

AMERICAN STANDARD SERIES

ALPHA 3-8

The Eminence Alpha 3-8 is a truly versatile compact full-range driver perfectly suited for tight fitting pro audio line array and column array applications. With a program power rating of 60 watts, this 3" driver utilizes an 8.3 oz ferrite magnet in conjunction with an internal neodymium bucking magnet for increased sensitivity and extends the response out to 20kHz. The highly pressed cone sandwiches paper with a layer of water-resistant polypropylene for increased stiffness and lower distortion.

- 60 W Program Power
- 3.0" Nominal Diameter
- 8 Ω

APPLICATION		ENCLOSURE	
Full Range	<input checked="" type="checkbox"/>	Sealed Box	<input checked="" type="checkbox"/>
Midrange	<input checked="" type="checkbox"/>	Vented Box	<input checked="" type="checkbox"/>
Midbass	<input type="checkbox"/>	Scoop Loading	<input type="checkbox"/>
Woofer	<input type="checkbox"/>	Horn Loading	<input type="checkbox"/>
Subwoofer	<input type="checkbox"/>		
Bass Guitar	<input type="checkbox"/>		

SPECIFICATION

Nominal Basket Diameter	3.0", 76 mm
Nominal Impedance*	8 Ω
Power Rating*	
Program Power	60 W
Nominal Power	30 W
Resonance	118 Hz
Usable Frequency Range	150 Hz – 20.0 kHz
Sensitivity*	88.6 dB
Magnet Weight	8 oz.
Gap Height	0.10", 2.5 mm
Voice Coil Diameter	0.787", 20 mm

MATERIALS OF CONSTRUCTION

Copper voice coil
Polyimide former
Ferrite magnet
Vented / Flux source cap
Pressed steel basket
Paper/Poly sandwich cone
Poly cone edge
Poly dust cap



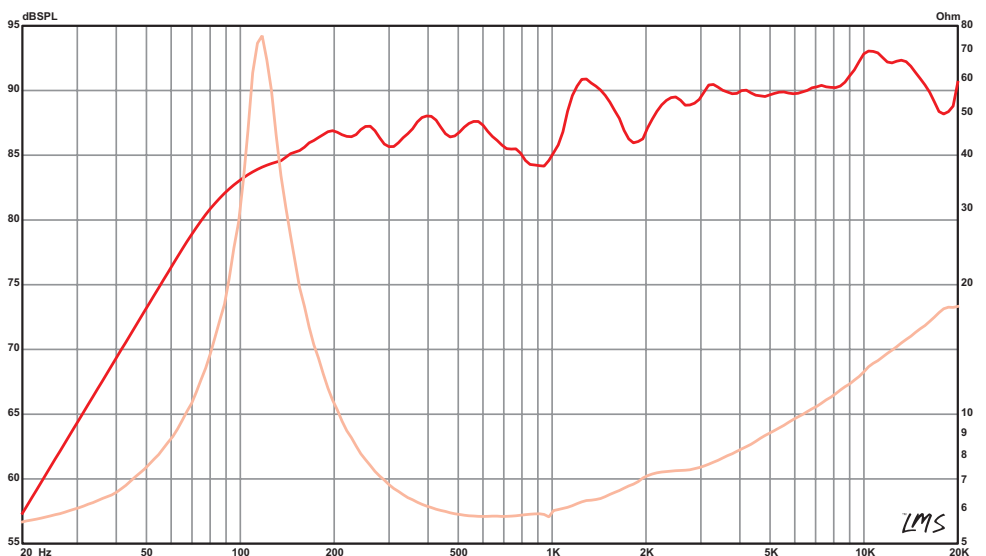
THIELE & SMALL PARAMETERS

Fs	118 Hz
Re	5.12 Ω
Le	0.11 mH
Qms	7.94
Qes	0.53
Qts	0.50
Vas	0.03 cu.ft., 0.95 liters
Vd	6.9 cc
Cms	0.84 mm/N
BL	3.93 T-M
Mms	2 grams
EBP	220
Xmax	2.40 mm
Sd	28.6 cm ²
Xlim	4.0 mm

MOUNTING INFORMATION

Recommended Enclosure Volume	
Sealed	0.85–1.42 liters, 0.03–0.05 cu.ft.
Vented	1.42–1.98 liters, 0.05–0.07 cu.ft.
Driver Volume Displaced	0.005 cu.ft., 0.13 liters
Major Diameter	3.98", 101.1 mm
Flat to Flat Diameter	3.24", 82.3 mm
Baffle Hole Diameter	3.04", 77.2 mm
Front Sealing Gasket	Yes
Rear Sealing Gasket	Yes
Mounting Holes Diameter	0.16", 4.1 mm
Mounting Holes B.C.D.	3.63", 92.1 mm
Depth	1.76", 44.6 mm
Net Weight	0.90 lbs , 0.41 kg
Shipping Weight	1.10 lbs , 0.50 kg

FREQUENCY RESPONSE & IMPEDANCE CURVE*



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* See footnotes on page 2 for information regarding usable frequency range, nominal impedance, power rating and sensitivity.



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

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Alpha 3-8 Small Sealed Midrange Design

By Jerry McNutt, Eminence Speaker LLC
30 Watts; F3 at 185 Hz. Best used above 250 Hz.



Box Properties

--Description--

Name:

