KappaPro15A, Small Vented Box, For Mid/High use only.

By McJerry, Eminence Speaker LLC
Displacement limited to 300 watts if run down to 100 Hz. Displacement and thermally limited to 500 watts if run down to only 180 Hz. Will require some EQ to flatten out hump at 120 Hz.

Box Properties

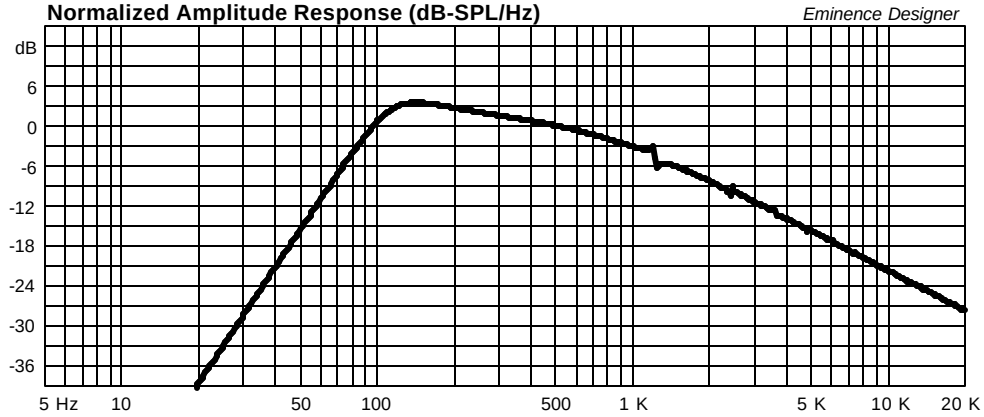
--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 1.8 cu.ft
V(total) = 1.951 cu.ft
Fb = 85 Hz
QL = 7
F3 = 83.53 Hz
Fill = minimal
--Vents--
No. of Vents = 2
Vent shape = round
Vent ends = one flush
Dv = 4.058 in
Lv = 0.75 in

Driver Properties

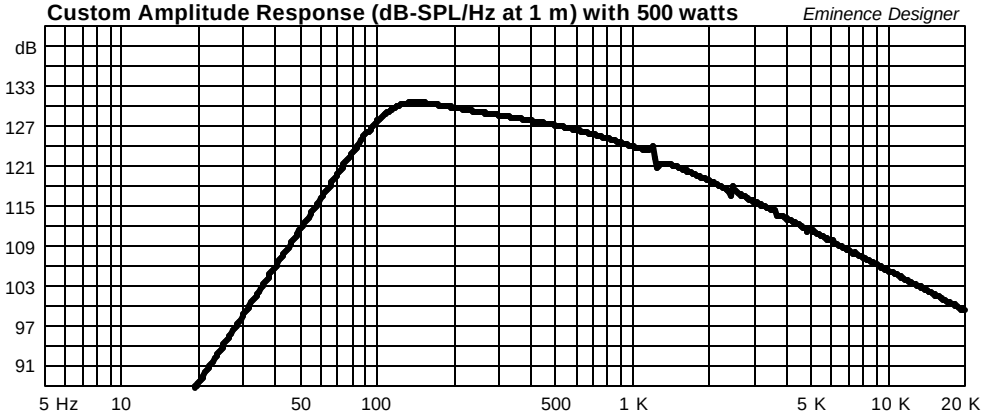
--Description--
Name: Kappa Pro-15
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: Revised NOV 2005
Piston: Ribbed paper cone.
Suspension: Cloth surround.
Dust Cap: Solid composition paper dust cap.
Frame: Diecast aluminum basket.
Voice Coil: 3 inch (76.2 mm) AL Wire Kapton former.
Magnet: 80 oz ferrite magnet.
--Configuration--
No. of Drivers = 1

--Mechanical Parameters--		*--Electrical Parameters--*	
Fs =	47 Hz	Qes =	0.4
Qms =	8.01	Re =	5.23 ohms
Vas =	167.7 liters	Le =	1.01 mH
Cms =	0.16 mm/N	Z =	8 ohms
Mms =	72 g	BL =	16.6 Tm
Rms =	2.62 kg/s	Pe =	500 watts
Xmax =	3.2 mm	*--Electromech. Parameters--*	
Xmech =	13.21 mm	Qts =	0.38
P-Dia =	330.7 mm	no =	4.197 %
Sd =	856.3 sq.cm	1-W SPL =	98.38 dB
P-Vd =	0.272 liters	2.83-V SPL =	100.2 dB

