DeltaPro-12-450A Large Vented Design

By Jerry McNutt, Eminence Speaker LLC
Limit to 150 Watts; F3 at 61 Hz. Use a steep high pass filter at 45 Hz or higher.
Medium power PA box.

EMINENCE

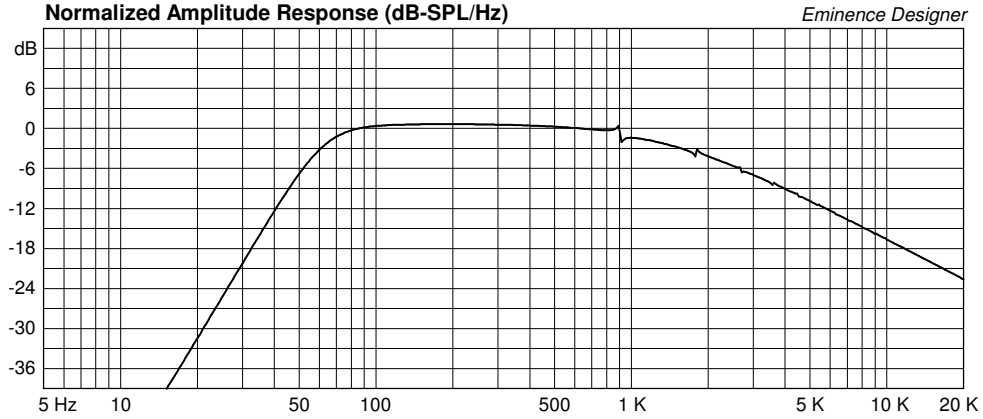
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 3.082 cu.ft
V(total) = 3.259 cu.ft
Fb = 55 Hz
QL = 7
F3 = 60.75 Hz
Fill = minimal
--Vents--
No. of Vents = 2
Vent shape = round
Vent ends = one flush
Dv = 4 in
Lv = 2.799 in

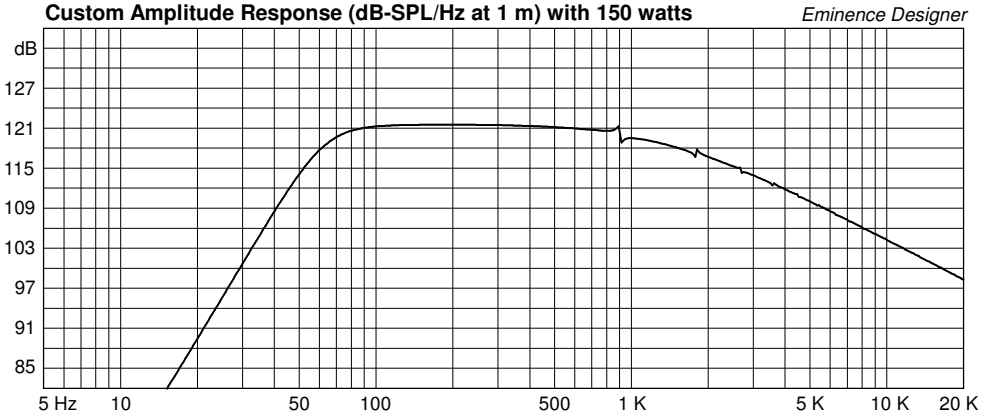
Driver Properties

--Description--
Name: DeltaPro-12-450A
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: High Power Woofer
--Configuration--
No. of Drivers = 1
--Mechanical Parameters--
Fs = 44.37 Hz
Qms = 7.59
Vas = 141.7 liters
Cms = 0.36 mm/N
Mms = 36.07 g
Rms = 1.33 kg/s
Xmax = 5.1 mm
Xmech = 13.7 mm
P-Dia = 258.9 mm
Sd = 532.4 sq.cm
P-Vd = 0.268 liters
--Electrical Parameters--
Qes = 0.39
Re = 5.04 ohms
Le = 0.54 mH
Z = 8 ohms
BL = 11.47 Tm
Pe = 375 watts
--Electromech. Parameters--
Qts = 0.371
no = 3.059 %
1-W SPL = 97 dB
2.83-V SPL = 99.01 dB