Type: Closed Box

Shape: Prism, square

--Box Parameters--

Vb = 0.0344 cu.ft

V(total) = 0.038 cu.ft

Qtc = 0.622

QL = 20

F3 = 185.2 Hz

Fill = normal

Driver Properties

--Description--

Name: Alpha 3-8

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 3" Full Range Driver

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 117.6 Hz

Qms = 7.94

Vas = 0.95 liters

Cms = 0.84 mm/N

Mms = 2.18 g

Rms = 0.2 kg/s

Xmax = 2.4 mm

Xmech = 4 mm

P-Dia = 59.94 mm

Sd = 28.58 sq.cm

P-Vd = 0.00677 liters

--Electrical Parameters--

Qes = 0.53

Re = 5.12 ohms

Le = 0.11 mH

Z = 8 ohms

BL = 3.93 Tm

Pe = 30 watts

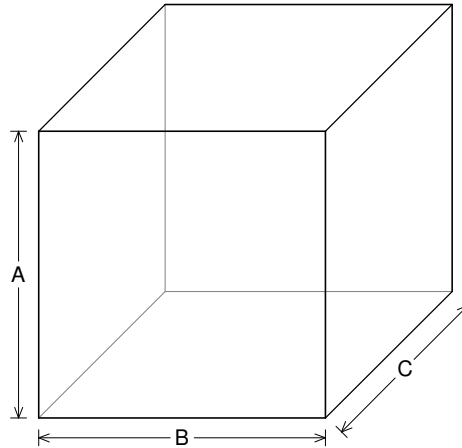
--Electromech. Parameters--

Qts = 0.497

no = 0.281 %

1-W SPL = 86.63 dB

2.83-V SPL = 88.57 dB



--External Dimensions--

A = 5.36 in

B = 5.36 in

C = 4.457 in

--Internal Dimensions--

A = 4.36 in

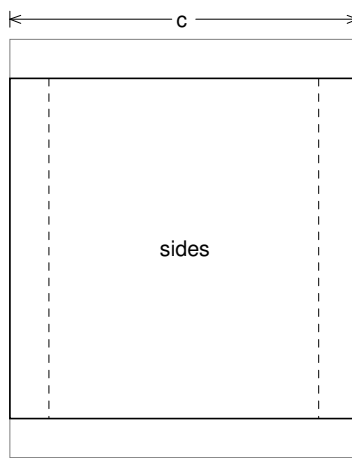
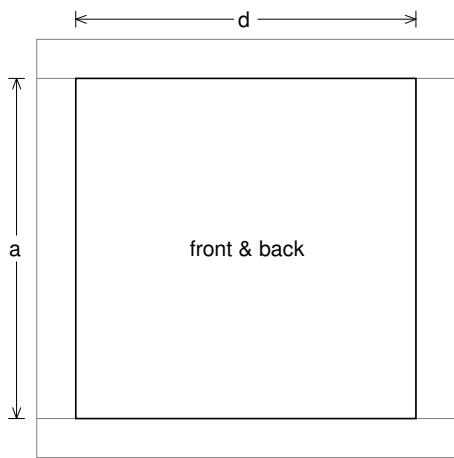
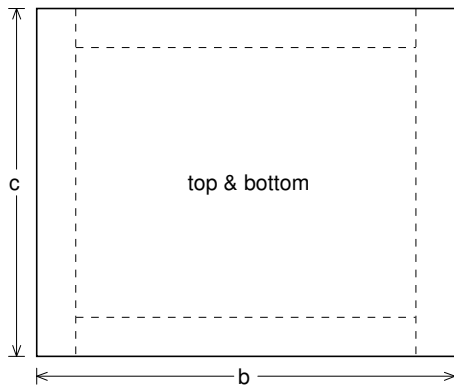
B = 4.36 in

C = 3.457 in

--Wall Thickness--

Front = 0.5 in

Side = 0.5 in



Box Parts

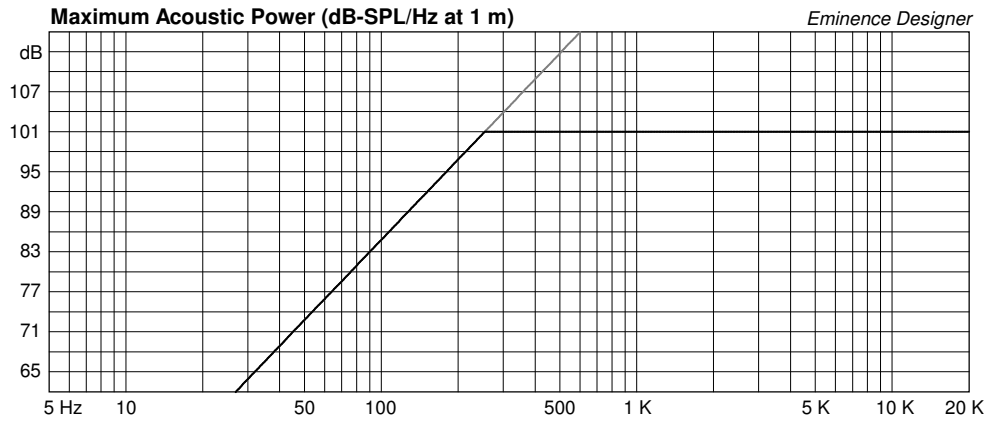
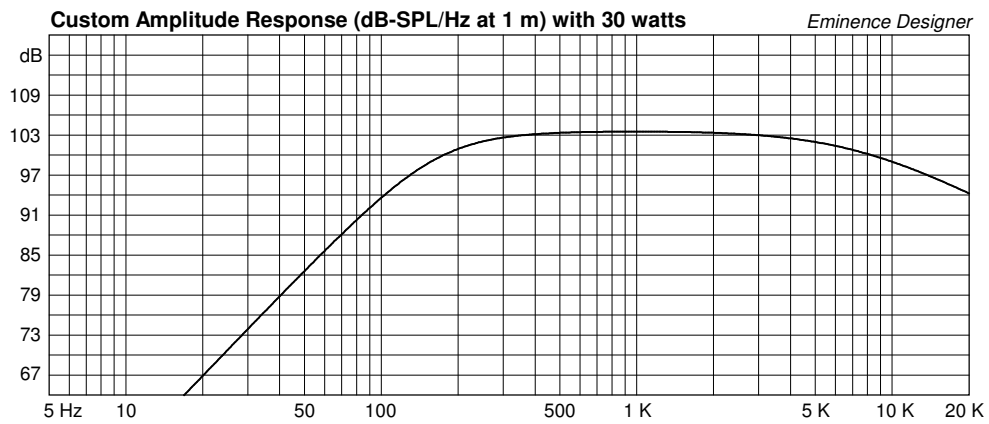
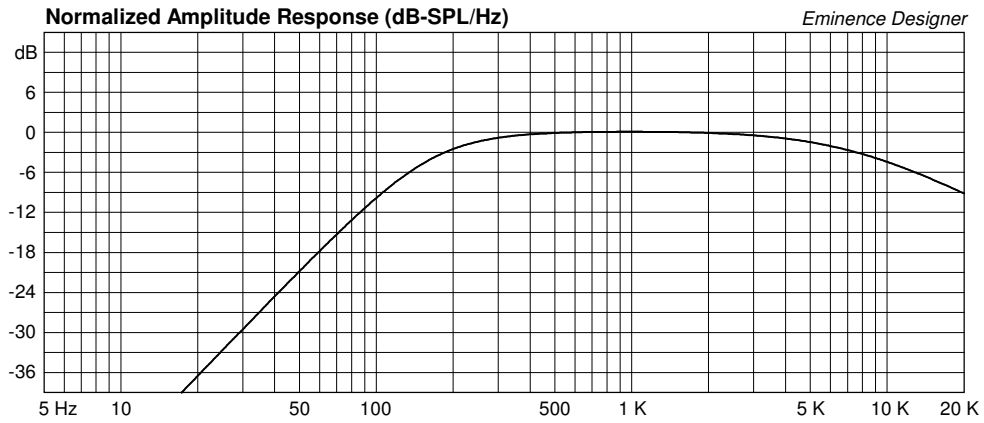
Box Shape: Square Prism

