

Beta 10B Large Sealed Design

By Jerry McNutt, Eminence Speaker LLC
Limit to 200 Watts. Use above 145 Hz.



Box Properties

--Description--

Name:

Type: Closed Box

Shape: Prism, square

--Box Parameters--

Vb = 1.252 cu.ft

V(total) = 1.332 cu.ft

Qtc = 0.666

QL = 20

F3 = 85.98 Hz

Fill = heavy

Driver Properties

--Description--

Name: Beta 10B

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 16 Ohm Beta 10

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 51.6 Hz

Qms = 4.33

Vas = 61.37 liters

Cms = 0.35 mm/N

Mms = 27.05 g

Rms = 2.03 kg/s

Xmax = 3 mm

Xmech = 8.6 mm

P-Dia = 211.5 mm

Sd = 355.4 sq.cm

P-Vd = 0.105 liters

--Electrical Parameters--

Qes = 0.58

Re = 15.1 ohms

Le = 1.33 mH

Z = 16 ohms

BL = 15.14 Tm

Pe = 250 watts

--Electromech. Parameters--

Qts = 0.511

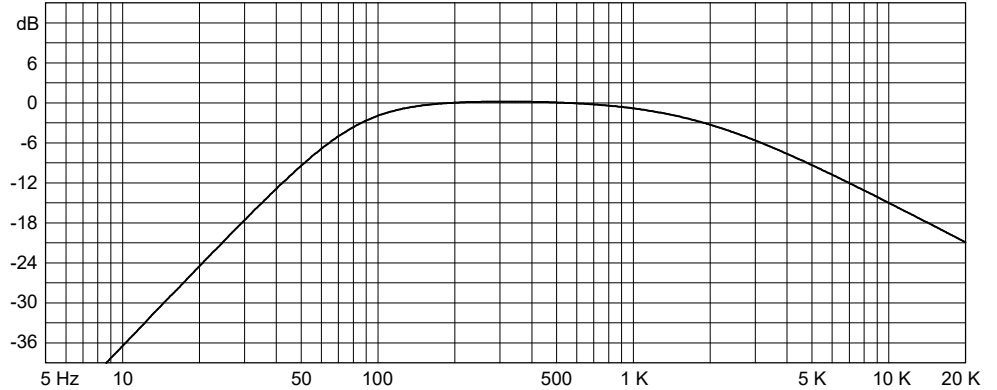
no = 1.402 %

1-W SPL = 93.61 dB

2.83-V SPL = 90.85 dB

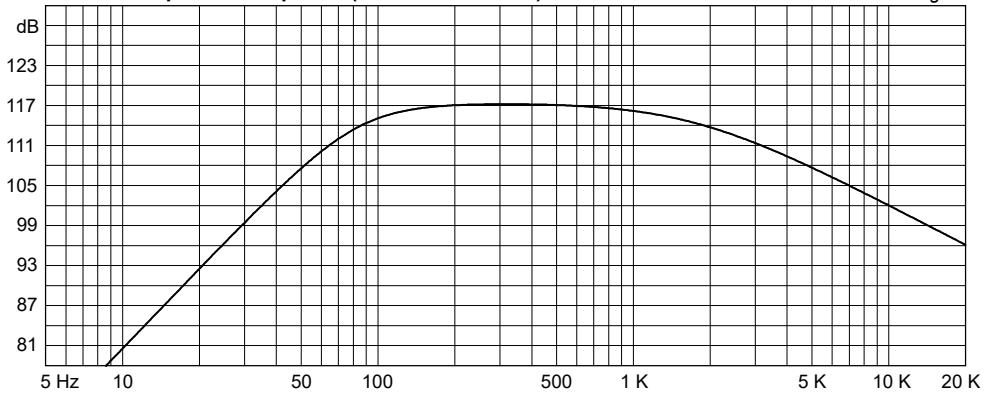
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



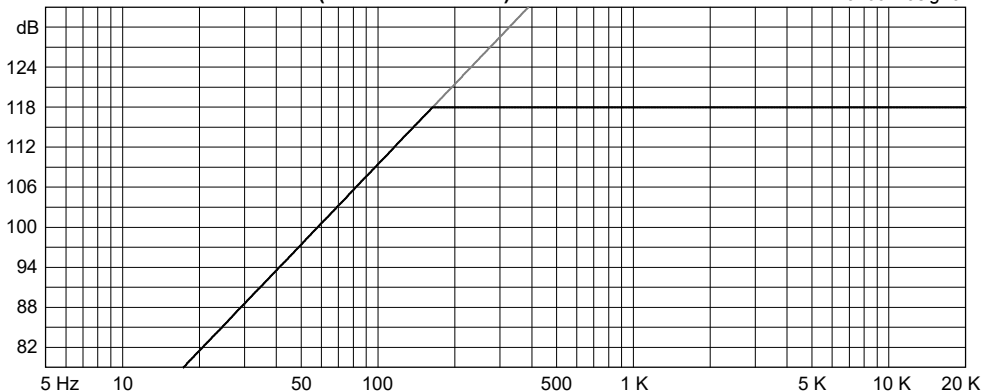
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 200 watts

