DefiniMax 4012ULF Small Vented Subwoofer

By Jerry McNutt, Eminence Speaker LLC
1000 Watt Limit. F3 of 47 Hz. Use a Steep High Pass at 45 Hz.

EMINENCE

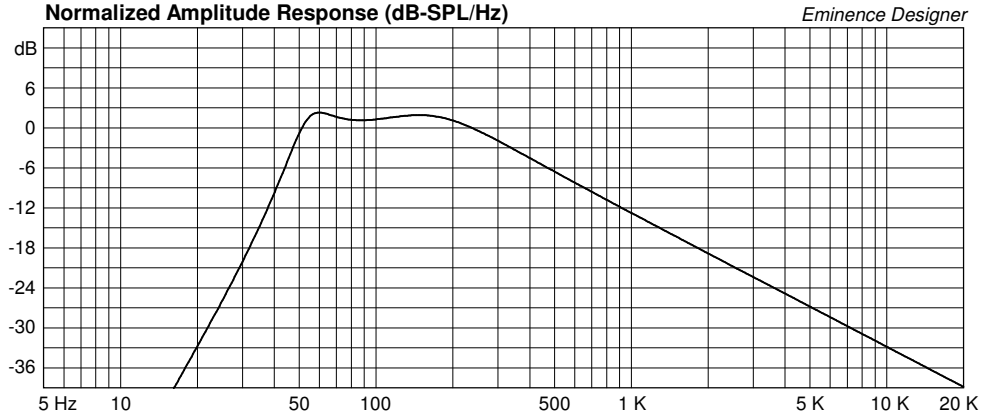
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 1.75 cu.ft
V(total) = 2.035 cu.ft
Fb = 55 Hz
QL = 7
F3 = 47.26 Hz
Fill = minimal
--Vents--
No. of Vents = 1
Vent shape = rectangle
Vent ends = one flush
Hv = 5.5 in
Wv = 5.5 in
Lv = 9.802 in

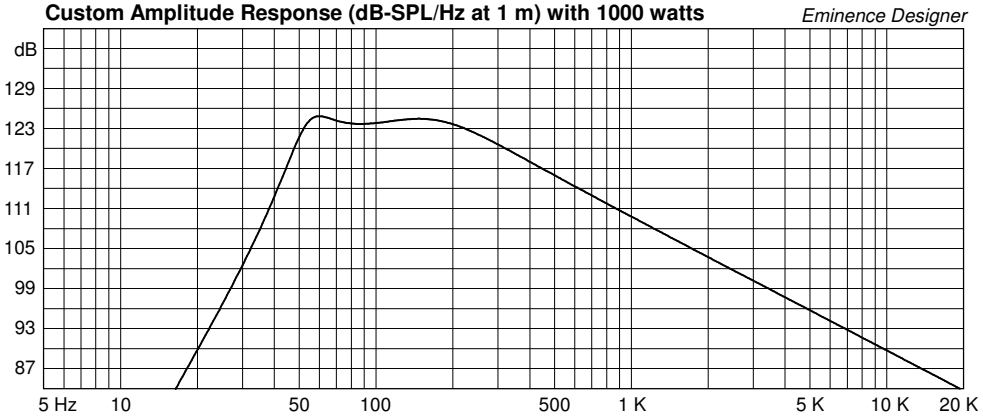
Driver Properties

--Description--
Name: DefiniMax 4012ULF
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: Subwoofer
--Configuration--
No. of Drivers = 1
--Mechanical Parameters--
Fs = 39.87 Hz
Qms = 12.13
Vas = 41.3 liters
Cms = 0.1 mm/N
Mms = 152.8 g
Rms = 3.15 kg/s
Xmax = 6.7 mm
Xmech = 15.5 mm
P-Dia = 262 mm
Sd = 545.4 sq.cm
P-Vd = 0.361 liters
--Electrical Parameters--
Qes = 0.32
Re = 6.2 ohms
Le = 4.32 mH
Z = 8 ohms
BL = 27.38 Tm
Pe = 1200 watts
--Electromech. Parameters--
Qts = 0.312
no = 0.789 %
1-W SPL = 91.12 dB
2.83-V SPL = 92.22 dB

