Specification

Nominal Basket Diameter	15”, 381mm
Nominal Impedance*	4 ohms
Power Rating**	300W
Resonance	51Hz
Usable Frequency Range***	45Hz-3.0kHz
Sensitivity	96.9
Magnet Weight	56 oz.
Gap Height	0.375”, 9.53mm
Voice Coil Diameter	2.5”, 63.5mm

Thiele & Small Parameters

Resonant Frequency (fs)	51.1Hz
DC Resistance (Re)	2.92
Coil Inductance (Le)	0.80mH
Mechanical Q (Qms)	4.94
Electromagnetic Q (Qes)	.54
Total Q (Qts)	.49
Compliance Equivalent Volume (Vas)	108.20 liters / 3.82 cu.ft.
Peak Diaphragm Displacement Volume (Vd)	411.90cc
Mechanical Compliance of Suspension (Cms)	0.11mm/N
BL Product (BL)	12.21 T-M
Diaphragm Mass inc. Airload (Mms)	86.50 grams
Efficiency Bandwidth Product (EBP)	93.94
Maximum Linear Excursion (Xmax)	
Surface Area of Cone (Sd)	823.70 cm2
Maximum Mechanical Limit (Xlim)	8mm

Mounting Information

Recommended Enclosure Volume	
Sealed	Acceptable
Vented	Acceptable
Overall Diameter	15.15”, 384.81mm
Baffle Hole Diameter	13.87”, 352.30mm
Front Sealing Gasket	fitted as standard
Rear Sealing Gasket	
Mounting Holes Diameter	0.25”, 6.35mm
Mounting Holes B.C.D.	14.56”, 369.82mm
Depth	6.25”, 158.75mm
Net Weight	11.9 lbs., 5.4 kg
Shipping Weight	14.1 lbs., 6.4 kg

Materials of Construction

Copper voice coil
Polyimide former
Ferrite magnet
Vented core
Pressed steel basket
Paper cone
Sealed cloth cone edge
Paper dust cap

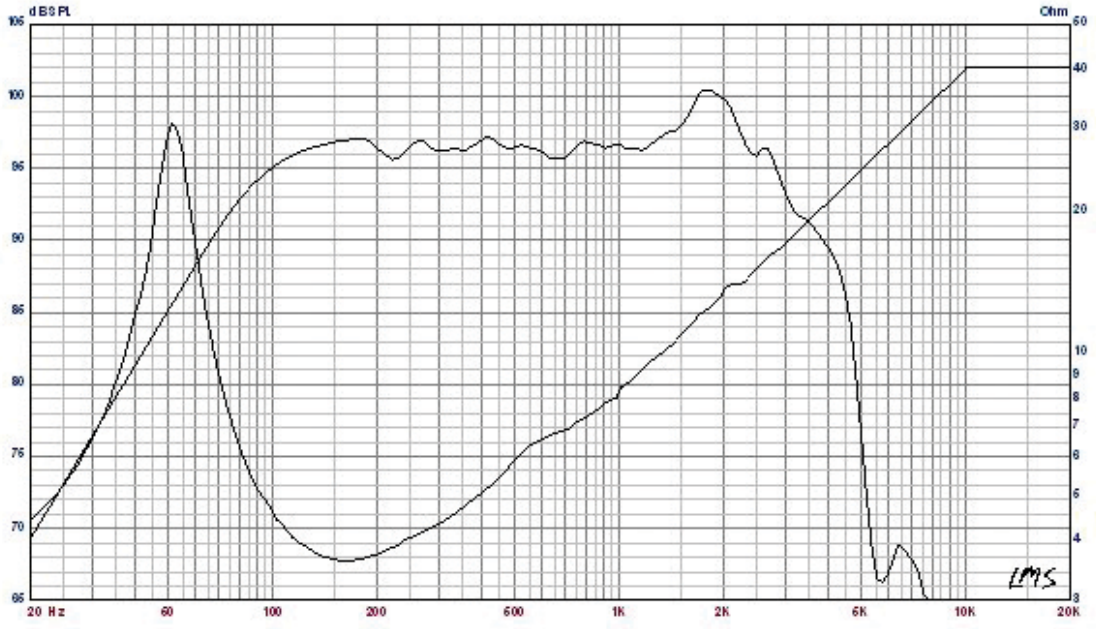
EMINENCE®
The Art and Science of Sound

LEGEND CA154

Pro Sound 15” Woofer for use in Bass Guitar cabinets or in PA cabinets. Four Ohm Driver with High SPL.

Coloration:

Genre:



* 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)

Legend CA154 Large Vented Design

By Jerry McNutt, Eminence Speaker LLC
225 Watts; F3 of 46 Hz. Use a steep high pass at 35 Hz for high power use.
For PA or MI

EMINENCE

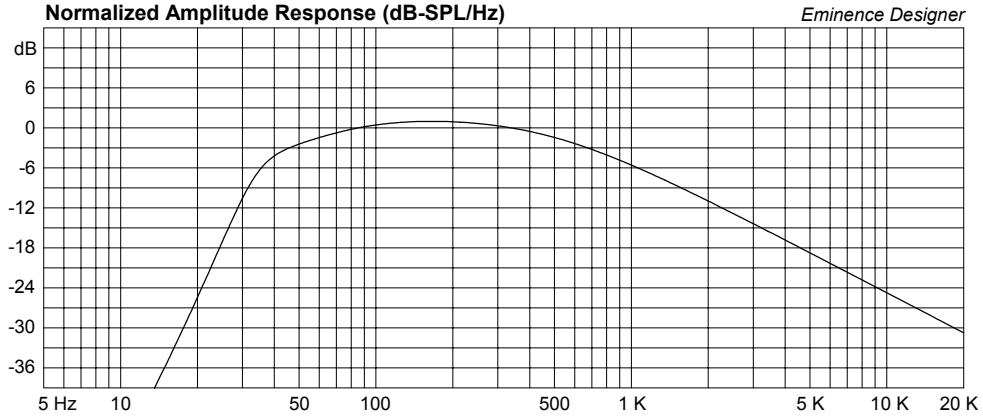
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 5.666 cu.ft
V(total) = 5.933 cu.ft
Fb = 39.68 Hz
QL = 7
F3 = 45.71 Hz
Fill = normal
--Vents--
No. of Vents = 2
Vent shape = round
Vent ends = one flush
Dv = 4 in
Lv = 2.848 in