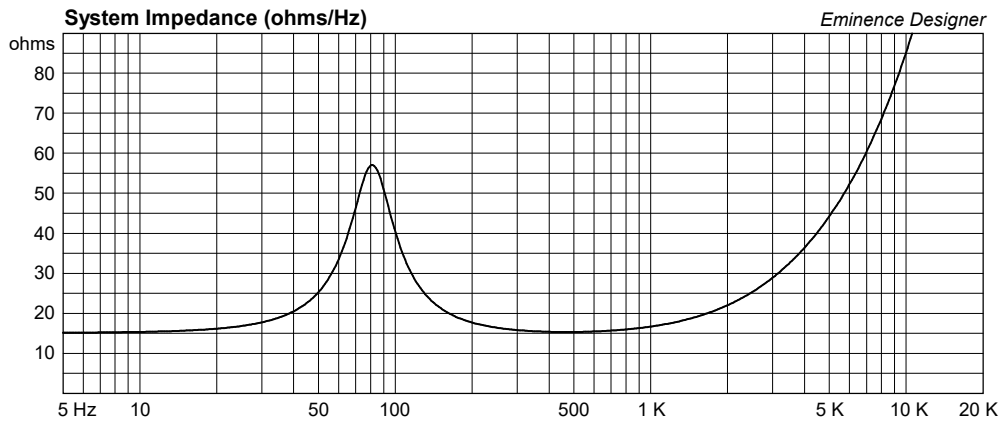
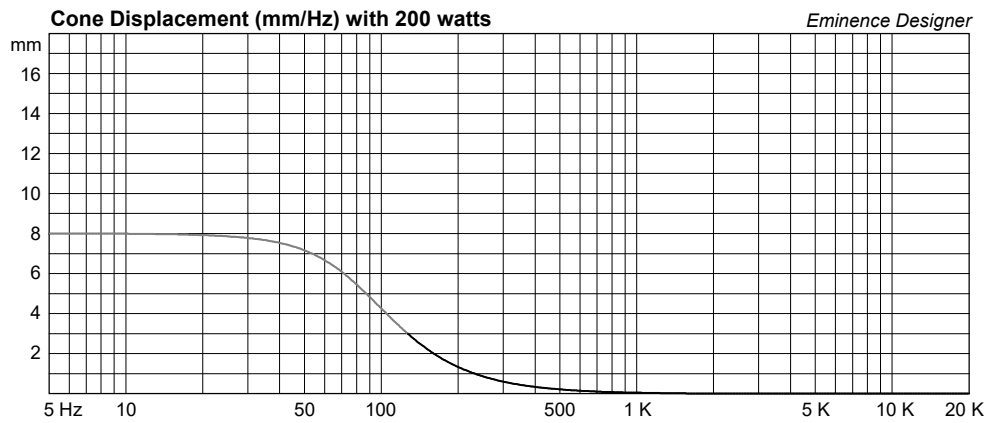
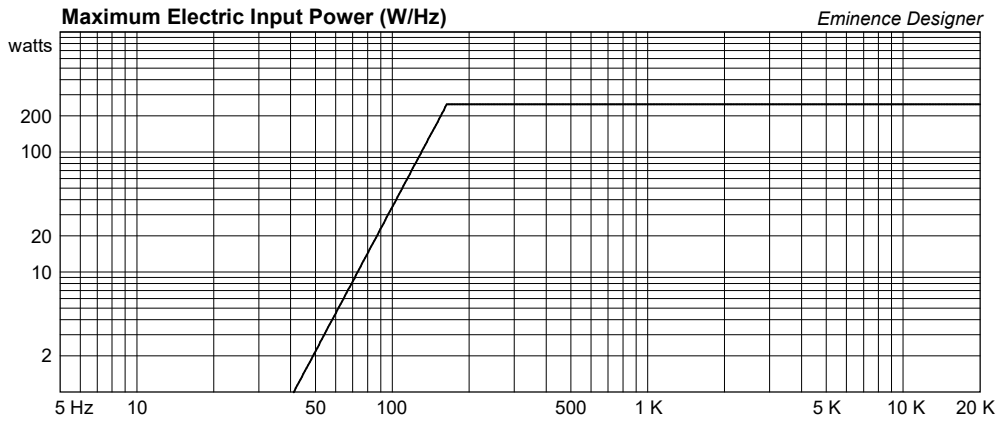
Eminence Designer



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

Eminence Designer





Beta 10B Large Vented Box

By Jerry McNutt, Eminence Speaker LLC
Limit to 60 Watts Use above 70 Hz
Limit to 150 Watts Use above 125 Hz



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 2.75 cu.ft

V(total) = 2.843 cu.ft

Fb = 65 Hz

QL = 7

F3 = 53.35 Hz

Fill = minimal

--Vents--

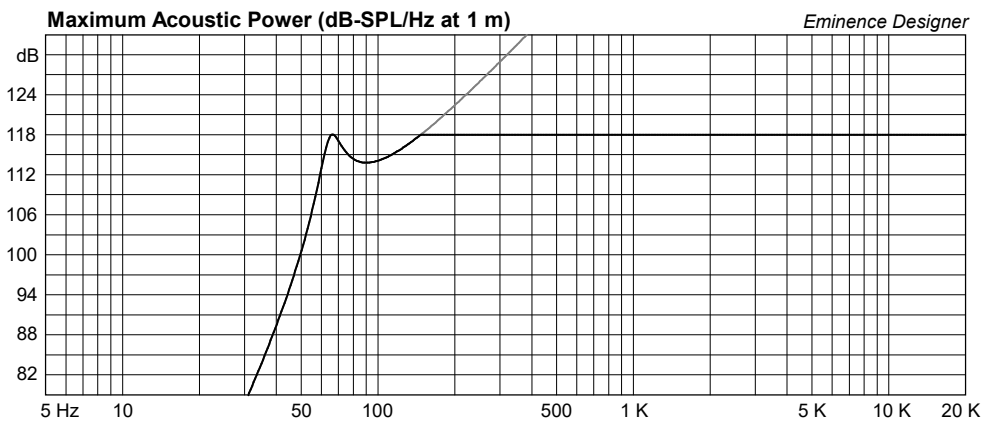
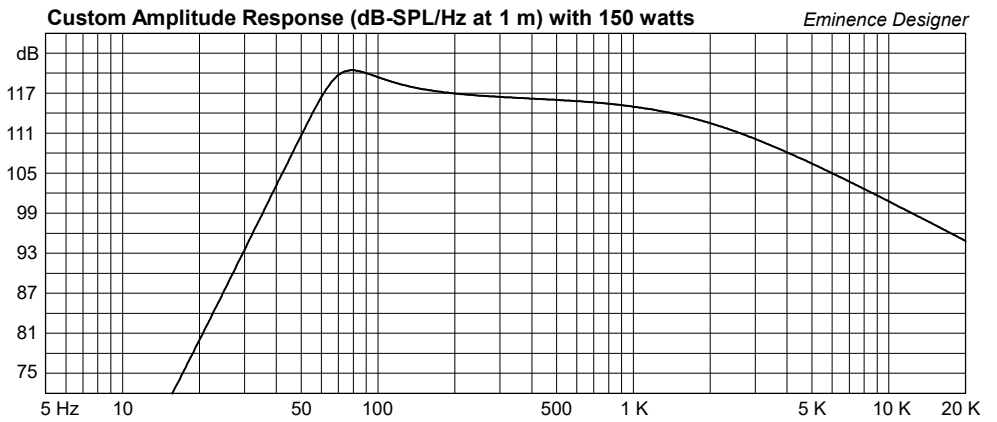
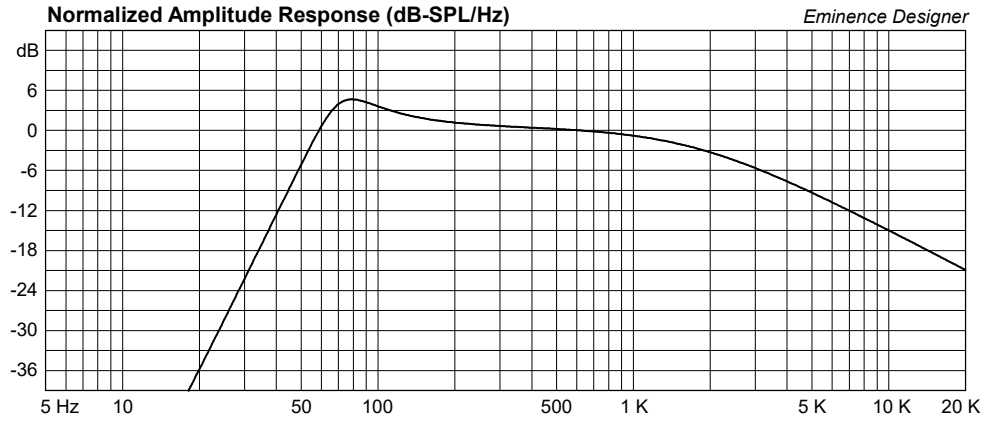
No. of Vents = 1