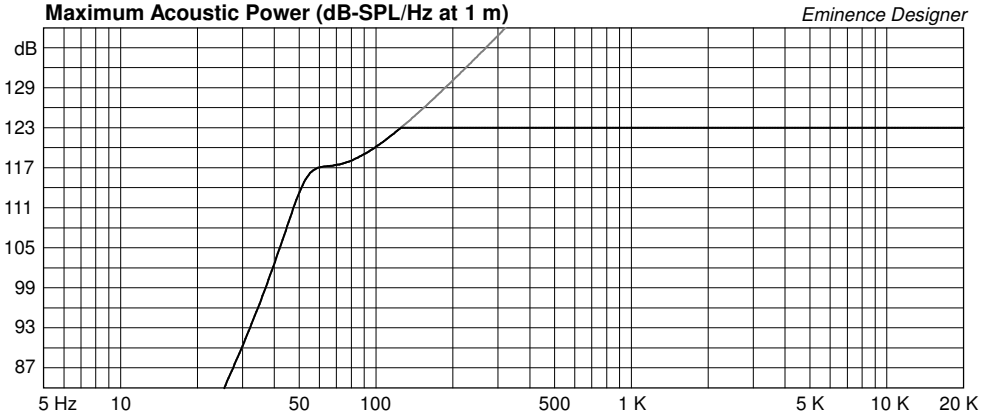
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 150 watts *Eminence Designer*

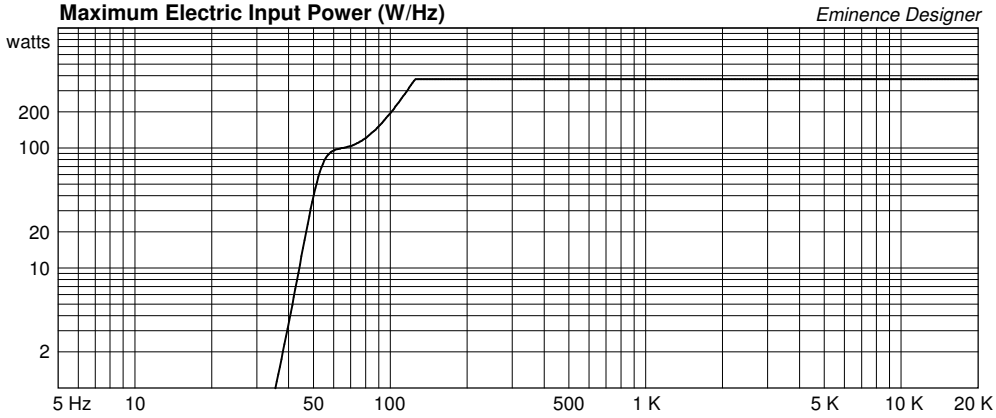


Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



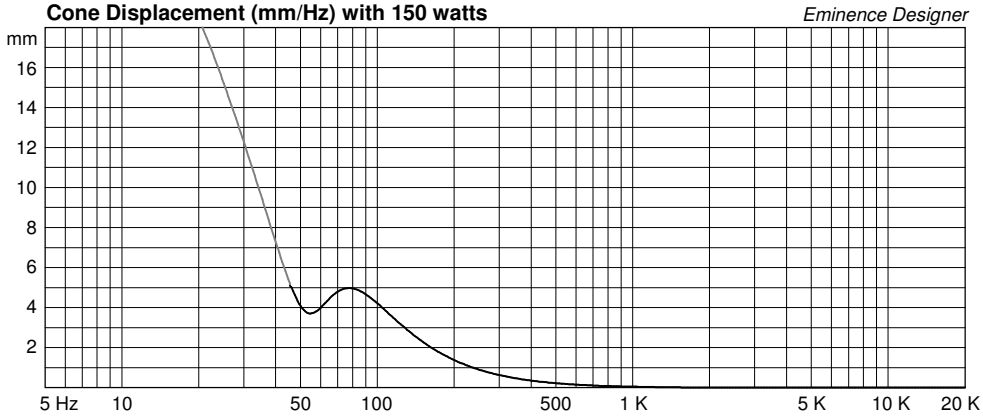
Maximum Electric Input Power (W/Hz)

