

## Specification

Nominal Basket Diameter	6.5", 165mm
Nominal Impedance*	4 or 8 ohms
Power Rating**	
Watts	100W
Music Program	200W
Resonance	118Hz
Usable Frequency Range***	85Hz-6kHz
Sensitivity	93.6
Magnet Weight	20 oz
Gap Height	0.25", 6.35mm
Voice Coil Diameter	1.5", 38.1mm

## Thiele & Small Parameters

Resonant Frequency (fs)	118Hz
DC Resistance (Re)	7.2
Coil Inductance (Le)	0.19mH
Mechanical Q (Qms)	5.68
Electromagnetic Q (Qes)	0.60
Total Q (Qts)	0.54
Compliance Equivalent Volume (Vas)	5.8 ltr/0.2 cu. ft.
Peak Diaphragm Displacement Volume (Vd)	44cc
Mechanical Compliance of Suspension (Cms)	0.26mm/N
BL Product (BL)	8.0 T-M
Diaphragm Mass inc. Airlod (Mms)	7 grams
Efficiency Bandwidth Product (EBP)	197
Maximum Linear Excursion (Xmax)	3.5mm
Surface Area of Cone (Sd)	126.7cm <sup>2</sup>
Maximum Mechanical Limit (Xlim)	4.0mm

## Mounting Information

Recommended Enclosure Volume	
Sealed	2.8-5.7 ltr/0.1-0.2 cu. ft.
Vented	3.4-15.6 ltr/0.12-0.55 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", 5.7mm
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

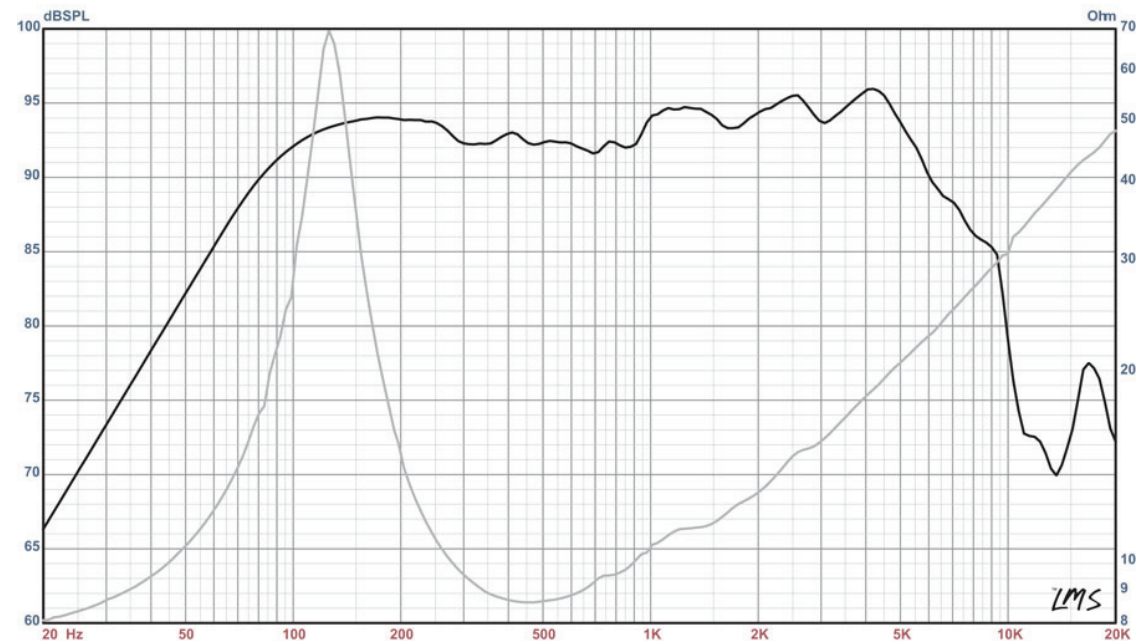
## Materials of Construction

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-6A 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. I.e: 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)

# Alpha6A Small Sealed MidRange Enclosure

By Jerry McNutt, Eminence Speaker LLC

100 Watt Thermal Limit; Must use a steep high pass filter set to 200 Hz or higher.

## Box Properties

--Description--

Name:

Type: Closed Box

Shape: Prism, square

--Box Parameters--

Vb = 0.0954 cu.ft

V(total) = 0.11 cu.ft

Qtc = 0.736

QL = 20

F3 = 193.3 Hz

Fill = heavy

## Driver Properties

--Description--

Name: Alpha-6

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: Revised October 2005

Piston: Paper cone.