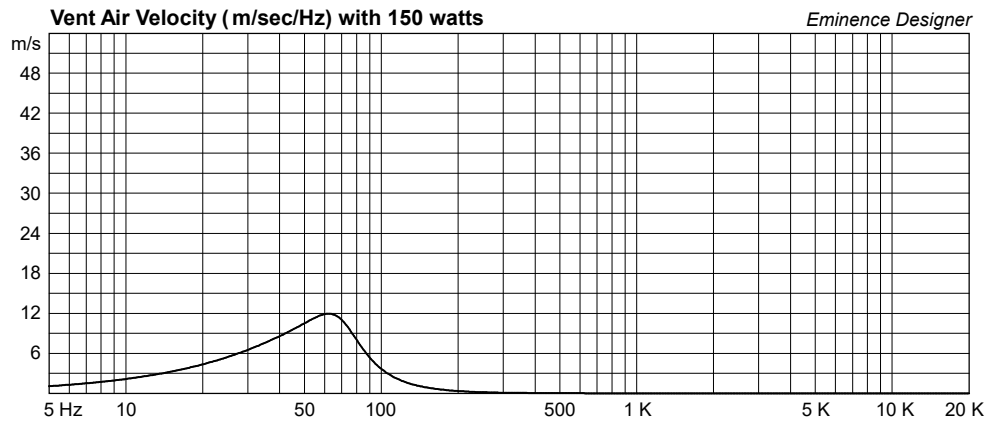
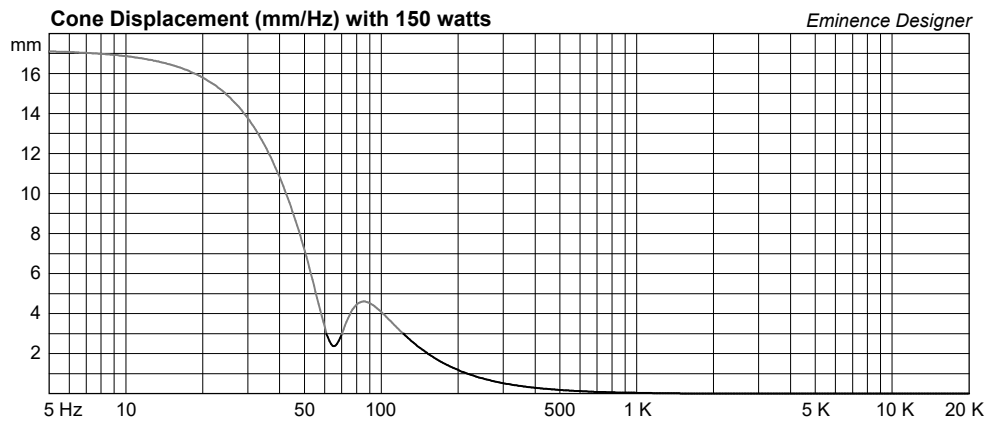
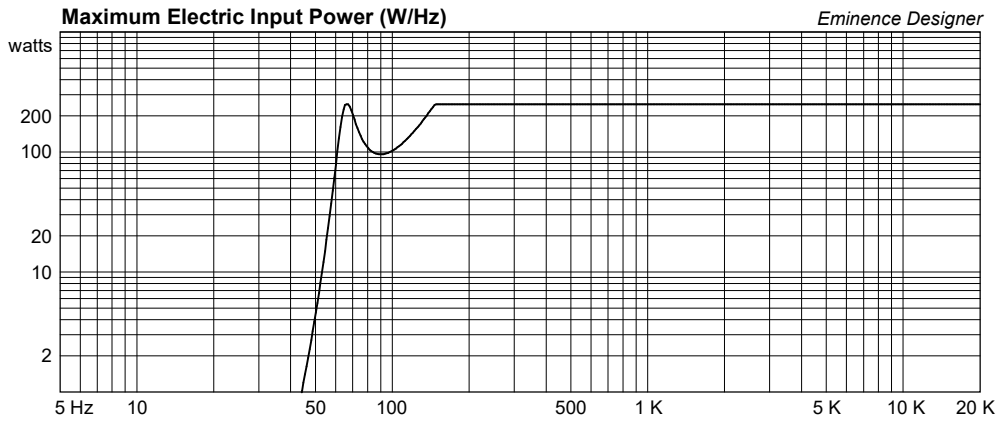
Vent shape = round

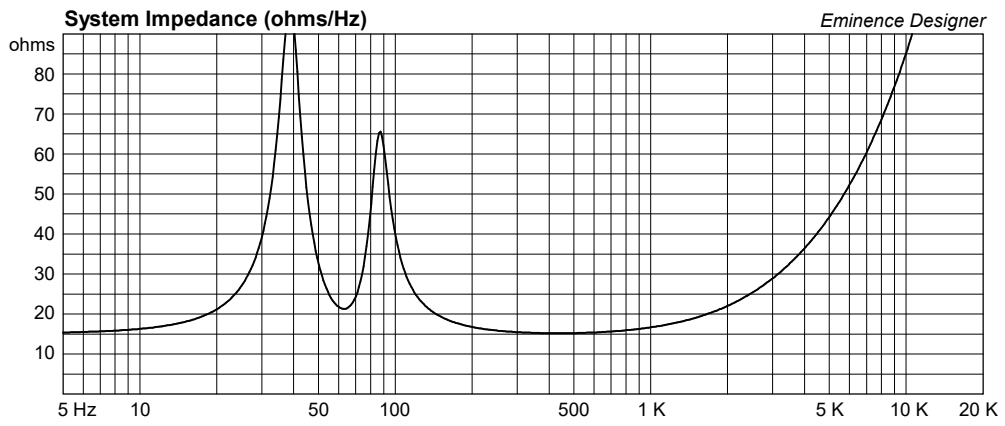
Vent ends = one flush

Dv = 5.944 in

Lv = 0.75 in







Beta 10B Sealed Midrange Design

By Jerry McNutt, Eminence Speaker LLC
Limit to 100 Watts. Use above 165 Hz.