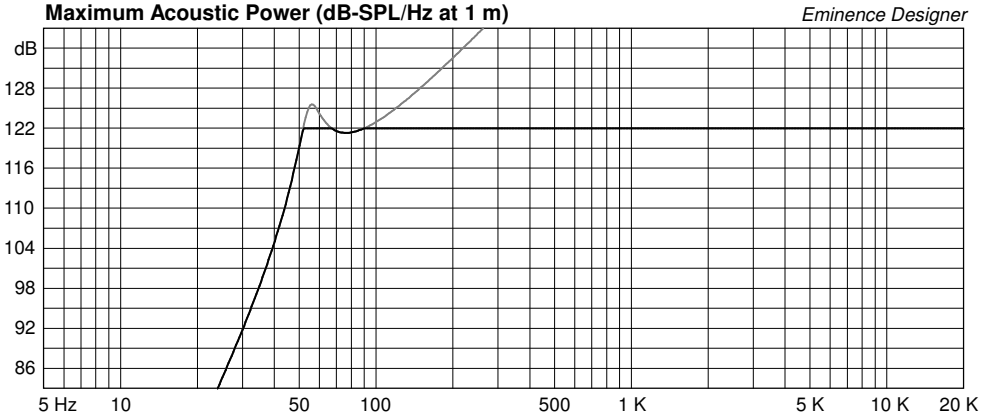
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



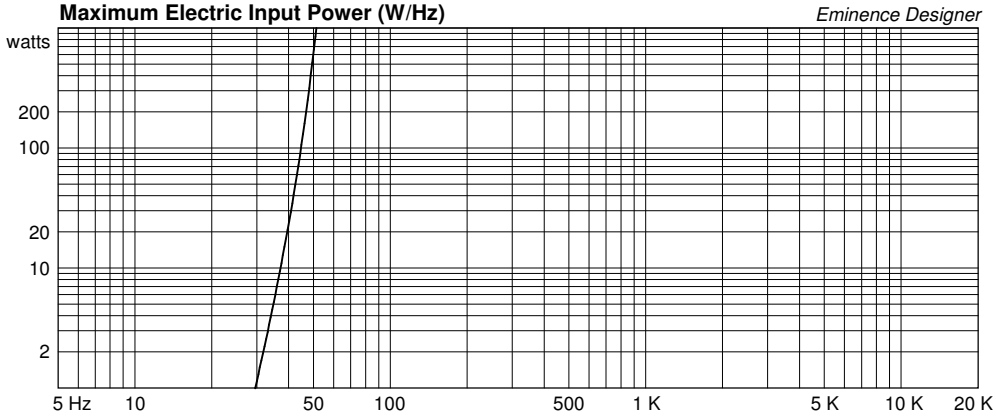
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 1000 watts *Eminence Designer*



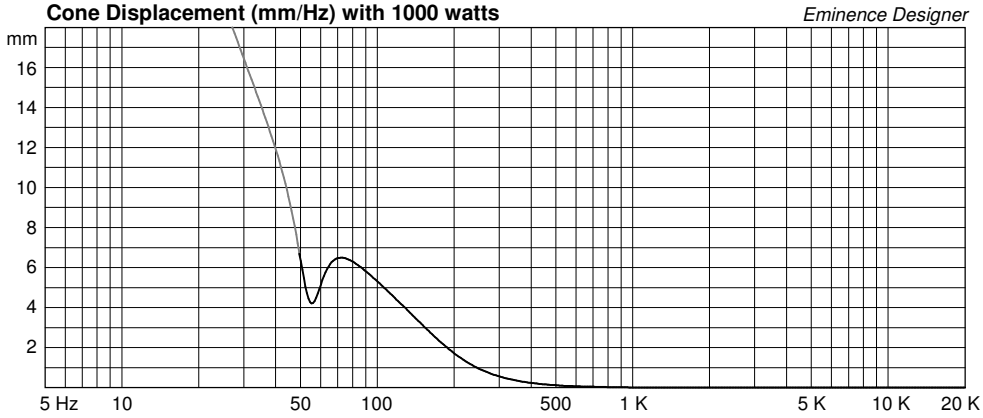
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