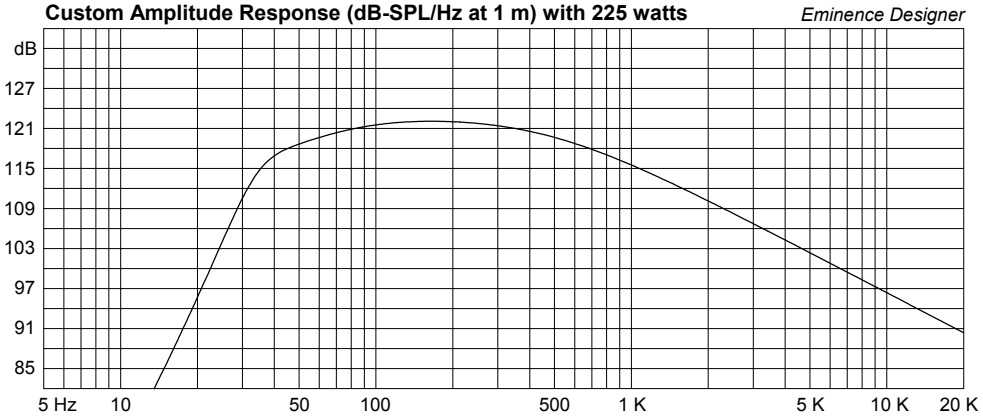
Driver Properties

--Description--
Name:
Type: Standard one-way driver
--Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 51.1 Hz
Qms = 4.93
Vas = 3.821 cu.ft
Xmax = 0.197 in
Sd = 127.7 sq.in
Qes = 0.54
Re = 2.92 ohms
Le = 0.8 mH
Z = 4 ohms
Pe = 400 watts

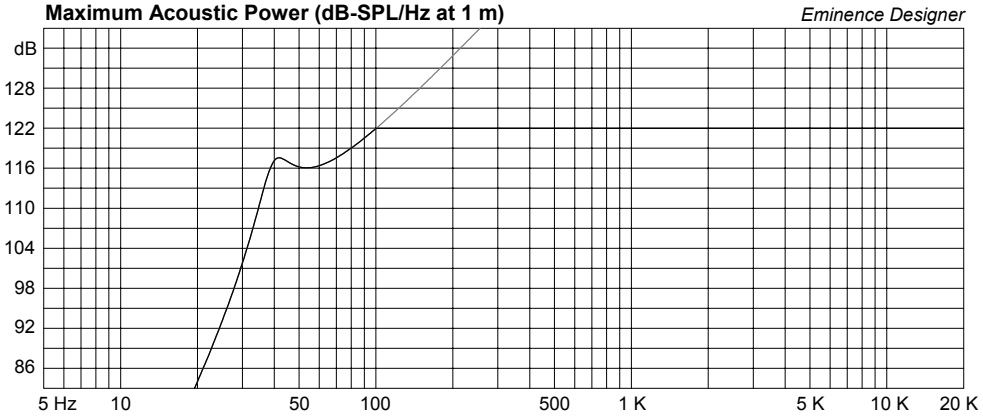
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



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



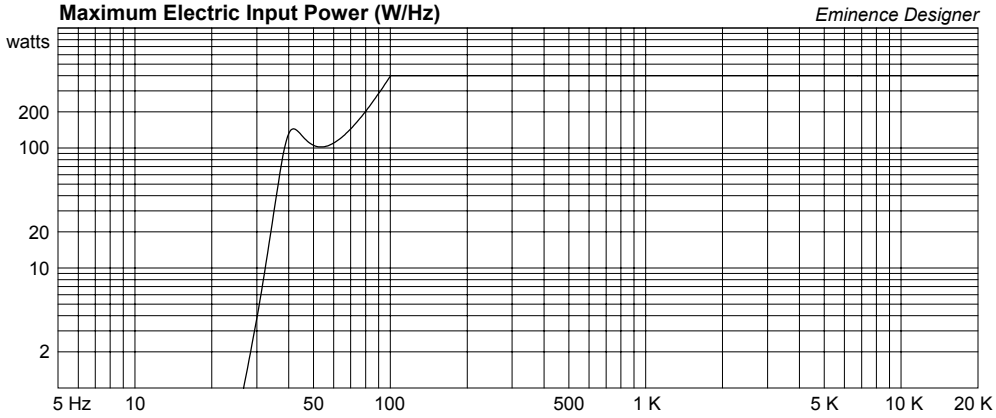
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



File: 08-15-135LargeVented225Watts.bb6

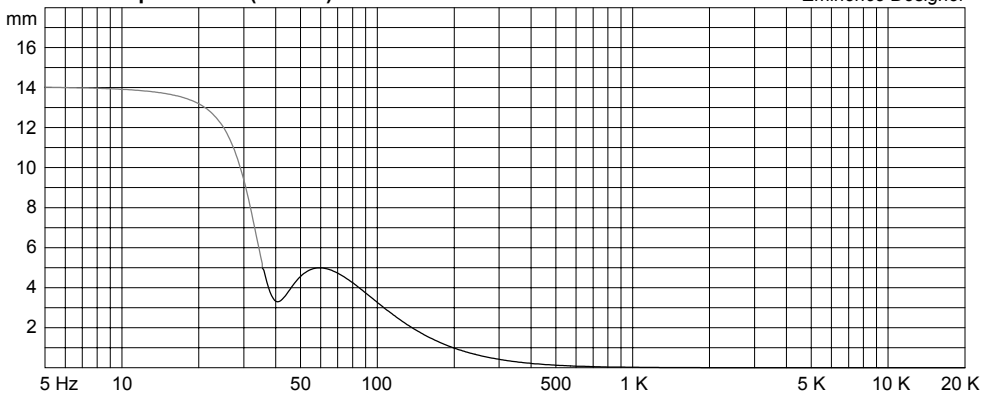
Maximum Electric Input Power (W/Hz)

Eminence Designer



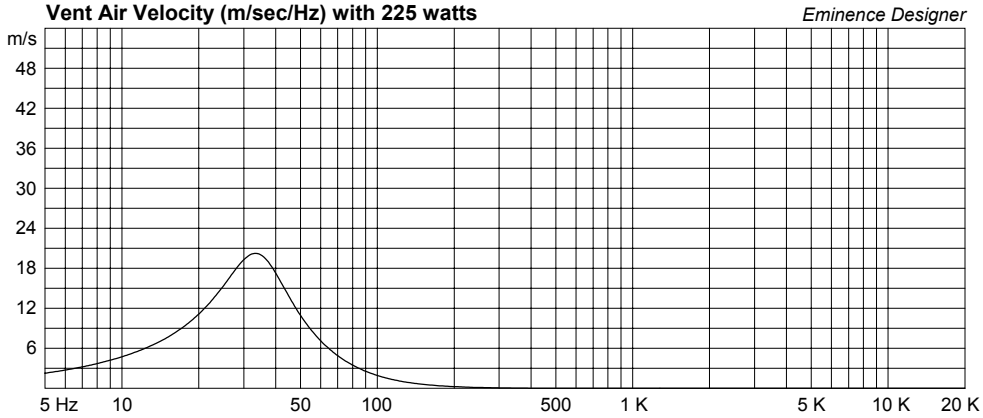
Cone Displacement (mm/Hz) with 225 watts