Box Properties

--Description--

Name:

Type: Closed Box

Shape: Prism, square

--Box Parameters--

Vb = 0.524 cu.ft

V(total) = 0.524 cu.ft

Qtc = 0.849

QL = 20

F3 = 94.74 Hz

Fill = heavy

Driver Properties

--Description--

Name: Beta 10B

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 16 Ohm Beta 10

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 51.6 Hz

Qms = 4.33

Vas = 61.37 liters

Cms = 0.35 mm/N

Mms = 27.05 g

Rms = 2.03 kg/s

Xmax = 3 mm

Xmech = 8.6 mm

P-Dia = 211.5 mm

Sd = 355.4 sq.cm

P-Vd = 0.105 liters

--Electrical Parameters--

Qes = 0.58

Re = 15.1 ohms

Le = 1.33 mH

Z = 16 ohms

BL = 15.14 Tm

Pe = 250 watts

--Electromech. Parameters--

Qts = 0.511

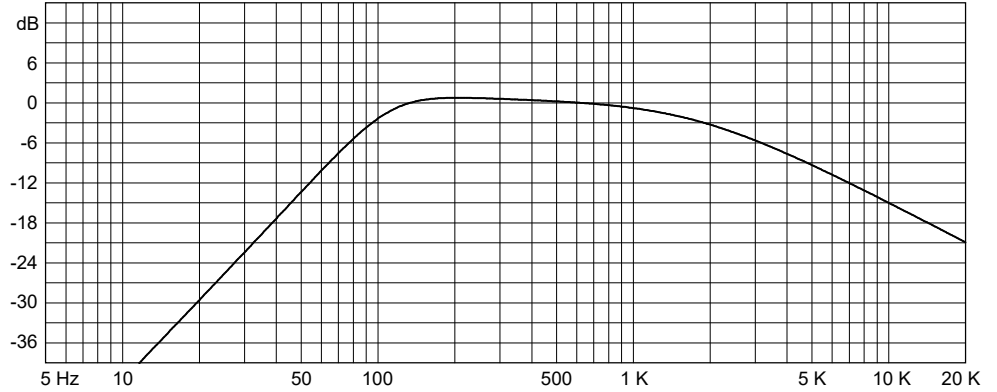
no = 1.402 %

1-W SPL = 93.61 dB

2.83-V SPL = 90.85 dB

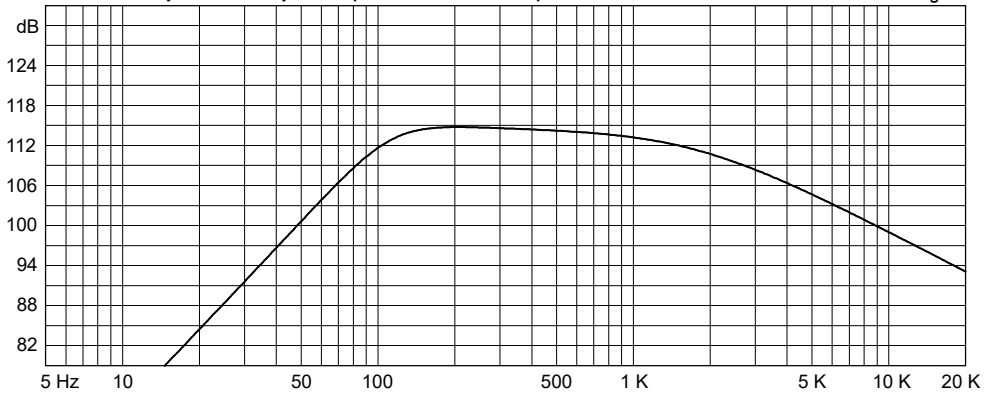
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



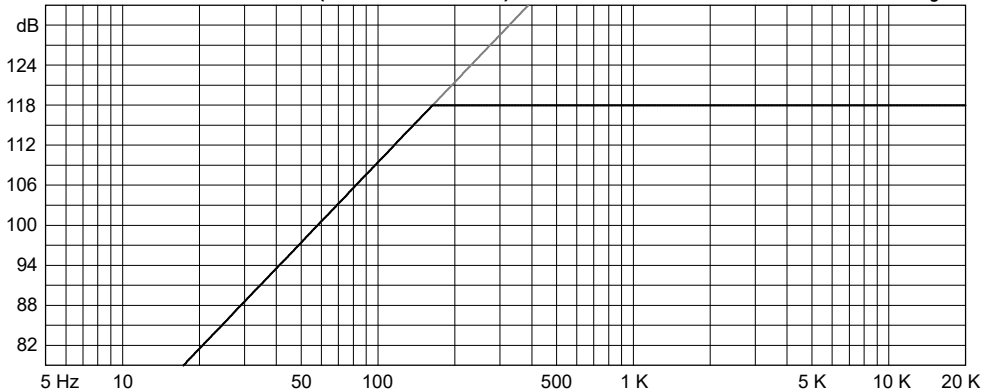
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 100 watts