Suspension: Cloth surround.

Dust Cap: Solid paper dustcap.

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 = 118 Hz

Qms = 5.68

Vas = 5.8 liters

Xmax = 3.5 mm

Sd = 126.7 sq.cm

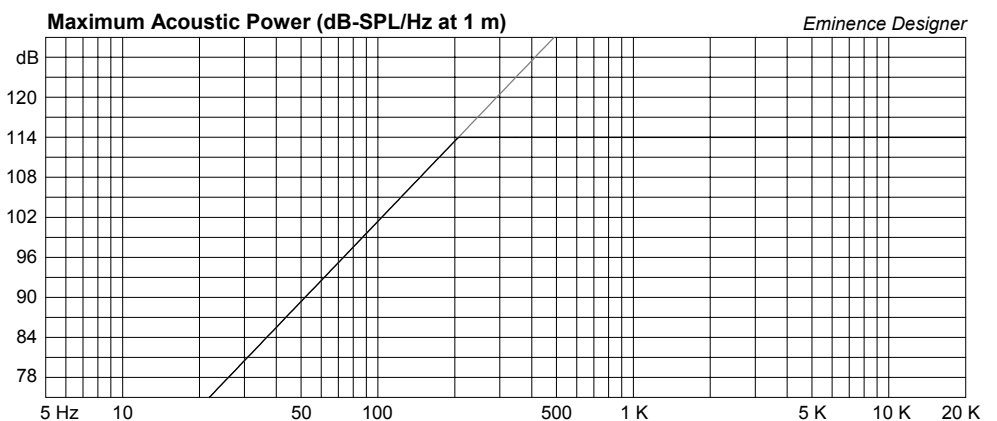
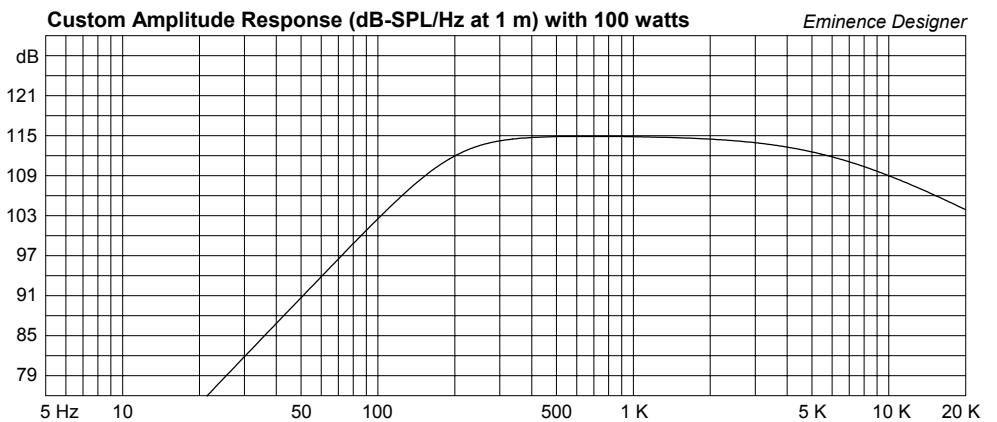
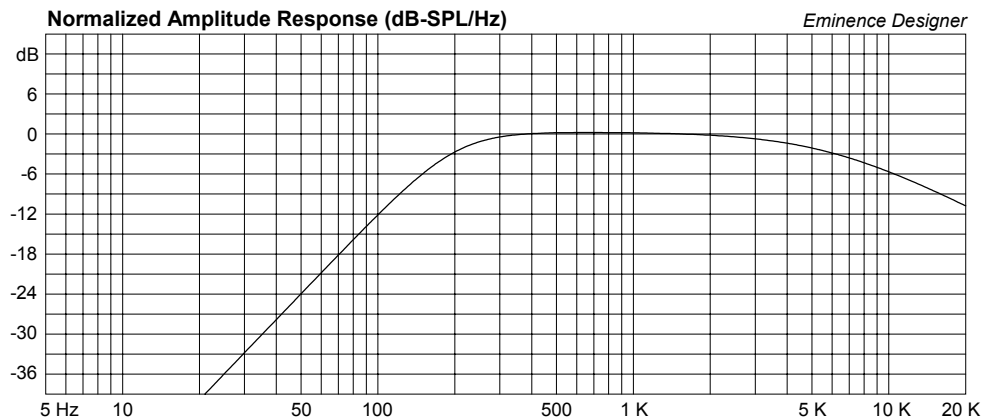
Qes = 0.6

