PRO-5W-8 Small Vented Midbass Design

By Jerry McNutt, Eminence Speaker LLC
Thermal Limit of 75 Watts; F3 at 131 Hz. Best used above 160 Hz.
For small satellites or midbass use.

EMINENCE

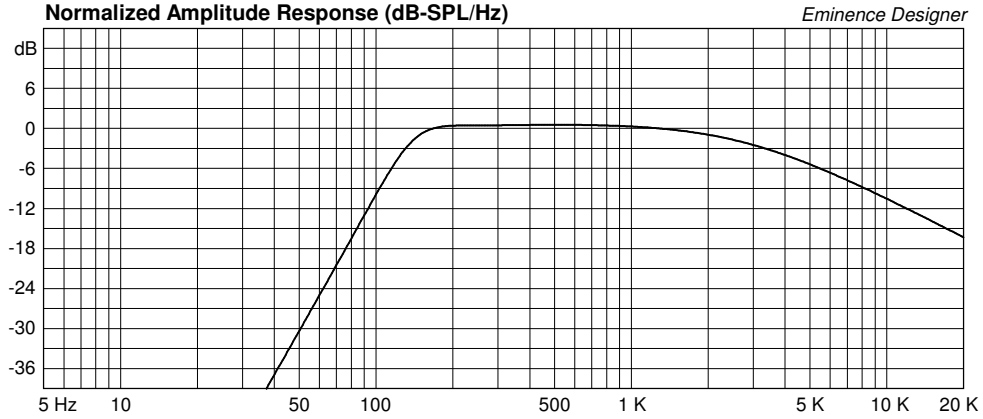
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square (optimum)
--Box Parameters--
Vb = 0.0742 cu.ft
V(total) = 0.0909 cu.ft
Fb = 130 Hz
QL = 7
F3 = 130.5 Hz
Fill = minimal
--Vents--
No. of Vents = 1
Vent shape = round
Vent ends = one flush
Dv = 2 in
Lv = 5.023 in

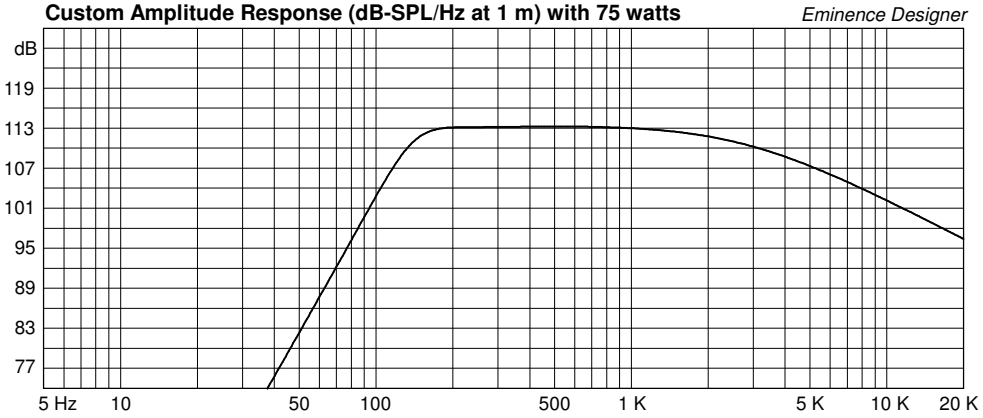
Driver Properties

--Description--
Name: PRO-5W-8
Type: Standard one-way driver
Company: Eminence Speaker USA
Comment: 5" Cast Frame Mid/Bass
--Configuration--
No. of Drivers = 1
--Mechanical Parameters--
Fs = 94.63 Hz
Qms = 3.35
Vas = 4.31 liters
Cms = 0.7 mm/N
Mms = 4.05 g
Rms = 0.72 kg/s
Xmax = 2.95 mm
Xmech = 6 mm
P-Dia = 91.56 mm
Sd = 66.6 sq.cm
P-Vd = 0.0194 liters
--Electrical Parameters--
Qes = 0.35
Re = 5.43 ohms
Le = 0.28 mH
Z = 8 ohms
BL = 6.11 Tm
Pe = 75 watts
--Electromech. Parameters--
Qts = 0.317
no = 1.006 %
1-W SPL = 92.17 dB
2.83-V SPL = 93.86 dB

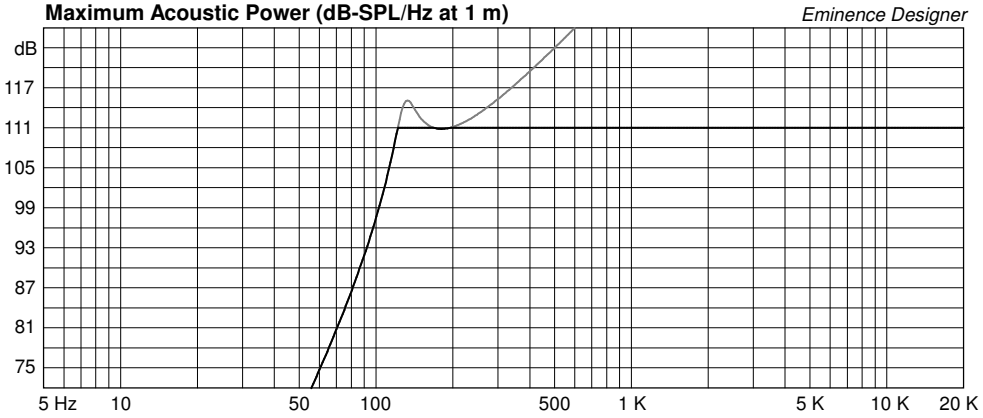
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



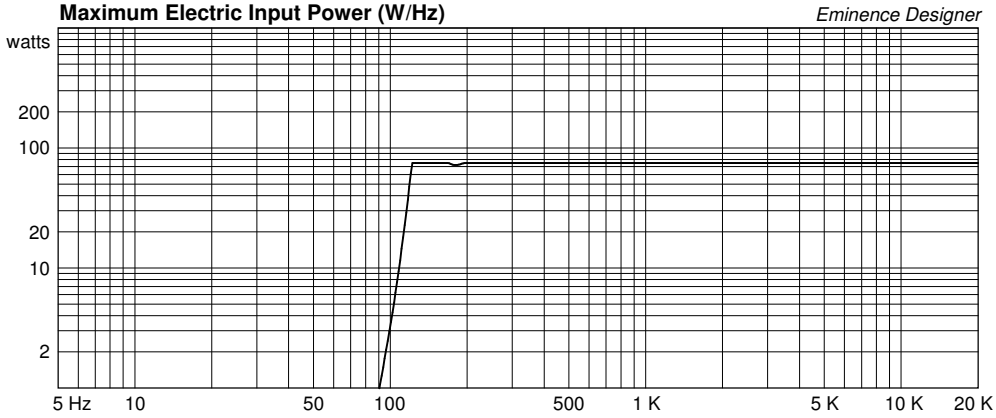
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 75 watts *Eminence Designer*



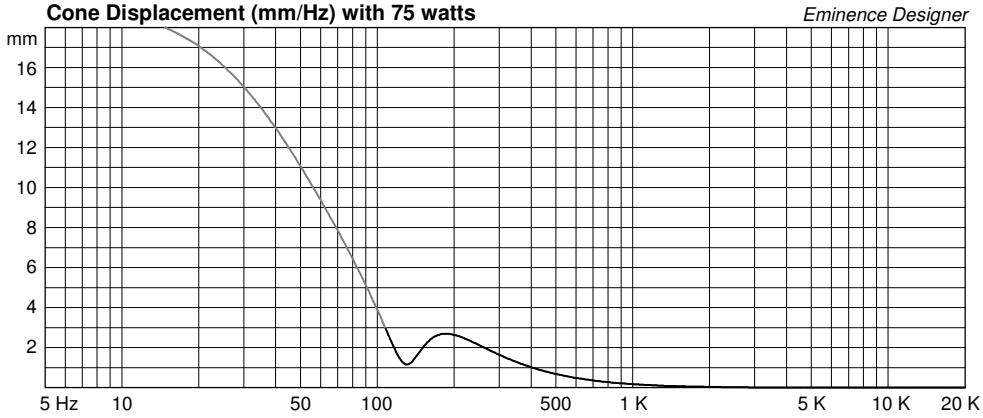
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



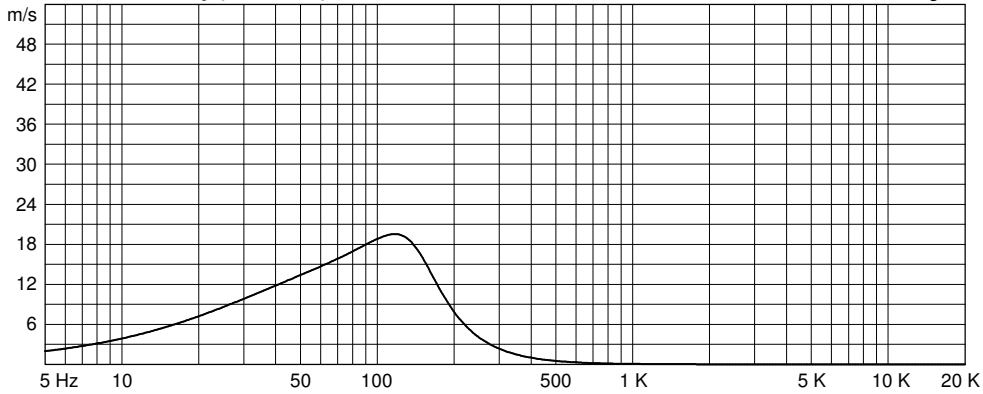
Maximum Electric Input Power (W/Hz) *Eminence Designer*