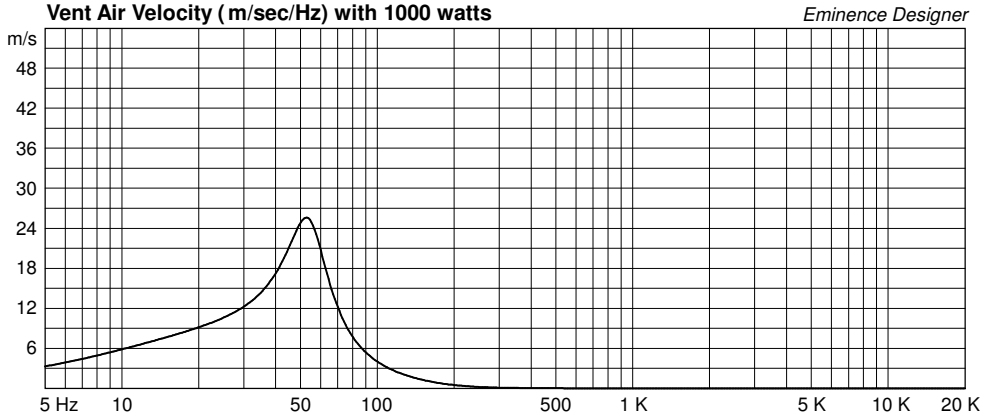
Maximum Electric Input Power (W/Hz) *Eminence Designer*

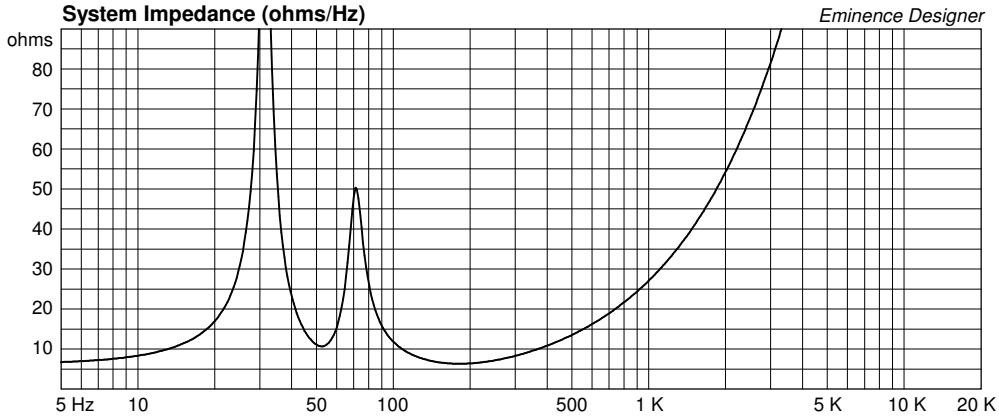


Cone Displacement (mm/Hz) with 1000 watts *Eminence Designer*



Vent Air Velocity (m/sec/Hz) with 1000 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

DefiniMax4012ULF Medium Vented Subwoofer

By Jerry McNutt, Eminence Speaker LLC
750 Watt Limit. F3 of 42 Hz. Use a Steep High Pass at 40 Hz.

EMINENCE

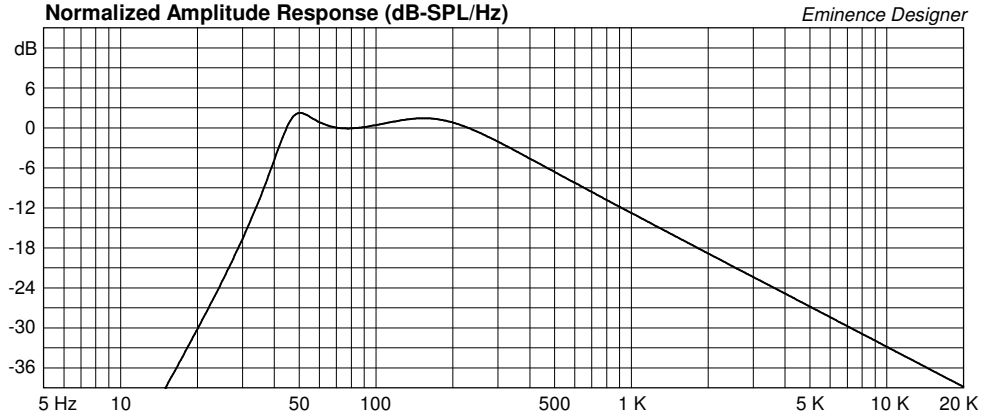
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 2.75 cu.ft
V(total) = 3.051 cu.ft
Fb = 48 Hz
QL = 7
F3 = 41.6 Hz
Fill = minimal
--Vents--
No. of Vents = 1
Vent shape = rectangle
Vent ends = one flush
Hv = 6 in
Wv = 6 in
Lv = 9.146 in

