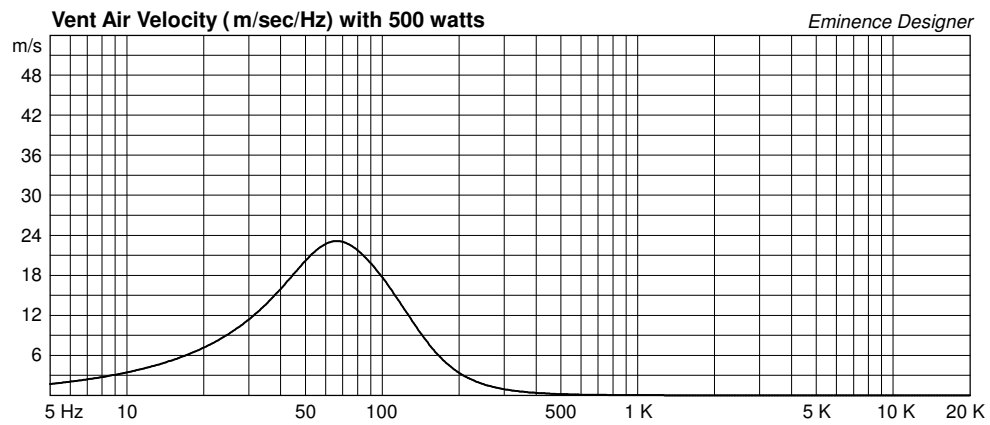
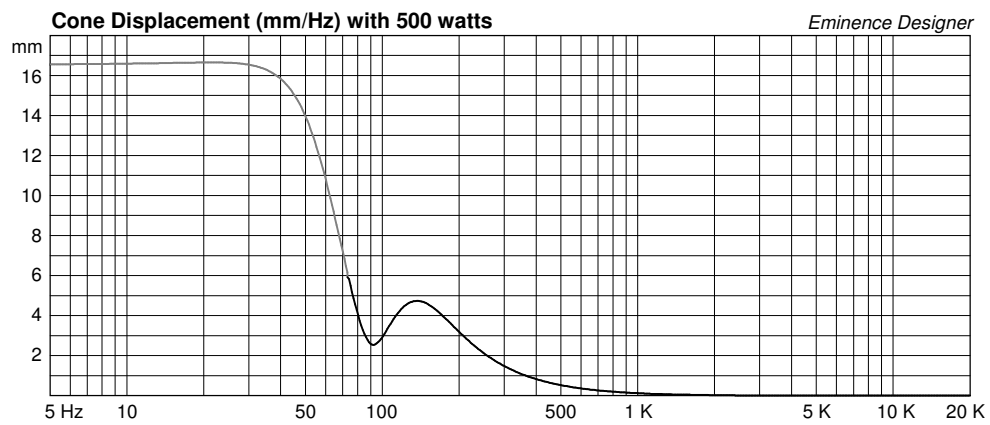
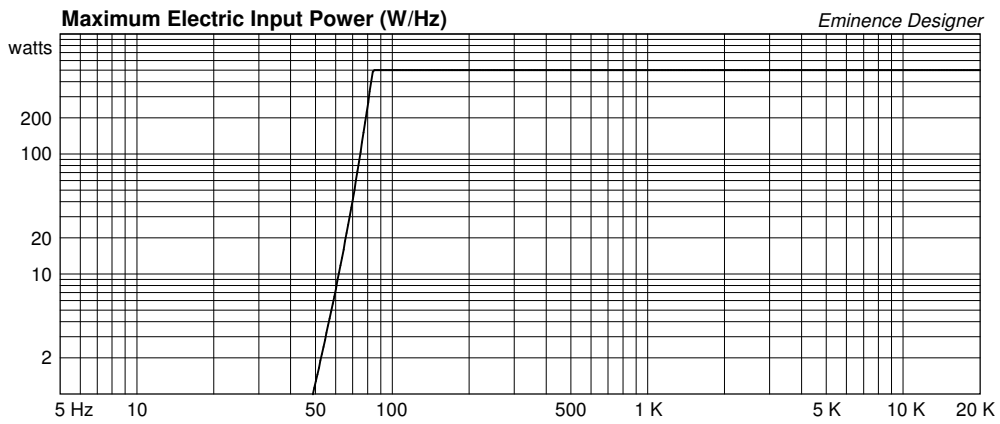
- Mounting: Flush
- Aim: All drivers face same direction