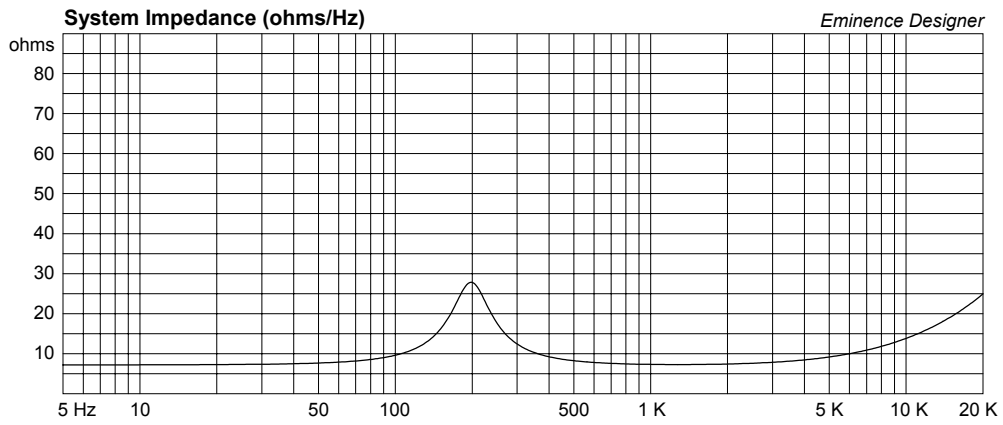
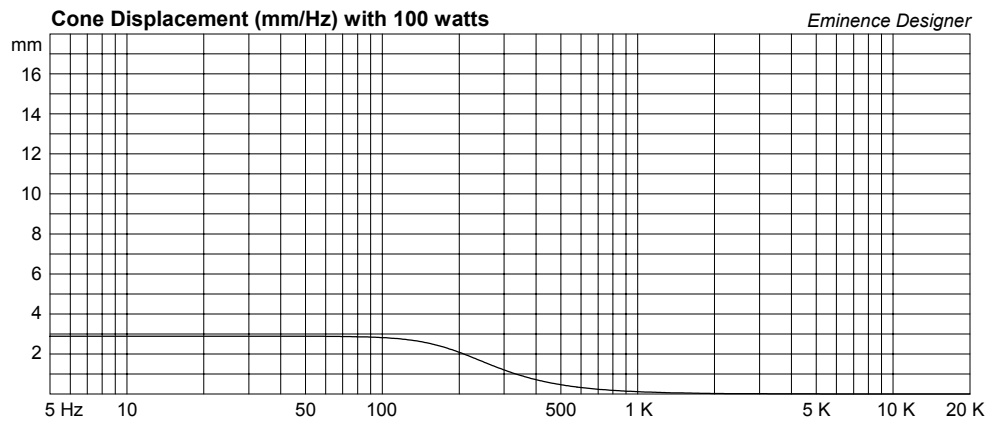
Re = 7.2 ohms

Le = 0.19 mH

Z = 8 ohms

Pe = 100 watts





# Alpha6A Med Vented Cab; Hi Pwr Sat or Low Pwr FR

By Jerry McNutt, Eminence Speaker LLC

100 Watt Thermal Limit; for high power Sat, use a steep high pass filter set to 90 Hz or higher. Can be used as a stand alone cabinet for low power use.

## Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 0.382 cu.ft

V(total) = 0.412 cu.ft

Fb = 90.94 Hz

QL = 7

F3 = 85.22 Hz

Fill = minimal

--Vents--

No. of Vents = 1

Vent shape = round

Vent ends = one flush

Dv = 3 in

Lv = 3.266 in

## Driver Properties

--Description--

Name: Alpha-6

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 = 118 Hz

Qms = 5.68

Vas = 5.8 liters

Xmax = 3.5 mm

Sd = 126.7 sq.cm

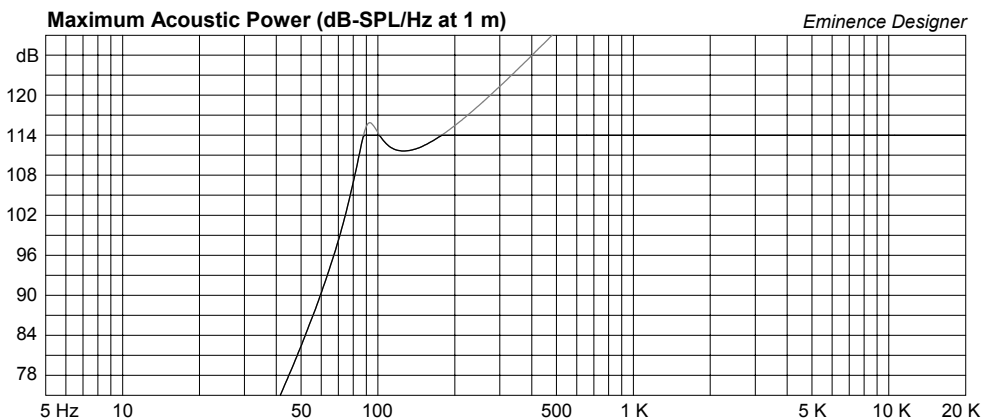
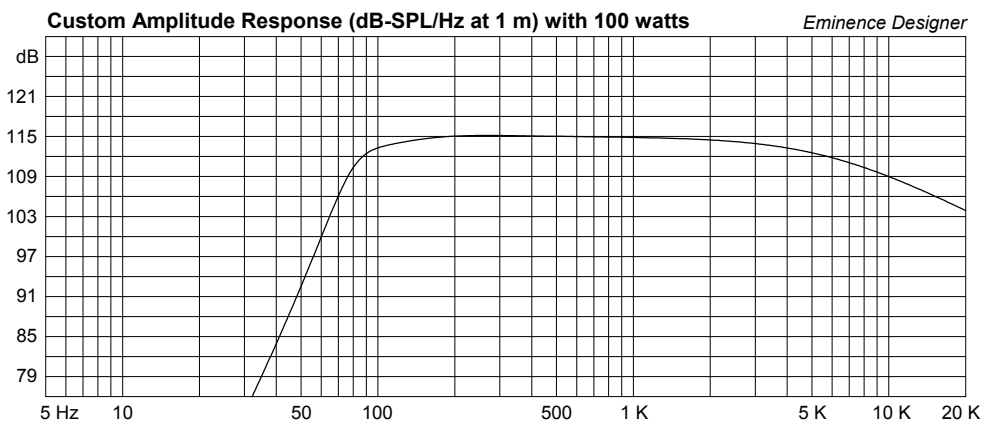
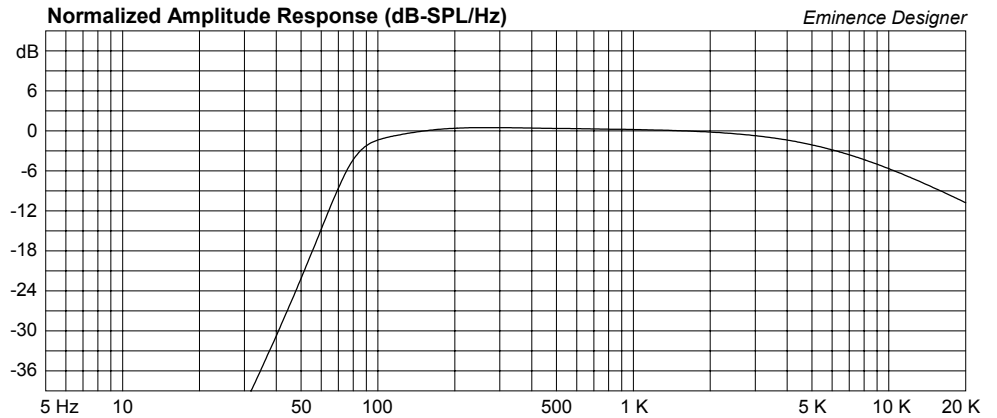
Qes = 0.6

