

SigmaPro-18-4 Small Woofer Box Design

By Tom James, Eminence Speaker LLC
700 Watts; F3 at 60.5 Hz. Use a steep high pass at 45 Hz.
Can be used for Bass Guitar.



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 3 cu.ft

V(total) = 3.4 cu.ft

Fb = 55 Hz

QL = 7

F3 = 60.48 Hz

Fill = minimal

--Vents--

No. of Vents = 4

Vent shape = round

Vent ends = one flush

Dv = 3 in

Lv = 4.491 in

Driver Properties

--Description--

Name: SigmaPro-18-4

Type: Standard one-way driver

Company: Eminence Speaker USA

Comment: Four Ohm Subwoofer

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 32 Hz

Qms = 14.79

Vas = 360.8 liters

Cms = 0.2 mm/N

Mms = 121.1 g

Rms = 1.65 kg/s

Xmax = 7 mm

Xmech = 18 mm

P-Dia = 378.8 mm

Sd = 1140 sq.cm

P-Vd = 0.789 liters

--Electrical Parameters--

Qes = 0.29

Re = 3.35 ohms

Le = 0.85 mH

Z = 4 ohms

BL = 16.54 Tm

Pe = 700 watts

--Electromech. Parameters--

Qts = 0.29

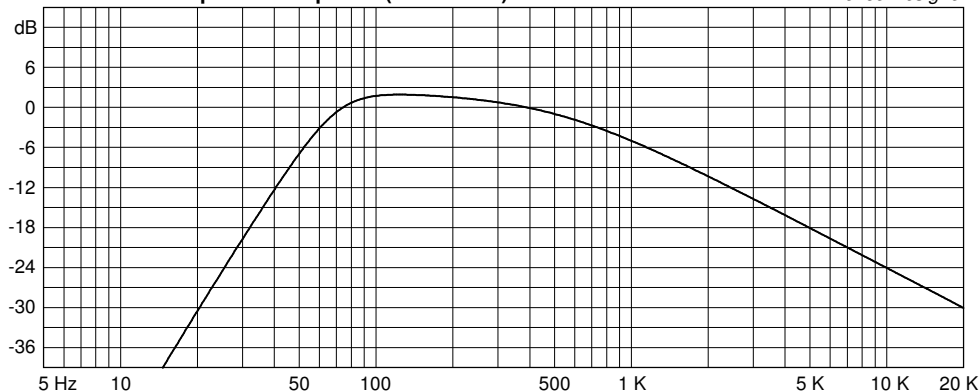
no = 3.8 %

1-W SPL = 97.6 dB

2.83-V SPL = 101.7 dB

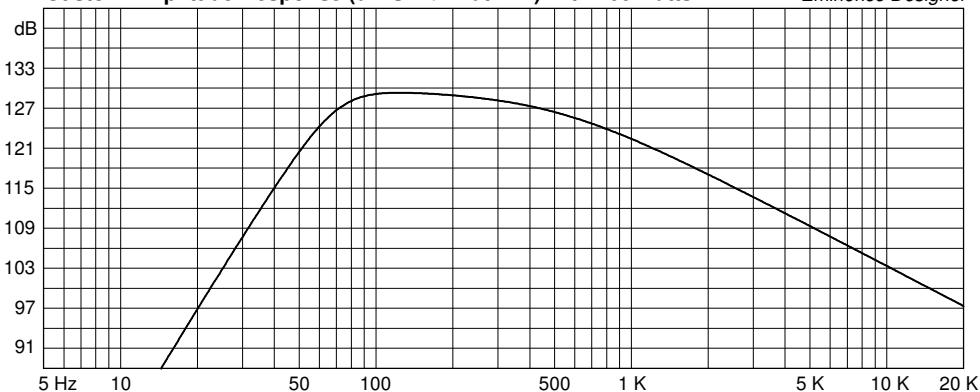
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



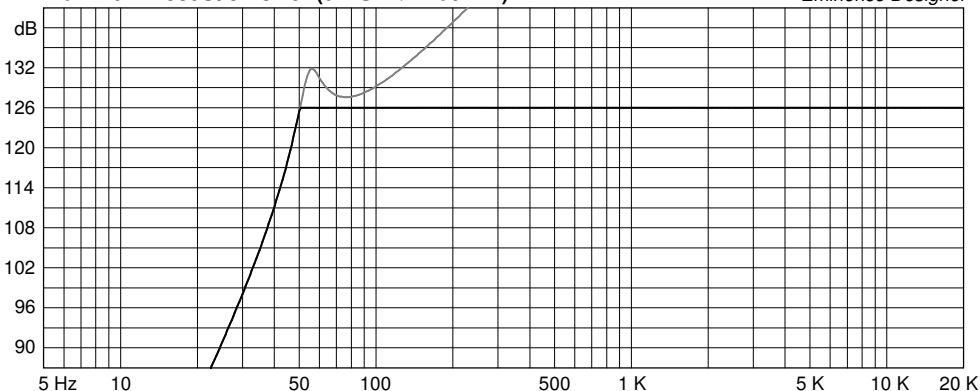
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 700 watts