Eminence Designer



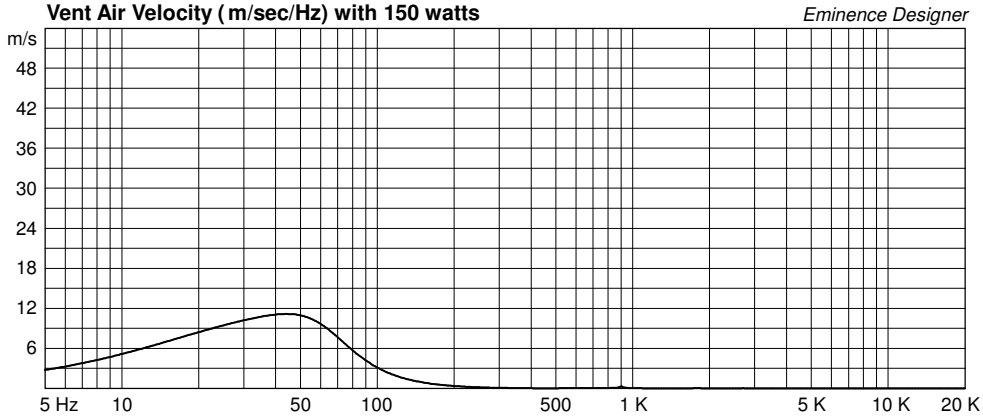
Cone Displacement (mm/Hz) with 150 watts

Eminence Designer



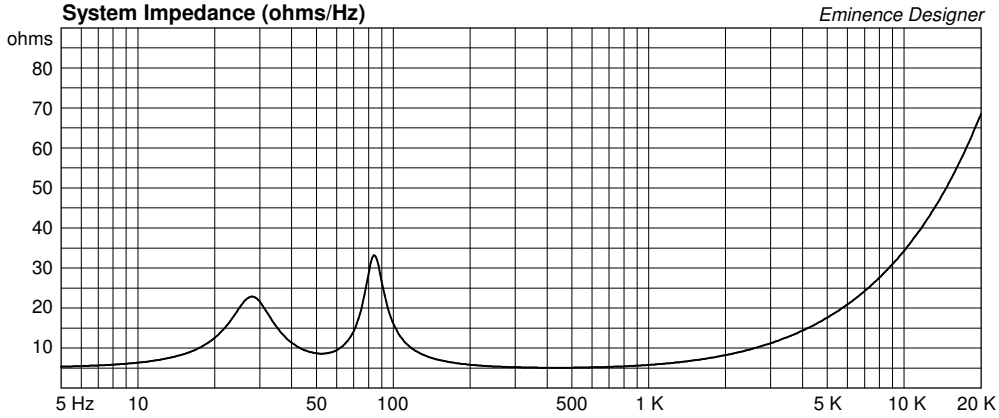
Vent Air Velocity (m/sec/Hz) with 150 watts

Eminence Designer



System Impedance (ohms/Hz)

Eminence Designer



DeltaPro-12-450A Medium Vented Design

By Jerry McNutt, Eminence Speaker LLC
Limit to 200 Watts; F3 at 67 Hz. Use a steep high pass filter at 50 Hz or higher.
Great for a medium power floor wedge or PA top box.

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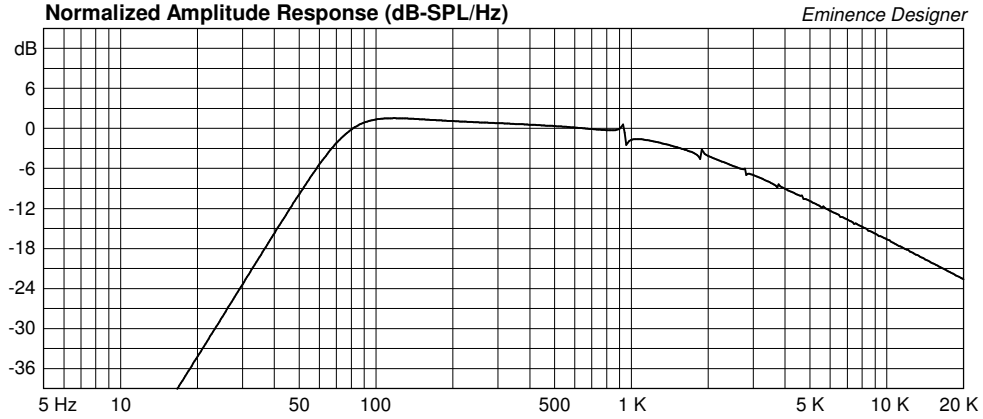
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 2.3 cu.ft
V(total) = 2.472 cu.ft
Fb = 65 Hz
QL = 7
F3 = 67.07 Hz
Fill = minimal
--Vents--
No. of Vents = 2
Vent shape = round
Vent ends = one flush
Dv = 4 in
Lv = 2.493 in