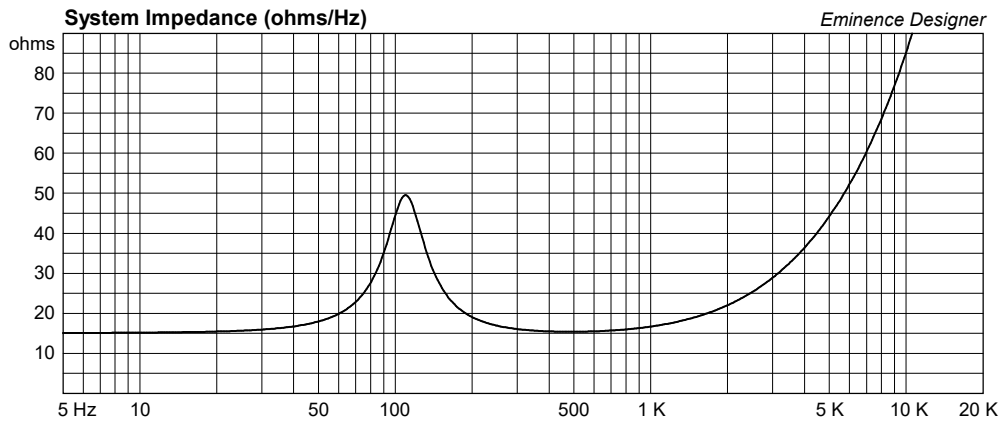
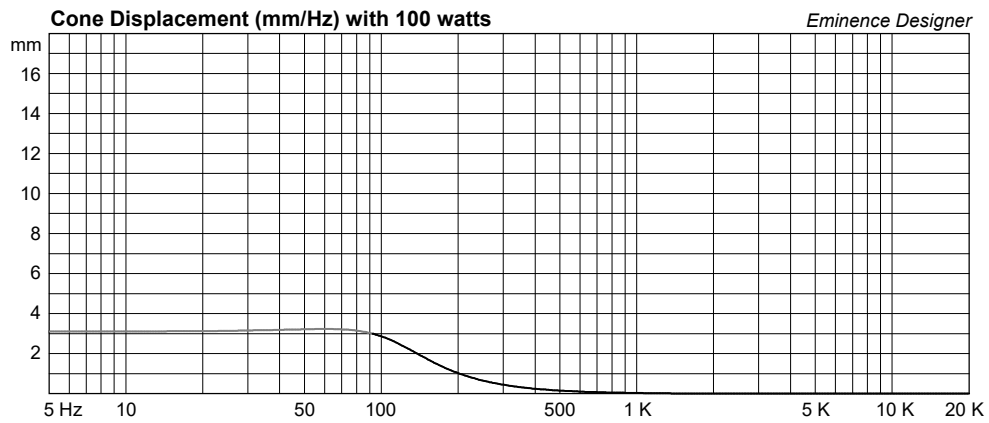
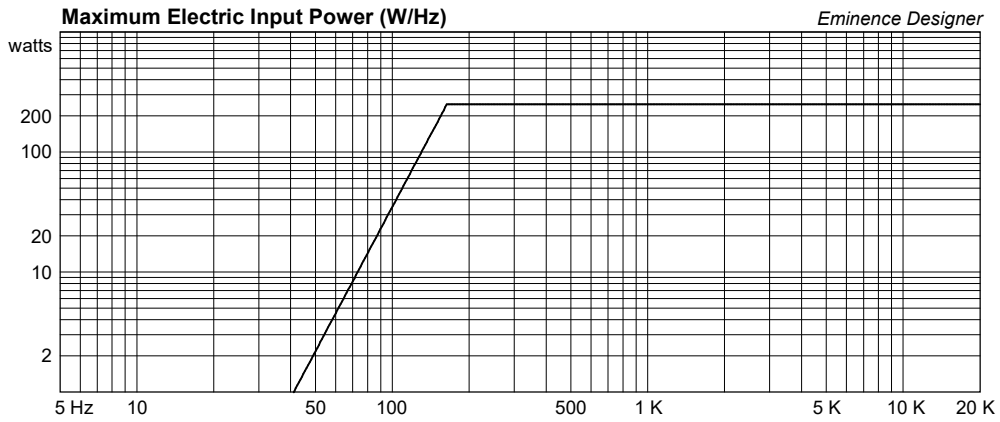
Eminence Designer



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

Eminence Designer





Beta 10B Small Midbass Vented Design

By Jerry McNutt, Eminence Speaker LLC
Limit to 100 Watts Use above 100Hz



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 0.933 cu.ft

V(total) = 1.016 cu.ft

Fb = 75.26 Hz

QL = 7

F3 = 72.55 Hz

Fill = minimal

--Vents--

No. of Vents = 1

Vent shape = round

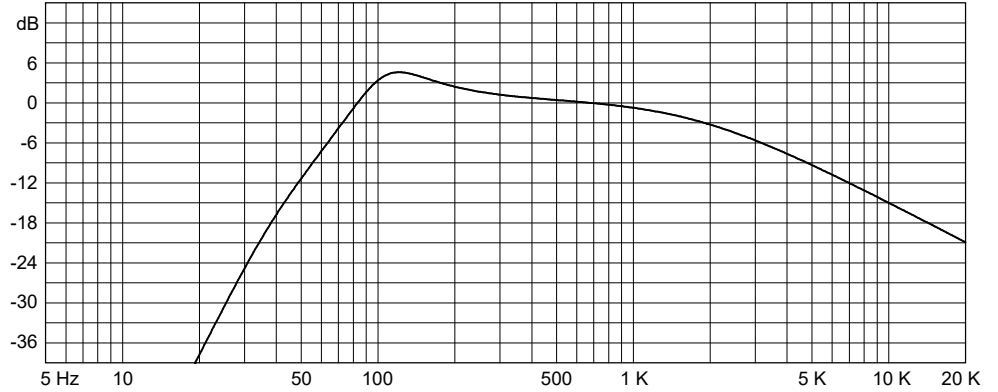
Vent ends = one flush

Dv = 3 in

Lv = 0.75 in

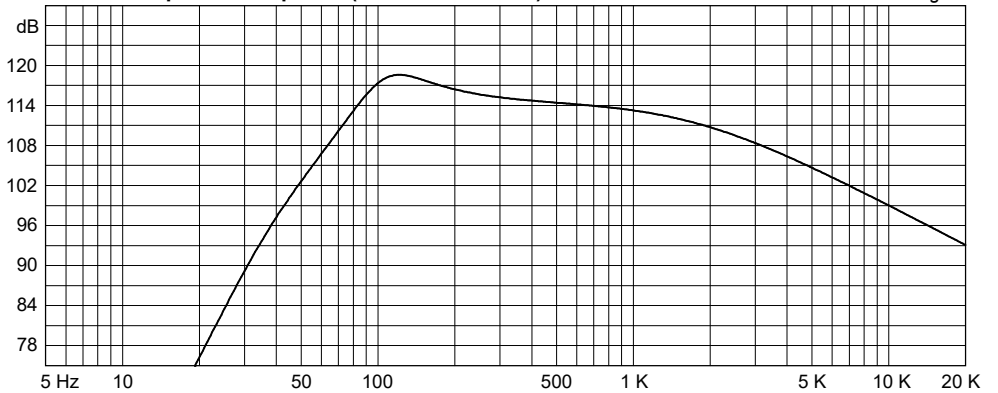
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



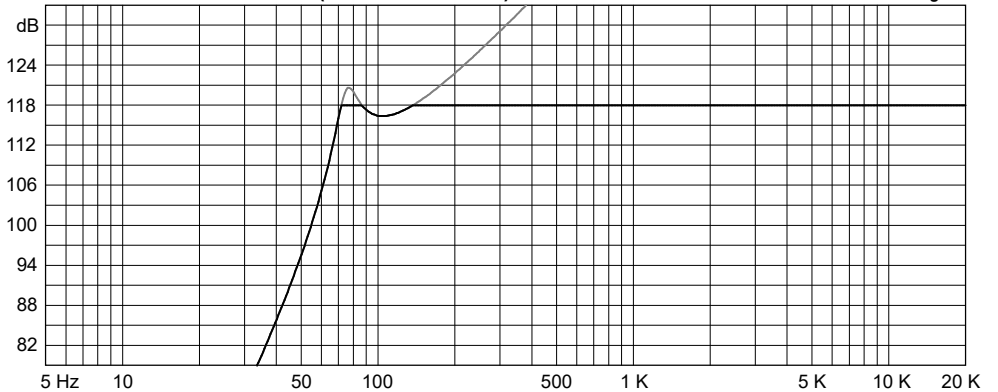
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 100 watts