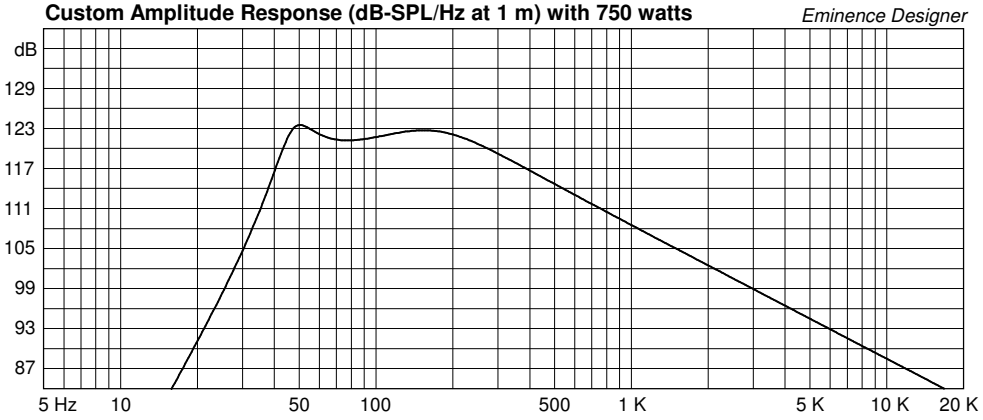
Driver Properties

--Description--
Name: DefiniMax 4012ULF
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: Subwoofer
--Configuration--
No. of Drivers = 1
--Mechanical Parameters--
Fs = 39.87 Hz
Qms = 12.13
Vas = 41.3 liters
Cms = 0.1 mm/N
Mms = 152.8 g
Rms = 3.15 kg/s
Xmax = 6.7 mm
Xmech = 15.5 mm
P-Dia = 262 mm
Sd = 545.4 sq.cm
P-Vd = 0.361 liters
--Electrical Parameters--
Qes = 0.32
Re = 6.2 ohms
Le = 4.32 mH
Z = 8 ohms
BL = 27.38 Tm
Pe = 1200 watts
--Electromech. Parameters--
Qts = 0.312
no = 0.789 %
1-W SPL = 91.12 dB
2.83-V SPL = 92.22 dB

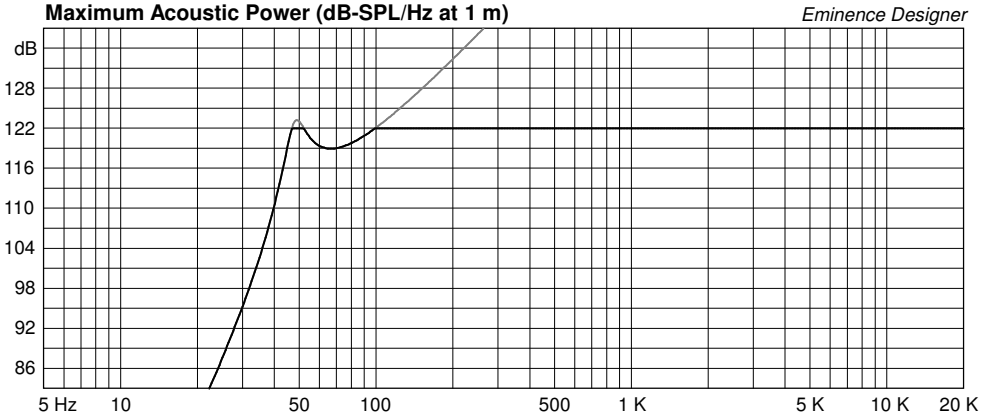
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