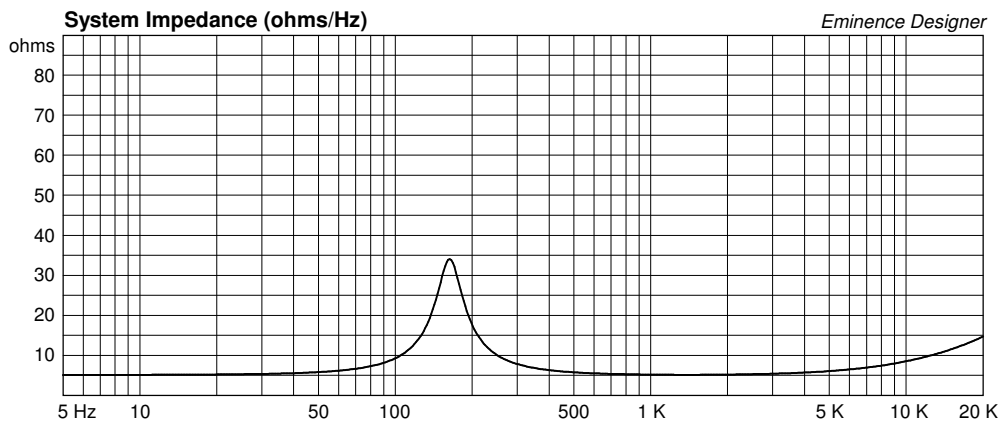
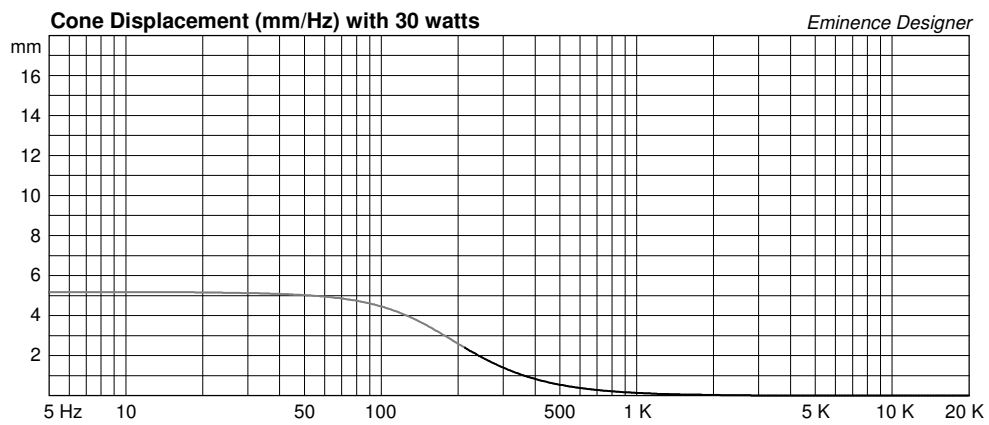
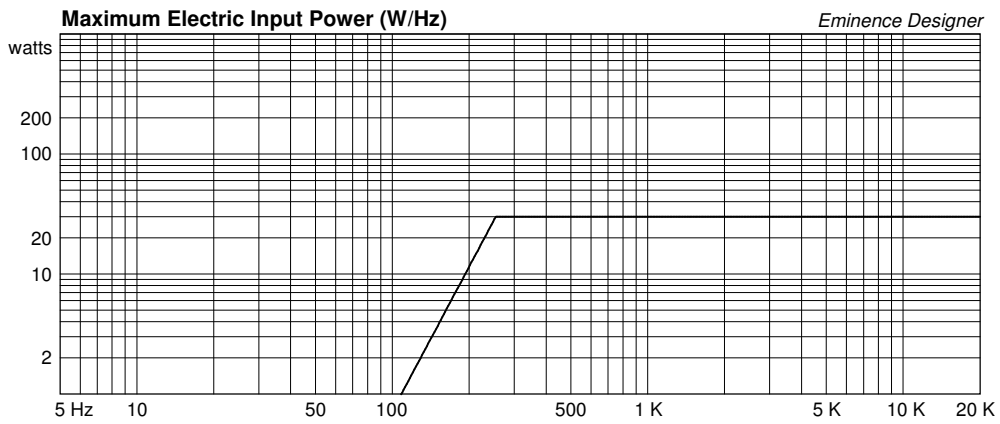
1 Top, 1 Bottom: depth (c) = 4.457 in
width (b) = 5.36, thickness = 0.5 in

1 Front, 1 Back: height (a) = 4.36 in
width (d) = 4.36, thickness = 0.5 in

2 Sides: height (a) = 4.36 in
depth (c) = 4.457, thickness = 0.5 in

--Driver Mounting--
Mounting: Flush





Alpha 3-8 Small Vented Midbass Design

By Jerry McNutt, Eminence Speaker LLC
20 Watts; F3 at 111 Hz. Best used above 150 Hz.
For midbass or for a micro small satellite speaker system.