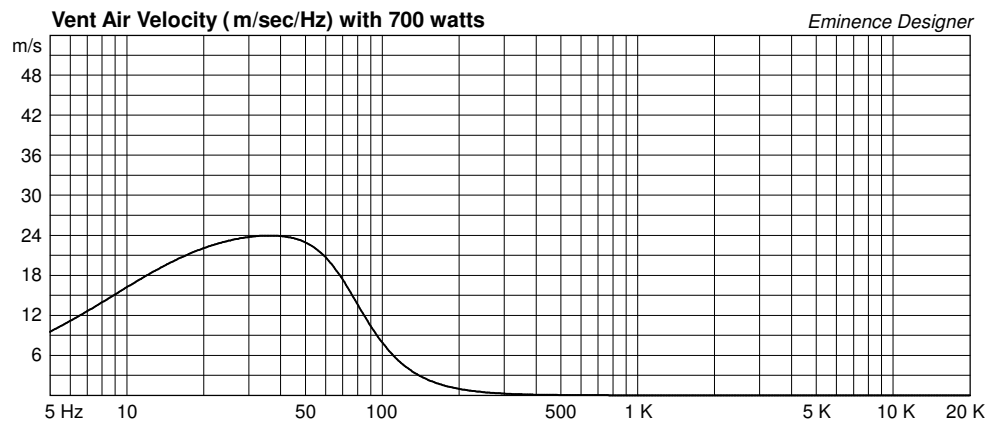
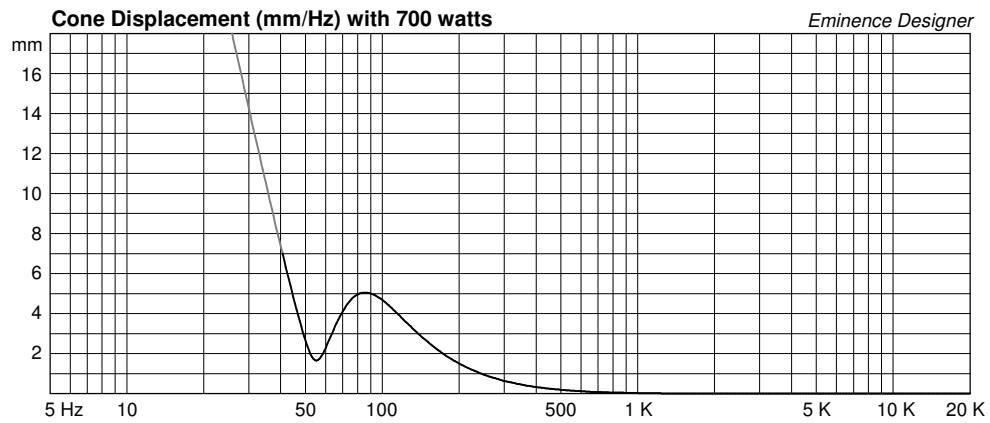
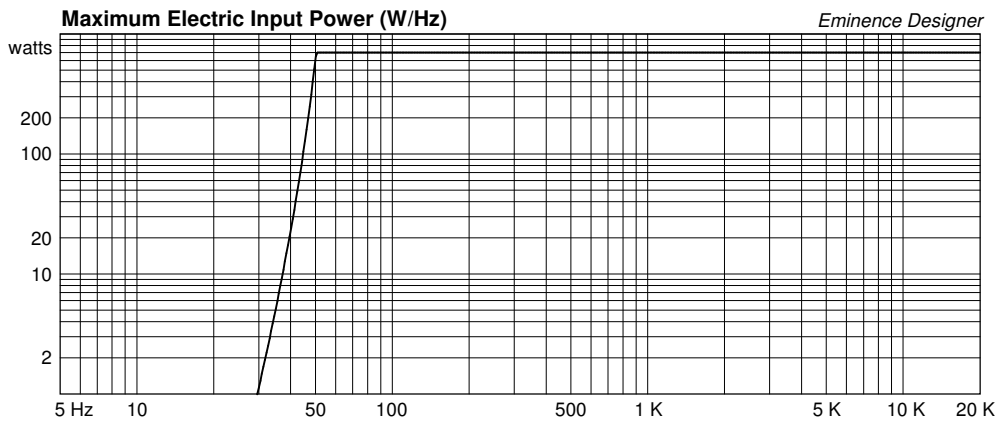
Eminence Designer