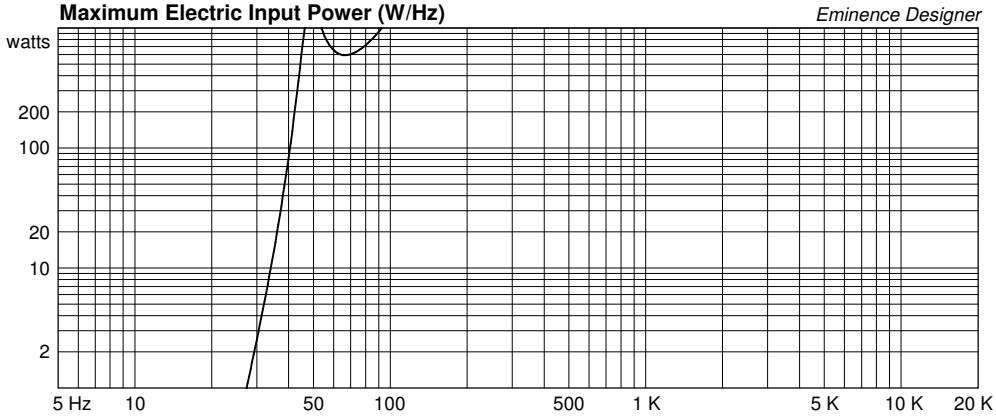
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 750 watts *Eminence Designer*



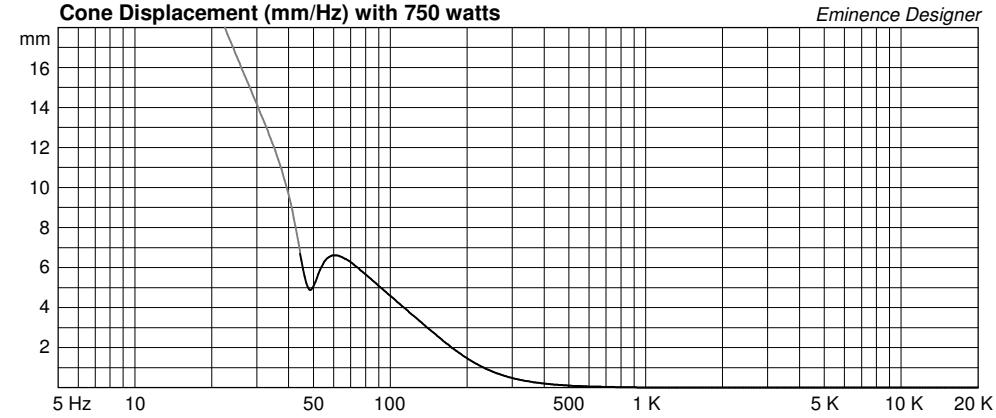
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



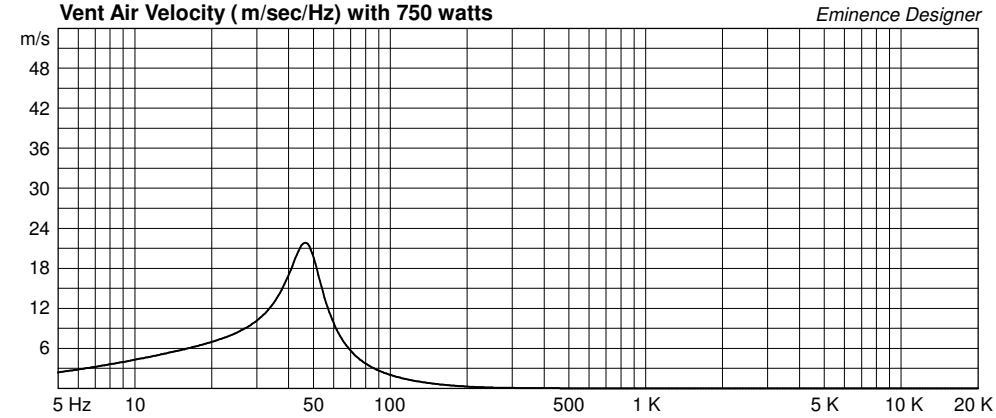
Maximum Electric Input Power (W/Hz) *Eminence Designer*