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 0.045 cu.ft

V(total) = 0.0523 cu.ft

Fb = 125 Hz

QL = 7

F3 = 111 Hz

Fill = normal

--Vents--

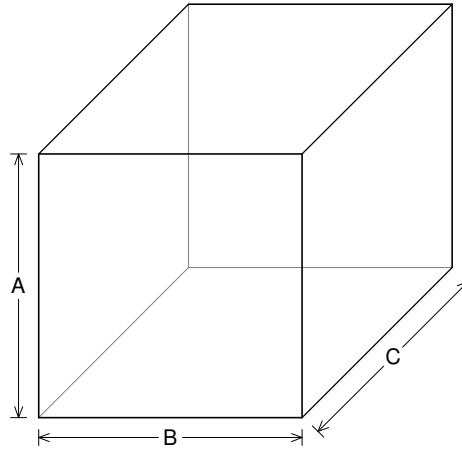
No. of Vents = 1

Vent shape = round

Vent ends = one flush

Dv = 1.3 in

Lv = 3.795 in



--External Dimensions--

A = 5.36 in

B = 5.36 in

C = 5.751 in

--Internal Dimensions--

A = 4.36 in

B = 4.36 in

C = 4.751 in

--Wall Thickness--

Front = 0.5 in

Side = 0.5 in

Driver Properties

--Description--

Name: Alpha 3-8

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 3" Full Range Driver

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 117.6 Hz

Qms = 7.94

Vas = 0.95 liters

Cms = 0.84 mm/N

Mms = 2.18 g

Rms = 0.2 kg/s

Xmax = 2.4 mm

Xmech = 4 mm

P-Dia = 59.94 mm

Sd = 28.58 sq.cm

P-Vd = 0.00677 liters

--Electrical Parameters--

Qes = 0.53

Re = 5.12 ohms

Le = 0.11 mH

Z = 8 ohms

BL = 3.93 Tm

Pe = 30 watts

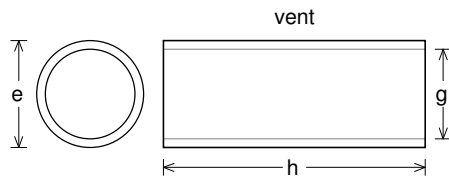
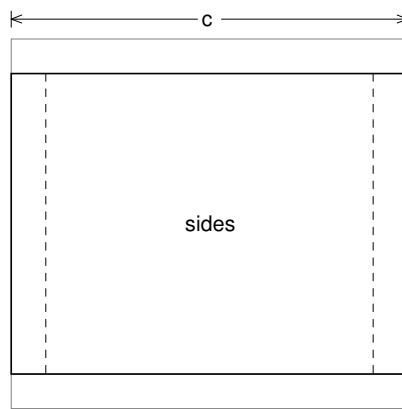
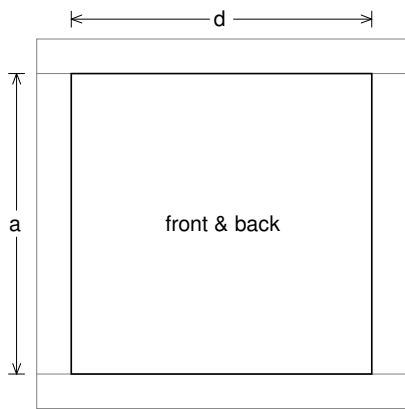
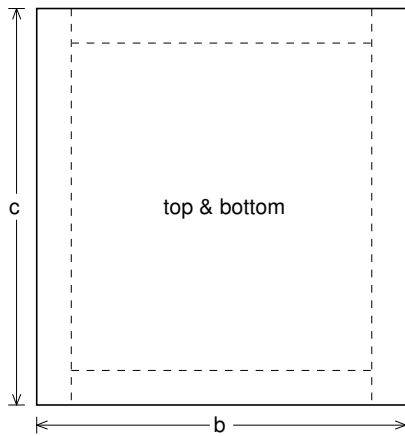
--Electromech. Parameters--

Qts = 0.497

no = 0.281 %

1-W SPL = 86.63 dB

2.83-V SPL = 88.57 dB



Box Parts

Box Shape: Square Prism

1 Top, 1 Bottom: depth (c) = 5.751 in
width (b) = 5.36, thickness = 0.5 in

1 Front, 1 Back: height (a) = 4.36 in
width (d) = 4.36, thickness = 0.5 in

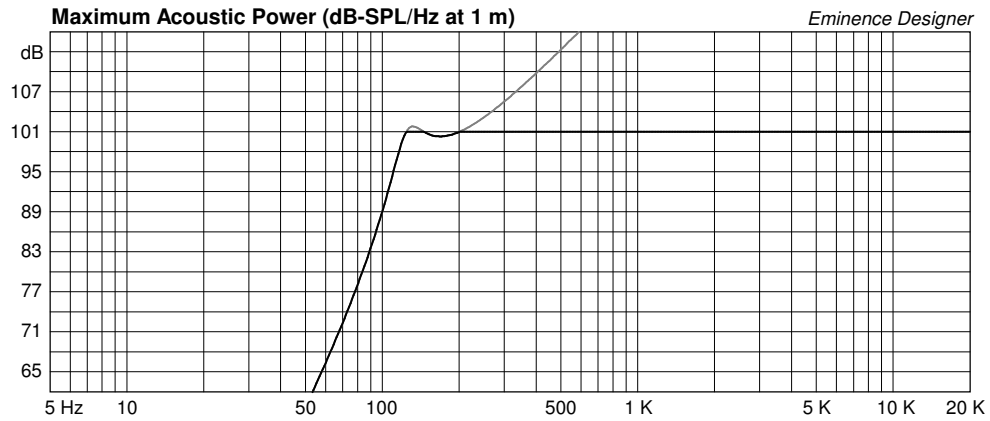
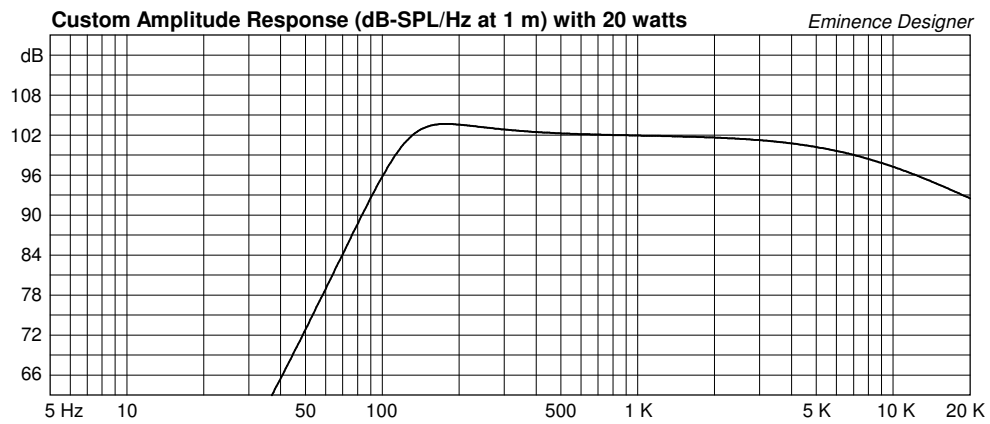
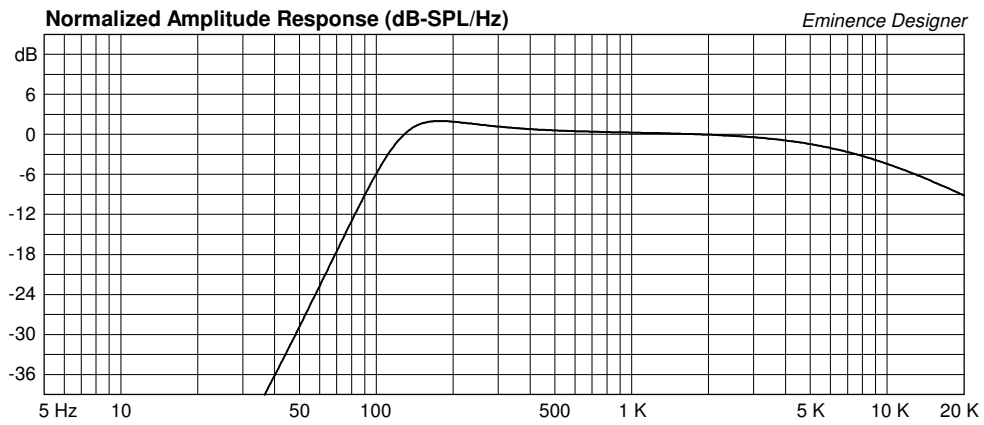
2 Sides: height (a) = 4.36 in
depth (c) = 5.751, thickness = 0.5 in