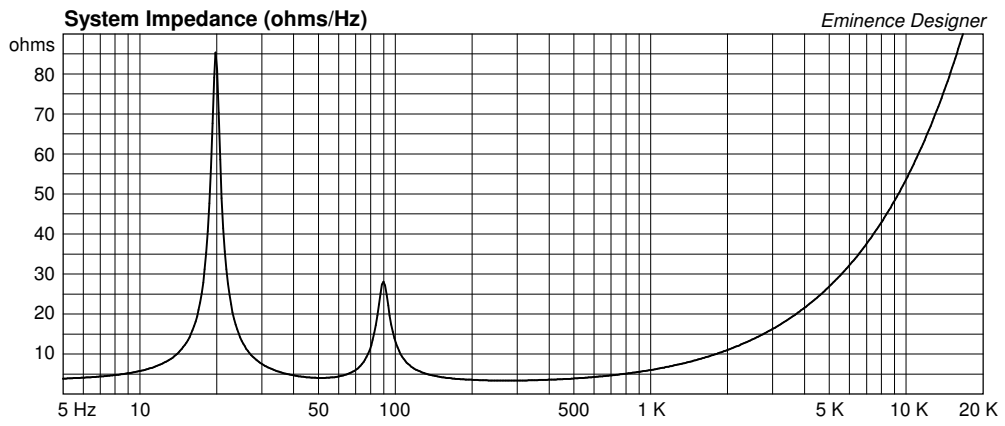


Maximum Acoustic Power (dB-SPL/Hz at 1 m)

Eminence Designer







SigmaPro-18-4 Med Vented Woofer or Bass Guitar

By Tom James, Eminence Speaker LLC
700 Watts; F3 at 51 Hz. Use a steep high pass at 38 Hz.
Can be used for Bass Guitar.