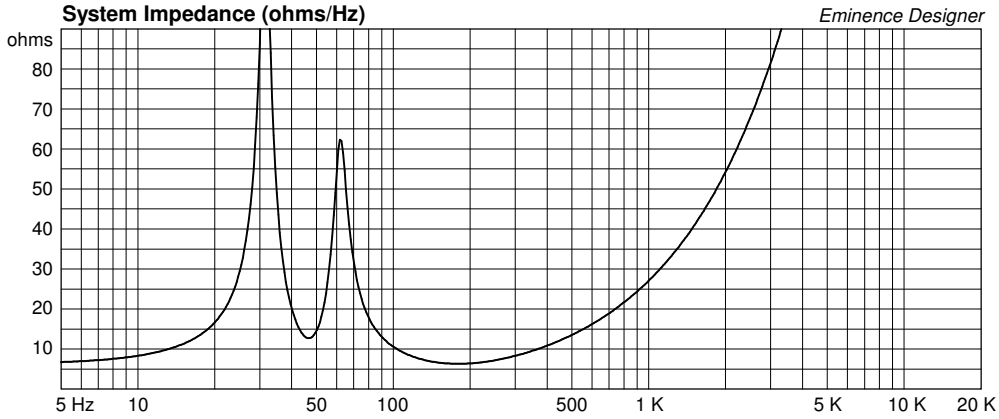


Cone Displacement (mm/Hz) with 750 watts *Eminence Designer*



Vent Air Velocity (m/sec/Hz) with 750 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

DefiniMax4012ULF Large Vented Subwoofer

By Jerry McNutt, Eminence Speaker LLC
500 Watt Limit. F3 of 37 Hz. Use a Steep High Pass at 35 Hz.

EMINENCE

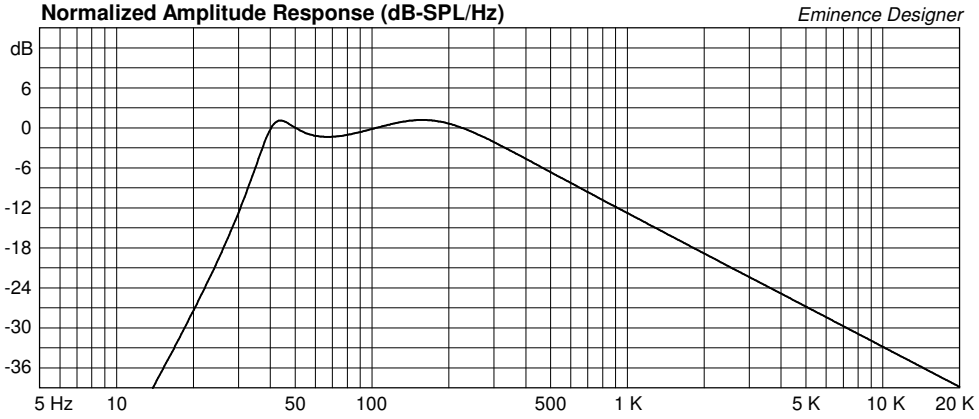
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 3.25 cu.ft
V(total) = 3.589 cu.ft
Fb = 42 Hz
QL = 7
F3 = 37.25 Hz
Fill = minimal
--Vents--
No. of Vents = 1
Vent shape = rectangle
Vent ends = one flush
Hv = 6 in
Wv = 6 in
Lv = 10.82 in