Eminence Designer



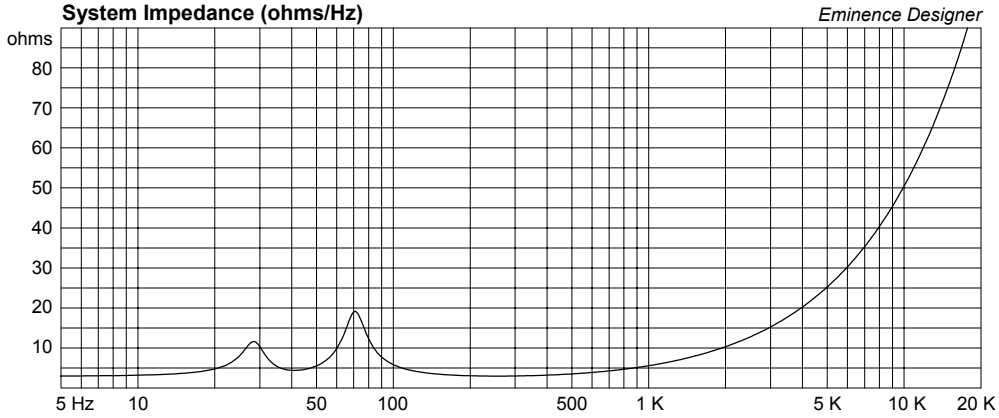
Vent Air Velocity (m/sec/Hz) with 225 watts

Eminence Designer



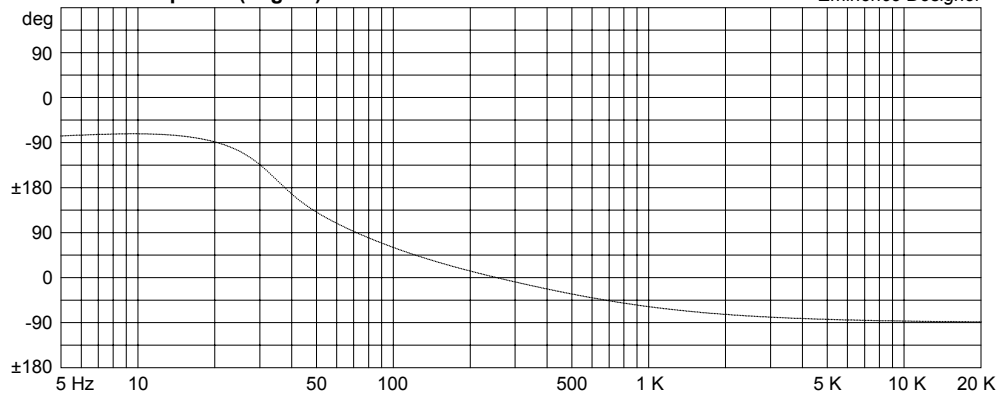
System Impedance (ohms/Hz)

Eminence Designer



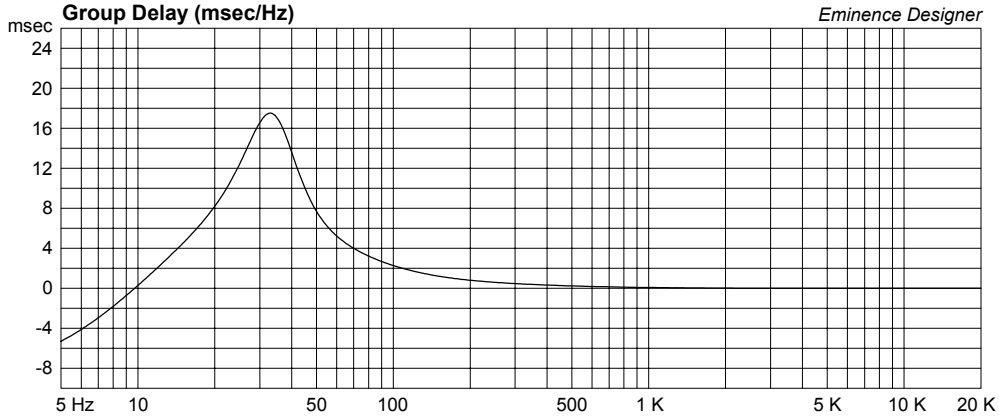
Phase Response (deg/Hz)

Eminence Designer



Group Delay (msec/Hz)

Eminence Designer



Legend CA154 Small Sealed Bass Guitar Design

By Jerry McNutt, Eminence Speaker LLC
300 Watts; F3 of 86 Hz. Tight and Punchy Bass

EMINENCE

Box Properties

--Description--
Name:
Type: Closed Box
Shape: Prism, square
--Box Parameters--

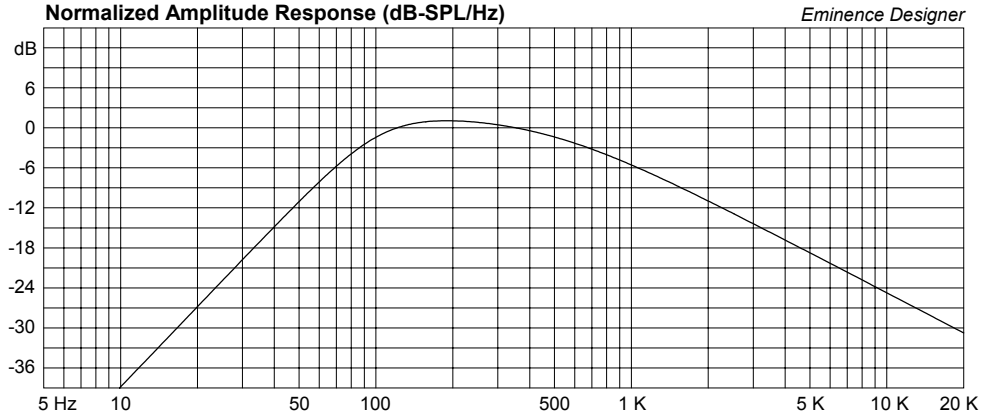
Vb =	1.5 cu.ft
V(total) =	1.5 cu.ft
Qtc =	0.787
QL =	20
F3 =	85.93 Hz
Fill =	normal

