

Medium Vented 2x10 Box Design

By Anthony Lucas, Eminence Speaker

350W, F3@60Hz, run full range for bass guitar, use steep high-pass filter @50Hz for PA applications. Loud and punchy 2x10 vented enclosure



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 3.2 cu.ft

V(total) = 3.408 cu.ft

Fb = 60 Hz

QL = 6.953

F3 = 60.27 Hz

Fill = minimal

--Vents--

No. of Vents = 4

Vent shape = round

Vent ends = one flush

Dv = 3 in

Lv = 2.637 in

Driver Properties

--Description--

Name:

Type: Standard one-way driver

--Configuration--

No. of Drivers = 2

Mounting = Standard

Wiring = Parallel

Drivers sum coherently = Yes

--Mechanical Parameters--

Fs = 46 Hz

Qms = 2.61

Vas = 74.87 liters [149.7]

Cms = 0.44 mm/N [0.22]

Mms = 27 g [54]

Rms = 3.013 kg/s [6.026]

Xmax = 4.7 mm

Xmech = 7.05 mm

P-Dia = 209.9 mm [296.8]

Sd = 350.1 sq.cm [700.2]

P-Vd = 0.163 liters [0.326]

--Electrical Parameters--

Qes = 0.29

Re = 12.03 ohms [6.015]

Le = 0.85 mH [0.425]

Z = 16 ohms [8]

BL = 18.1 Tm [17.99]

Pe = 175 watts [350]

--Electromech. Parameters--

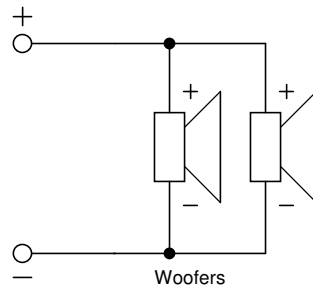
Qts = 0.26

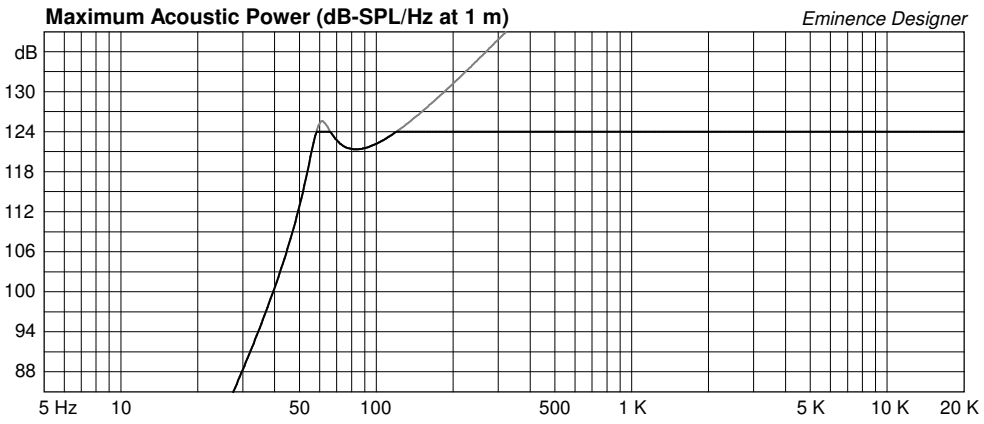
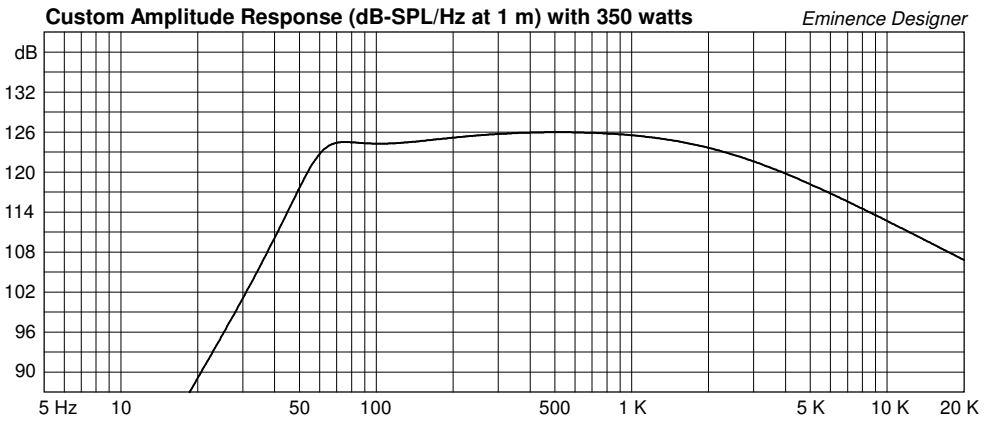
no = 2.423 % [4.846]