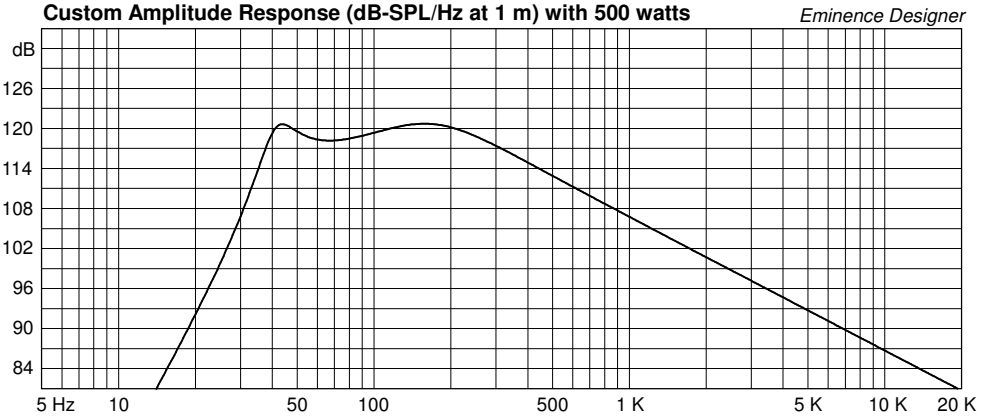
Driver Properties

--Description--
Name: DefiniMax 4012ULF
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: Subwoofer
--Configuration--
No. of Drivers = 1
--Mechanical Parameters--
Fs = 39.87 Hz
Qms = 12.13
Vas = 41.3 liters
Cms = 0.1 mm/N
Mms = 152.8 g
Rms = 3.15 kg/s
Xmax = 6.7 mm
Xmech = 15.5 mm
P-Dia = 262 mm
Sd = 545.4 sq.cm
P-Vd = 0.361 liters
--Electrical Parameters--
Qes = 0.32
Re = 6.2 ohms
Le = 4.32 mH
Z = 8 ohms
BL = 27.38 Tm
Pe = 1200 watts
--Electromech. Parameters--
Qts = 0.312
no = 0.789 %
1-W SPL = 91.12 dB
2.83-V SPL = 92.22 dB

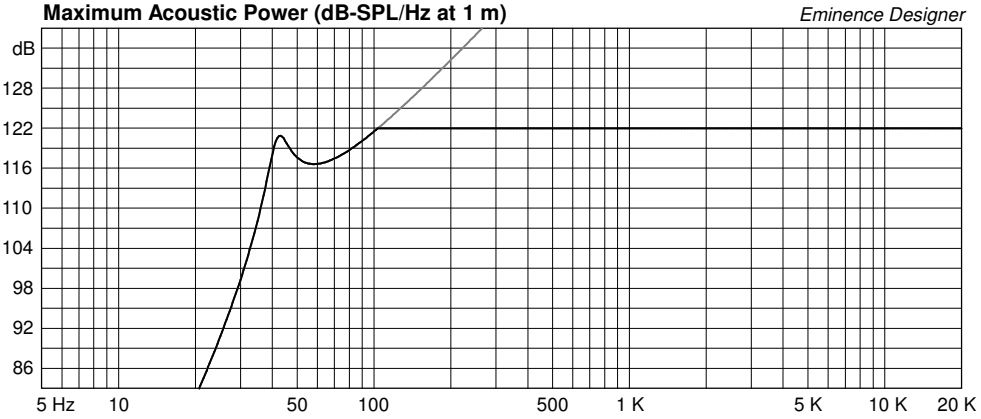
Normalized Amplitude Response (dB-SPL/Hz)



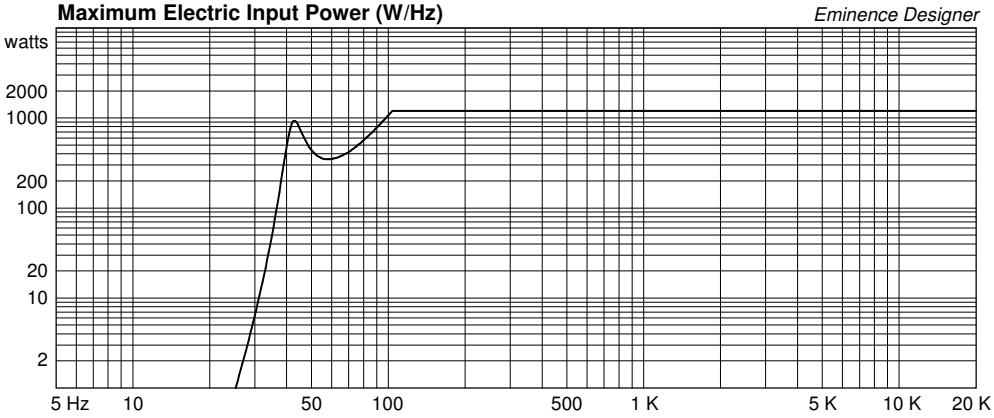
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 500 watts