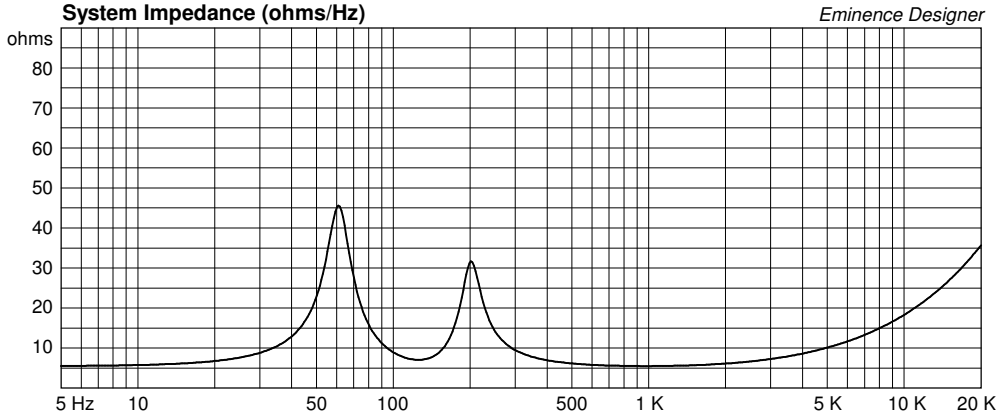
Cone Displacement (mm/Hz) with 75 watts *Eminence Designer*



Vent Air Velocity (m/sec/Hz) with 75 watts *Eminence Designer*



System Impedance (ohms/Hz) *Eminence Designer*



PRO-5W-8 Small Sealed Midrange Design

By Jerry McNutt, Eminence Speaker LLC
Thermal Limit of 60 Watts; F3 at 242 Hz. Best used above 260 Hz.
For use as a midrange driver.

EMINENCE

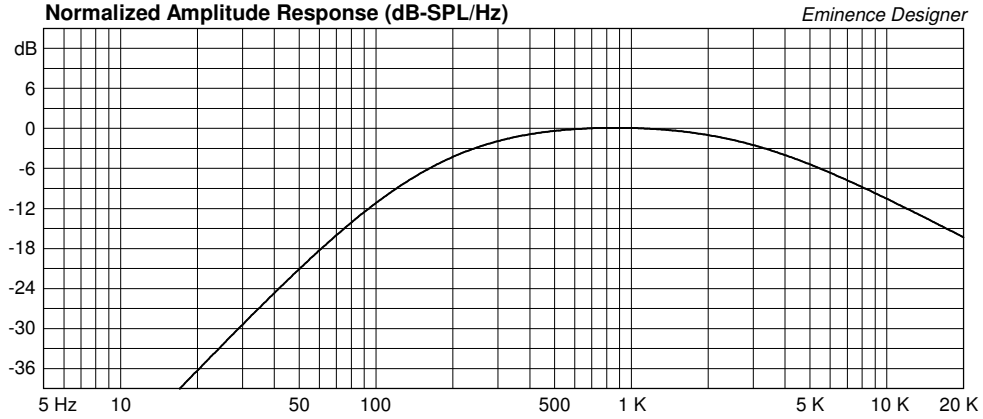
Box Properties

--Description--
Name:
Type: Closed Box
Shape: Prism, square
--Box Parameters--
Vb = 0.0772 cu.ft
V(total) = 0.0841 cu.ft
Qtc = 0.493
QL = 20
F3 = 241.9 Hz
Fill = normal

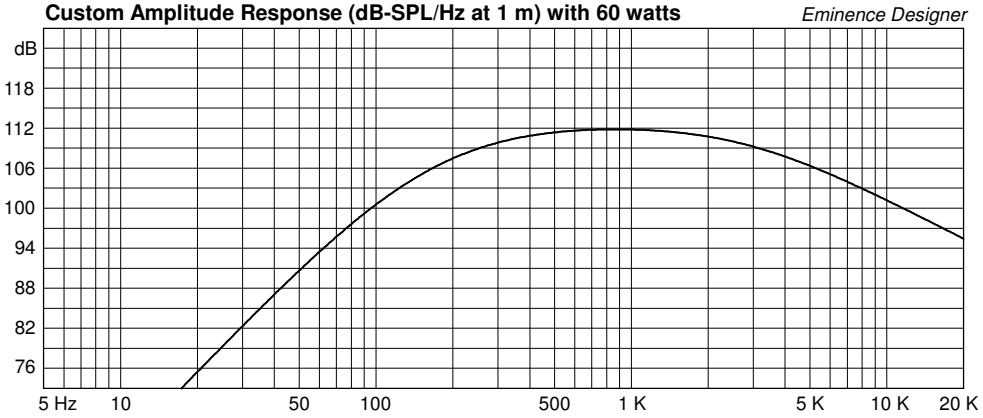
Driver Properties

--Description--
Name: PRO-5W-8
Type: Standard one-way driver
Company: Eminence Speaker USA
Comment: 5" Cast Frame Mid/Bass
--Configuration--
No. of Drivers = 1
--Mechanical Parameters--
Fs = 94.63 Hz
Qms = 3.35
Vas = 4.31 liters
Cms = 0.7 mm/N
Mms = 4.05 g
Rms = 0.72 kg/s
Xmax = 2.95 mm
Xmech = 6 mm
P-Dia = 91.56 mm
Sd = 66.6 sq.cm
P-Vd = 0.0194 liters
--Electrical Parameters--
Qes = 0.35
Re = 5.43 ohms
Le = 0.28 mH
Z = 8 ohms
BL = 6.11 Tm
Pe = 75 watts
--Electromech. Parameters--
Qts = 0.317
no = 1.006 %
1-W SPL = 92.17 dB
2.83-V SPL = 93.86 dB

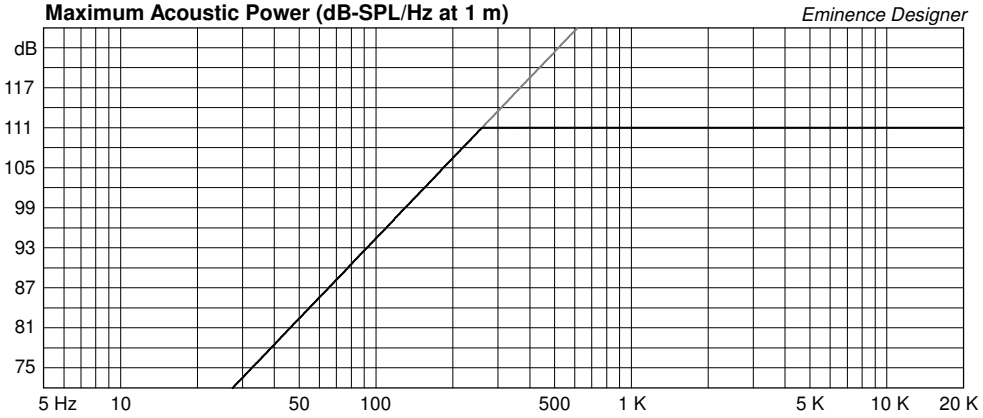
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 60 watts *Eminence Designer*

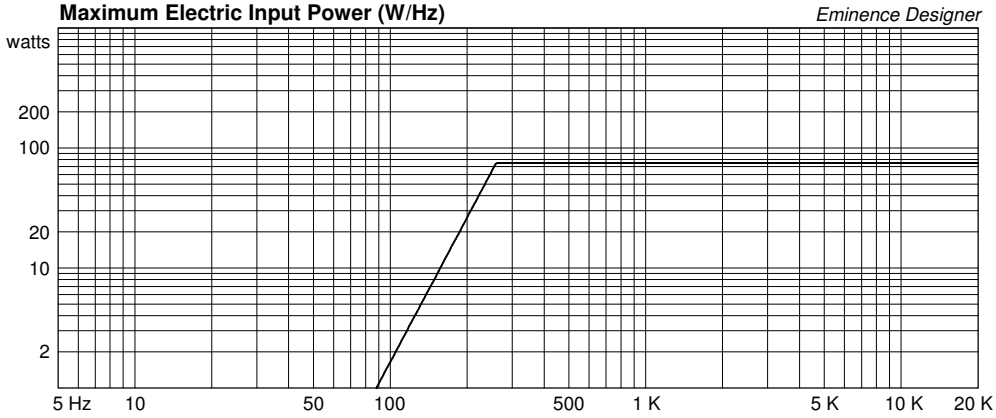


Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



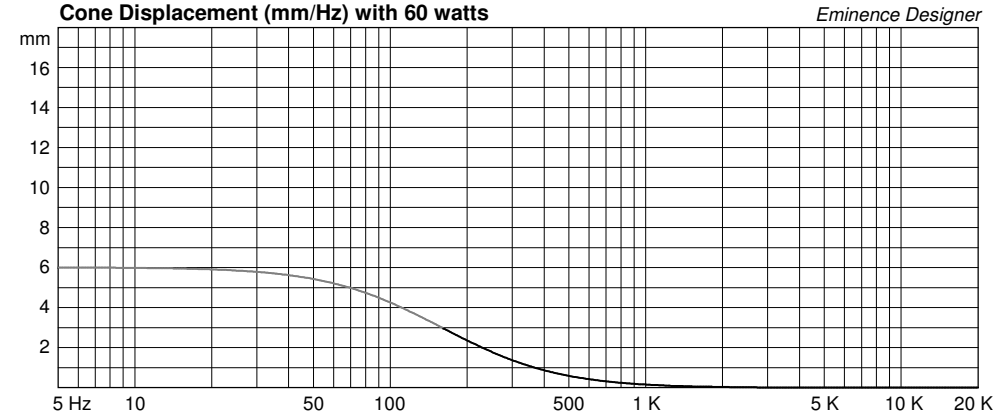
Maximum Electric Input Power (W/Hz)