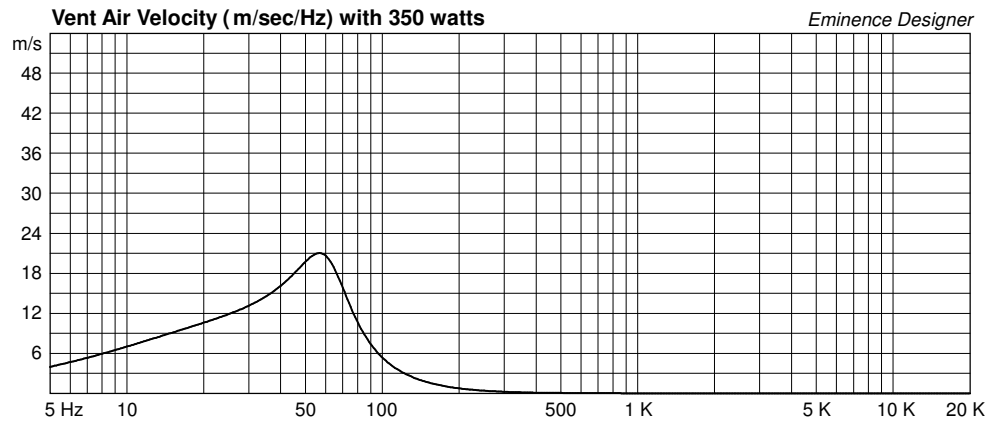
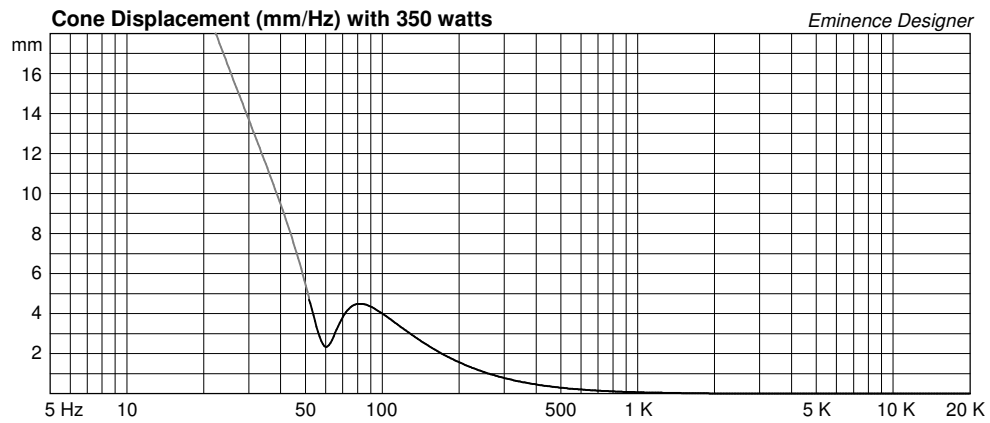
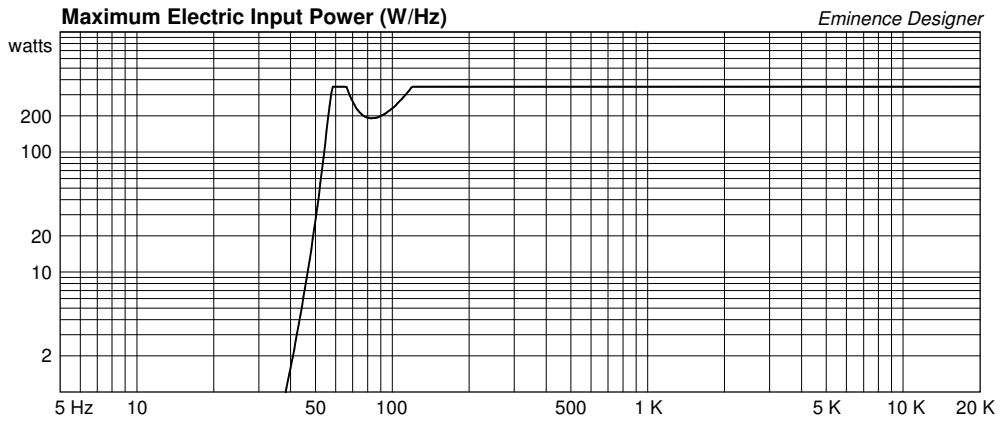
1-W SPL = 95.99 dB [99]

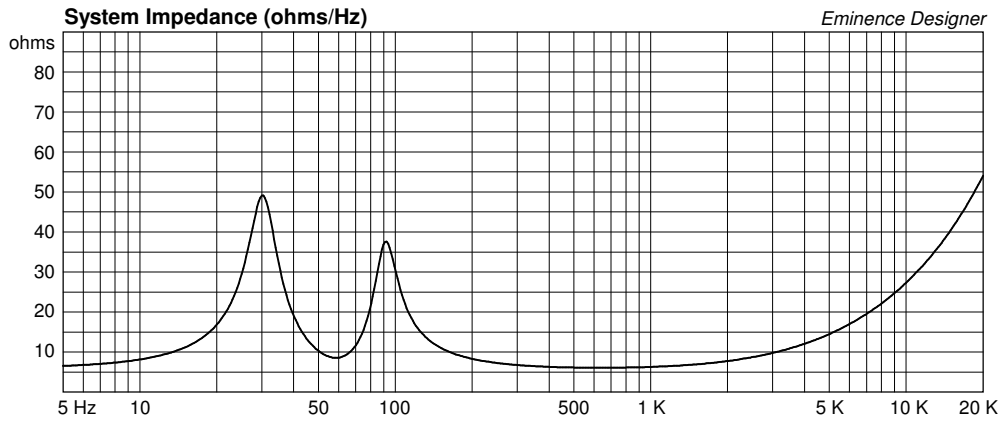
2.83-V SPL = 94.22 dB [100.2]

Wiring Diagram









Medium Vented 4x10 Box Design

By Anthony Lucas, Eminence Speaker

700W, F3@61Hz, run full range for bass guitar, use steep high-pass filter @50Hz for PA applications. Loud and punchy 4x10 vented enclosure



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 6.109 cu.ft

V(total) = 6.448 cu.ft

Fb = 60 Hz

QL = 6.953

F3 = 61.17 Hz

Fill = minimal

--Vents--

No. of Vents = 4

Vent shape = round

Vent ends = one flush

Dv = 4 in

Lv = 0.75 in

Driver Properties

--Description--

Name:

Type: Standard one-way driver

--Configuration--

No. of Drivers = 4

Mounting = Standard

Wiring = Parallel

Drivers sum coherently = Yes

--Mechanical Parameters--

Fs = 46 Hz

Qms = 2.61

Vas = 74.87 liters [299.5]

Cms = 0.44 mm/N [0.11]

Mms = 27 g [108]

Rms = 3.013 kg/s [12.05]

Xmax = 4.7 mm

Xmech = 7.05 mm

P-Dia = 209.9 mm [419.8]

Sd = 350.1 sq.cm [1400]

P-Vd = 0.163 liters [0.652]

--Electrical Parameters--

Qes = 0.29

Re = 12.03 ohms [3.008]

Le = 0.85 mH [0.213]

Z = 16 ohms [4]

BL = 18.1 Tm [17.99]

Pe = 175 watts [700]