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 4.5 cu.ft

V(total) = 5.135 cu.ft

Fb = 45 Hz

QL = 7

F3 = 51.28 Hz

Fill = minimal

--Vents--

No. of Vents = 4

Vent shape = round

Vent ends = one flush

Dv = 4 in

Lv = 9.805 in

Driver Properties

--Description--

Name: SigmaPro-18-4

Type: Standard one-way driver

Company: Eminence Speaker USA

Comment: Four Ohm Subwoofer

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 32 Hz

Qms = 14.79

Vas = 360.8 liters

Cms = 0.2 mm/N

Mms = 121.1 g

Rms = 1.65 kg/s

Xmax = 7 mm

Xmech = 18 mm

P-Dia = 378.8 mm

Sd = 1140 sq.cm

P-Vd = 0.789 liters

--Electrical Parameters--

Qes = 0.29

Re = 3.35 ohms

Le = 0.85 mH

Z = 4 ohms

BL = 16.54 Tm

Pe = 700 watts

--Electromech. Parameters--

Qts = 0.29

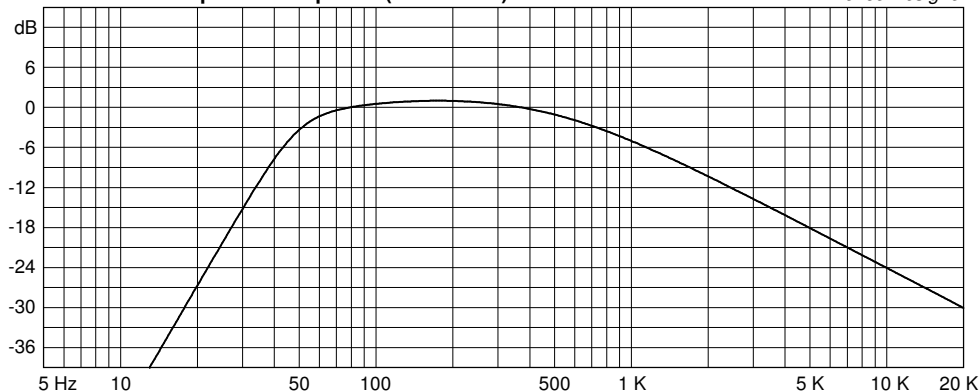
no = 3.8 %

1-W SPL = 97.6 dB

2.83-V SPL = 101.7 dB

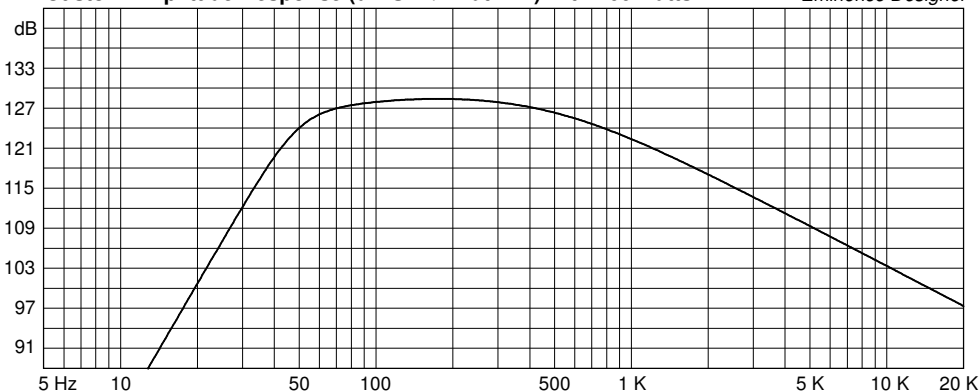
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



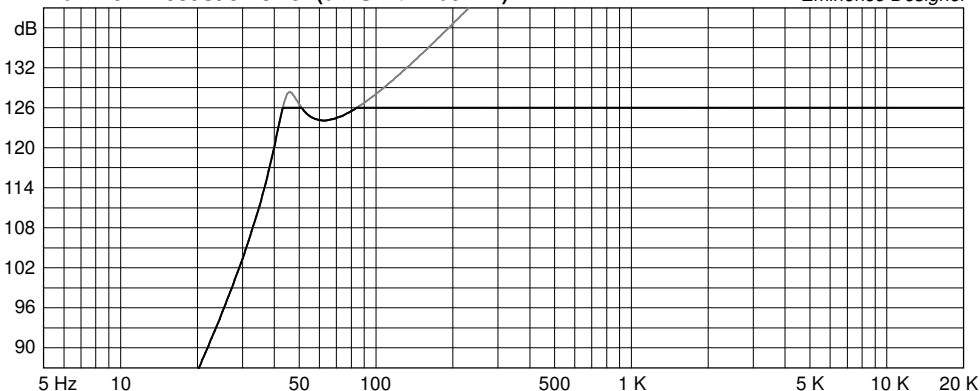
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 700 watts

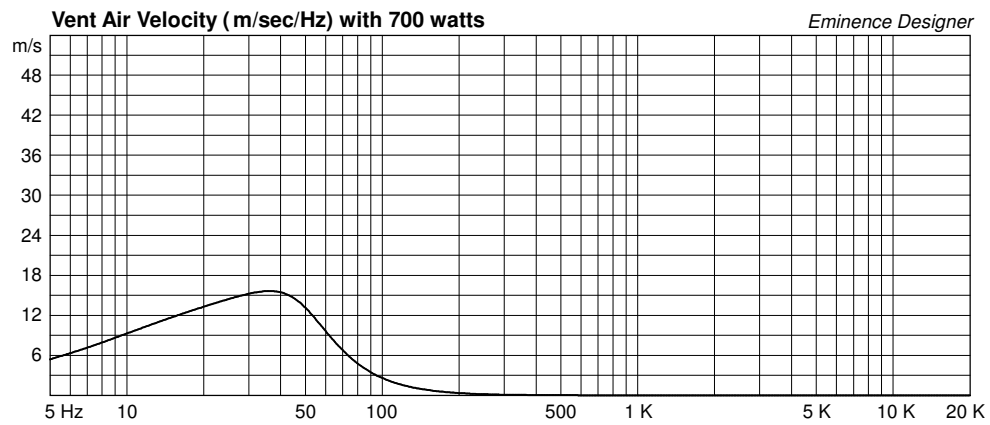
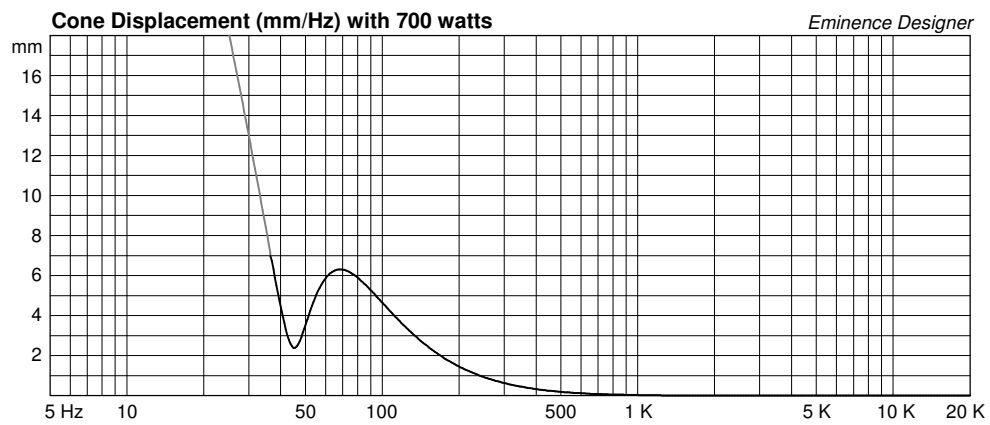
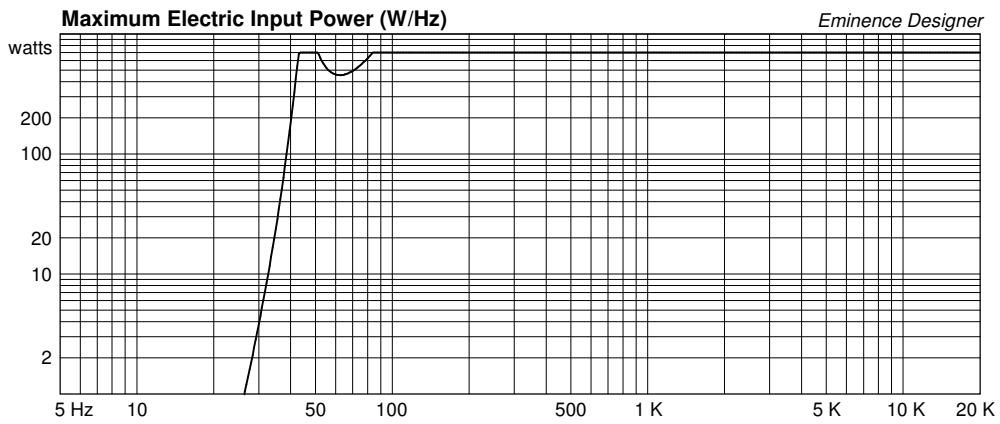
Eminence Designer