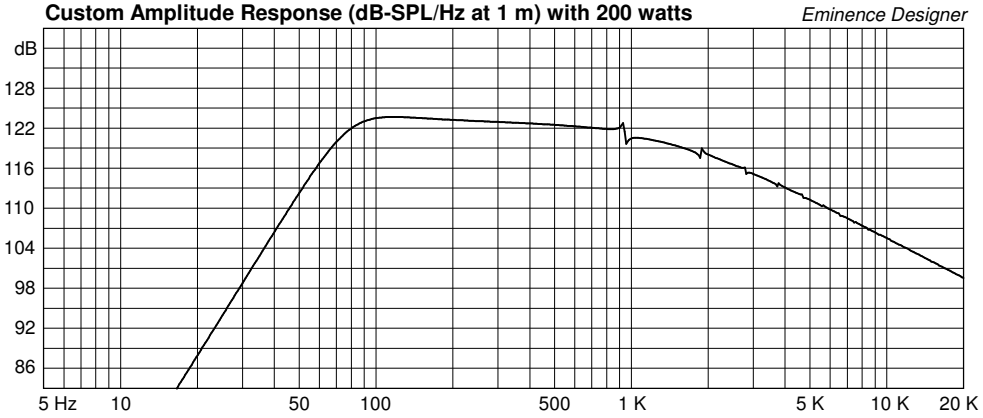
Driver Properties

--Description--
Name: DeltaPro-12-450A
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: High Power Woofer
--Configuration--
No. of Drivers = 1
--Mechanical Parameters--
Fs = 44.37 Hz
Qms = 7.59
Vas = 141.7 liters
Cms = 0.36 mm/N
Mms = 36.07 g
Rms = 1.33 kg/s
Xmax = 5.1 mm
Xmech = 13.7 mm
P-Dia = 258.9 mm
Sd = 532.4 sq.cm
P-Vd = 0.268 liters
--Electrical Parameters--
Qes = 0.39
Re = 5.04 ohms
Le = 0.54 mH
Z = 8 ohms
BL = 11.47 Tm
Pe = 375 watts
--Electromech. Parameters--
Qts = 0.371
no = 3.059 %
1-W SPL = 97 dB
2.83-V SPL = 99.01 dB

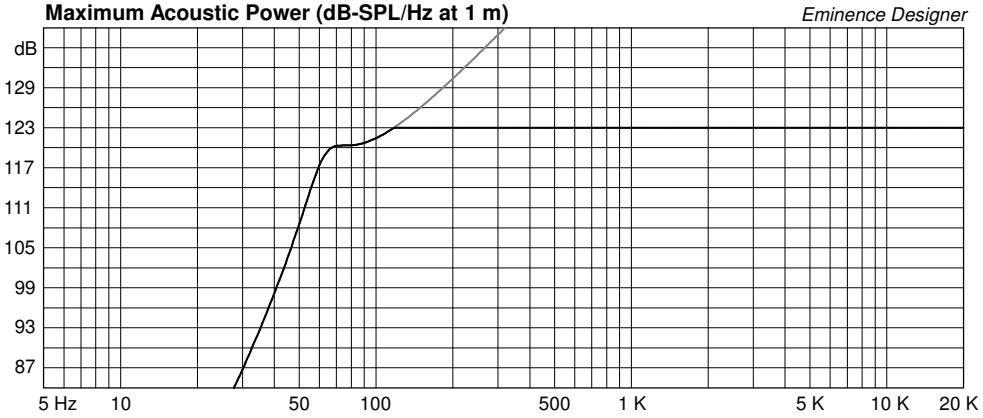
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