--Electromech. Parameters--

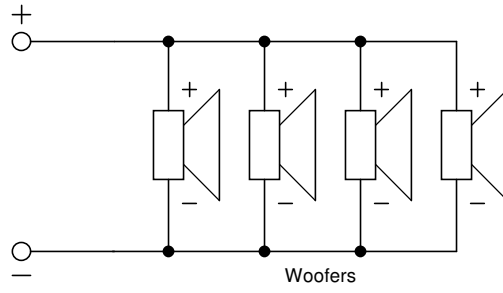
Qts = 0.26

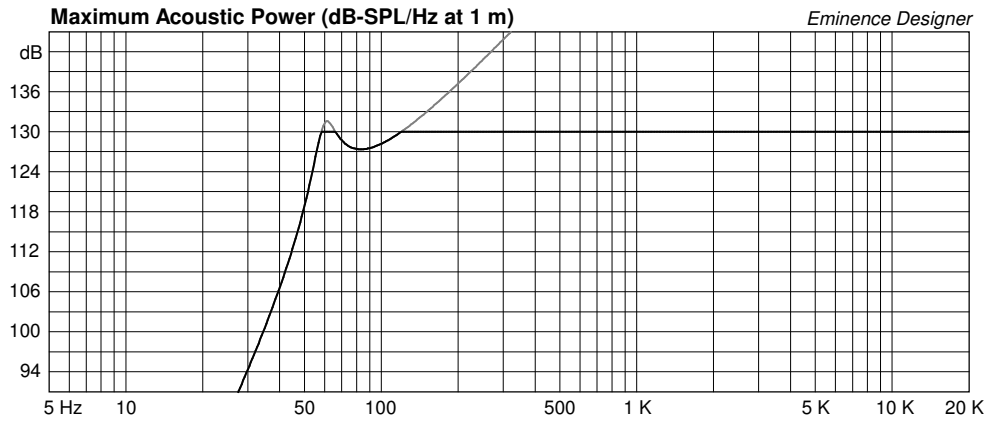
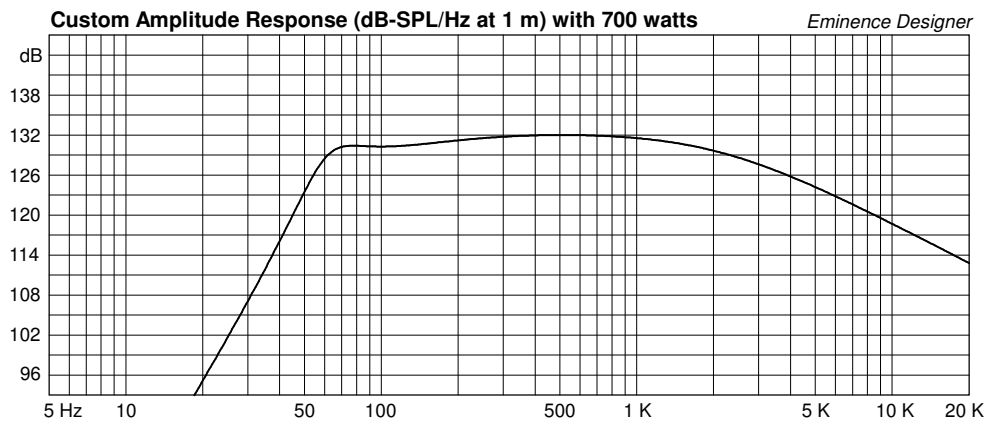
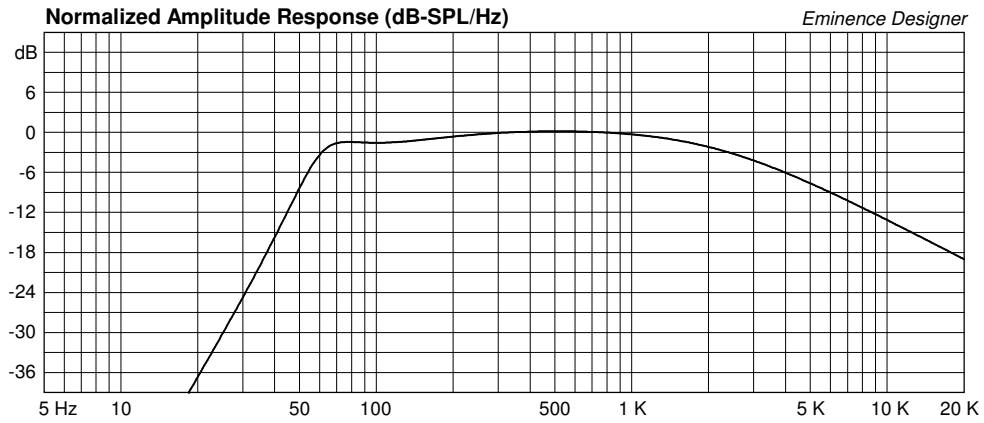
no = 2.423 % [9.692]