Driver Properties

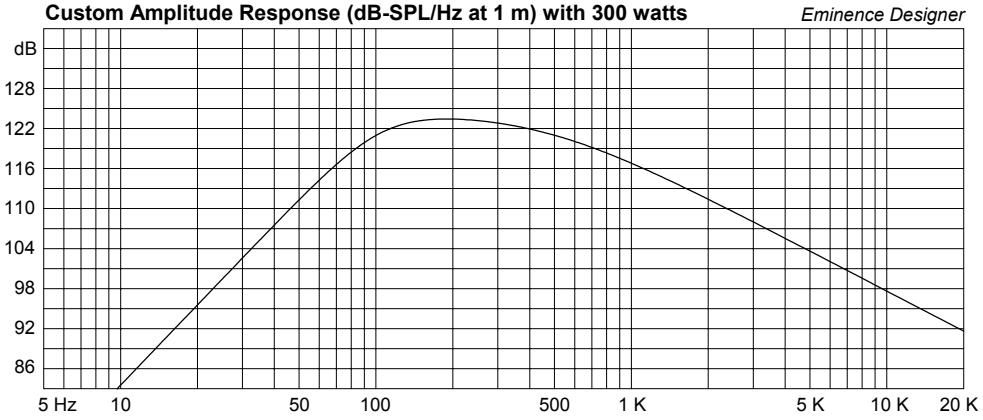
--Description--
Name:
Type: Standard one-way driver
--Configuration--
No. of Drivers = 1
--Driver Parameters--

Fs =	51.1 Hz
Qms =	4.93
Vas =	3.821 cu.ft
Xmax =	0.197 in
Sd =	127.7 sq.in
Qes =	0.54
Re =	2.92 ohms
Le =	0.8 mH
Z =	4 ohms
Pe =	400 watts

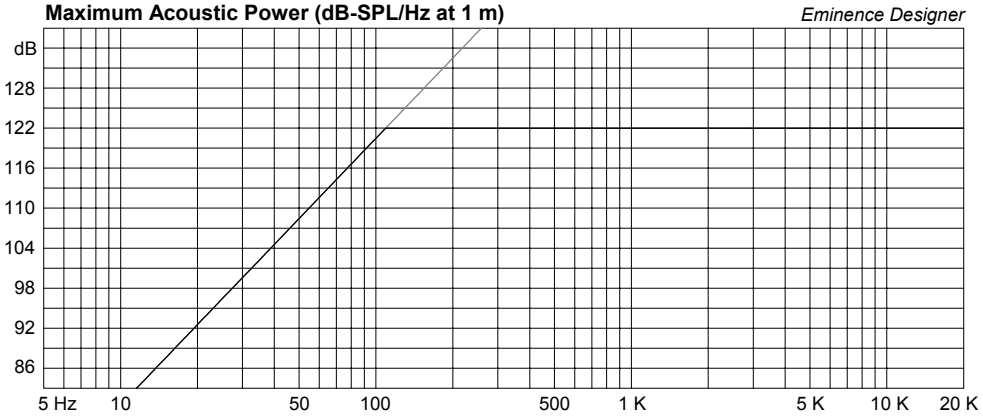
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 300 watts *Eminence Designer*



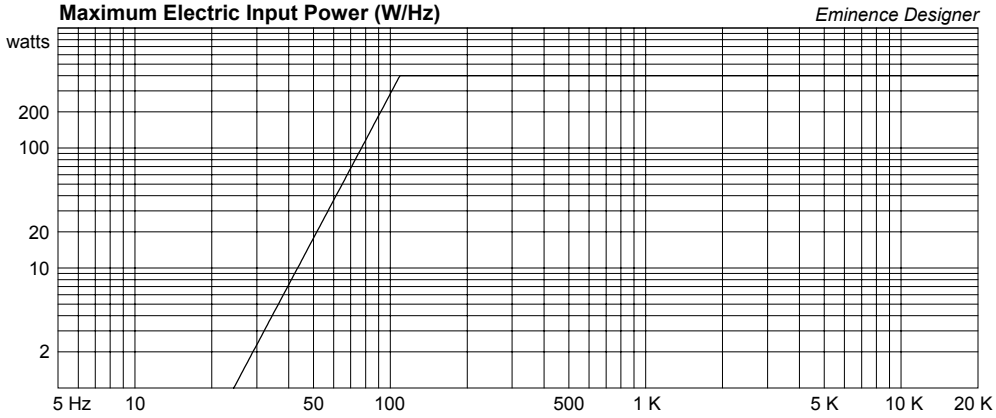
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



File: 08-15-135Sealed300Watt.bb6

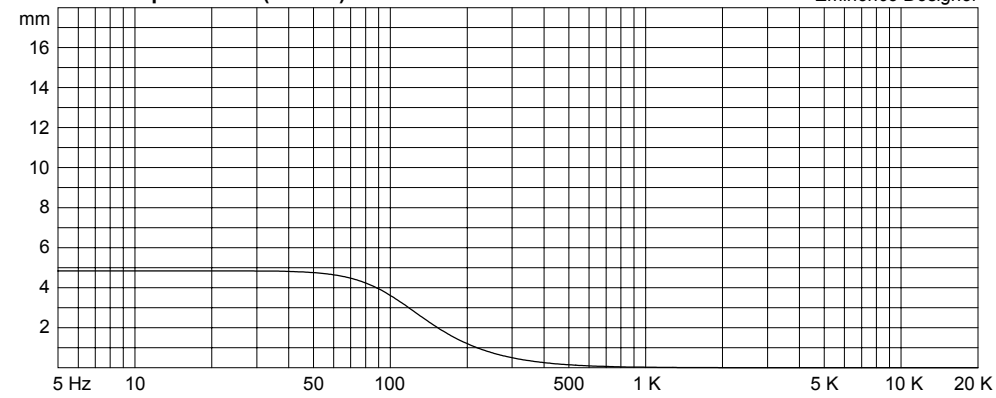
Maximum Electric Input Power (W/Hz)

Eminence Designer



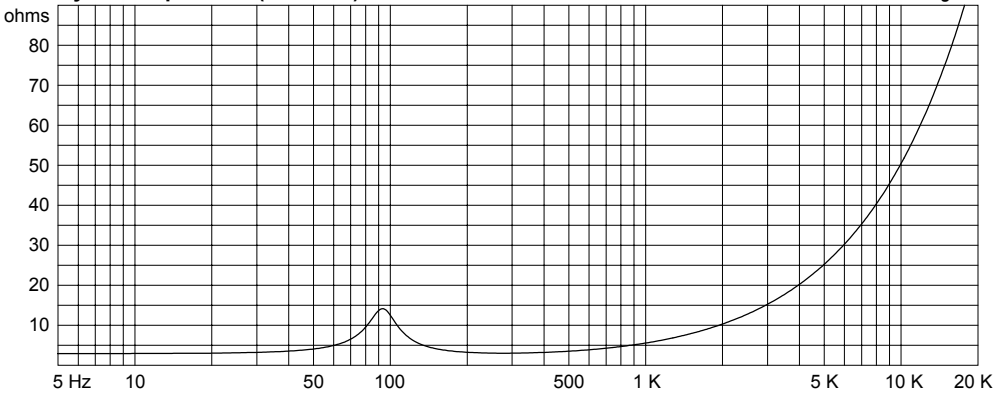
Cone Displacement (mm/Hz) with 300 watts