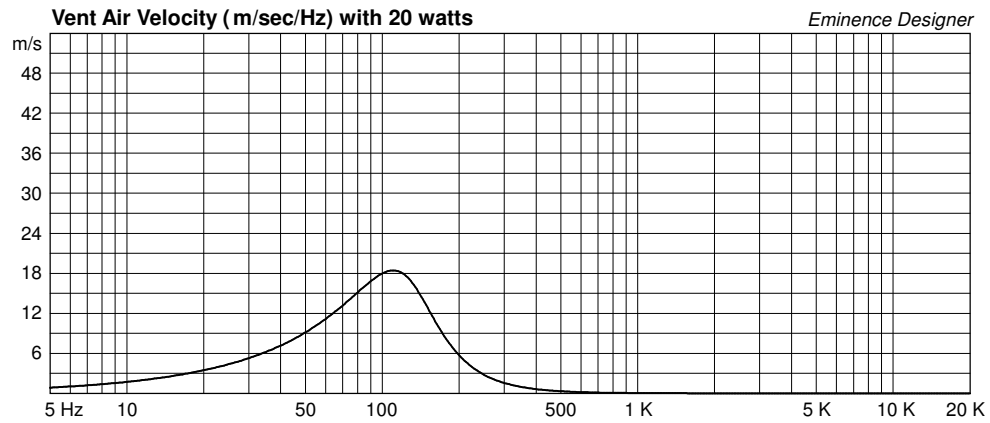
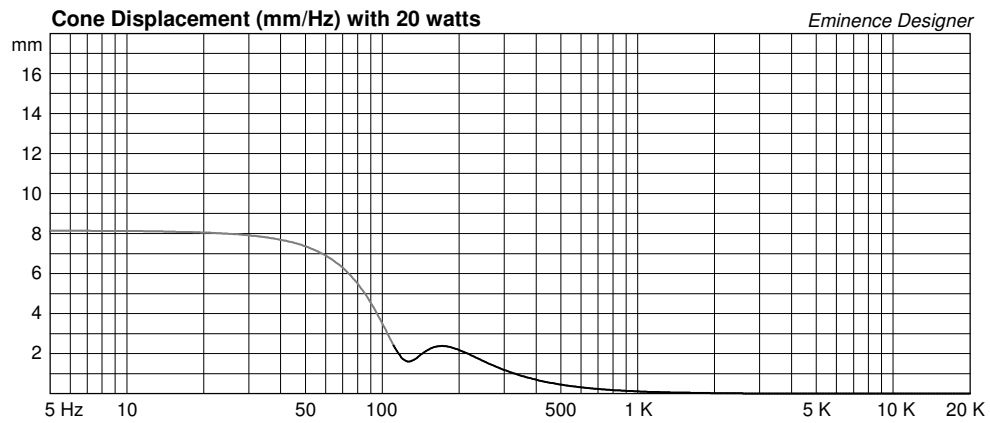
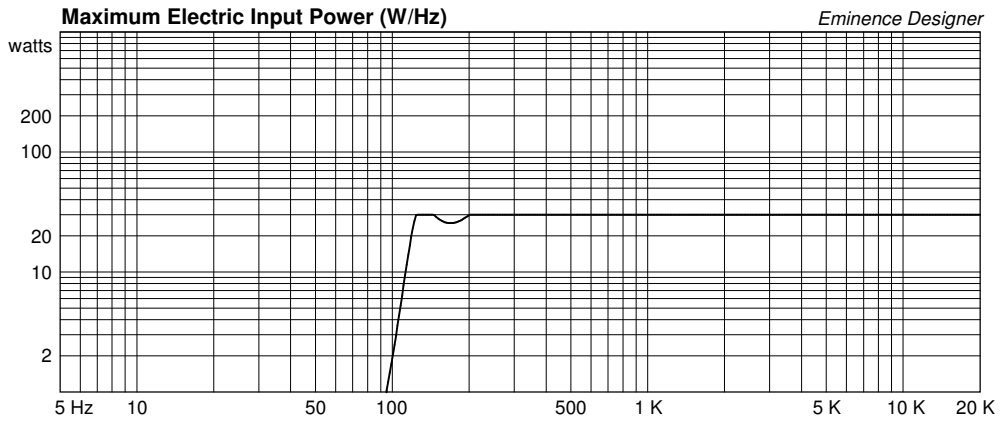
--Vent Parts--

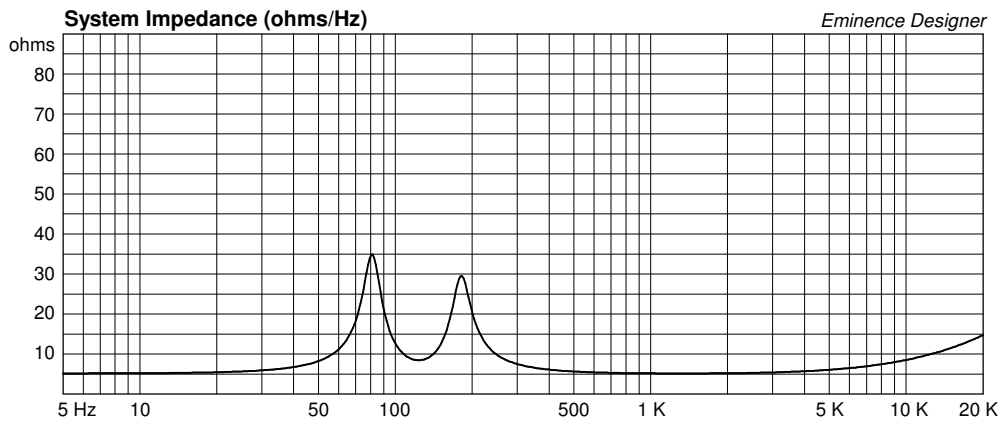
1 Duct: outside diameter (e) = 1.55 in
inside diameter (g) = 1.3 in
length (h) = 3.795 in

--Driver Mounting--

Mounting: Flush







Alpha 3-8 Vented Column Array Module

By Jerry McNutt, Eminence Speaker LLC
150 Watts; F3 at 109 Hz. Best used above 150 Hz.
4 ohms per module. Stack them for longer throw.