Eminence Designer



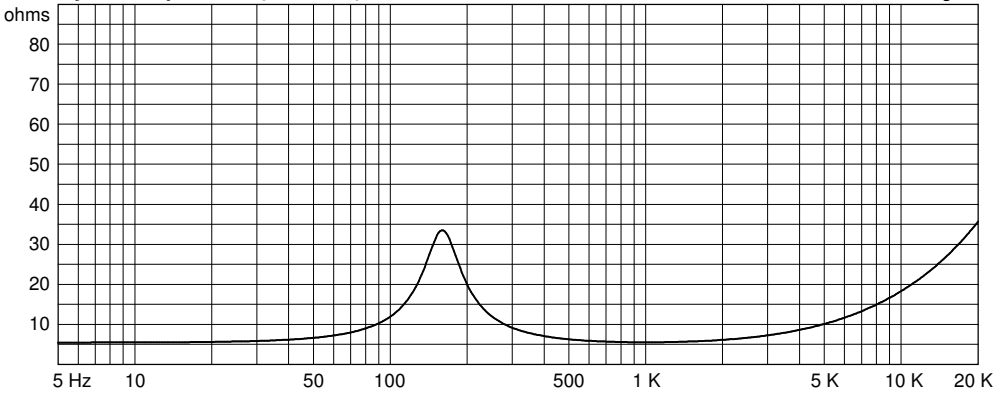
Cone Displacement (mm/Hz) with 60 watts

Eminence Designer



System Impedance (ohms/Hz)

Eminence Designer



PRO-5W-8 Two by 5 Vented Midbass

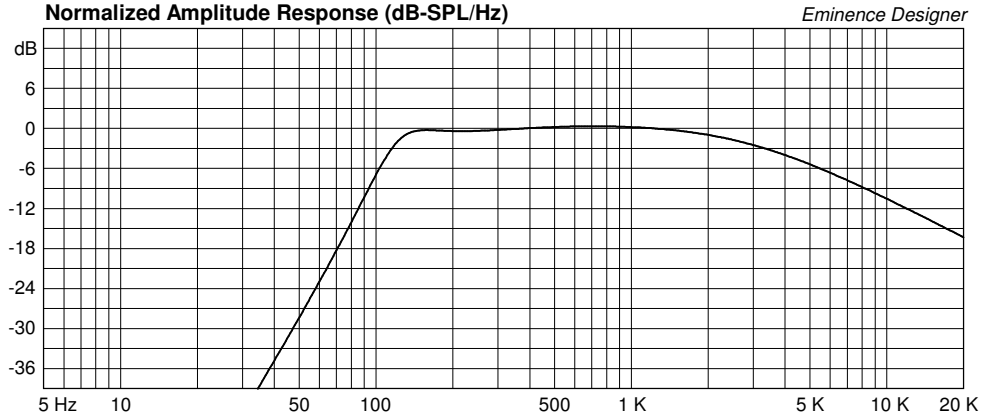
By Jerry McNutt, Eminence Speaker LLC
140 Watts; F3 at 115 Hz. Best used above 140 Hz.
Twin 5" midbass or satellite design.

EMINENCE

Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 0.25 cu.ft
V(total) = 0.271 cu.ft
Fb = 120 Hz
QL = 7
F3 = 115.3 Hz
Fill = normal
--Vents--
No. of Vents = 1
Vent shape = round
Vent ends = one flush
Dv = 3 in
Lv = 2.3 in

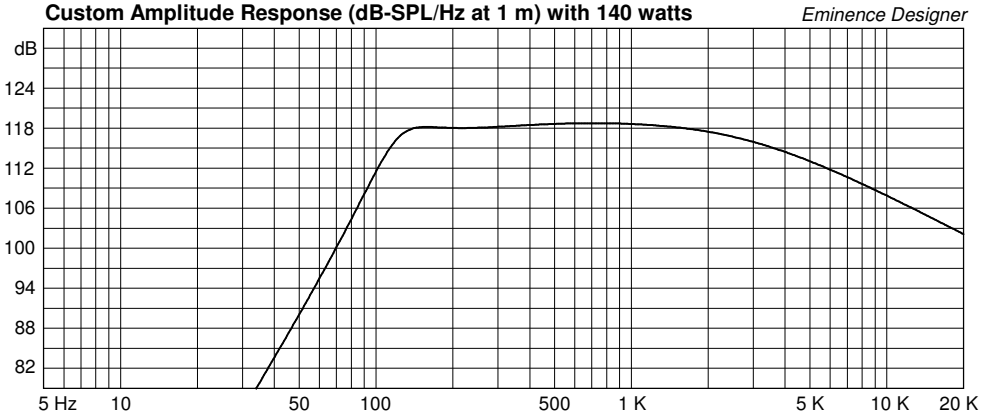
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



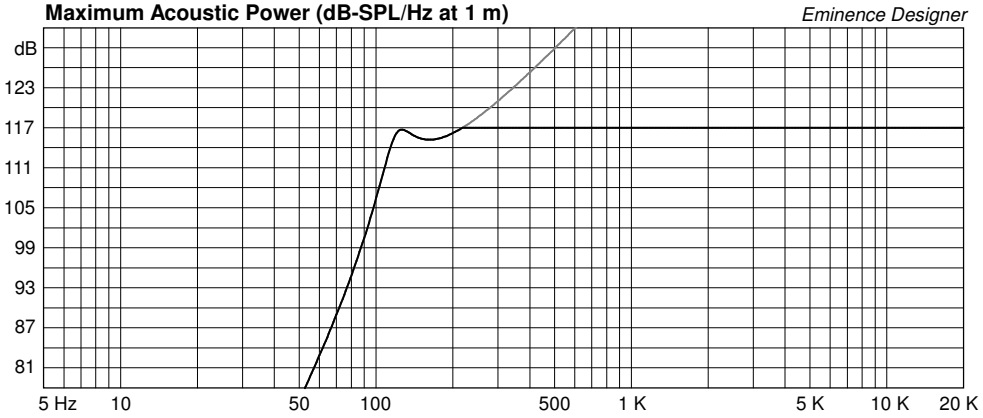
Driver Properties

--Description--
Name: PRO-5W-8
Type: Standard one-way driver
Company: Eminence Speaker USA
Comment: 5" Cast Frame Mid/Bass
--Configuration--
No. of Drivers = 2
Mounting = Standard
Wiring = Parallel
Drivers sum coherently = Yes
--Mechanical Parameters--
Fs = 94.63 Hz
Qms = 3.35
Vas = 4.31 liters [8.62]
Cms = 0.7 mm/N [0.35]
Mms = 4.05 g [8.1]
Rms = 0.72 kg/s [1.44]
Xmax = 2.95 mm
Xmech = 6 mm
P-Dia = 91.56 mm [129.5]
Sd = 66.6 sq.cm [133.2]
P-Vd = 0.0194 liters [0.0388]
--Electrical Parameters--
Qes = 0.35
Re = 5.43 ohms [2.715]
Le = 0.28 mH [0.14]
Z = 8 ohms [4]
BL = 6.11 Tm [6.112]
Pe = 75 watts [150]
--Electromech. Parameters--
Qts = 0.317
no = 1.006 % [2.012]
1-W SPL = 92.17 dB [95.18]
2.83-V SPL = 93.86 dB [99.88]

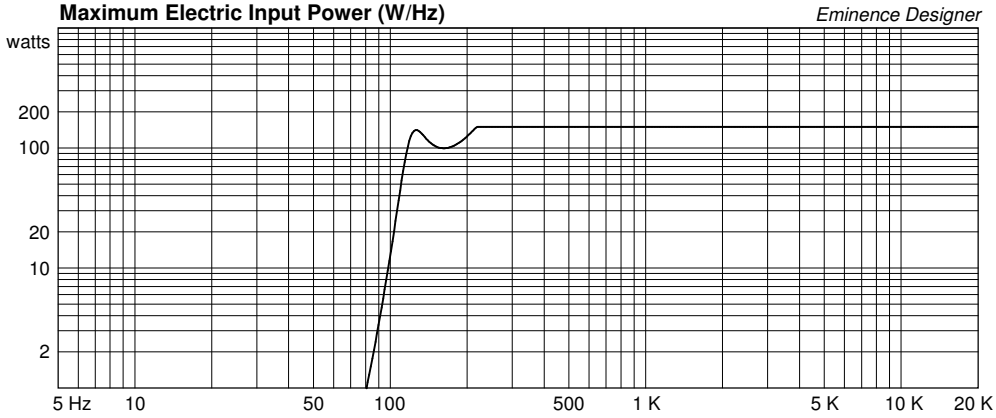
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 140 watts *Eminence Designer*