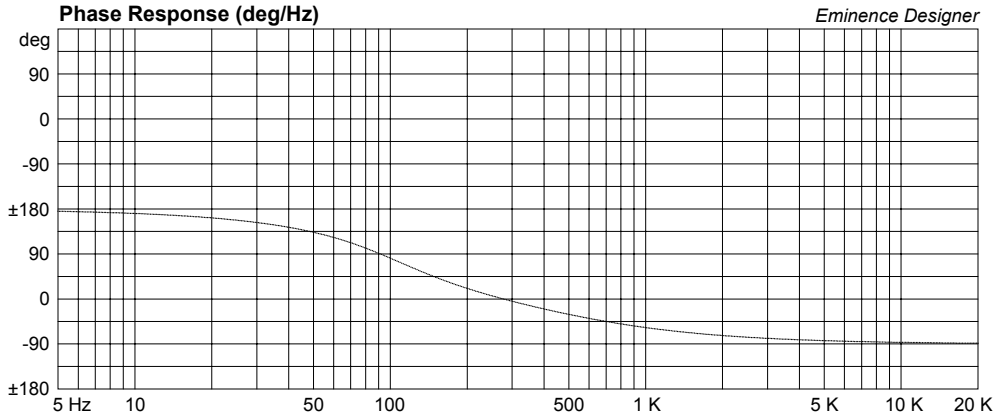
Eminence Designer

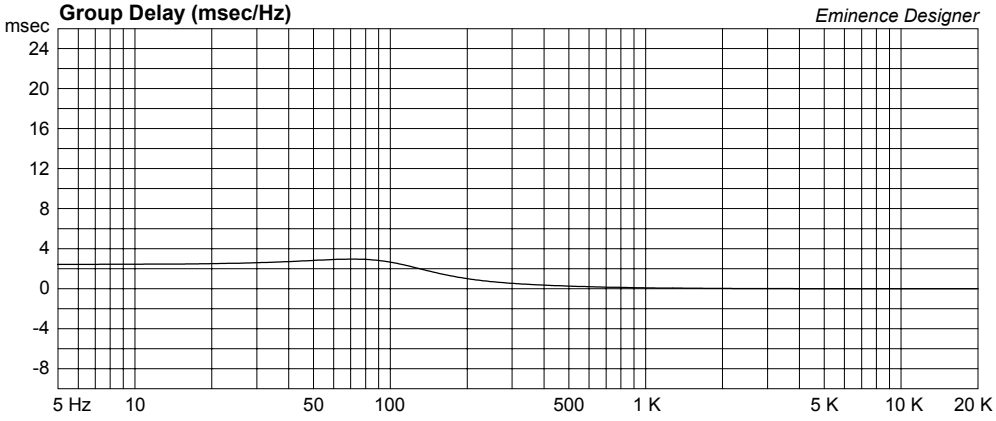


System Impedance (ohms/Hz)

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

Legend CA154 Med Vented Design

By Jerry McNutt, Eminence Speaker LLC
275 Watts; F3 of 56 Hz. Use a steep high pass at 35 Hz for high power use.
PA or MI use.

EMINENCE

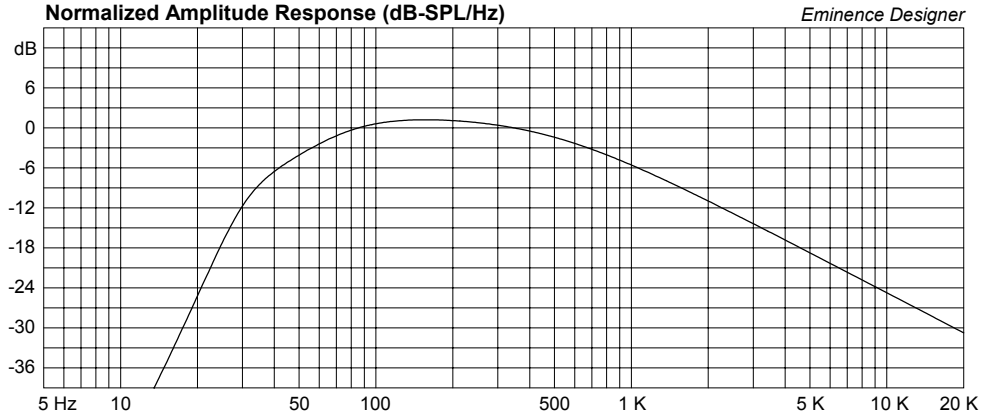
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 3.75 cu.ft
V(total) = 4.078 cu.ft
Fb = 40 Hz
QL = 7
F3 = 55.98 Hz
Fill = normal
--Vents--
No. of Vents = 2
Vent shape = round
Vent ends = one flush
Dv = 4 in
Lv = 6.55 in

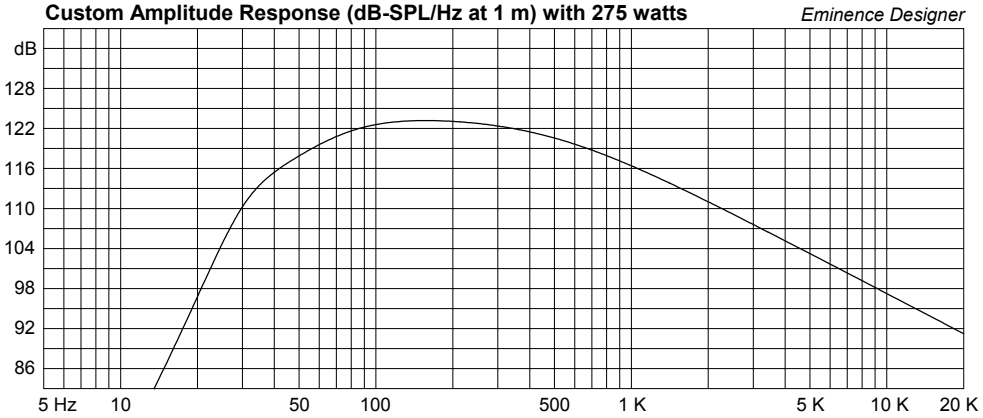
Driver Properties

--Description--
Name:
Type: Standard one-way driver
--Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 51.1 Hz
Qms = 4.93
Vas = 3.821 cu.ft
Xmax = 0.197 in
Sd = 127.7 sq.in
Qes = 0.54
Re = 2.92 ohms
Le = 0.8 mH
Z = 4 ohms
Pe = 400 watts