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 0.41 cu.ft

V(total) = 0.458 cu.ft

Fb = 125 Hz

QL = 7

F3 = 109 Hz

Fill = normal

--Vents--

No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 3 in

Lv = 2.385 in

Driver Properties

--Description--

Name: Alpha 3-8

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 3" Full Range Driver

--Configuration--

No. of Drivers = 8

Mounting = Standard

Wiring = Series-Parallel

Drivers sum coherently = Yes

--Mechanical Parameters--

Fs = 117.6 Hz

Qms = 7.94

Vas = 0.95 liters [7.6]

Cms = 0.84 mm/N [0.105]

Mms = 2.18 g [17.44]

Rms = 0.2 kg/s [1.6]

Xmax = 2.4 mm

Xmech = 4 mm

P-Dia = 59.94 mm [169.5]

Sd = 28.58 sq.cm [228.6]

P-Vd = 0.00677 liters [0.0542]

--Electrical Parameters--

Qes = 0.53

Re = 5.12 ohms [2.56]

Le = 0.11 mH [0.055]

Z = 8 ohms [4]

BL = 3.93 Tm [7.889]

Pe = 30 watts [240]

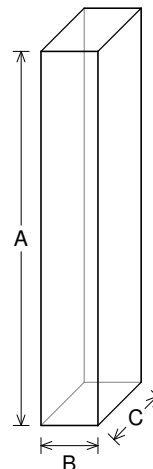
--Electromech. Parameters--

Qts = 0.497

no = 0.281 % [2.248]

1-W SPL = 86.63 dB [95.67]

2.83-V SPL = 88.57 dB [100.6]



--External Dimensions--

A = 33 in

B = 5 in

C = 7.179 in

--Internal Dimensions--

A = 32 in

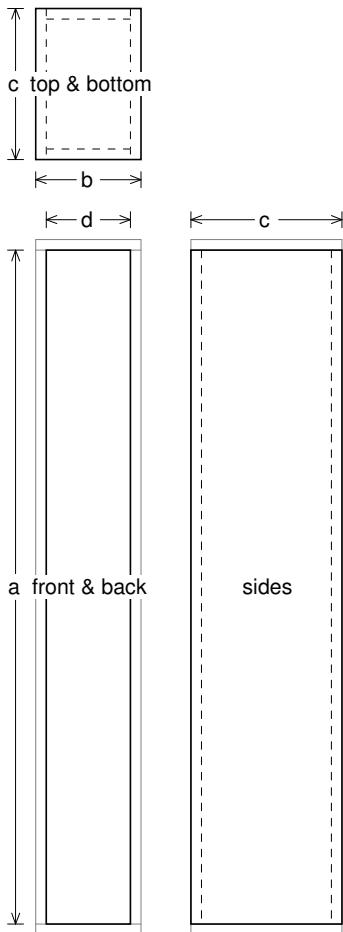
B = 4 in

C = 6.179 in

--Wall Thickness--

Front = 0.5 in

Side = 0.5 in



Box Parts

Box Shape: Square Prism

1 Top, 1 Bottom: depth (c) = 7.179 in
width (b) = 5, thickness = 0.5 in

1 Front, 1 Back: height (a) = 32 in
width (d) = 4, thickness = 0.5 in

2 Sides: height (a) = 32 in
depth (c) = 7.179, thickness = 0.5 in

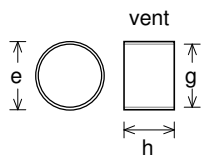
--Vent Parts--

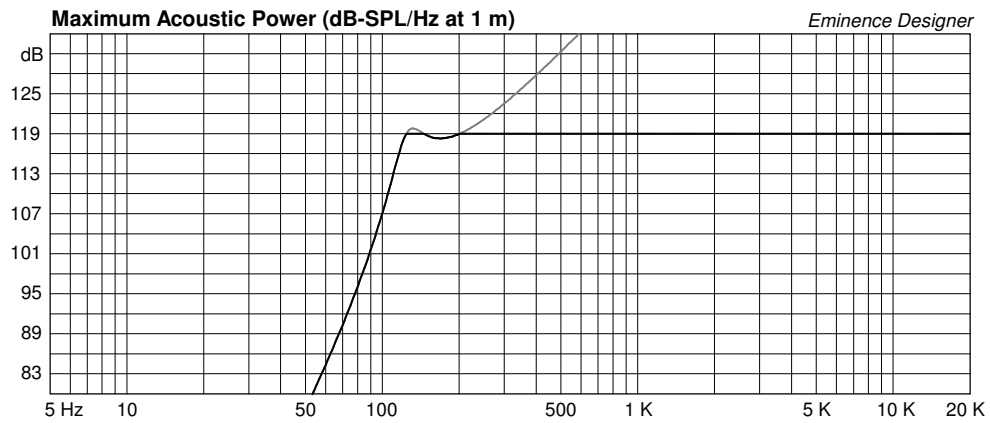
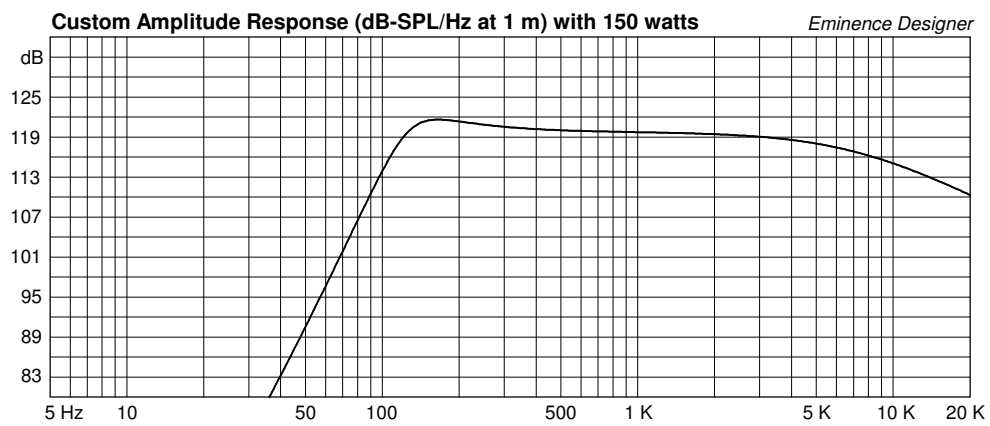
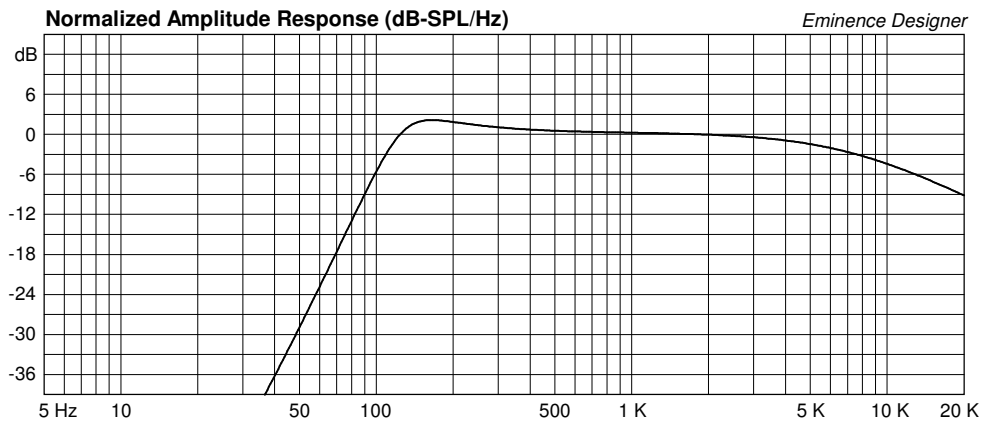
2 Ducts: outside diameter (e) = 3.25 in
inside diameter (g) = 3 in
length (h) = 2.385 in