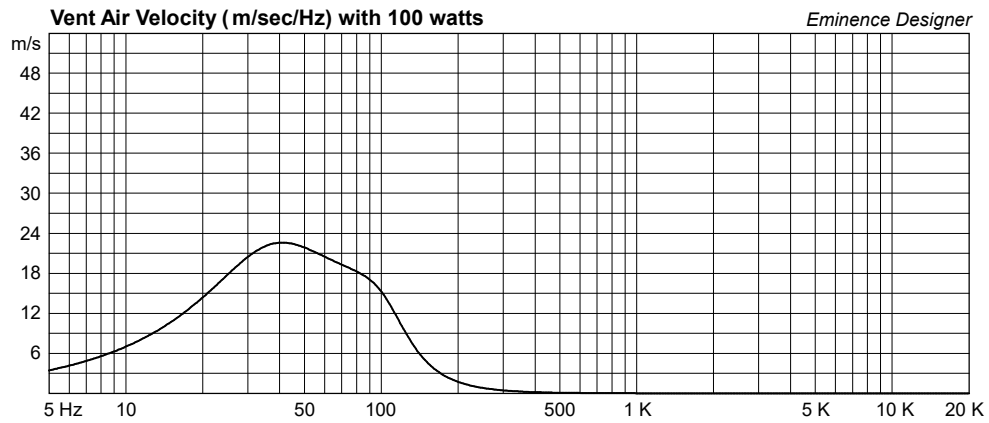
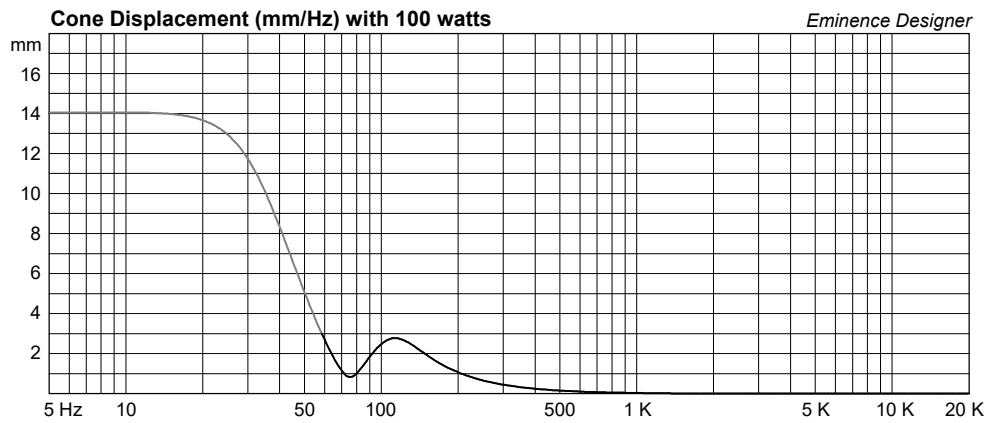
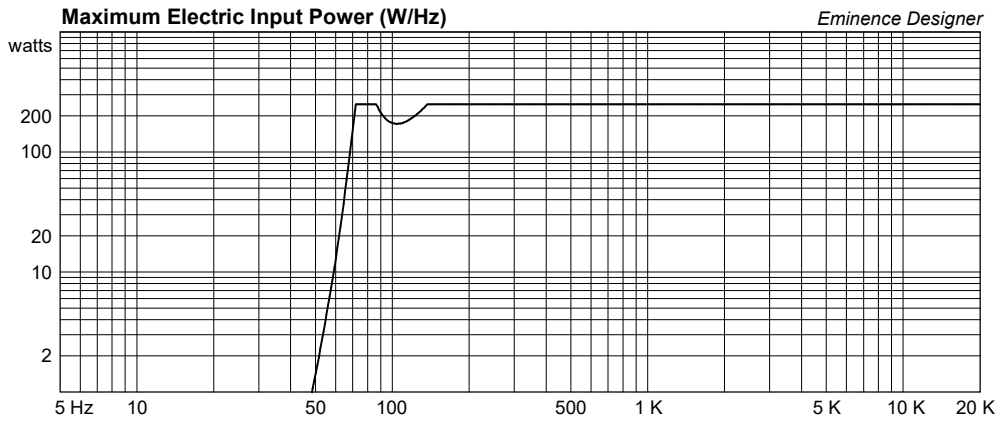
Eminence Designer

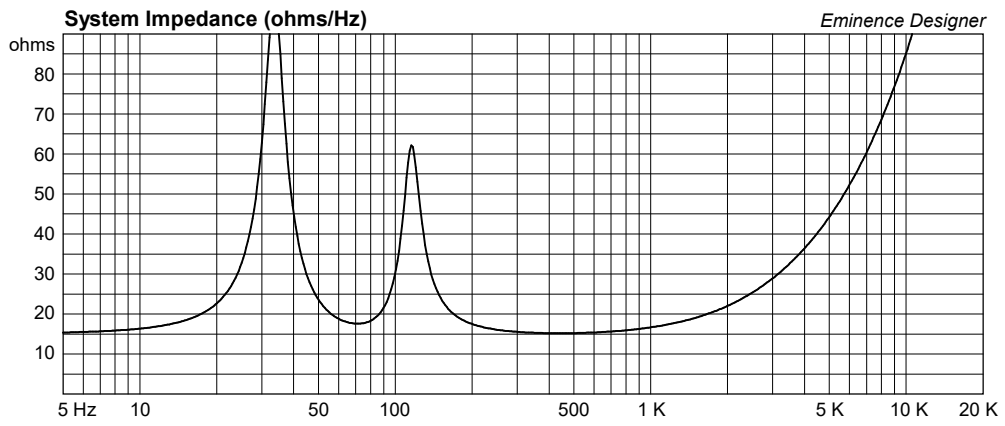


Maximum Acoustic Power (dB-SPL/Hz at 1 m)

Eminence Designer







Beta 10B 2x10 Bass Guitar

By Jerry McNutt, Eminence Speaker LLC
150 Watts, 300 Watts Peak
8 Ohm when wired in parallel.