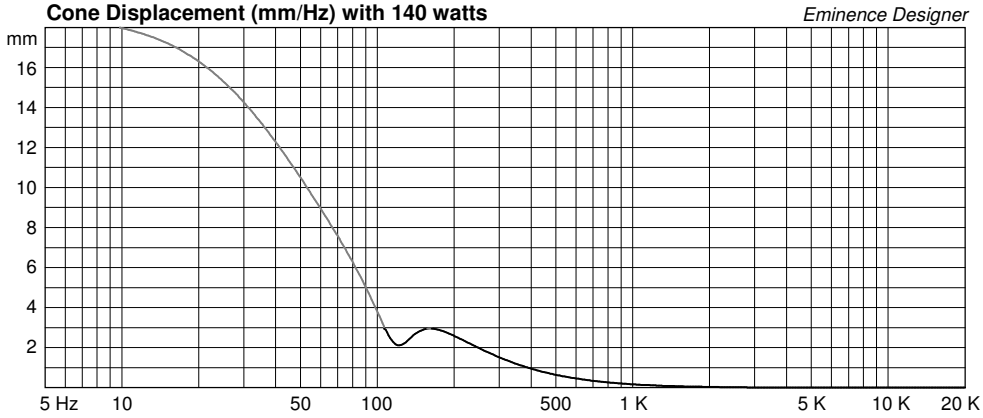
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



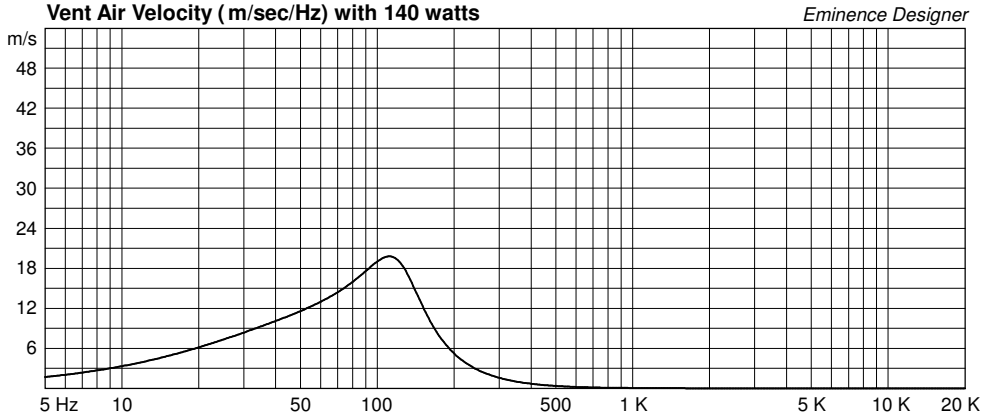
Maximum Electric Input Power (W/Hz) *Eminence Designer*



Cone Displacement (mm/Hz) with 140 watts *Eminence Designer*

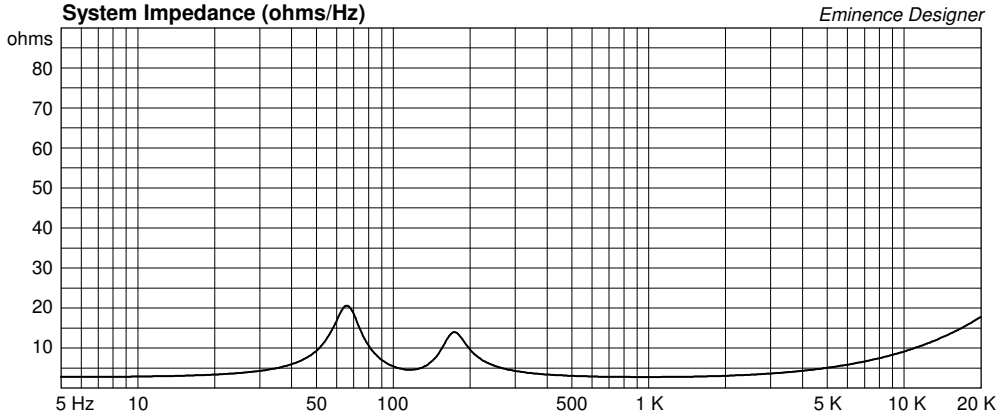


Vent Air Velocity (m/sec/Hz) with 140 watts *Eminence Designer*



System Impedance (ohms/Hz)

Eminence Designer



PRO-5W-8 Four by 5 Vented Midbass Design

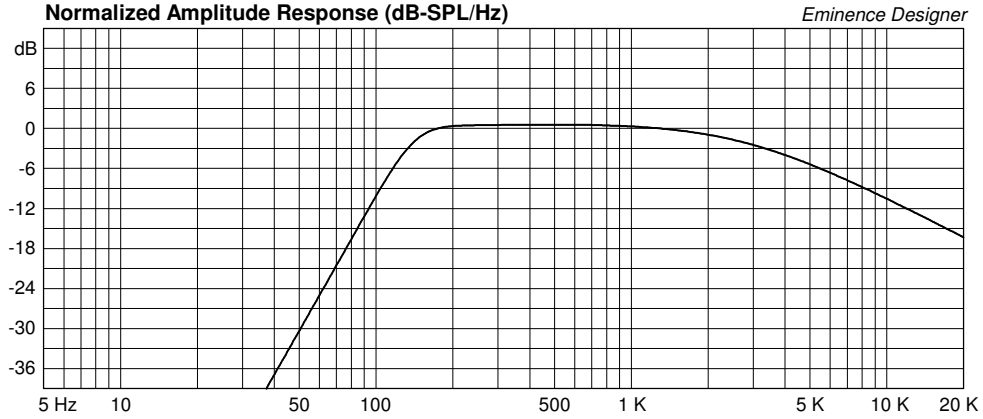
By Jerry McNutt, Eminence Speaker LLC
300 Watts; F3 at 133Hz. Use above 160 Hz.
Building Block for Column Array or Line Array systems.

EMINENCE

Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square (optimum)
--Box Parameters--
Vb = 0.28 cu.ft
V(total) = 0.347 cu.ft
Fb = 130 Hz
QL = 7
F3 = 133 Hz
Fill = minimal
--Vents--
No. of Vents = 2
Vent shape = round
Vent ends = one flush
Dv = 3 in
Lv = 4.807 in

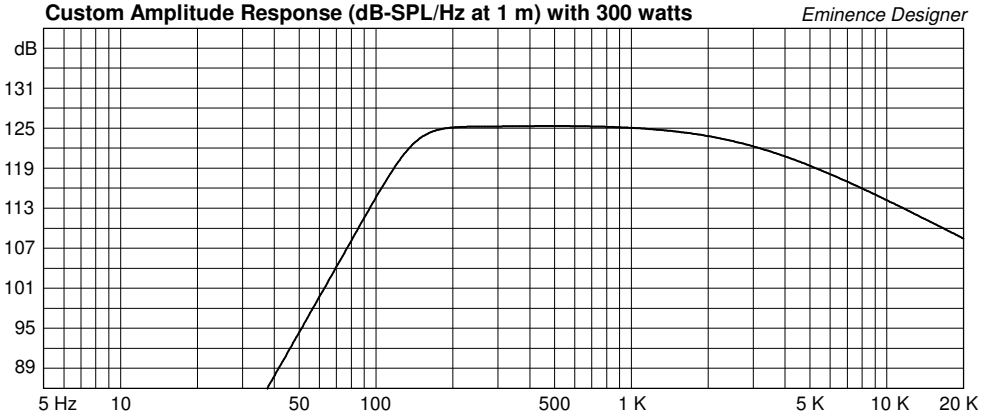
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



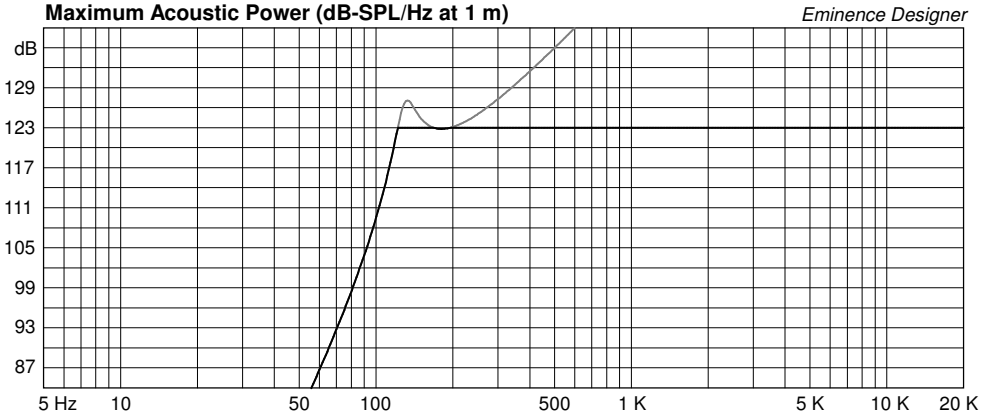
Driver Properties

--Description--
Name: PRO-5W-8
Type: Standard one-way driver
Company: Eminence Speaker USA
Comment: 5" Cast Frame Mid/Bass
--Configuration--
No. of Drivers = 4
Mounting = Standard
Wiring = Series-Parallel
Drivers sum coherently = Yes
--Mechanical Parameters--
Fs = 94.63 Hz
Qms = 3.35
Vas = 4.31 liters [17.24]
Cms = 0.7 mm/N [0.175]
Mms = 4.05 g [16.2]
Rms = 0.72 kg/s [2.88]
Xmax = 2.95 mm
Xmech = 6 mm
P-Dia = 91.56 mm [183.1]
Sd = 66.6 sq.cm [266.4]
P-Vd = 0.0194 liters [0.0777]
--Electrical Parameters--
Qes = 0.35
Re = 5.43 ohms [5.43]
Le = 0.28 mH [0.28]
Z = 8 ohms [8]
BL = 6.11 Tm [12.22]
Pe = 75 watts [300]
--Electromech. Parameters--
Qts = 0.317
no = 1.006 % [4.024]
1-W SPL = 92.17 dB [98.19]
2.83-V SPL = 93.86 dB [99.88]