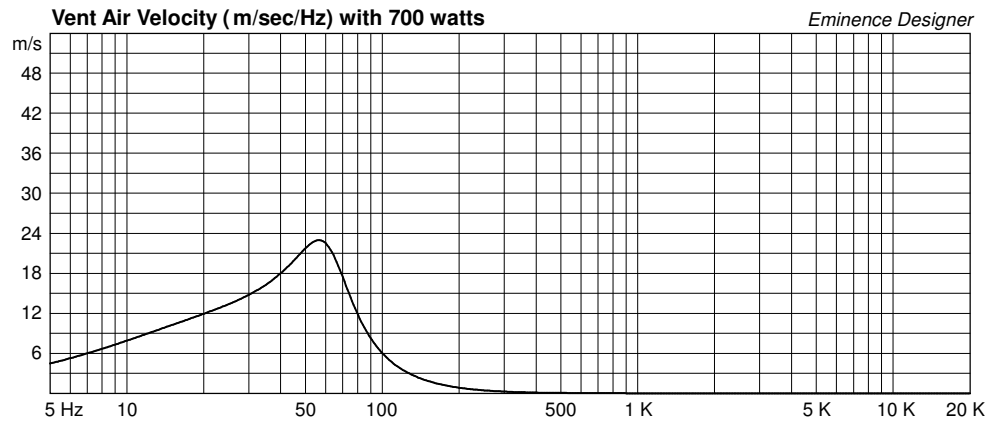
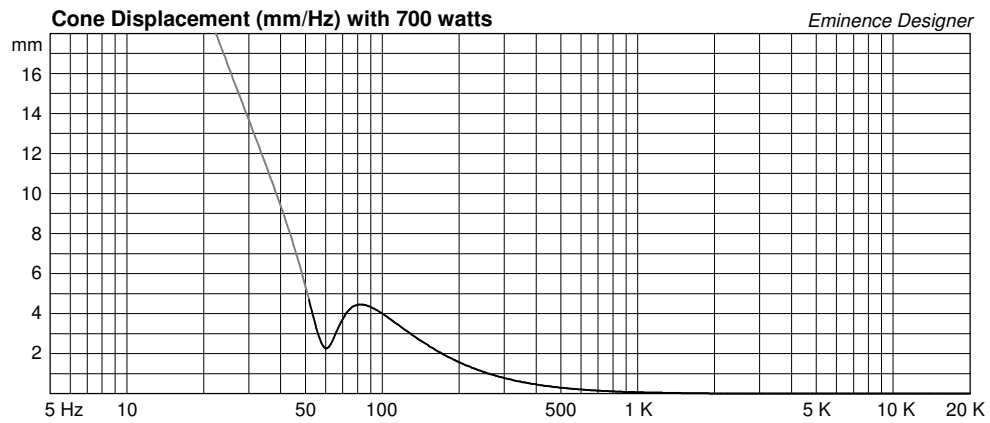
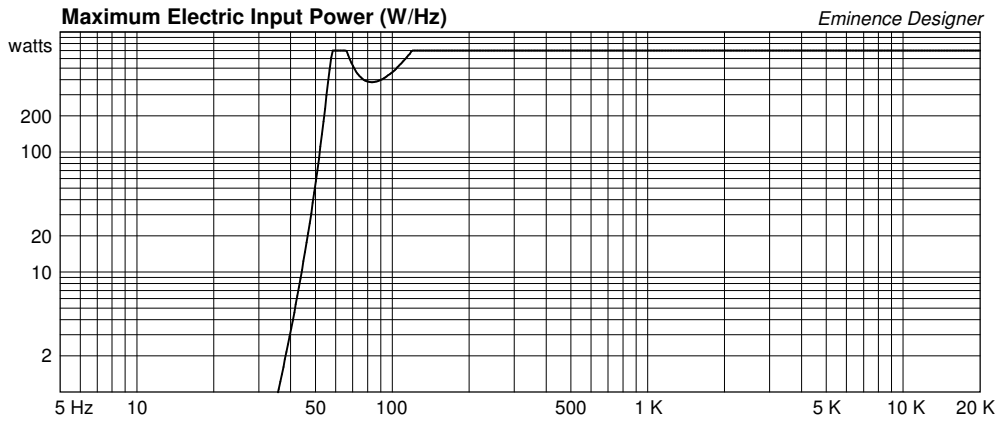
1-W SPL = 95.99 dB [102]

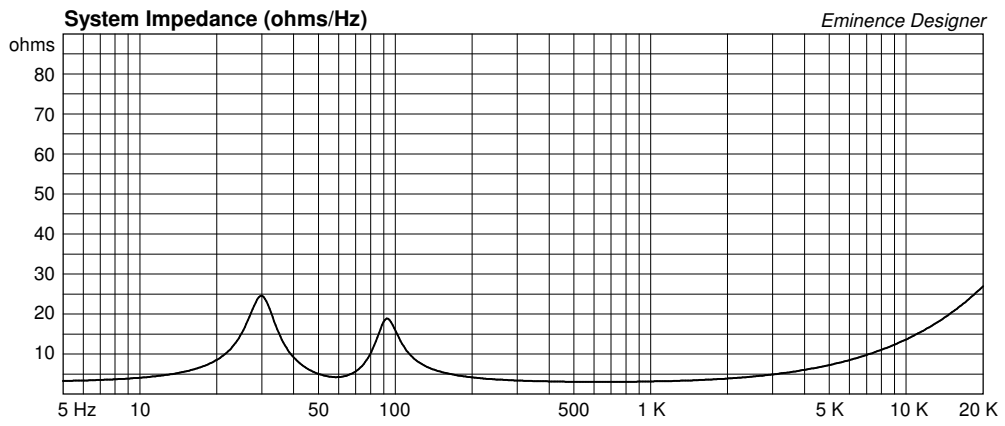
2.83-V SPL = 94.22 dB [106.3]

Wiring Diagram









Small Vented Box Design

By Anthony Lucas, Eminence Speaker

175W, F3@90Hz, run full range for bass guitar, use steep high-pass filter @50Hz for PA applications. Designed for max power, max output.



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 0.6 cu.ft

V(total) = 0.722 cu.ft

Fb = 70 Hz

QL = 6.953

F3 = 90.05 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 2.5 in

Lv = 6.387 in

Driver Properties

--Description--

Name:

Type: Standard one-way driver

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 46 Hz

Qms = 2.61

Vas = 74.87 liters

Cms = 0.44 mm/N

Mms = 27 g

Rms = 3.013 kg/s

Xmax = 4.7 mm

Xmech = 7.05 mm

P-Dia = 209.9 mm

Sd = 350.1 sq.cm

P-Vd = 0.163 liters

--Electrical Parameters--

Qes = 0.29

Re = 12.03 ohms

Le = 0.85 mH

Z = 16 ohms

BL = 18.1 Tm

Pe = 175 watts

--Electromech. Parameters--

Qts = 0.26

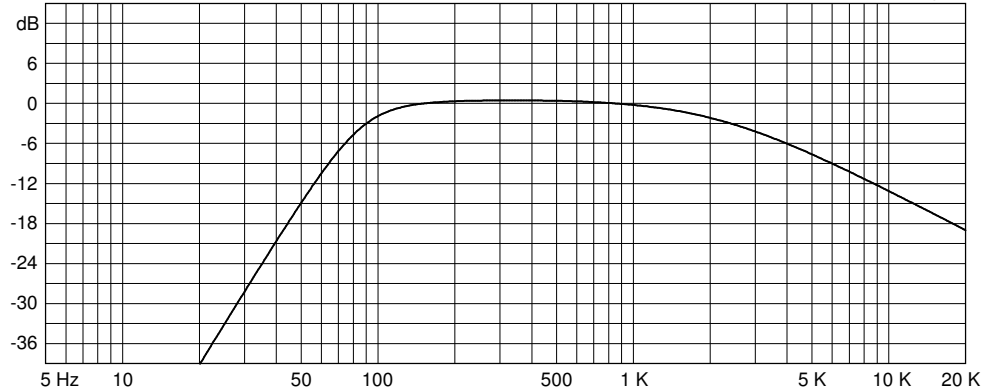
no = 2.423 %

1-W SPL = 95.99 dB

2.83-V SPL = 94.22 dB

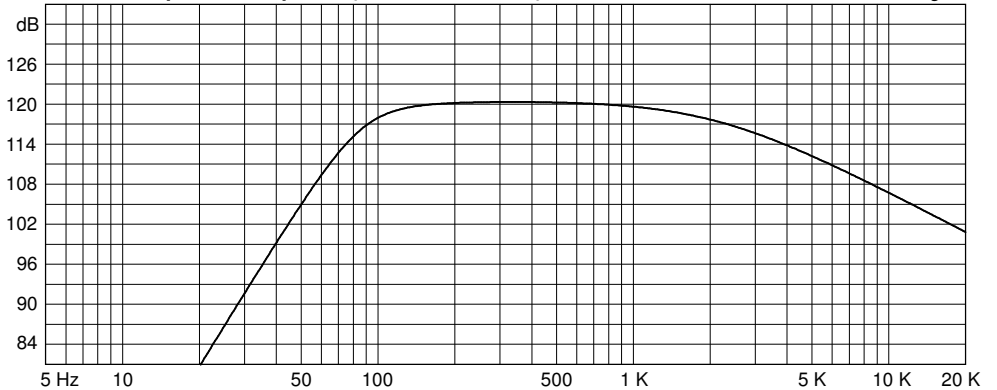
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



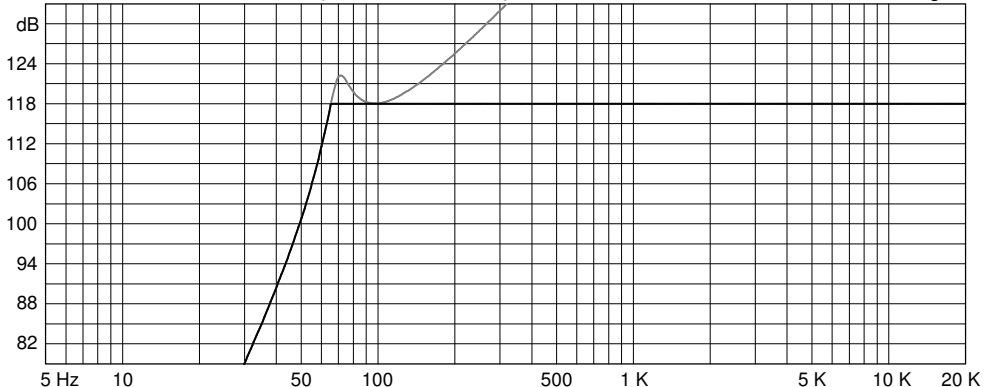
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 175 watts

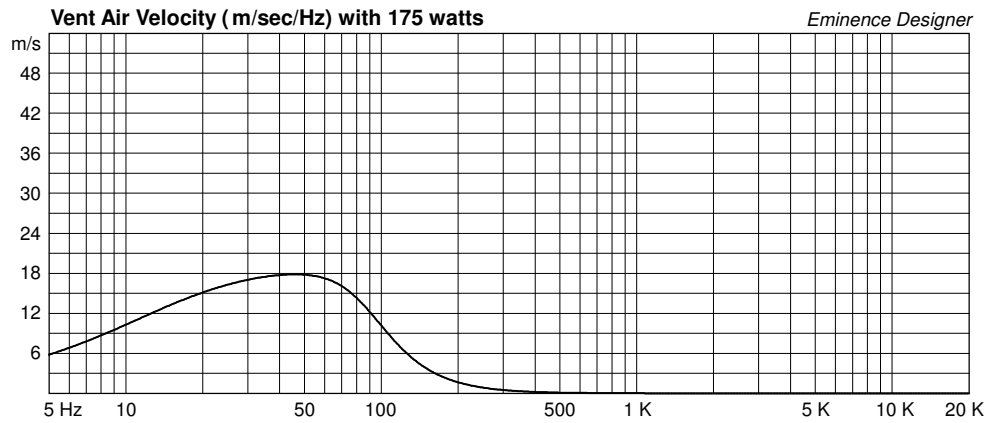
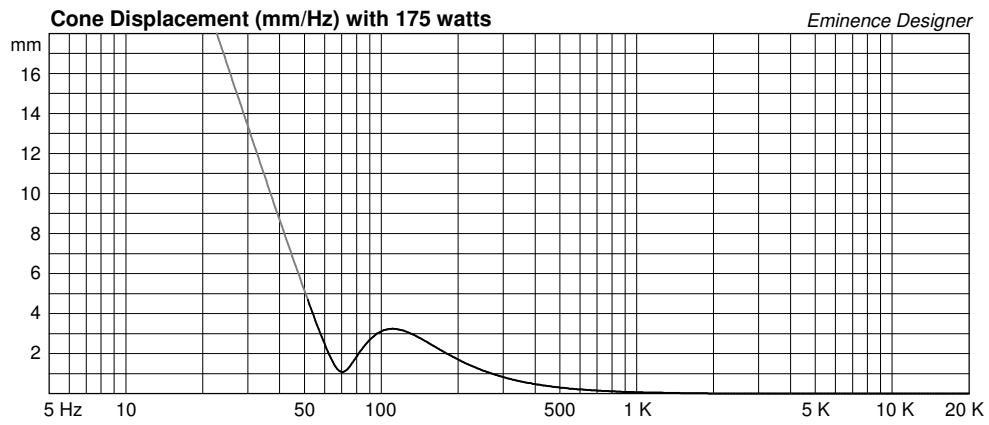
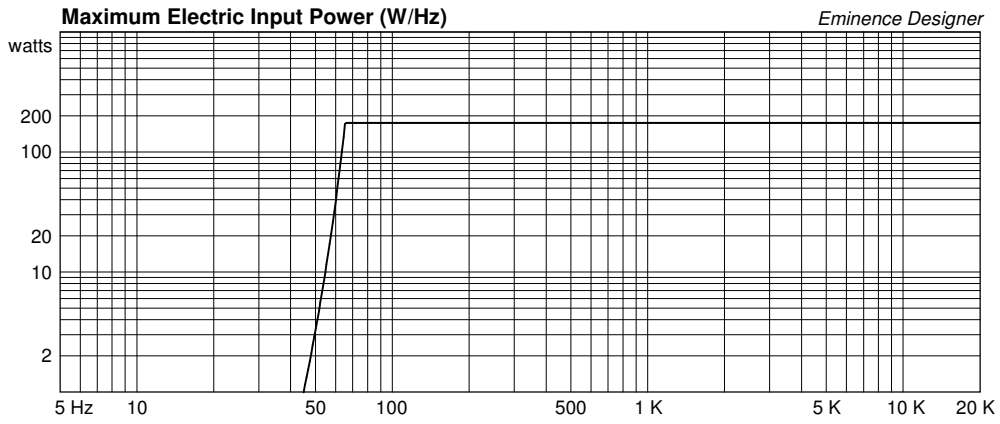
Eminence Designer