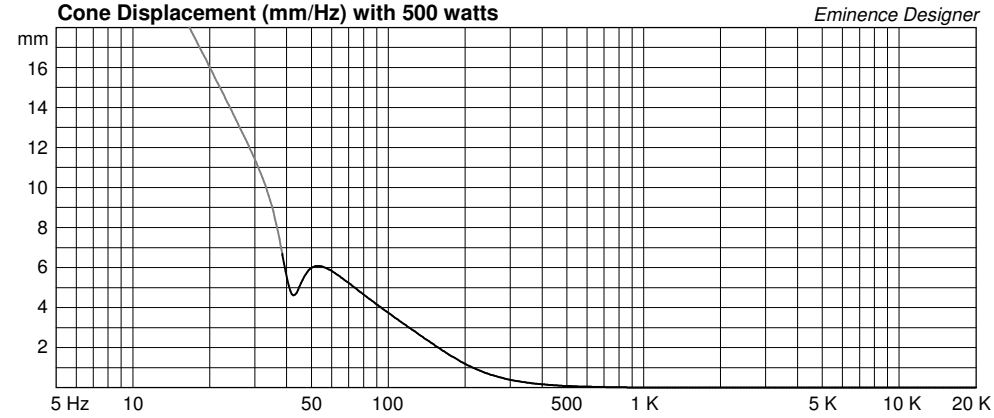
Maximum Acoustic Power (dB-SPL/Hz at 1 m)



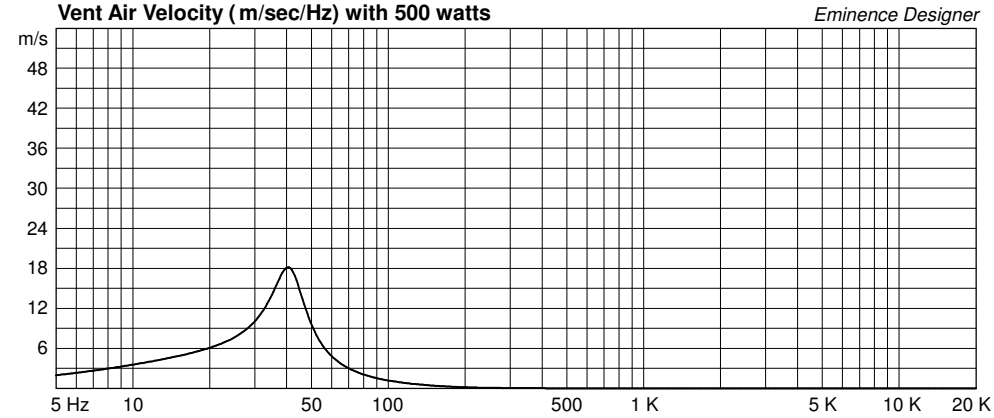
Maximum Electric Input Power (W/Hz) *Eminence Designer*

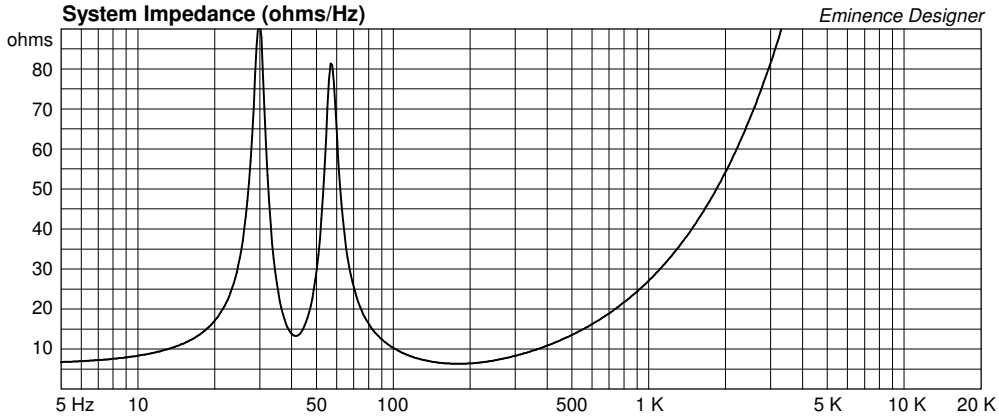


Cone Displacement (mm/Hz) with 500 watts *Eminence Designer*



Vent Air Velocity (m/sec/Hz) with 500 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