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 3.55 cu.ft

V(total) = 3.726 cu.ft

Fb = 65 Hz

QL = 7

F3 = 57.16 Hz

Fill = minimal

--Vents--

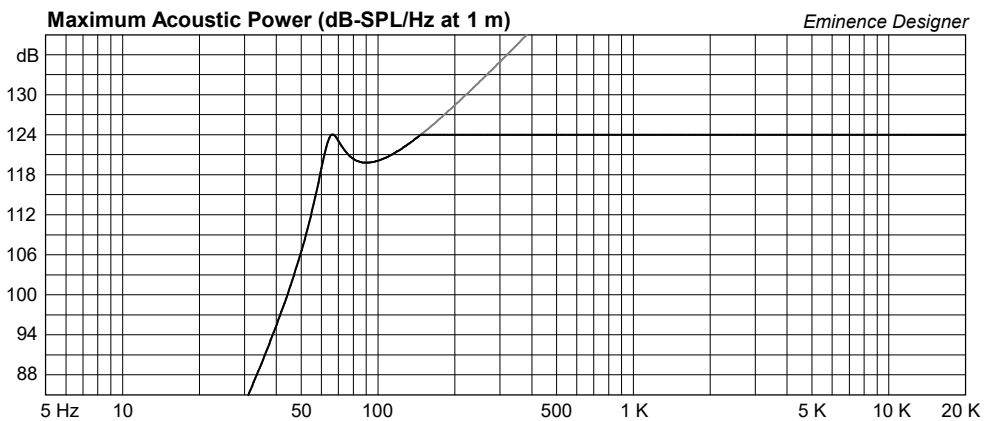
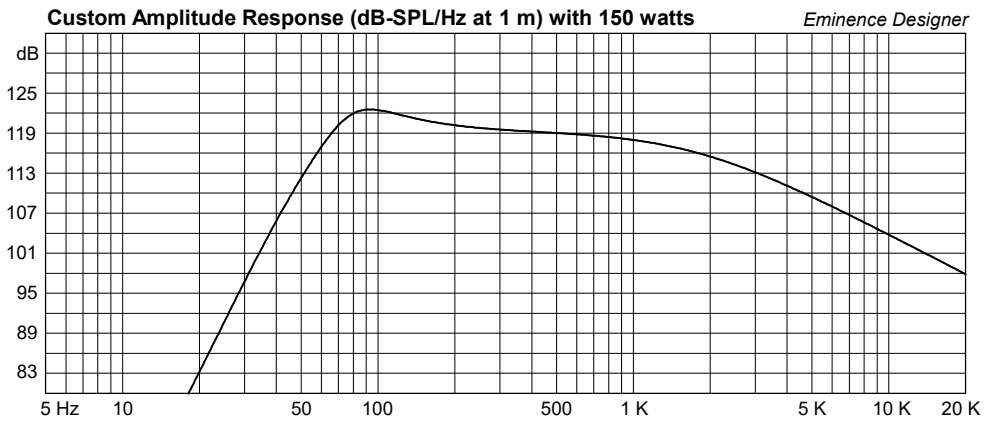
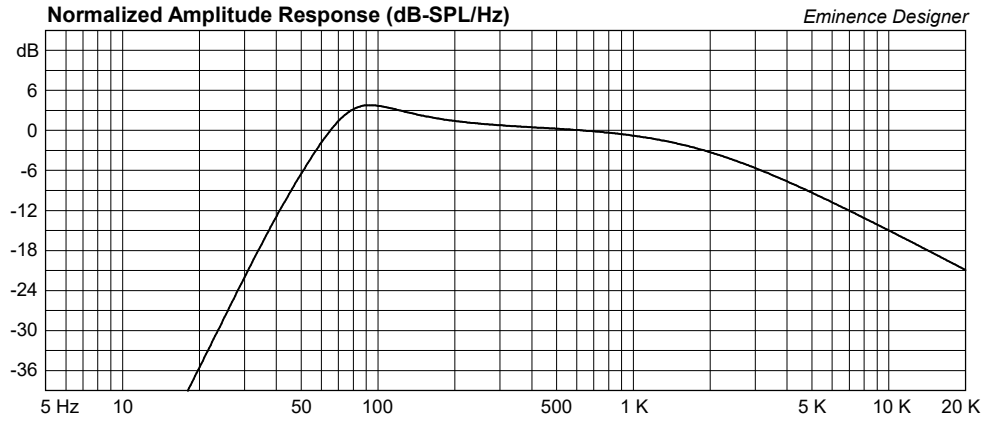
No. of Vents = 2

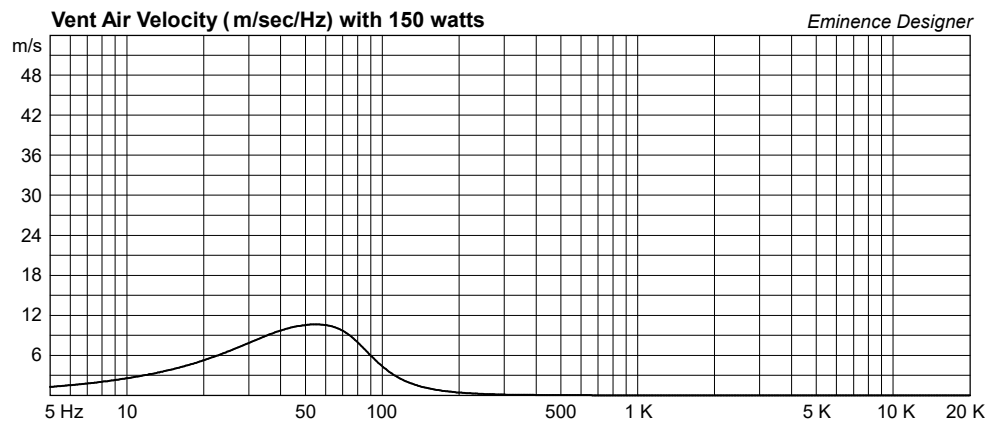
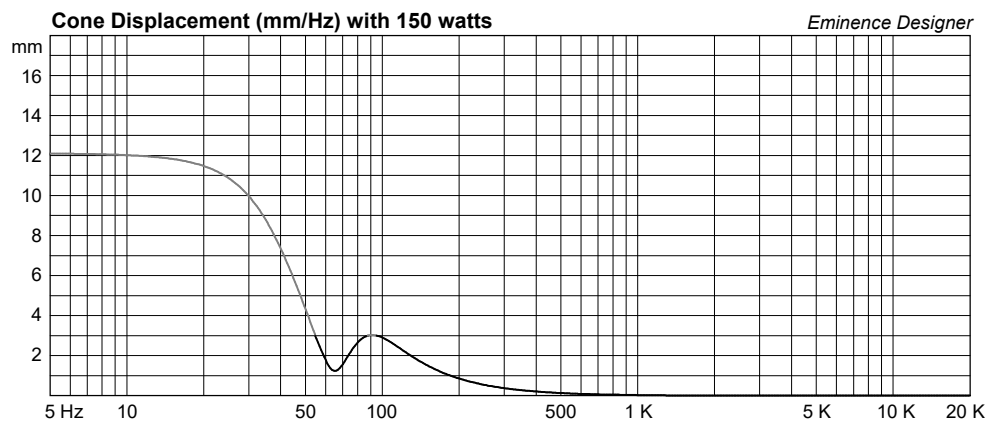
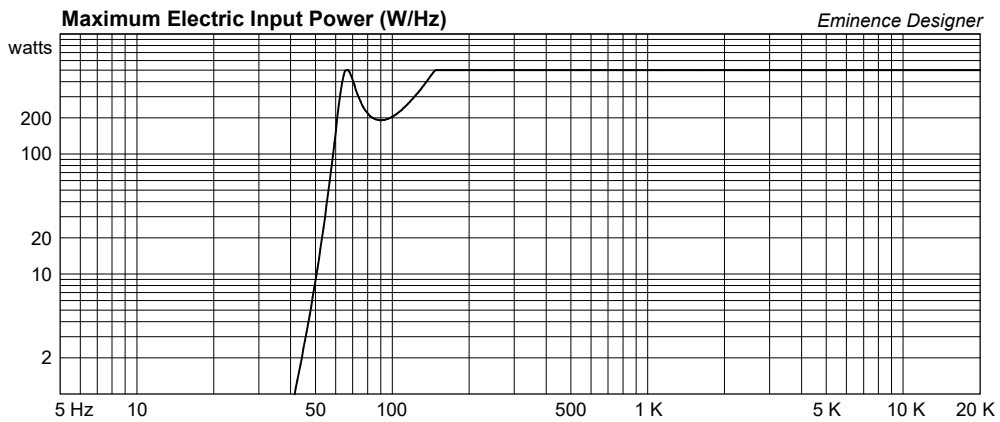
Vent shape = round