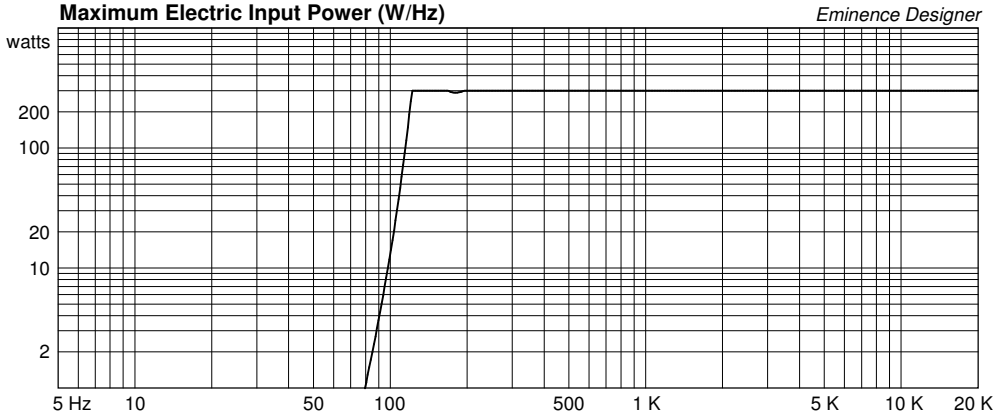
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 300 watts *Eminence Designer*



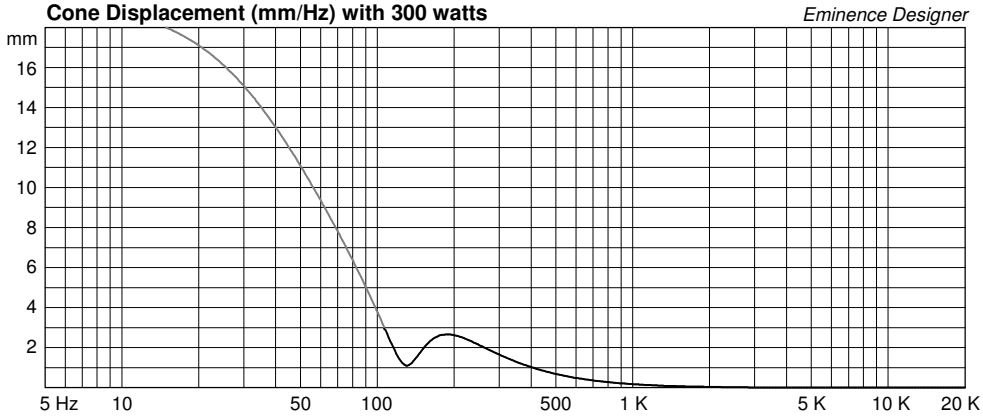
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



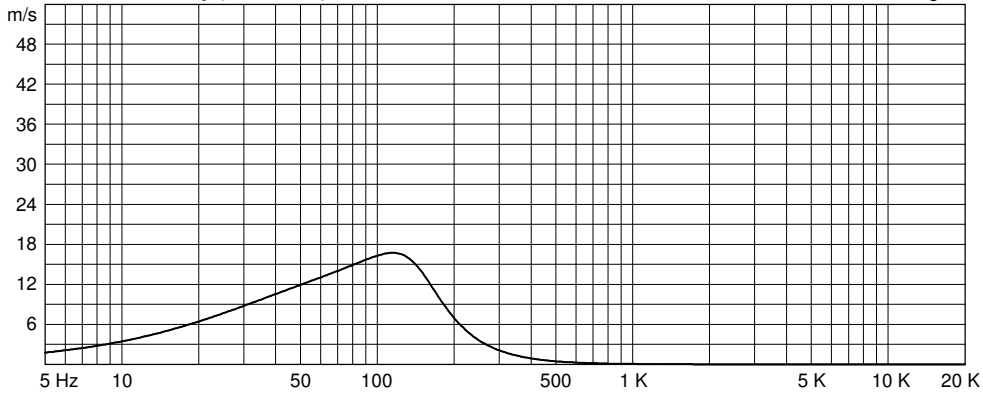
Maximum Electric Input Power (W/Hz) *Eminence Designer*



Cone Displacement (mm/Hz) with 300 watts *Eminence Designer*

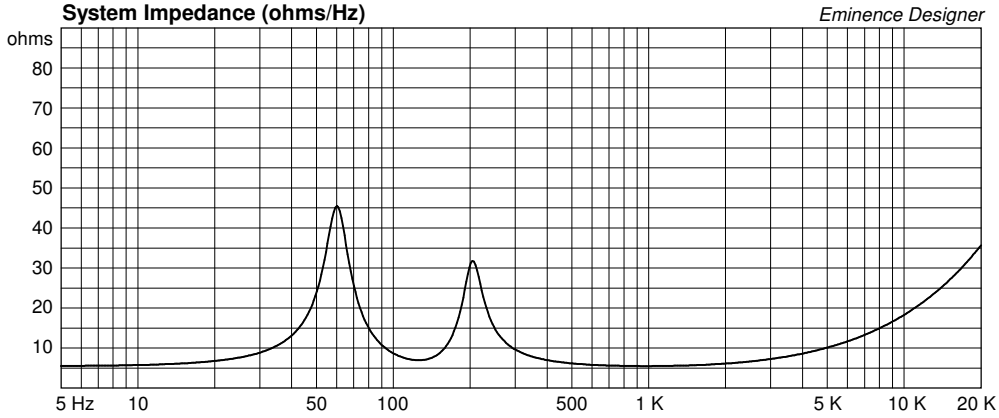


Vent Air Velocity (m/sec/Hz) with 300 watts *Eminence Designer*



System Impedance (ohms/Hz)

Eminence Designer



PRO-5W-8 Eight by 5 Column Array Design

By Jerry McNutt, Eminence Speaker LLC
600 Watts; F3 at 119 Hz. Best used above 140 Hz.
Stack them up and then crank them up!

EMINENCE

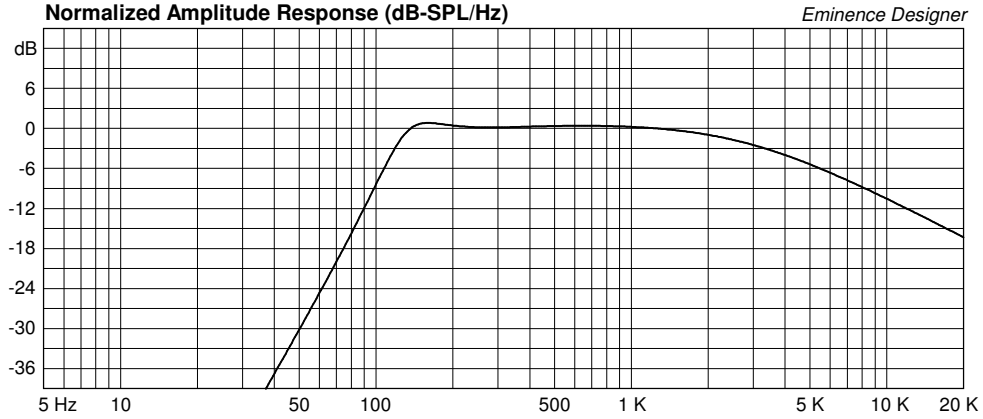
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 0.85 cu.ft
V(total) = 0.994 cu.ft
Fb = 128 Hz
QL = 7
F3 = 118.5 Hz
Fill = minimal
--Vents--
No. of Vents = 6
Vent shape = round
Vent ends = one flush
Dv = 3 in
Lv = 3.841 in

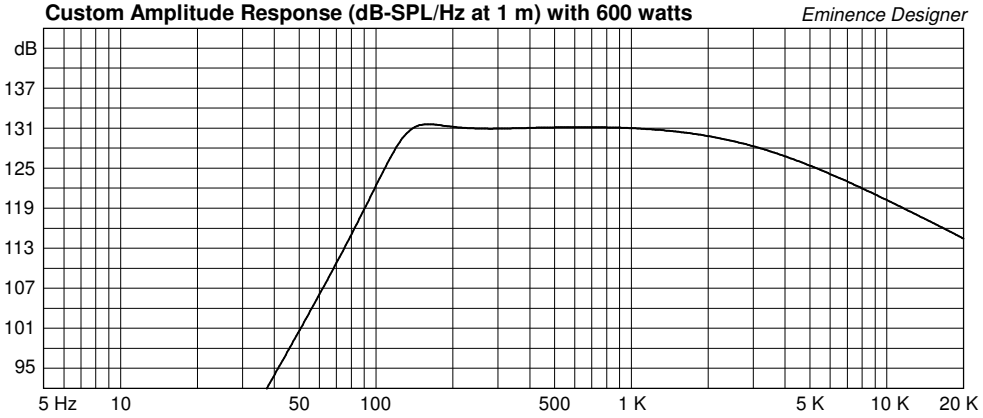
Driver Properties

--Description--
Name: PRO-5W-8
Type: Standard one-way driver
Company: Eminence Speaker USA
Comment: 5" Cast Frame Mid/Bass
--Configuration--
No. of Drivers = 8
Mounting = Standard
Wiring = Series-Parallel
Drivers sum coherently = Yes
--Mechanical Parameters--
Fs = 94.63 Hz
Qms = 3.35
Vas = 4.31 liters [34.48]
Cms = 0.7 mm/N [0.0875]
Mms = 4.05 g [32.4]
Rms = 0.72 kg/s [5.76]
Xmax = 2.95 mm
Xmech = 6 mm
P-Dia = 91.56 mm [259]
Sd = 66.6 sq.cm [532.8]
P-Vd = 0.0194 liters [0.155]
--Electrical Parameters--
Qes = 0.35
Re = 5.43 ohms [2.715]
Le = 0.28 mH [0.14]
Z = 8 ohms [4]
BL = 6.11 Tm [12.22]
Pe = 75 watts [600]
--Electromech. Parameters--
Qts = 0.317
no = 1.006 % [8.049]
1-W SPL = 92.17 dB [101.2]
2.83-V SPL = 93.86 dB [105.9]