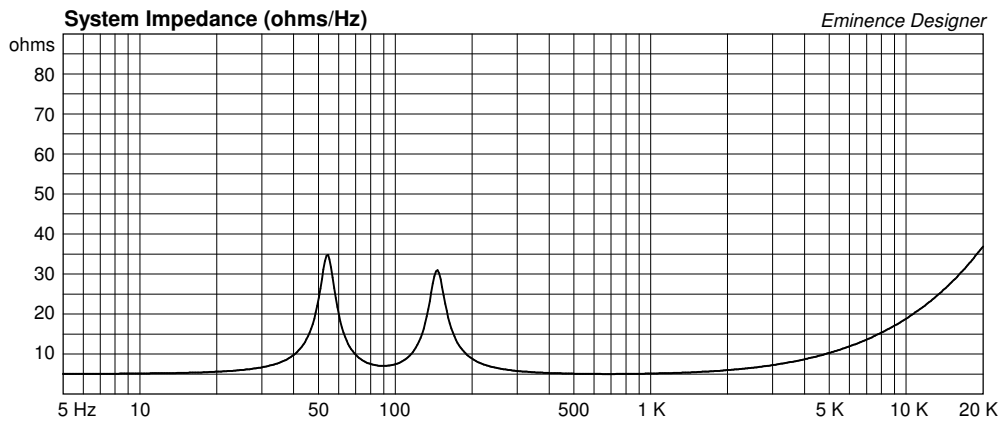


Wiring Diagram









Alpha 5-8 X Eight, Larger Column Array,

By Jerry McNutt, Eminence Speaker LLC
1000 Watts; F3 of 82 Hz. Best used with a Highpass Filter at 100 Hz
High Power Column Array Box



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 2 cu.ft

V(total) = 2.218 cu.ft

Fb = 90 Hz

QL = 7

F3 = 82.63 Hz

Fill = normal

--Vents--

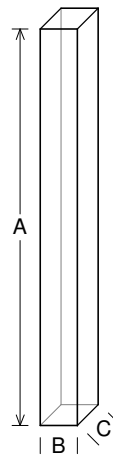
No. of Vents = 6

Vent shape = round

Vent ends = one flush

Dv = 3.39 in

Lv = 3.719 in



--External Dimensions--

A = 85.75 in

B = 8 in

C = 8.5 in

--Internal Dimensions--

A = 84.25 in

B = 6.5 in

C = 7 in

--Wall Thickness--

Front = 0.75 in

Side = 0.75 in

Driver Properties

--Description--

Name: Alpha 5-8

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 5" Ferrite Midbass Driver

--Configuration--

No. of Drivers = 8

Mounting = Standard

Wiring = Series-Parallel

Drivers sum coherently = Yes

--Mechanical Parameters--

Fs = 87.04 Hz

Qms = 11.81

Vas = 6.14 liters [49.12]

Cms = 0.42 mm/N [0.0525]

Mms = 7.96 g [63.68]

Rms = 0.37 kg/s [2.96]

Xmax = 5.92 mm

Xmech = 6.4 mm

P-Dia = 113.7 mm [321.5]

Sd = 102.6 sq.cm [820.9]

P-Vd = 0.0601 liters [0.48]

--Electrical Parameters--

Qes = 0.56

Re = 5 ohms [2.5]

Le = 0.29 mH [0.145]

Z = 8 ohms [4]

BL = 6.22 Tm [12.47]

Pe = 125 watts [1000]

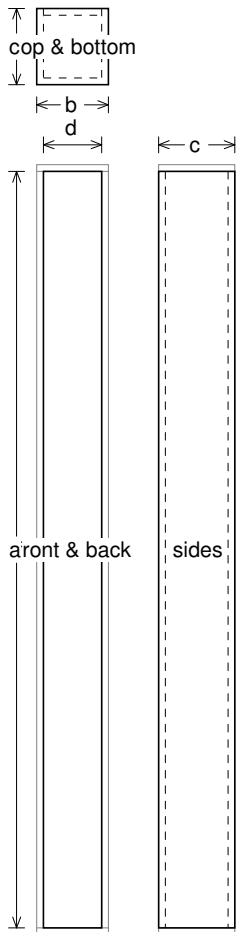
--Electromech. Parameters--

Qts = 0.54

no = 0.697 % [5.576]

1-W SPL = 90.58 dB [99.61]

2.83-V SPL = 92.62 dB [104.7]



Box Parts

Box Shape: Square Prism

- 1 Top, 1 Bottom: depth (c) = 8.5 in
width (b) = 8, thickness = 0.75 in
- 1 Front, 1 Back: height (a) = 84.25 in
width (d) = 6.5, thickness = 0.75 in
- 2 Sides: height (a) = 84.25 in
depth (c) = 8.5, thickness = 0.75 in

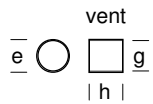
--Vent Parts--

- 6 Ducts: outside diameter (e) = 3.64 in
inside diameter (g) = 3.39 in
length (h) = 3.719 in

--Driver Mounting--

Mounting: Flush

Aim: All drivers face same direction



Wiring Diagram