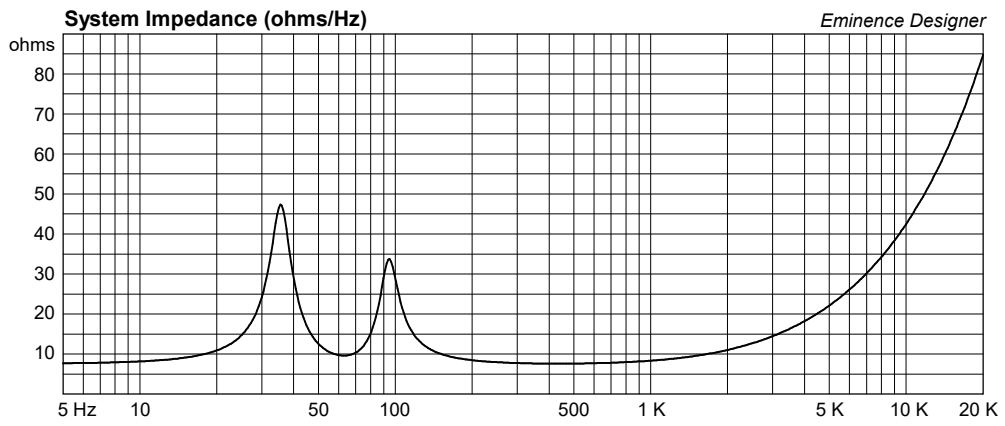
Vent ends = one flush

Dv = 4.606 in

Lv = 0.75 in







Beta 10B 4x10 Bass Rig

By Jerry McNutt, Eminence Speaker LLC
300 Watts, 600 Watts Peak
4 Ohm when wired in parallel.



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 5.8 cu.ft

V(total) = 6.143 cu.ft

Fb = 60 Hz

QL = 7

F3 = 58.79 Hz

Fill = minimal

--Vents--

No. of Vents = 4

Vent shape = round

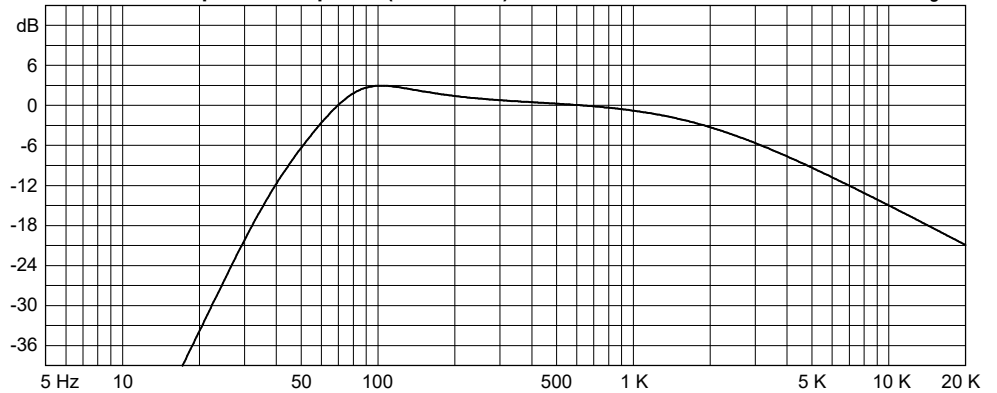
Vent ends = one flush

Dv = 3.819 in

Lv = 0.75 in

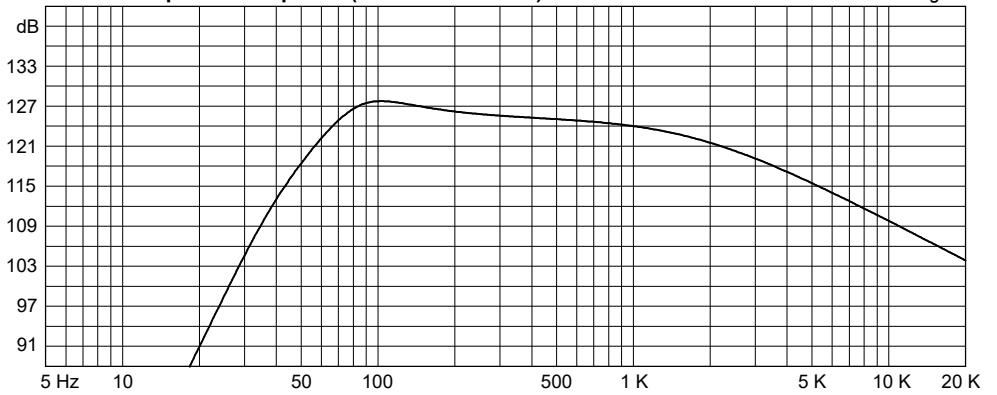
Normalized Amplitude Response (dB-SPL/Hz)

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