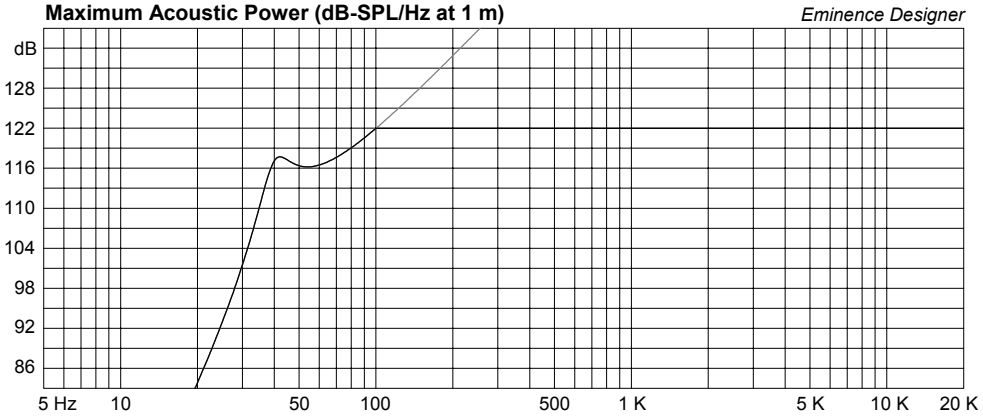
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 275 watts *Eminence Designer*



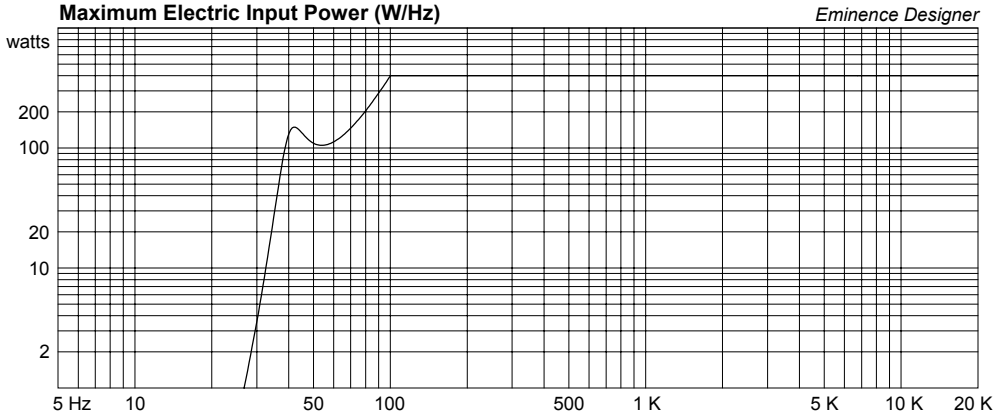
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



File: 08-15-135MedVented275Watts.bb6

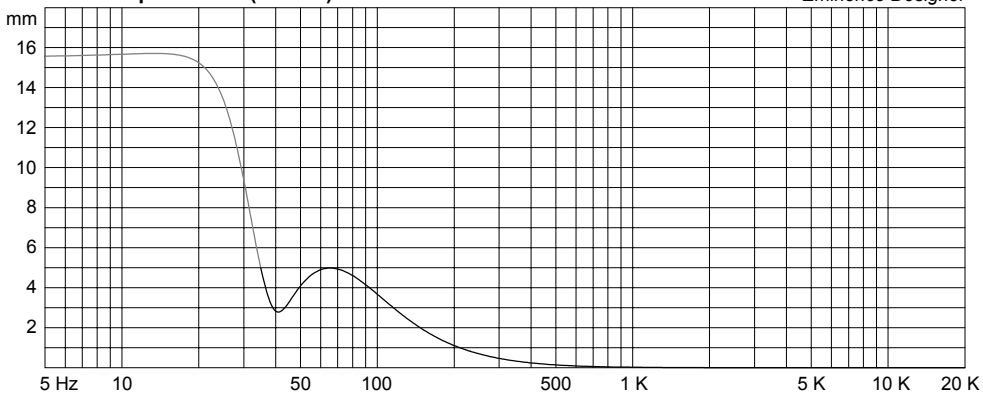
Maximum Electric Input Power (W/Hz)

Eminence Designer



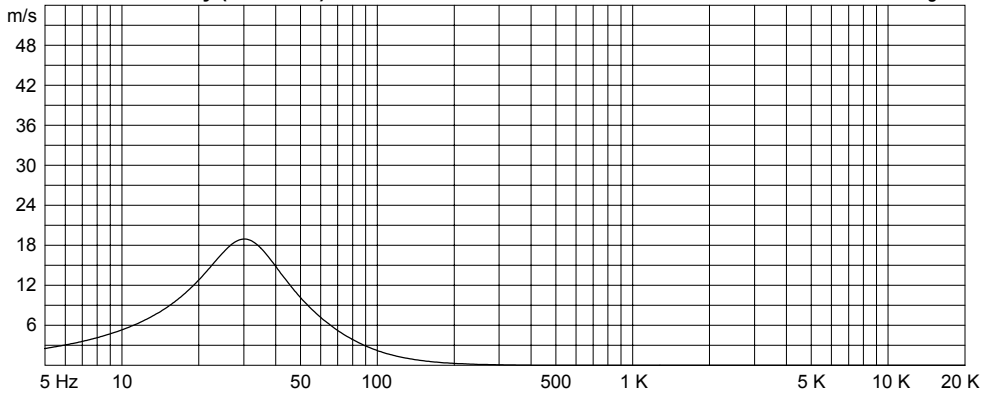
Cone Displacement (mm/Hz) with 275 watts

Eminence Designer



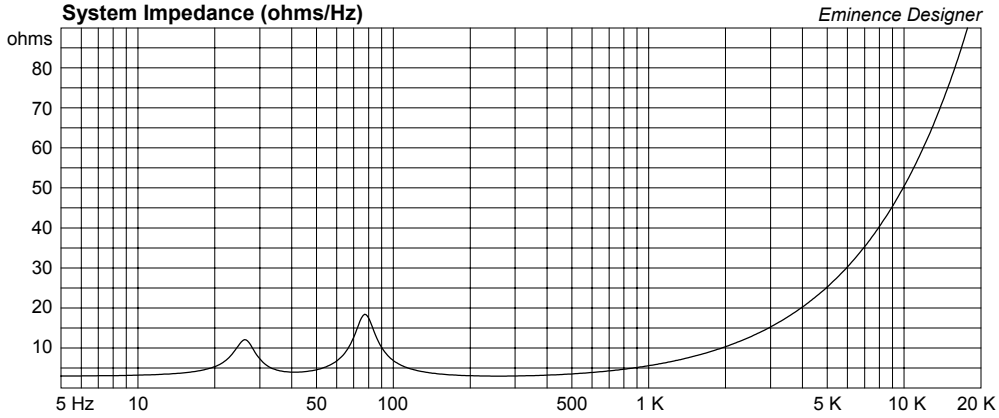
Vent Air Velocity (m/sec/Hz) with 275 watts