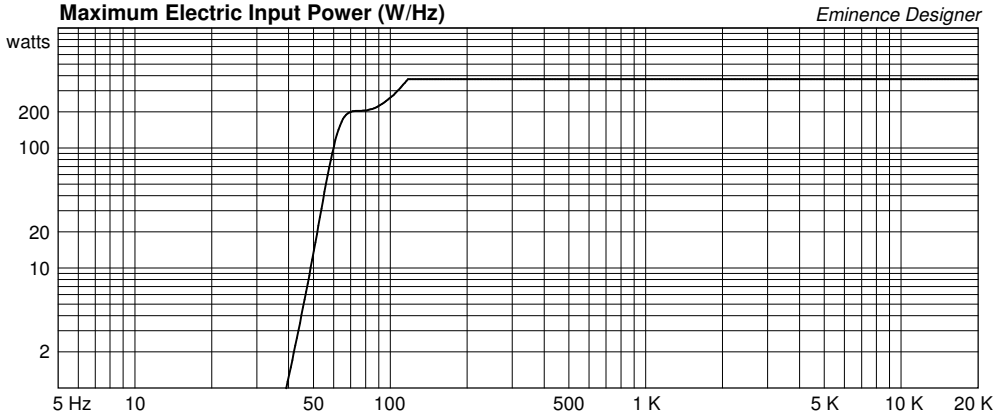
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 200 watts *Eminence Designer*



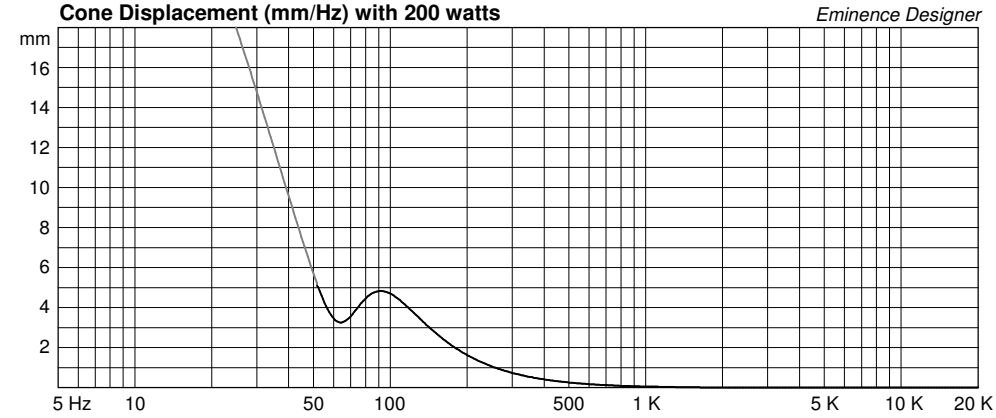
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



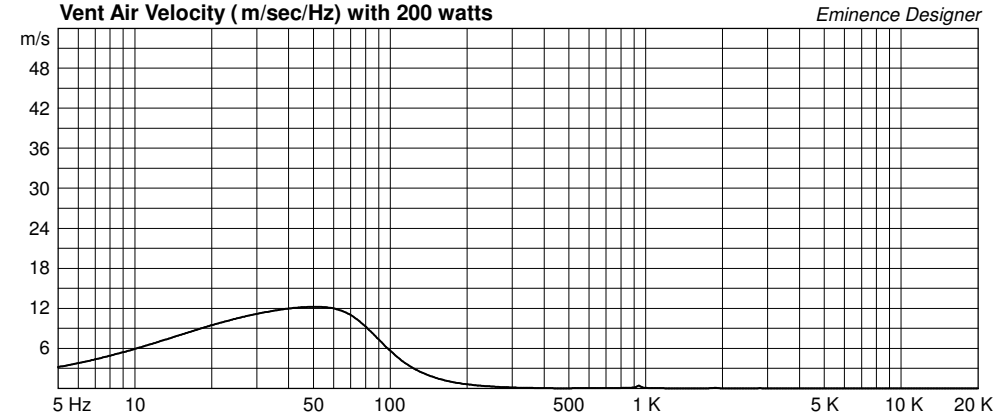
Maximum Electric Input Power (W/Hz) *Eminence Designer*