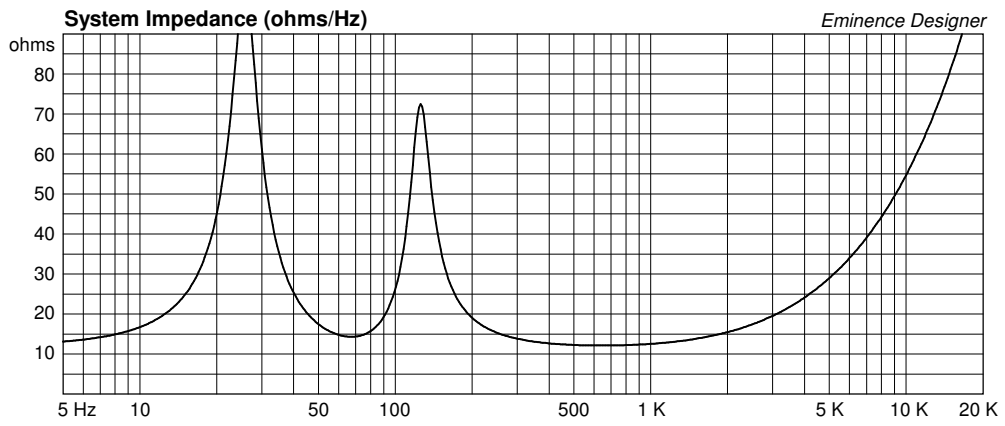


Maximum Acoustic Power (dB-SPL/Hz at 1 m)

Eminence Designer







Large Vented Box Design

By Anthony Lucas, Eminence Speaker

100W, F3@49Hz, run full range for bass guitar, use steep high-pass filter @45Hz for PA applications. Extended bass



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 2.75 cu.ft

V(total) = 2.85 cu.ft

Fb = 50 Hz

QL = 6.953

F3 = 49.35 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 3 in

Lv = 2.196 in

Driver Properties

--Description--

Name:

Type: Standard one-way driver

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 46 Hz

Qms = 2.61

Vas = 74.87 liters

Cms = 0.44 mm/N

Mms = 27 g

Rms = 3.013 kg/s

Xmax = 4.7 mm

Xmech = 7.05 mm

P-Dia = 209.9 mm

Sd = 350.1 sq.cm

P-Vd = 0.163 liters

--Electrical Parameters--

Qes = 0.29

Re = 12.03 ohms

Le = 0.85 mH

Z = 16 ohms

BL = 18.1 Tm

Pe = 175 watts

--Electromech. Parameters--

Qts = 0.26

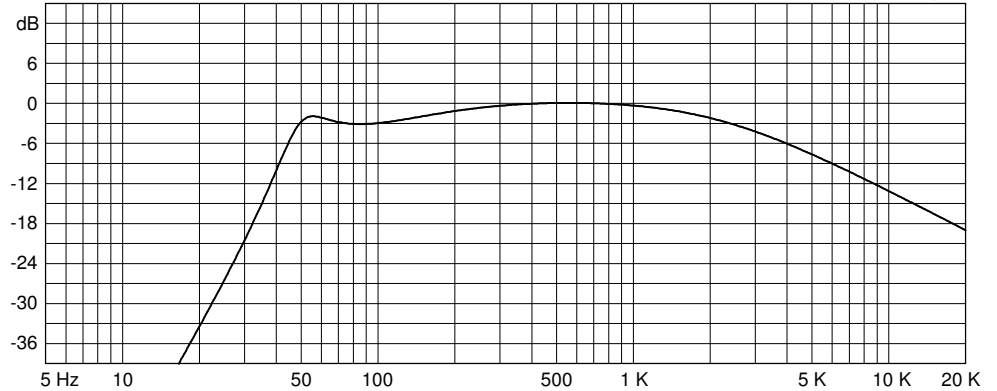
no = 2.423 %

1-W SPL = 95.99 dB

2.83-V SPL = 94.22 dB

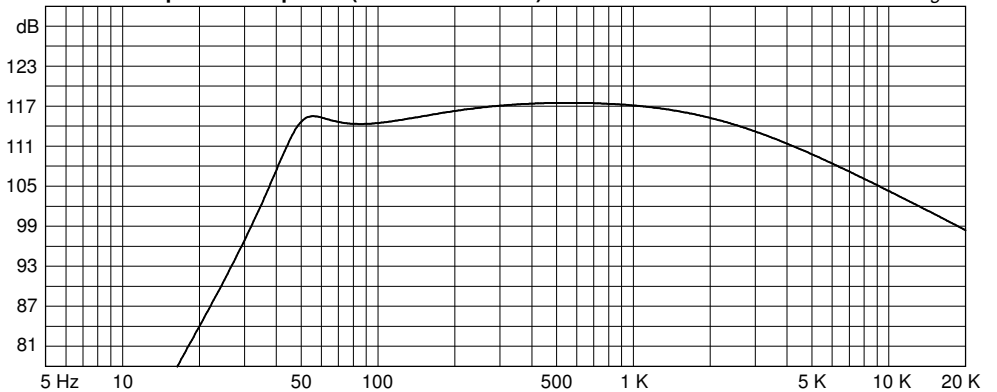
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



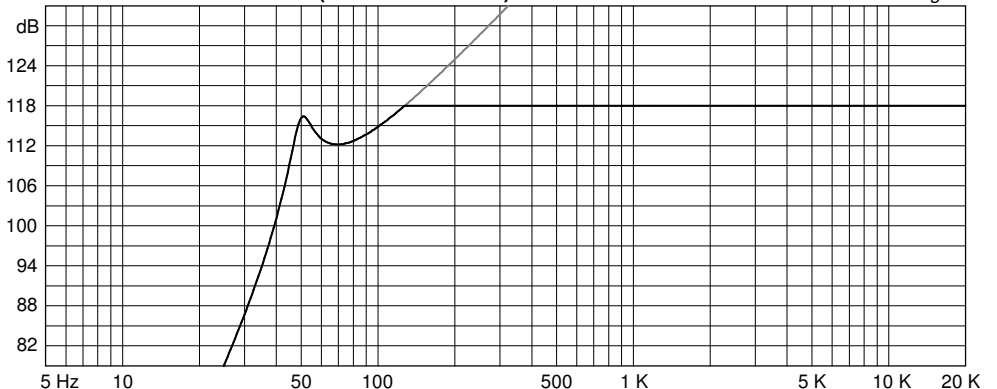
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 100 watts

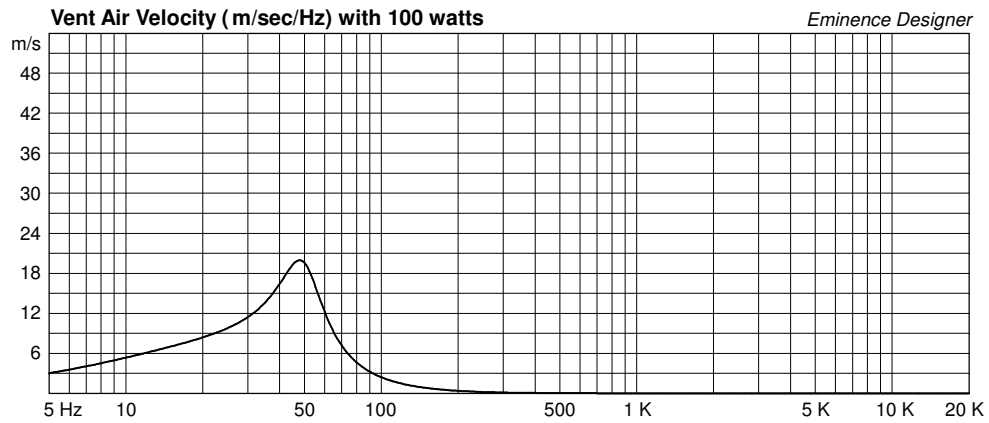
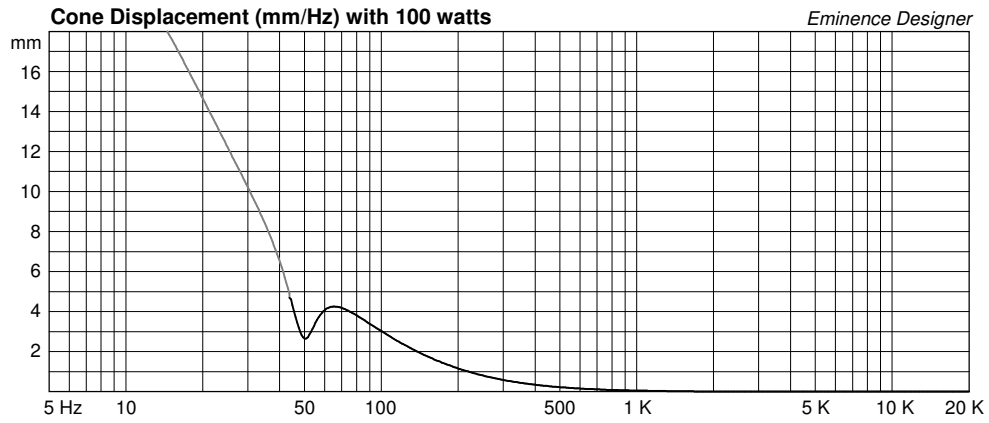
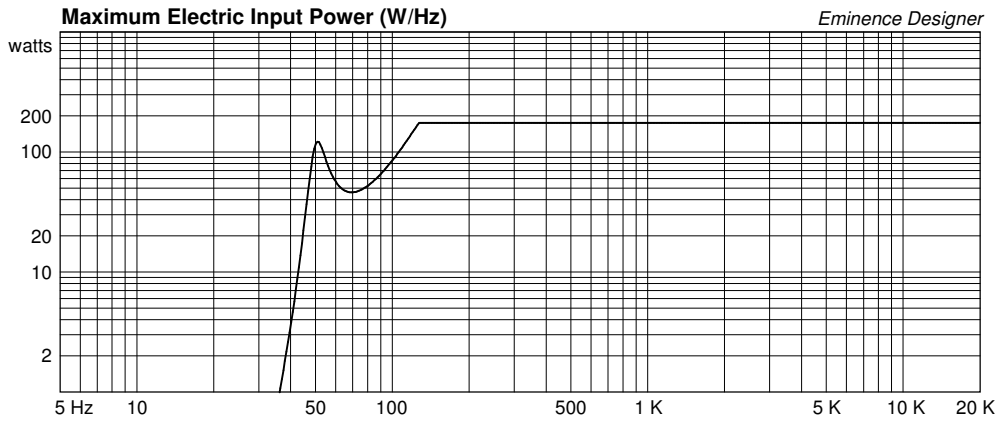
Eminence Designer