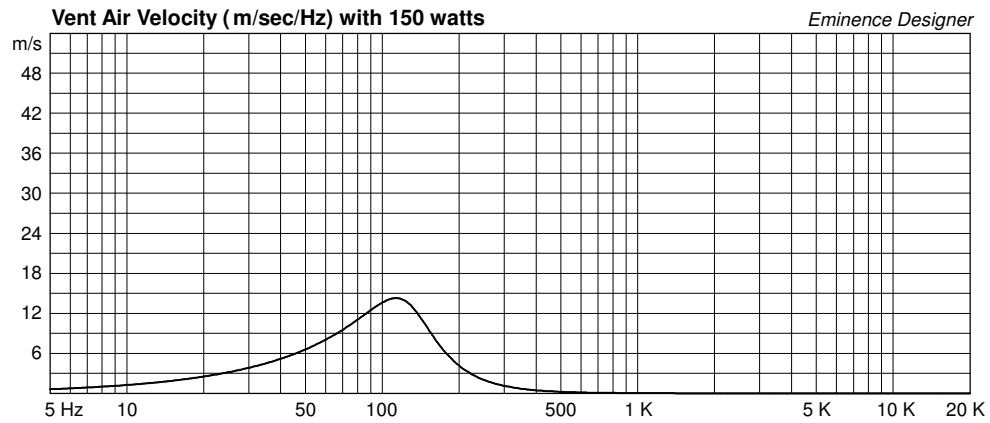
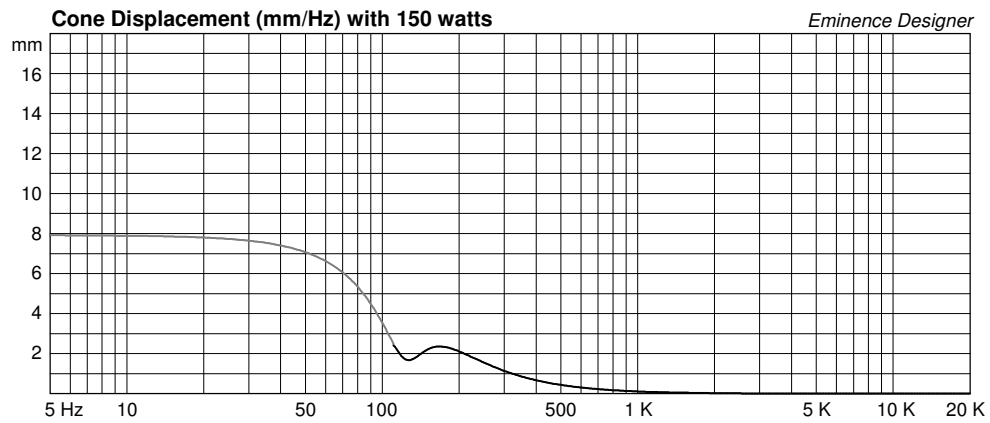
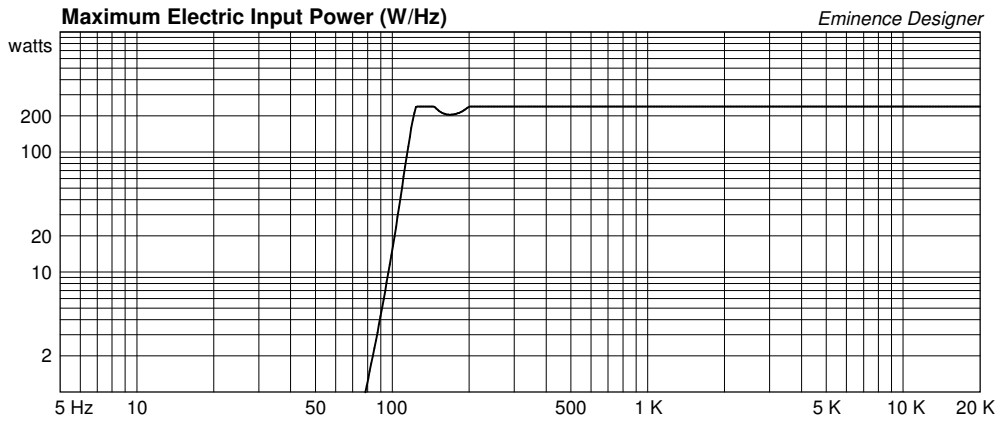
--Driver Mounting--