Eminence Designer



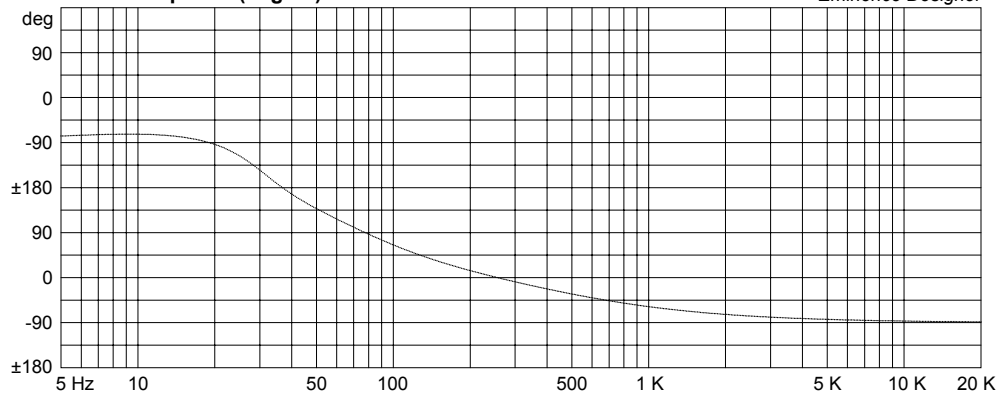
System Impedance (ohms/Hz)

Eminence Designer



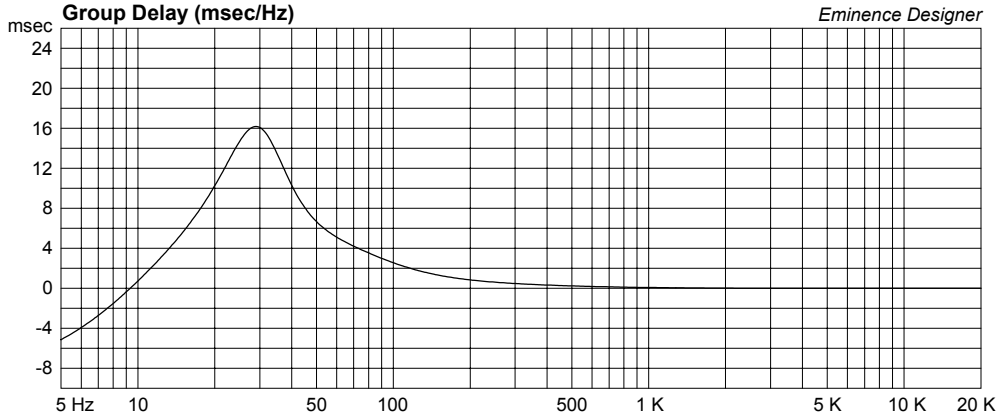
Phase Response (deg/Hz)

Eminence Designer



Group Delay (msec/Hz)

Eminence Designer



Legend CA154 Small Vented Design

By Jerry McNutt, Eminence Speaker LLC
400 Watts; F3 of 72 Hz. Use a steep high pass at 35 Hz.

EMINENCE

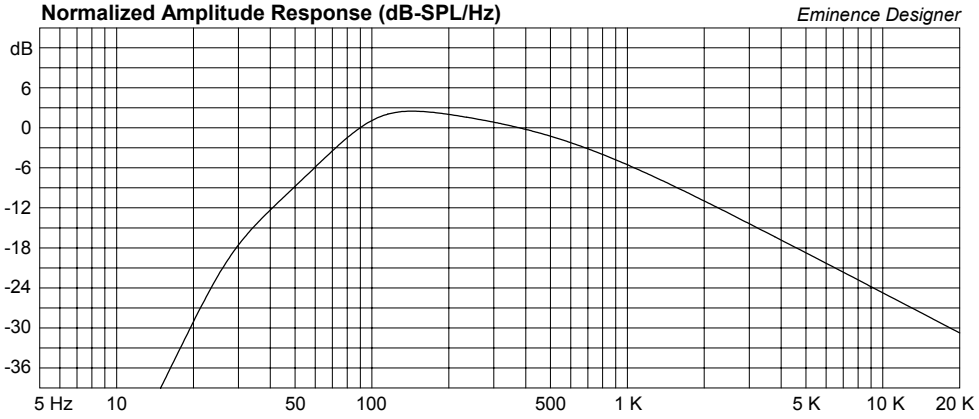
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 1.6 cu.ft
V(total) = 1.934 cu.ft
Fb = 50 Hz
QL = 7
F3 = 72.04 Hz
Fill = normal
--Vents--
No. of Vents = 2
Vent shape = round
Vent ends = one flush
Dv = 3.5 in
Lv = 8.822 in

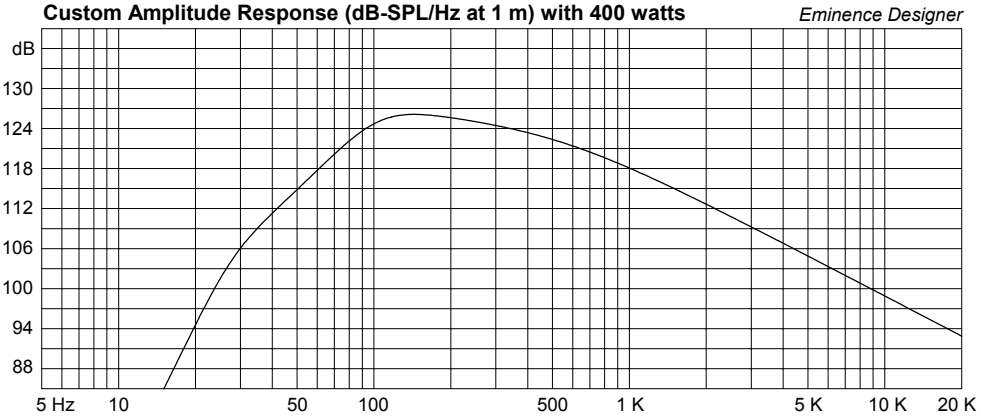
Driver Properties

--Description--
Name:
Type: Standard one-way driver
--Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 51.1 Hz
Qms = 4.93
Vas = 3.821 cu.ft
Xmax = 0.197 in
Sd = 127.7 sq.in
Qes = 0.54
Re = 2.92 ohms
Le = 0.8 mH
Z = 4 ohms
Pe = 400 watts