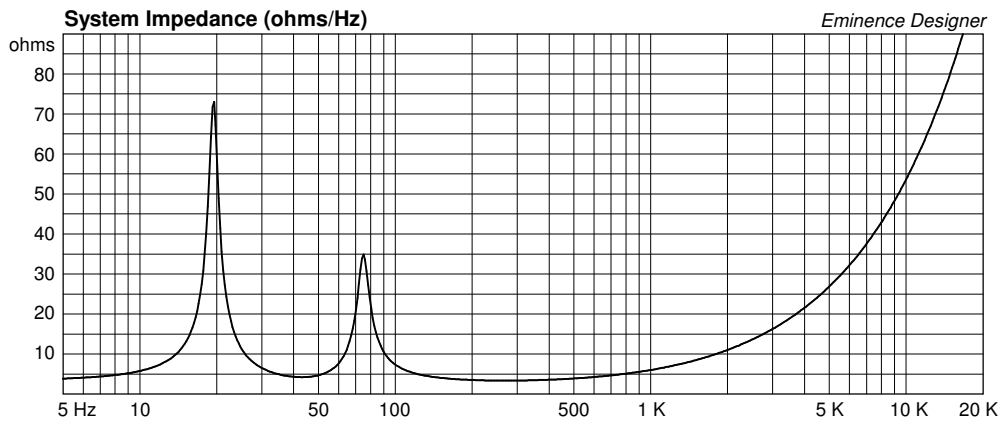


Maximum Acoustic Power (dB-SPL/Hz at 1 m)

Eminence Designer







SigmaPro-18-4 Very Large Vented Subwoofer

By Tom James, Eminence Speaker LLC
500 Watts; F3 at 42 Hz. Use a steep high pass at 30 Hz.
Lots of Boom for your buck!