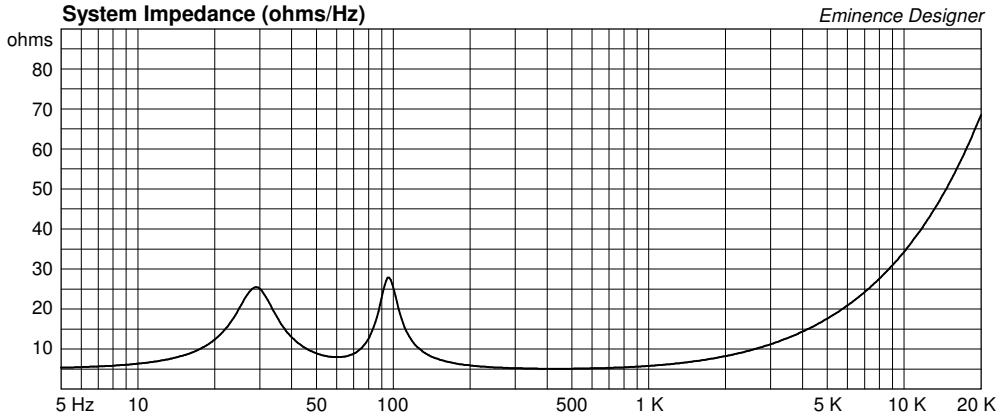


Cone Displacement (mm/Hz) with 200 watts *Eminence Designer*



Vent Air Velocity (m/sec/Hz) with 200 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

DeltaPro-12-450A Small Vented Design

By Jerry McNutt, Eminence Speaker LLC
Limit to 350 Watts; F3 at 85 Hz. Use a steep high pass filter at 55 Hz or higher.
Great for high power PA top box when used above 100 Hz.

EMINENCE

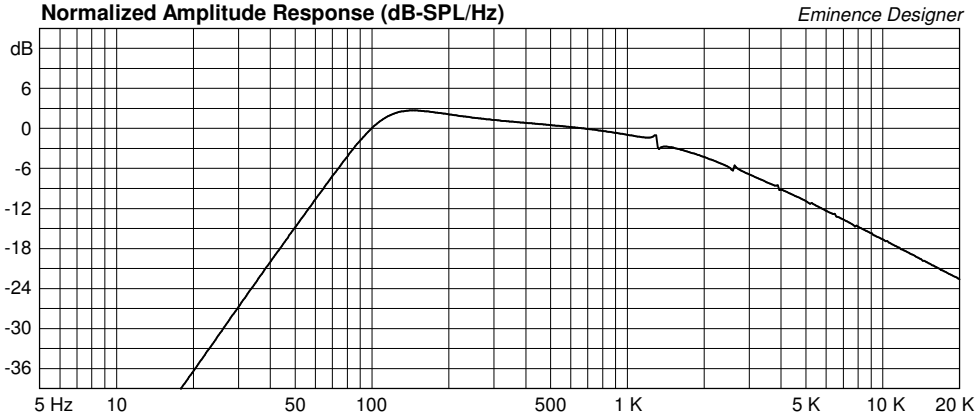
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 1.2 cu.ft
V(total) = 1.341 cu.ft
Fb = 75 Hz
QL = 7
F3 = 84.71 Hz
Fill = minimal
--Vents--
No. of Vents = 1
Vent shape = round
Vent ends = one flush
Dv = 4 in
Lv = 1.218 in