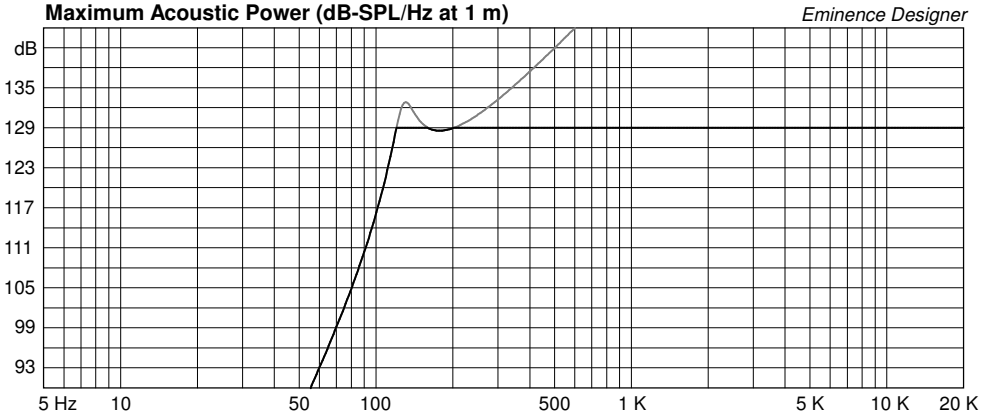
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



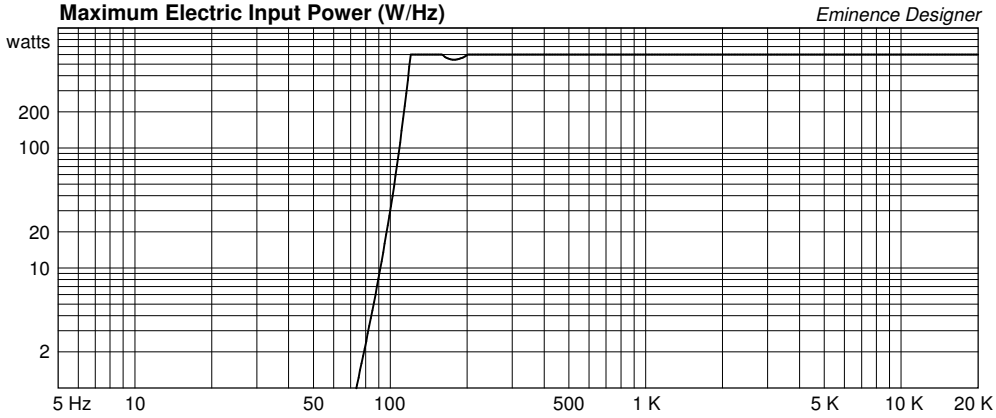
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 600 watts *Eminence Designer*



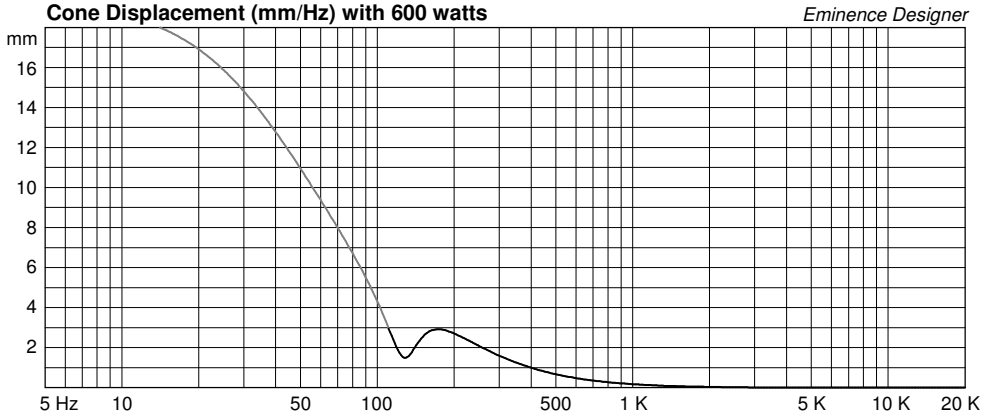
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



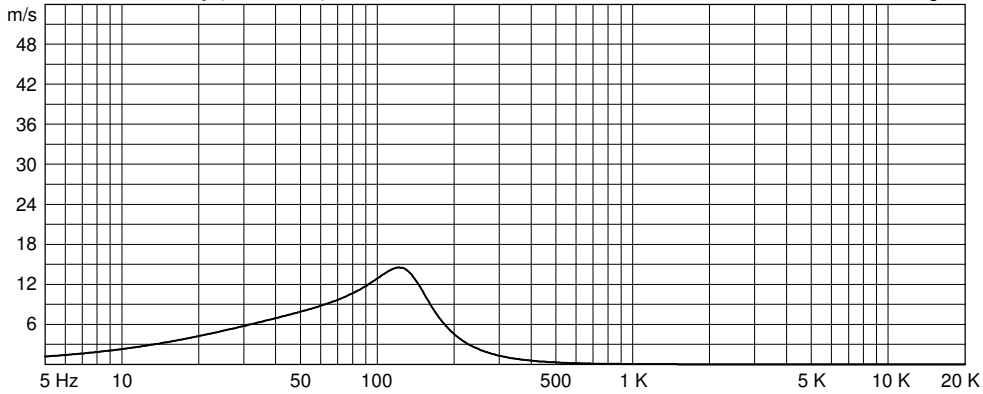
Maximum Electric Input Power (W/Hz) *Eminence Designer*



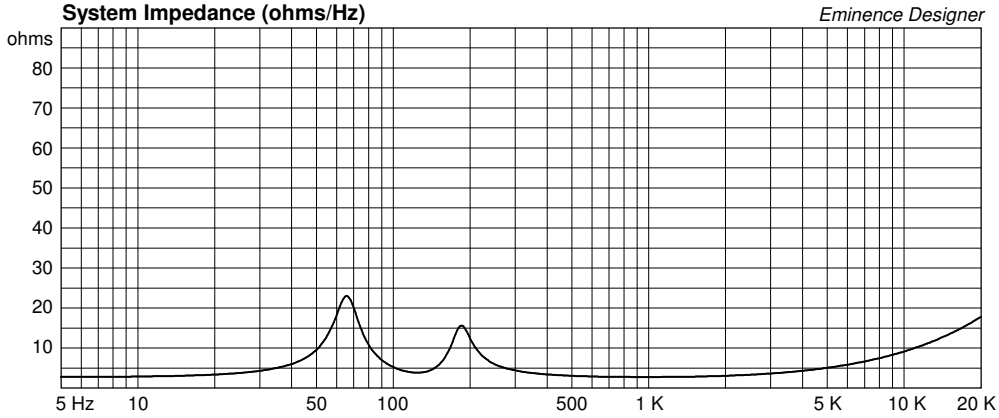
Cone Displacement (mm/Hz) with 600 watts *Eminence Designer*



Vent Air Velocity (m/sec/Hz) with 600 watts *Eminence Designer*



System Impedance (ohms/Hz) *Eminence Designer*



PRO-5W-8 Large Sealed Midrange Design

By Jerry McNutt, Eminence Speaker LLC
Thermal Limit of 60 Watts; F3 at 246 Hz. Best used above 260 Hz.
For use as a midrange driver.

EMINENCE

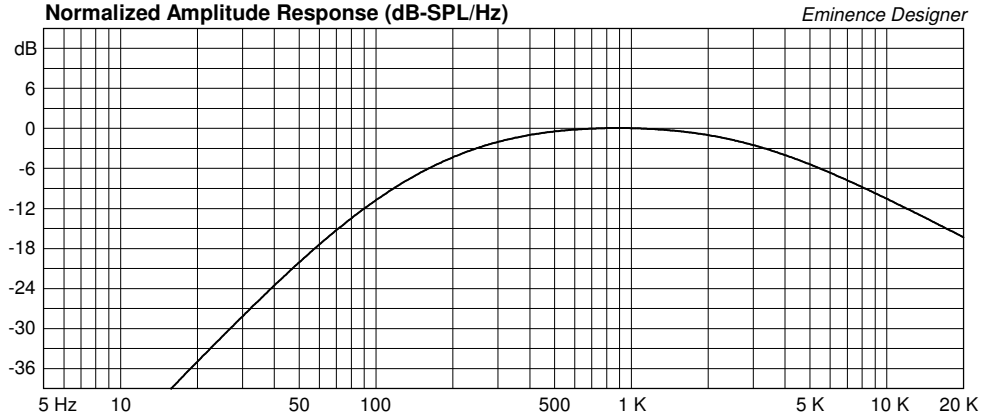
Box Properties

--Description--
Name:
Type: Closed Box
Shape: Prism, square
--Box Parameters--
Vb = 0.1 cu.ft
V(total) = 0.107 cu.ft
Qtc = 0.458
QL = 20
F3 = 246.2 Hz
Fill = normal