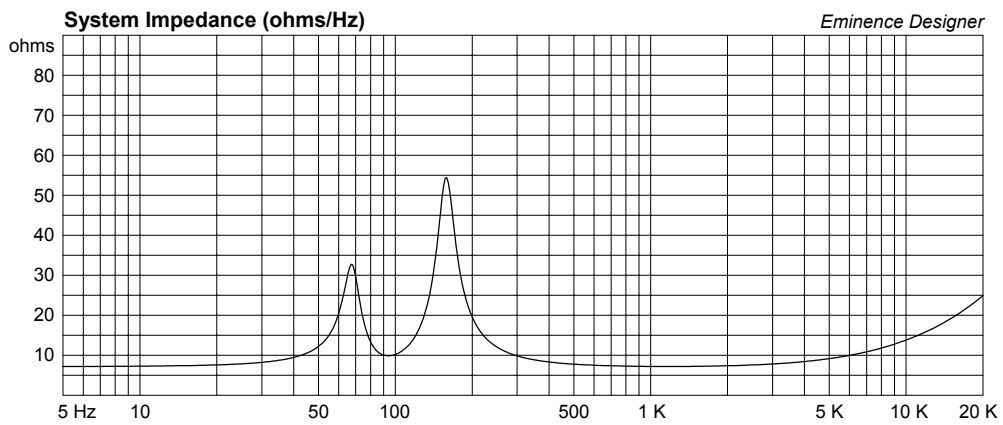
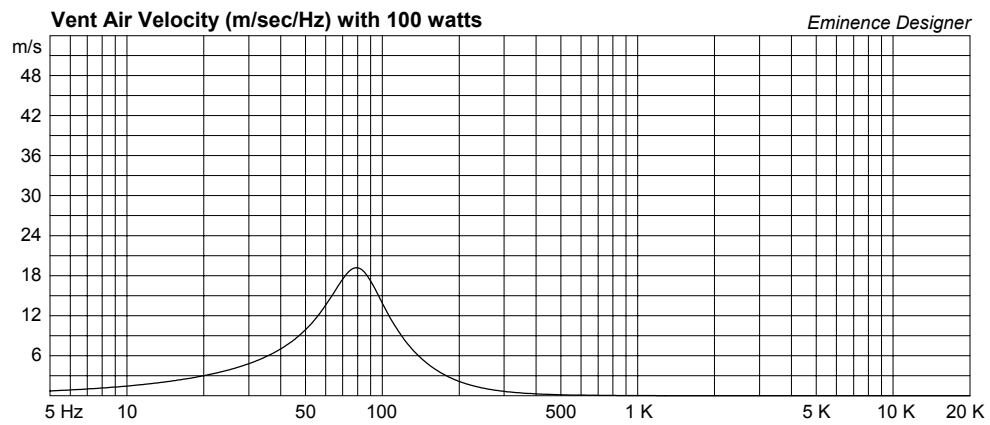
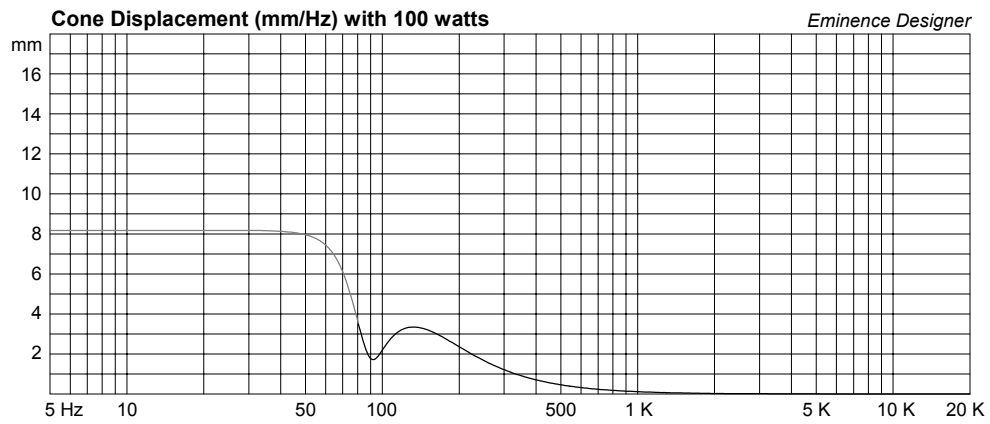
Re = 7.2 ohms