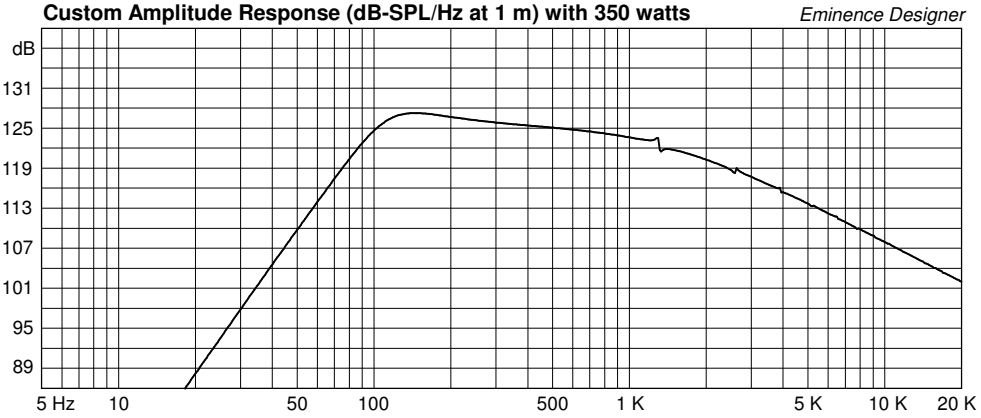
Driver Properties

--Description--
Name: DeltaPro-12-450A
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: High Power Woofer
--Configuration--
No. of Drivers = 1
--Mechanical Parameters--
Fs = 44.37 Hz
Qms = 7.59
Vas = 141.7 liters
Cms = 0.36 mm/N
Mms = 36.07 g
Rms = 1.33 kg/s
Xmax = 5.1 mm
Xmech = 13.7 mm
P-Dia = 258.9 mm
Sd = 532.4 sq.cm
P-Vd = 0.268 liters
--Electrical Parameters--
Qes = 0.39
Re = 5.04 ohms
Le = 0.54 mH
Z = 8 ohms
BL = 11.47 Tm
Pe = 375 watts
--Electromech. Parameters--
Qts = 0.371
no = 3.059 %
1-W SPL = 97 dB
2.83-V SPL = 99.01 dB

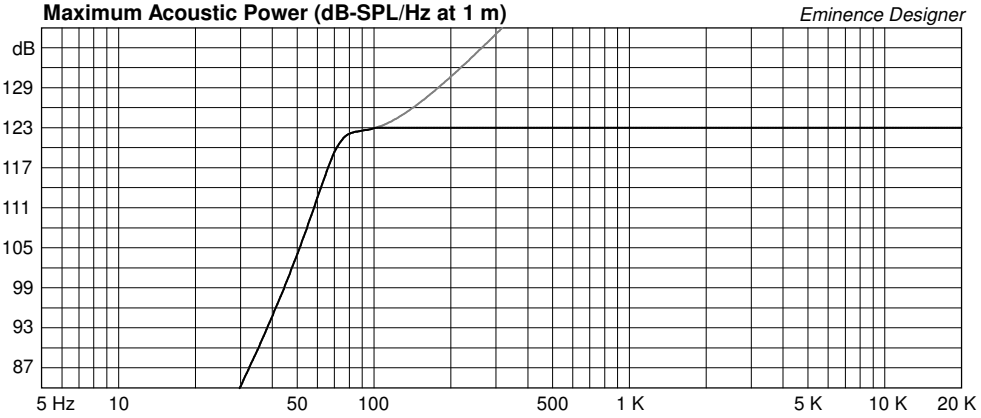
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



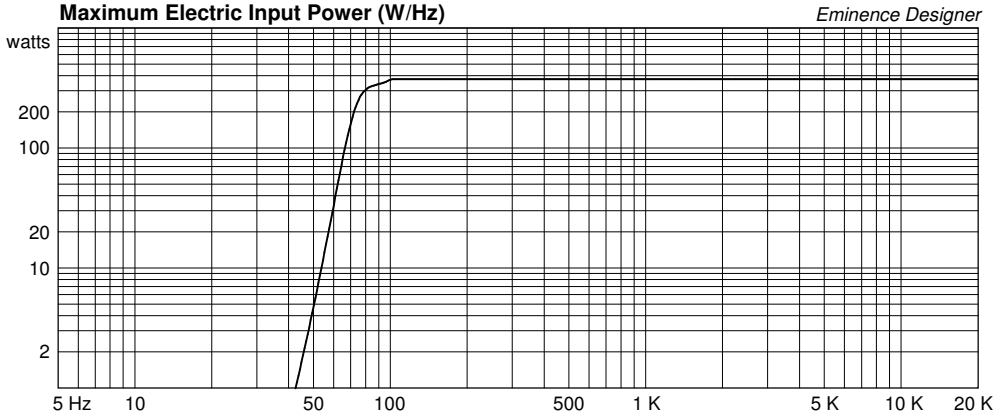
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 350 watts *Eminence Designer*