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 7.5 cu.ft

V(total) = 8.055 cu.ft

Fb = 38 Hz

QL = 7

F3 = 41.97 Hz

Fill = minimal

--Vents--

No. of Vents = 4

Vent shape = round

Vent ends = one flush

Dv = 4 in

Lv = 7.353 in

Driver Properties

--Description--

Name: SigmaPro-18-4

Type: Standard one-way driver

Company: Eminence Speaker USA

Comment: Four Ohm Subwoofer

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 32 Hz

Qms = 14.79

Vas = 360.8 liters

Cms = 0.2 mm/N

Mms = 121.1 g

Rms = 1.65 kg/s

Xmax = 7 mm

Xmech = 18 mm

P-Dia = 378.8 mm

Sd = 1140 sq.cm

P-Vd = 0.789 liters

--Electrical Parameters--

Qes = 0.29

Re = 3.35 ohms

Le = 0.85 mH

Z = 4 ohms

BL = 16.54 Tm

Pe = 700 watts

--Electromech. Parameters--

Qts = 0.29

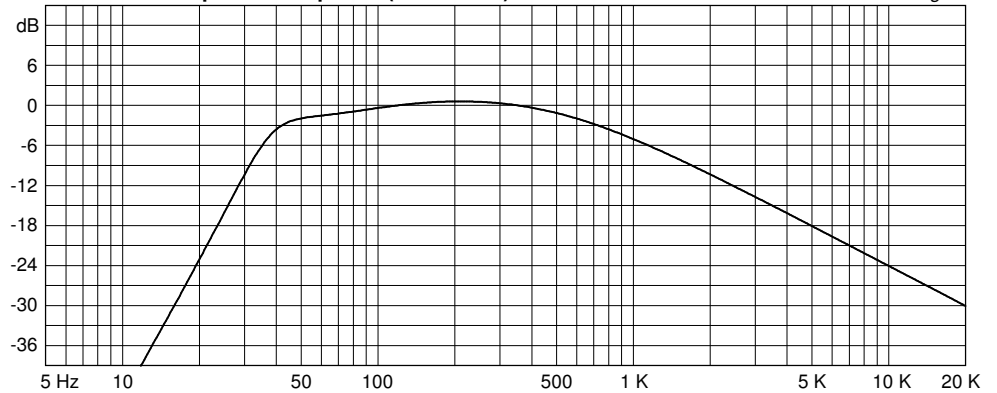
no = 3.8 %

1-W SPL = 97.6 dB

2.83-V SPL = 101.7 dB

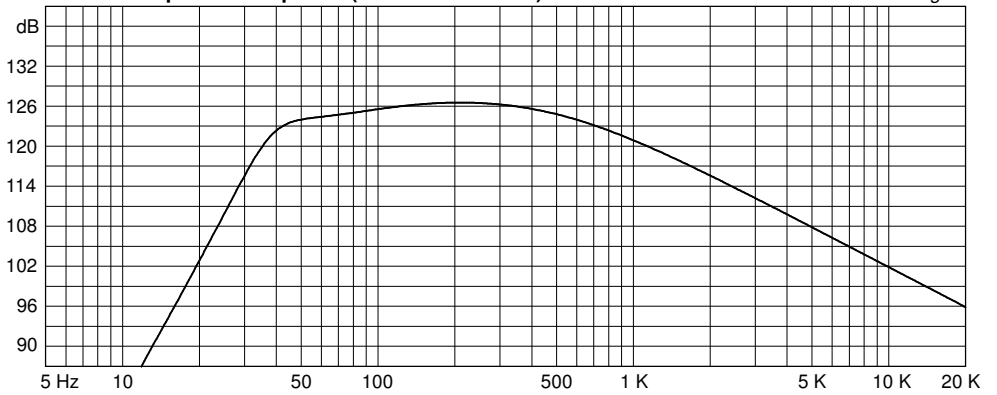
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



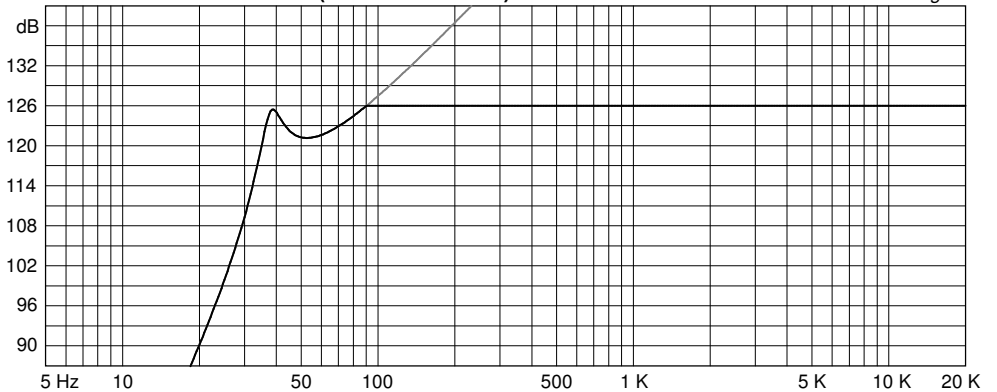
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 500 watts