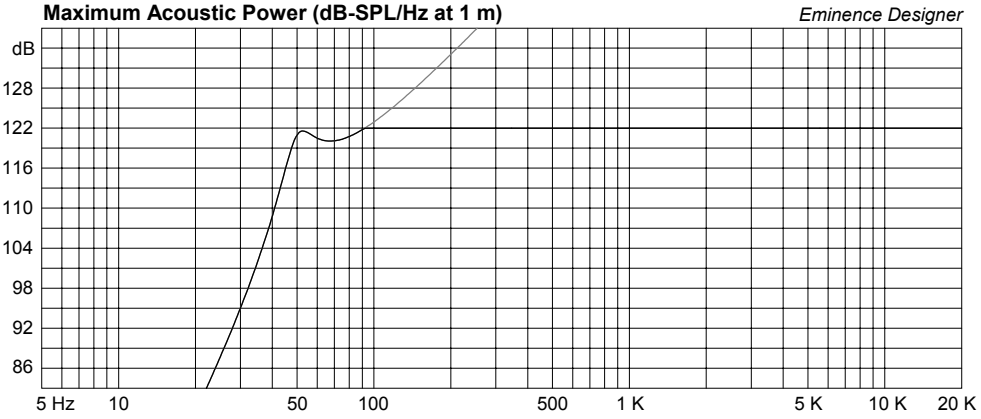
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 400 watts *Eminence Designer*

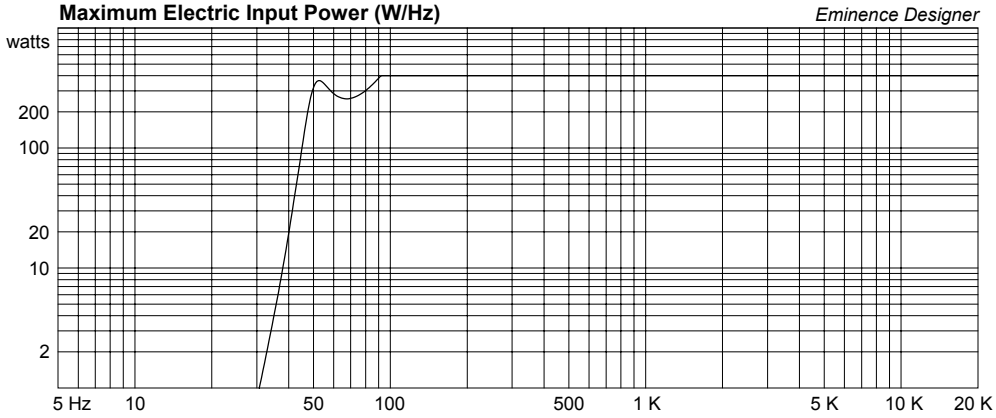


Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



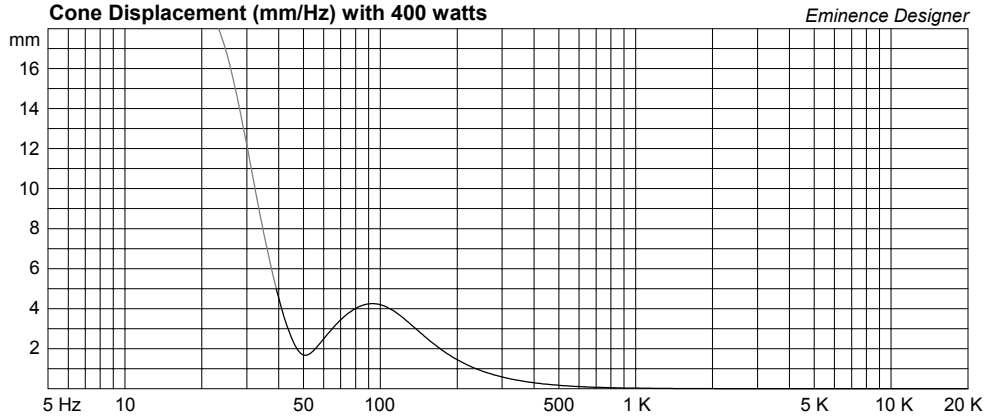
Maximum Electric Input Power (W/Hz)

Eminence Designer



Cone Displacement (mm/Hz) with 400 watts

Eminence Designer

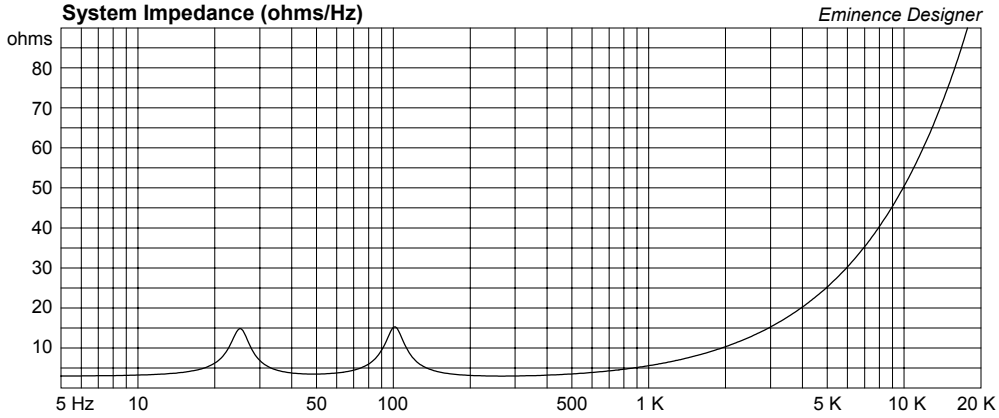


Vent Air Velocity (m/sec/Hz) with 400 watts

Eminence Designer

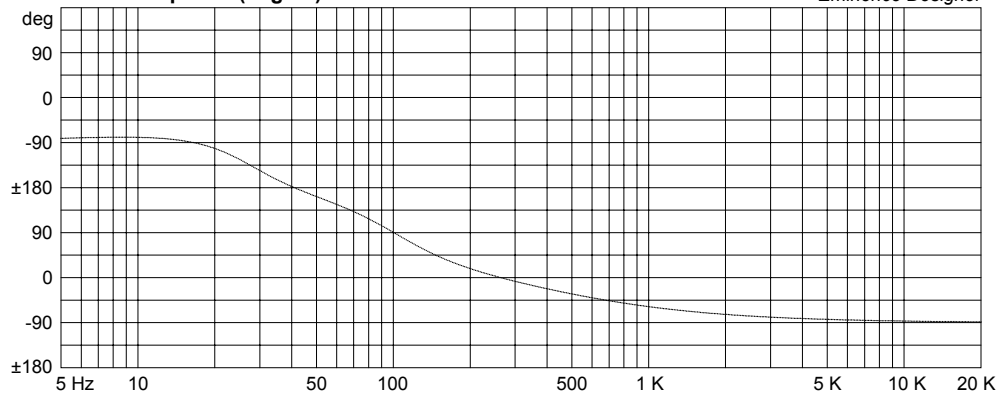
System Impedance (ohms/Hz)

Eminence Designer



Phase Response (deg/Hz)

Eminence Designer



Group Delay (msec/Hz)

Eminence Designer