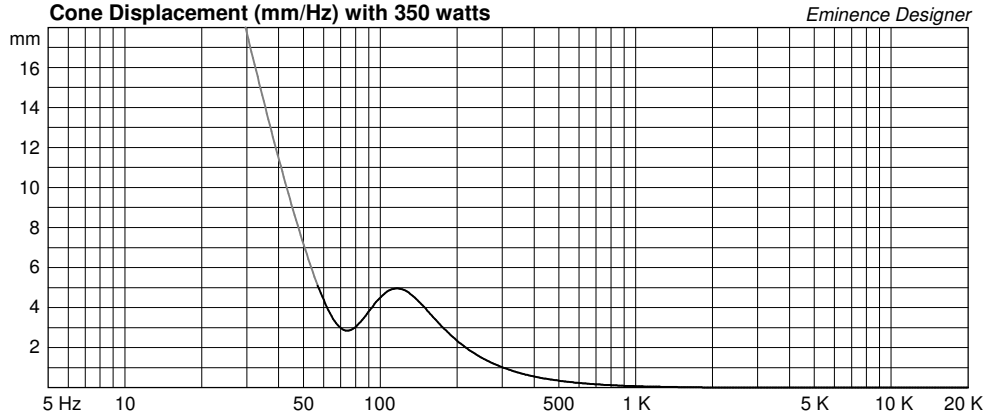
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



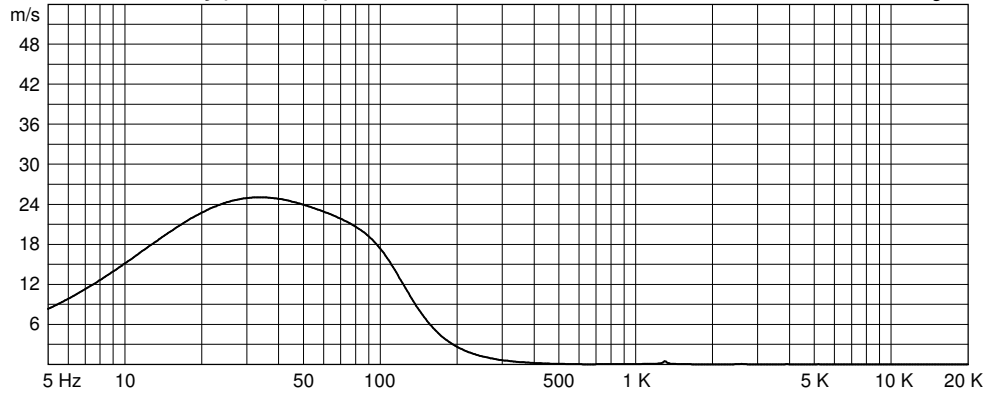
Maximum Electric Input Power (W/Hz) *Eminence Designer*

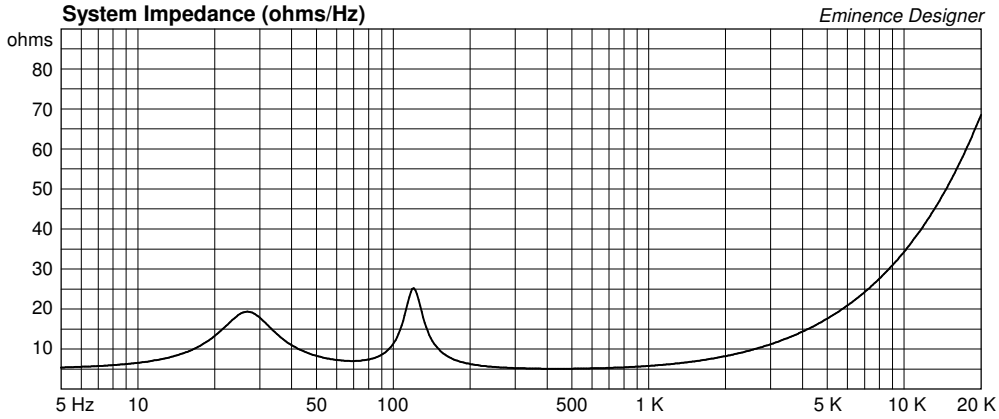


Cone Displacement (mm/Hz) with 350 watts *Eminence Designer*



Vent Air Velocity (m/sec/Hz) with 350 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