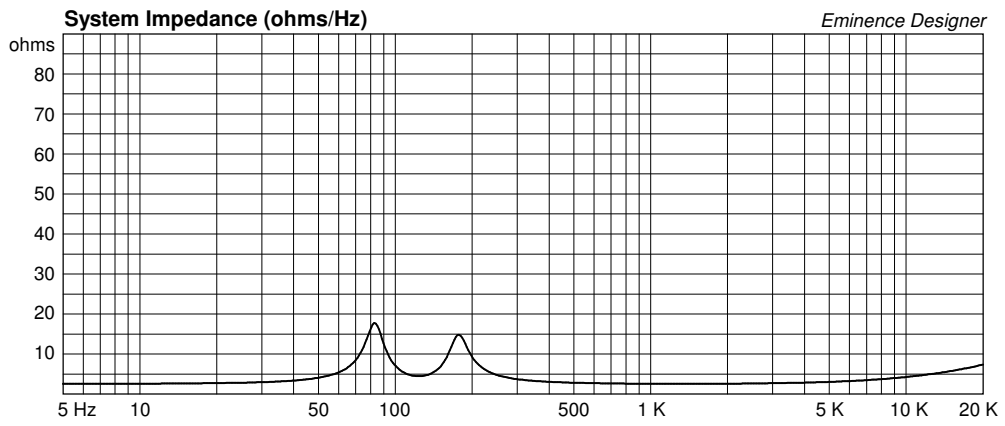
Mounting: Flush

Aim: All drivers face same direction









Alpha 3-8 Sealed Column Array Module

By Jerry McNutt, Eminence Speaker LLC
240 Watts; F3 at 187 Hz. Best used above 250 Hz.
Each Module is a 4 ohm load. Stack them up for longer throw.



Box Properties

--Description--

Name:

Type: Closed Box

Shape: Prism, square

--Box Parameters--

Vb = 0.275 cu.ft

V(total) = 0.304 cu.ft

Qtc = 0.622

QL = 20

F3 = 186.6 Hz

Fill = normal

Driver Properties

--Description--

Name: Alpha 3-8

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 3" Full Range Driver

--Configuration--

No. of Drivers = 8

Mounting = Standard

Wiring = Series-Parallel

Drivers sum coherently = Yes

--Mechanical Parameters--

Fs = 117.6 Hz

Qms = 7.94

Vas = 0.95 liters [7.6]

Cms = 0.84 mm/N [0.105]

Mms = 2.18 g [17.44]

Rms = 0.2 kg/s [1.6]

Xmax = 2.4 mm

Xmech = 4 mm

P-Dia = 59.94 mm [169.5]

Sd = 28.58 sq.cm [228.6]

P-Vd = 0.00677 liters [0.0542]

--Electrical Parameters--

Qes = 0.53

Re = 5.12 ohms [2.56]

Le = 0.11 mH [0.055]

Z = 8 ohms [4]

BL = 3.93 Tm [7.889]

Pe = 30 watts [240]

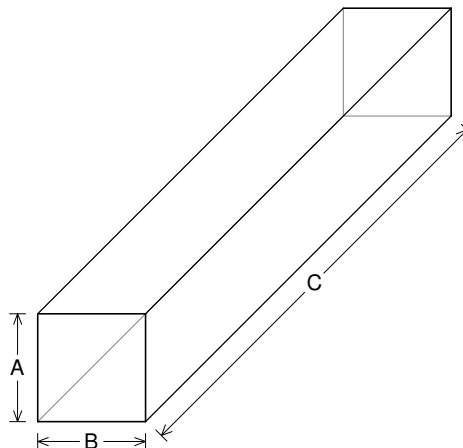
--Electromech. Parameters--

Qts = 0.497

no = 0.281 % [2.248]

1-W SPL = 86.63 dB [95.67]

2.83-V SPL = 88.57 dB [100.6]



--External Dimensions--

A = 5.36 in

B = 5.36 in

C = 28.66 in

--Internal Dimensions--

A = 4.36 in

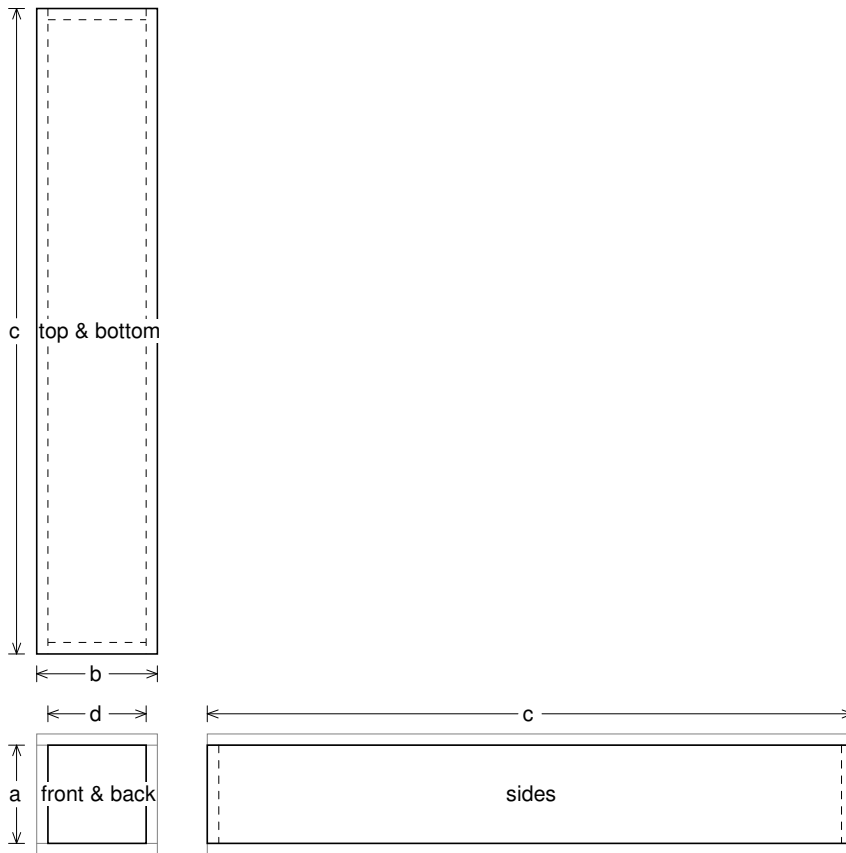
B = 4.36 in

C = 27.66 in

--Wall Thickness--

Front = 0.5 in

Side = 0.5 in



Box Parts

Box Shape: Square Prism

1 Top, 1 Bottom: depth (c) = 28.66 in
width (b) = 5.36, thickness = 0.5 in

1 Front, 1 Back: height (a) = 4.36 in
width (d) = 4.36, thickness = 0.5 in

2 Sides: height (a) = 4.36 in
depth (c) = 28.66, thickness = 0.5 in

--Driver Mounting--

Mounting: Flush

Aim: All drivers face same direction