Le = 0.19 mH

Z = 8 ohms

Pe = 100 watts





# Alpha6A Small Vented Cabinet

By Jerry McNutt, Eminence Speaker LLC

100 Watt Thermal Limit; Must use a steep high pass filter set to 150 Hz or higher for optimal performance.

## Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 0.104 cu.ft

V(total) = 0.122 cu.ft

Fb = 154.6 Hz

QL = 7

F3 = 151.8 Hz

Fill = minimal

--Vents--

No. of Vents = 1

Vent shape = round

Vent ends = one flush

Dv = 2 in

Lv = 1.559 in

## Driver Properties

--Description--

Name: Alpha-6

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 = 118 Hz

Qms = 5.68

Vas = 5.8 liters

Xmax = 3.5 mm

Sd = 126.7 sq.cm

Qes = 0.6

Re = 7.2 ohms

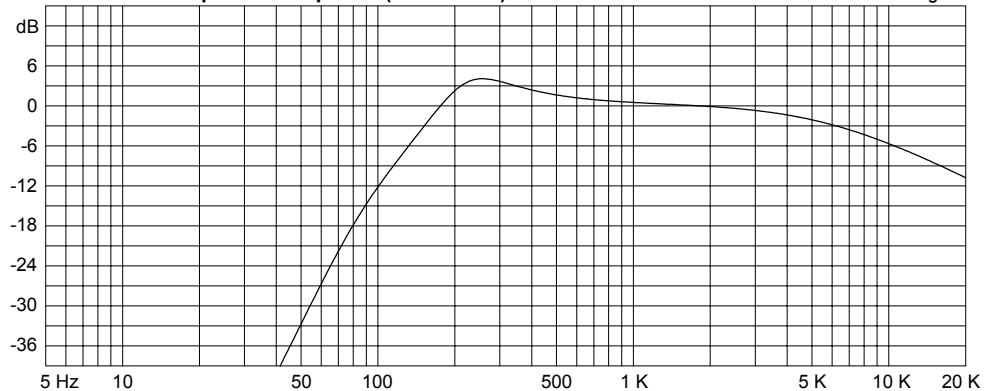
Le = 0.19 mH

Z = 8 ohms

Pe = 100 watts

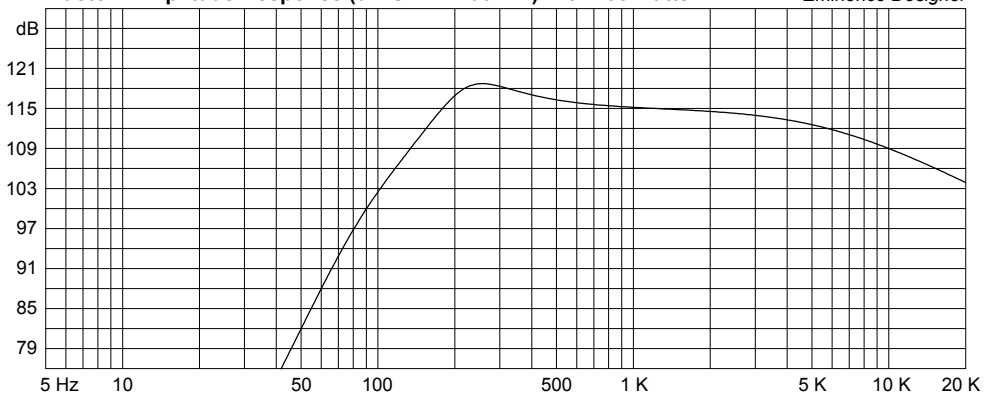
Normalized Amplitude Response (dB-SPL/Hz)

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