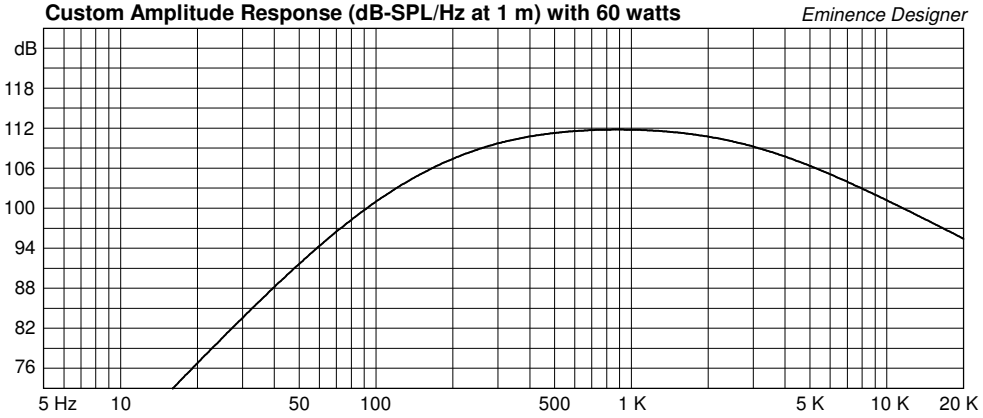
Driver Properties

--Description--
Name: PRO-5W-8
Type: Standard one-way driver
Company: Eminence Speaker USA
Comment: 5" Cast Frame Mid/Bass
--Configuration--
No. of Drivers = 1
--Mechanical Parameters--
Fs = 94.63 Hz
Qms = 3.35
Vas = 4.31 liters
Cms = 0.7 mm/N
Mms = 4.05 g
Rms = 0.72 kg/s
Xmax = 2.95 mm
Xmech = 6 mm
P-Dia = 91.56 mm
Sd = 66.6 sq.cm
P-Vd = 0.0194 liters
--Electrical Parameters--
Qes = 0.35
Re = 5.43 ohms
Le = 0.28 mH
Z = 8 ohms
BL = 6.11 Tm
Pe = 75 watts
--Electromech. Parameters--
Qts = 0.317
no = 1.006 %
1-W SPL = 92.17 dB
2.83-V SPL = 93.86 dB

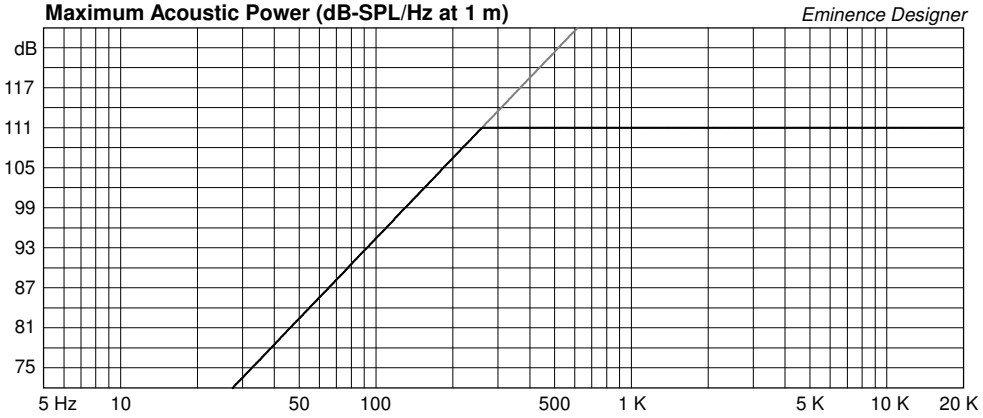
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



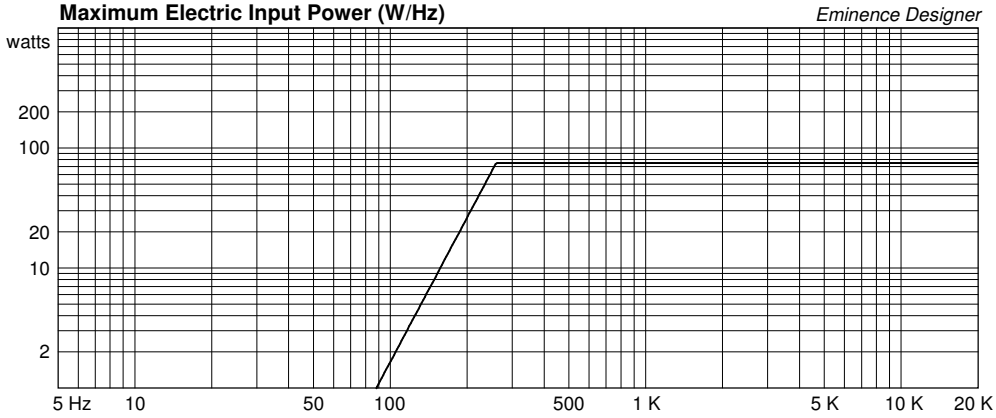
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 60 watts *Eminence Designer*



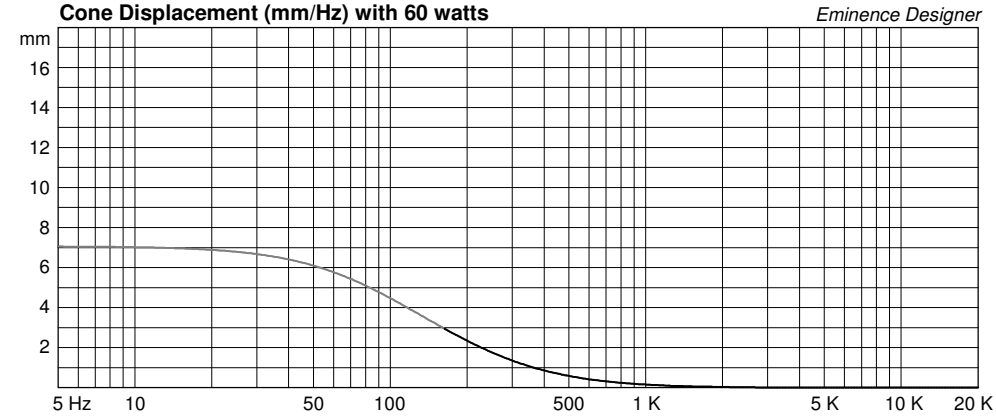
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



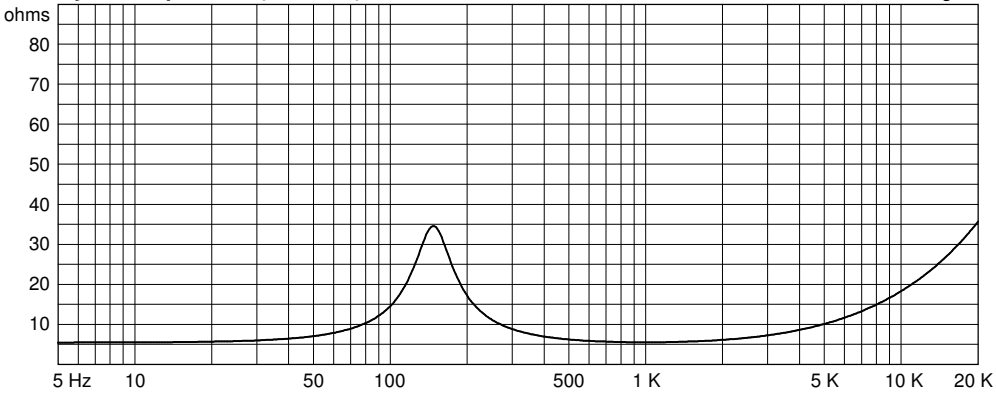
Maximum Electric Input Power (W/Hz) *Eminence Designer*



Cone Displacement (mm/Hz) with 60 watts *Eminence Designer*



System Impedance (ohms/Hz) *Eminence Designer*



PRO-5W-8 "Large" Vented Midbass

By Jerry McNutt, Eminence Speaker LLC
Limit to 60 Watts; F3 at 113 Hz. Best used above 145 Hz.
For satellites or midbass designs.

EMINENCE

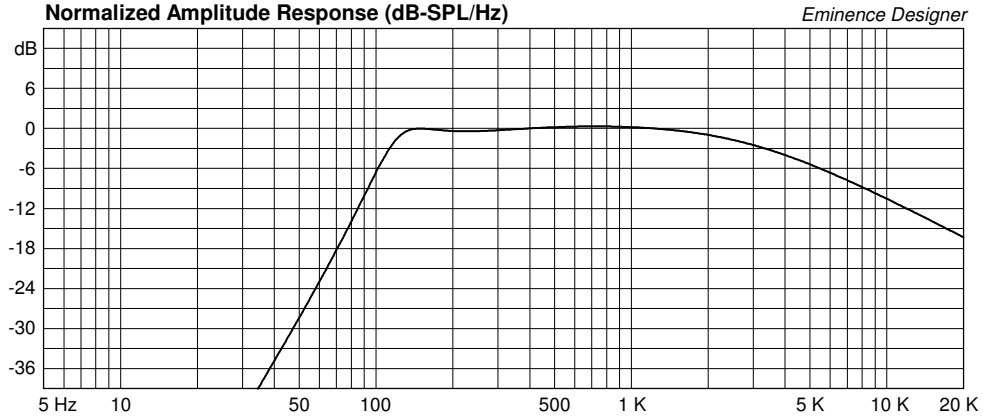
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 0.14 cu.ft
V(total) = 0.15 cu.ft
Fb = 120 Hz
QL = 7
F3 = 113 Hz
Fill = normal
--Vents--
No. of Vents = 1
Vent shape = round
Vent ends = one flush
Dv = 2 in
Lv = 2.206 in