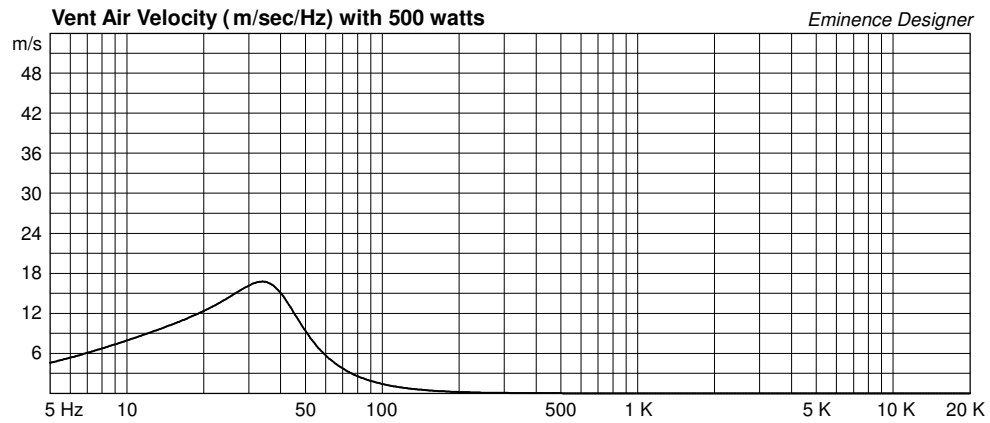
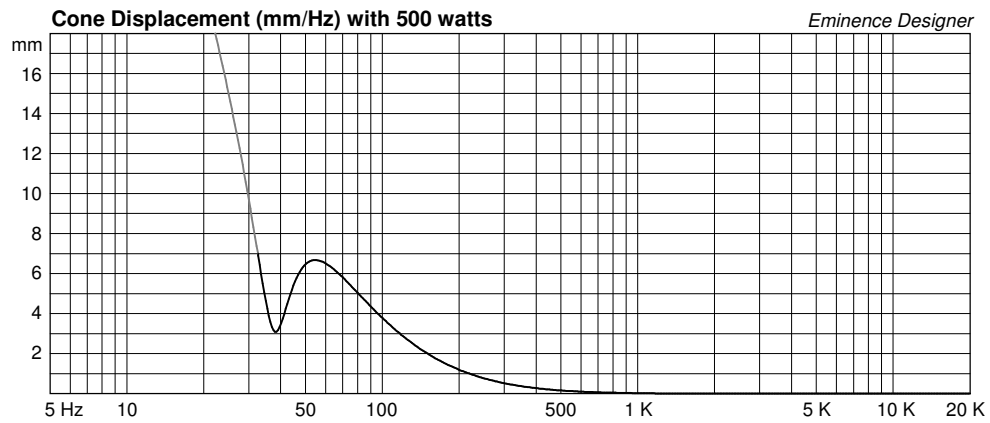
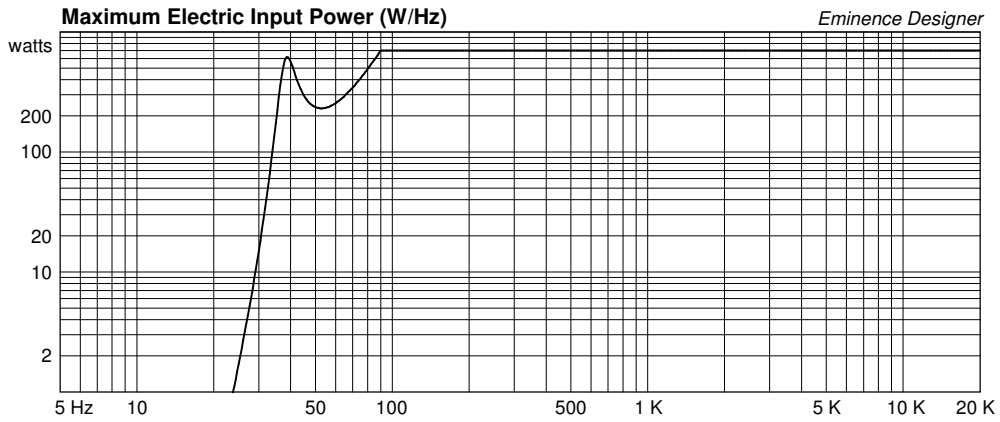
Eminence Designer

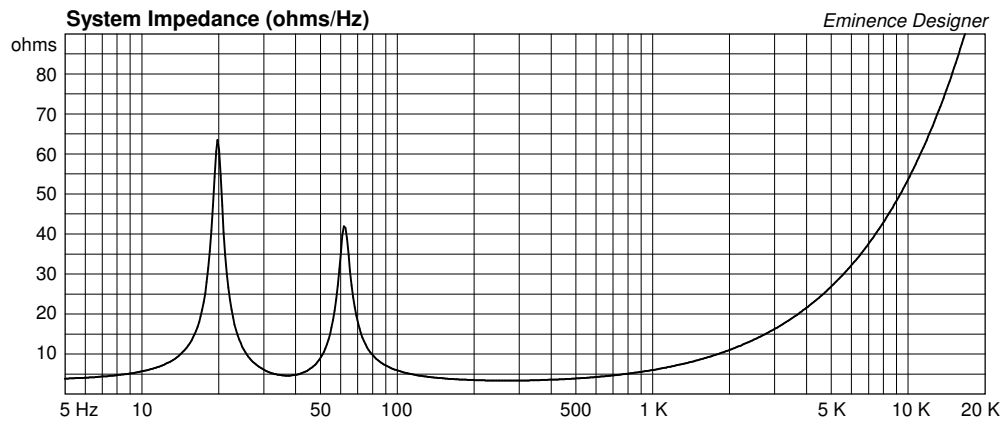


Maximum Acoustic Power (dB-SPL/Hz at 1 m)