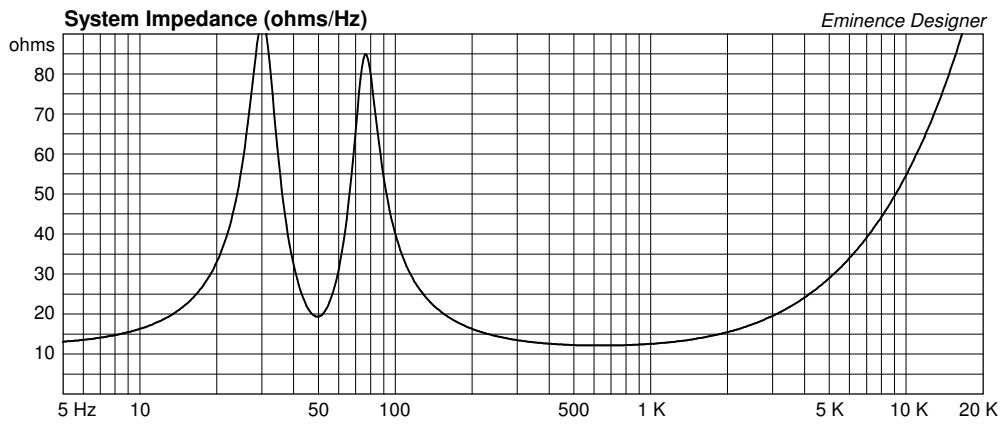


Maximum Acoustic Power (dB-SPL/Hz at 1 m)

Eminence Designer







Medium Vented Box Design

By Anthony Lucas, Eminence Speaker

175W, F3@62Hz, run full range for bass guitar, use steep high-pass filter @50Hz for PA applications. Loud and punchy vented 1x10.



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 1.5 cu.ft

V(total) = 1.615 cu.ft

Fb = 60 Hz

QL = 6.953

F3 = 61.65 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 3 in

Lv = 3.771 in

Driver Properties

--Description--

Name:

Type: Standard one-way driver

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 46 Hz

Qms = 2.61

Vas = 74.87 liters

Cms = 0.44 mm/N

Mms = 27 g

Rms = 3.013 kg/s

Xmax = 4.7 mm

Xmech = 7.05 mm

P-Dia = 209.9 mm

Sd = 350.1 sq.cm

P-Vd = 0.163 liters

--Electrical Parameters--

Qes = 0.29

Re = 12.03 ohms

Le = 0.85 mH

Z = 16 ohms

BL = 18.1 Tm

Pe = 175 watts

--Electromech. Parameters--

Qts = 0.26

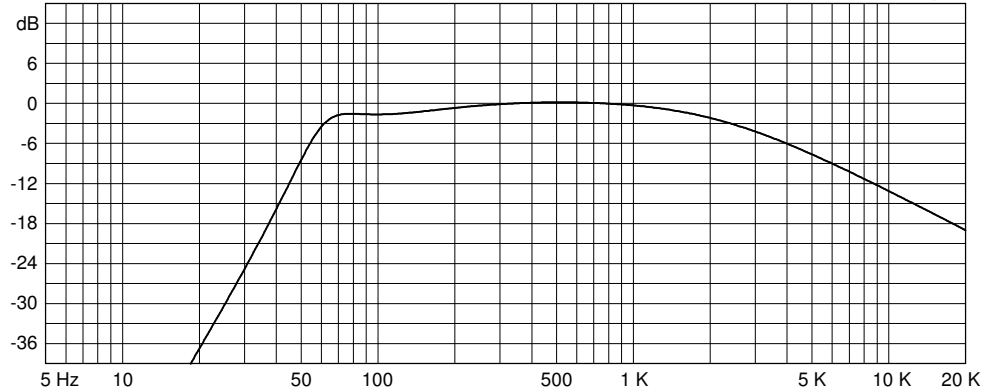
no = 2.423 %

1-W SPL = 95.99 dB

2.83-V SPL = 94.22 dB

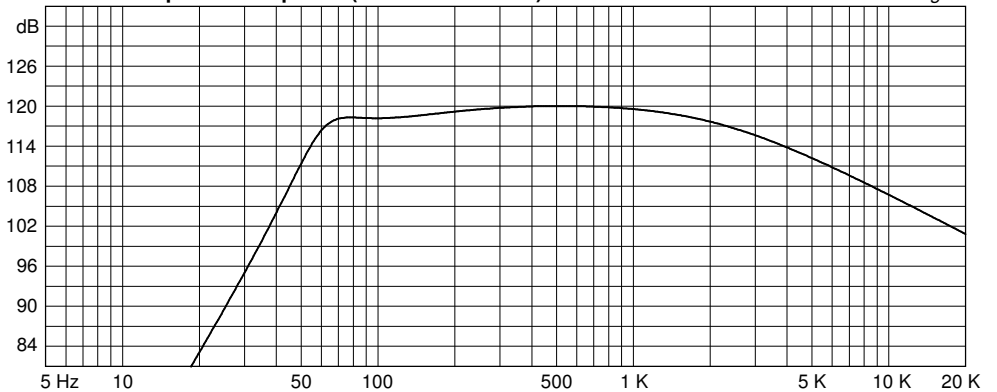
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 175 watts

Eminence Designer



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

Eminence Designer