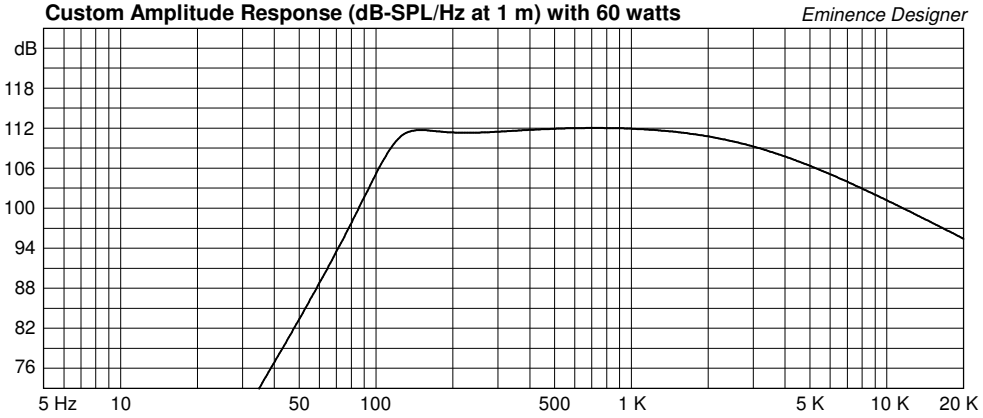
Driver Properties

--Description--
Name: PRO-5W-8
Type: Standard one-way driver
Company: Eminence Speaker USA
Comment: 5" Cast Frame Mid/Bass
--Configuration--
No. of Drivers = 1
--Mechanical Parameters--
Fs = 94.63 Hz
Qms = 3.35
Vas = 4.31 liters
Cms = 0.7 mm/N
Mms = 4.05 g
Rms = 0.72 kg/s
Xmax = 2.95 mm
Xmech = 6 mm
P-Dia = 91.56 mm
Sd = 66.6 sq.cm
P-Vd = 0.0194 liters
--Electrical Parameters--
Qes = 0.35
Re = 5.43 ohms
Le = 0.28 mH
Z = 8 ohms
BL = 6.11 Tm
Pe = 75 watts
--Electromech. Parameters--
Qts = 0.317
no = 1.006 %
1-W SPL = 92.17 dB
2.83-V SPL = 93.86 dB

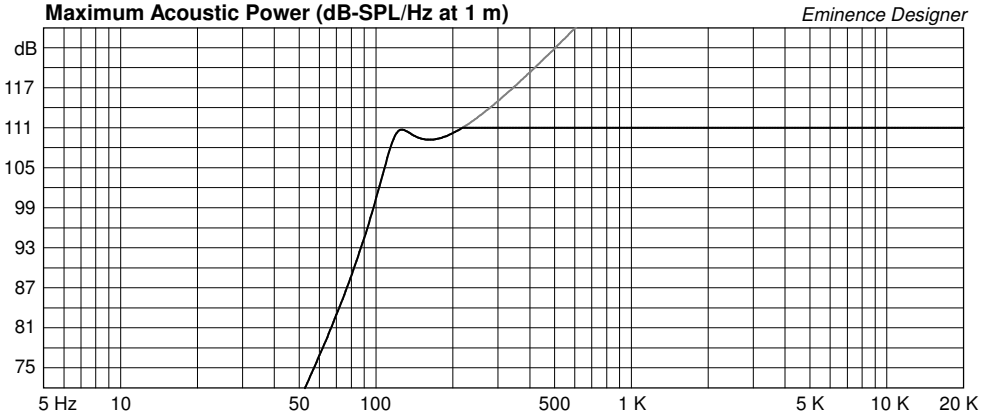
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



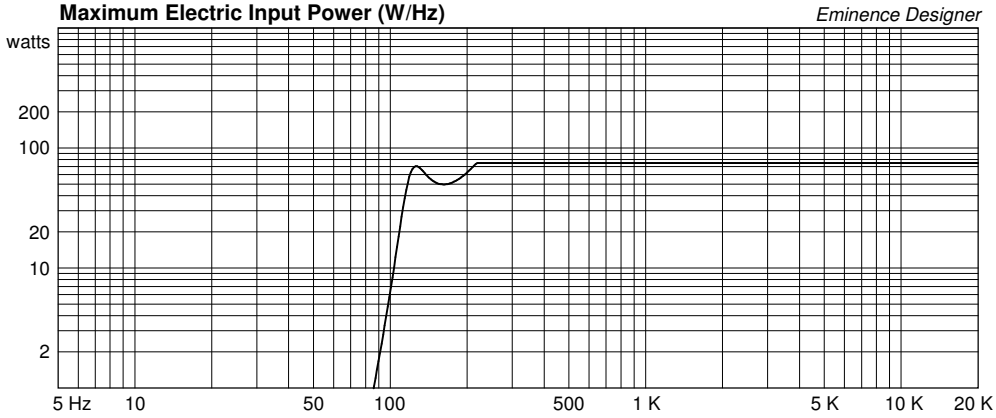
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 60 watts *Eminence Designer*



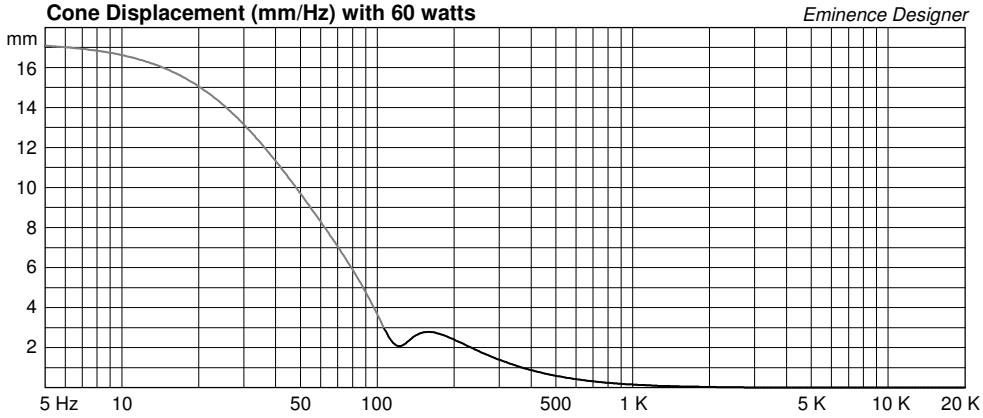
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



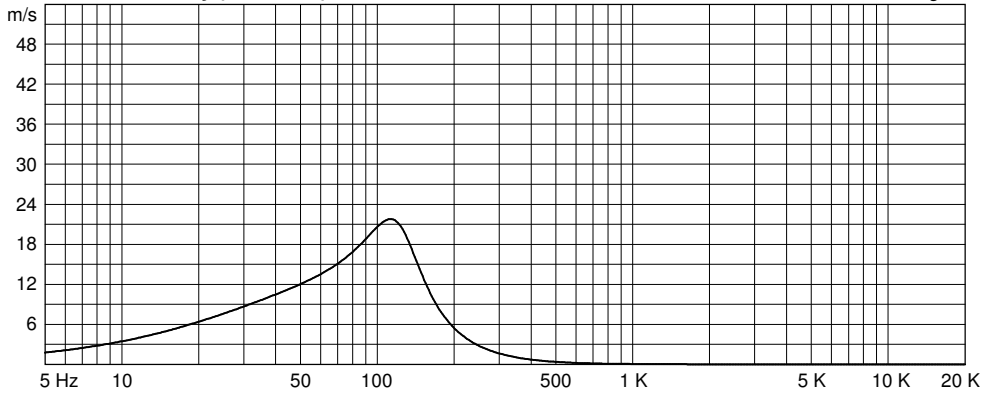
Maximum Electric Input Power (W/Hz) *Eminence Designer*

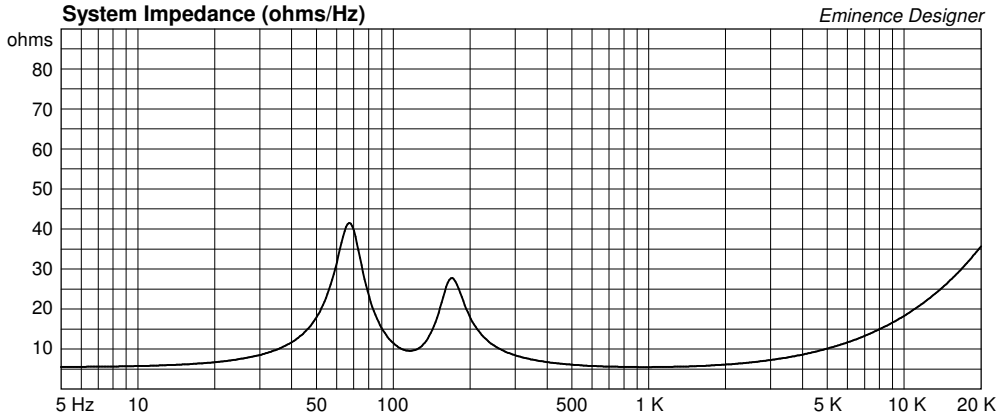


Cone Displacement (mm/Hz) with 60 watts *Eminence Designer*



Vent Air Velocity (m/sec/Hz) with 60 watts *Eminence Designer*




System Impedance (ohms/Hz)
Eminence Designer
ohms
80
70
60
50
40
30
20
10
5 Hz
10
50
100
500
1 K
5 K
10 K
20 K