Eminence Designer







SigmaPro-18-4 Large Vented Woofer or Bass Guitar

By Tom James, Eminence Speaker LLC

700 Watts; F3 at 44 Hz. Use a steep high pass at 38 Hz.

Can be used for Bass Guitar or as a PA Woofer or Subwoofer.



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 6.5 cu.ft

V(total) = 6.995 cu.ft

Fb = 44 Hz

QL = 7

F3 = 44.25 Hz

Fill = minimal

--Vents--

No. of Vents = 4

Vent shape = round

Vent ends = one flush

Dv = 4 in

Lv = 5.54 in

Driver Properties

--Description--

Name: SigmaPro-18-4

Type: Standard one-way driver

Company: Eminence Speaker USA

Comment: Four Ohm Subwoofer

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 32 Hz

Qms = 14.79

Vas = 360.8 liters

Cms = 0.2 mm/N

Mms = 121.1 g

Rms = 1.65 kg/s

Xmax = 7 mm

Xmech = 18 mm

P-Dia = 378.8 mm

Sd = 1140 sq.cm

P-Vd = 0.789 liters

--Electrical Parameters--

Qes = 0.29

Re = 3.35 ohms

Le = 0.85 mH

Z = 4 ohms

BL = 16.54 Tm

Pe = 700 watts

--Electromech. Parameters--

Qts = 0.29

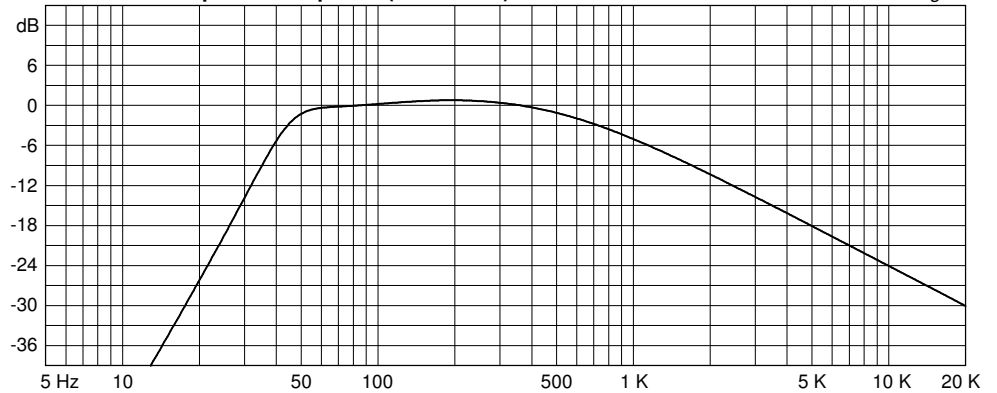
no = 3.8 %

1-W SPL = 97.6 dB

2.83-V SPL = 101.7 dB

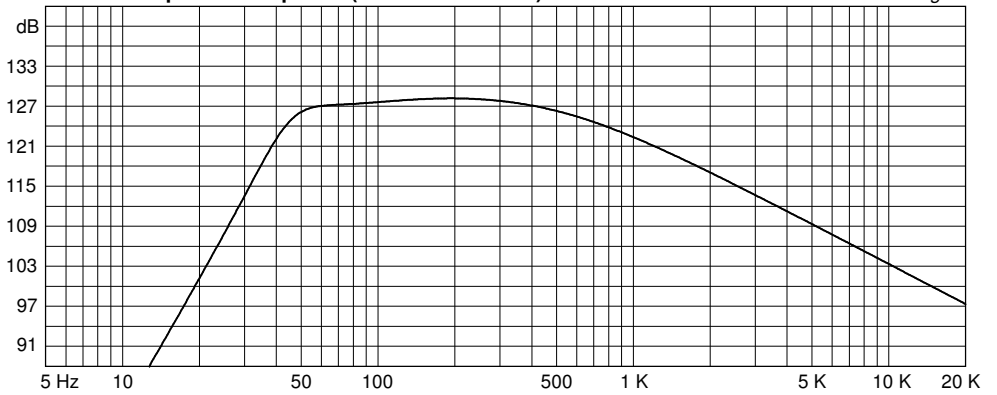
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 700 watts

Eminence Designer



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

Eminence Designer