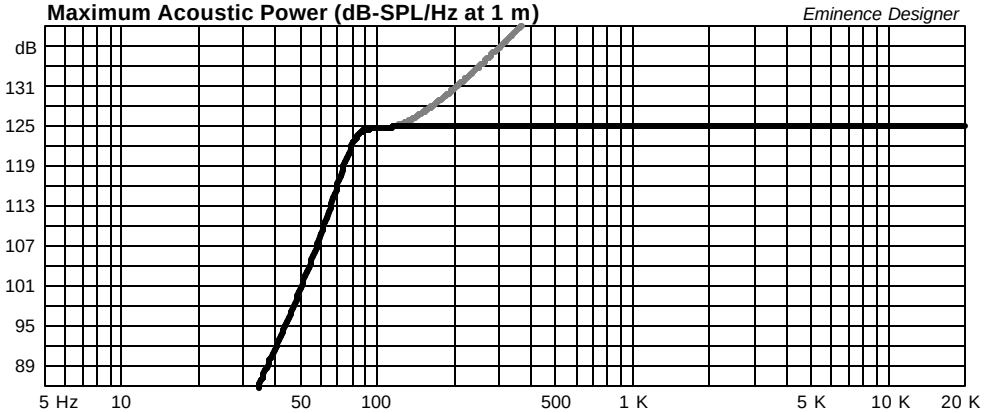
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



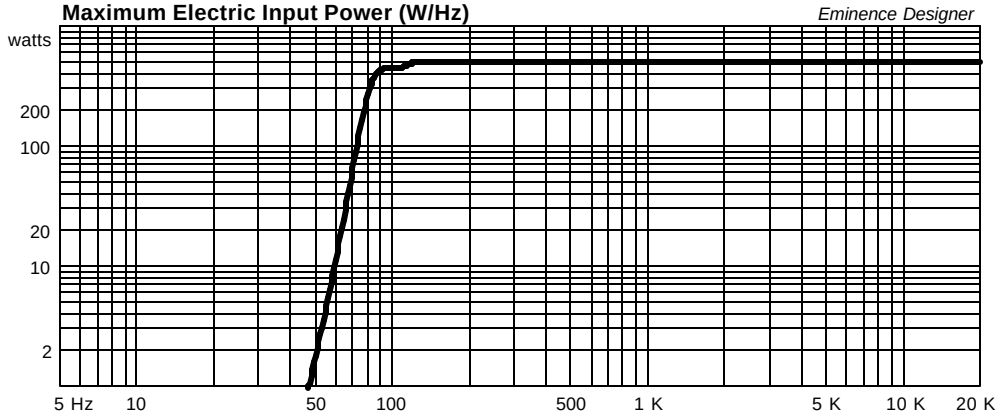
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 500 watts *Eminence Designer*



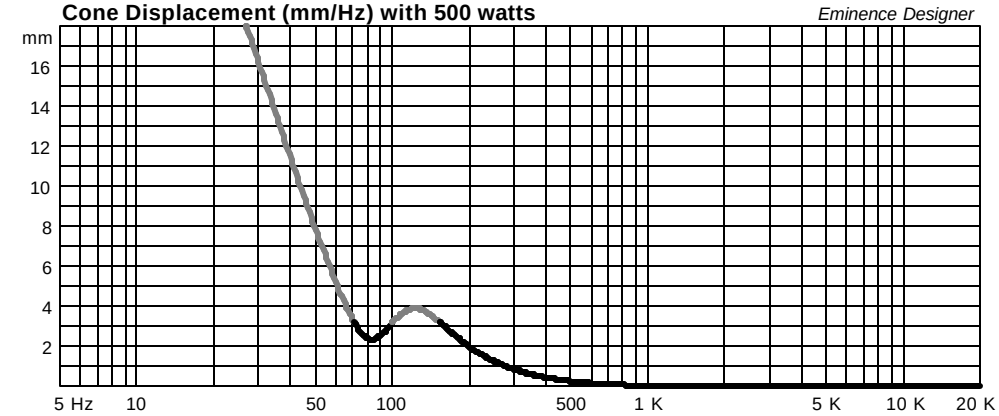
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



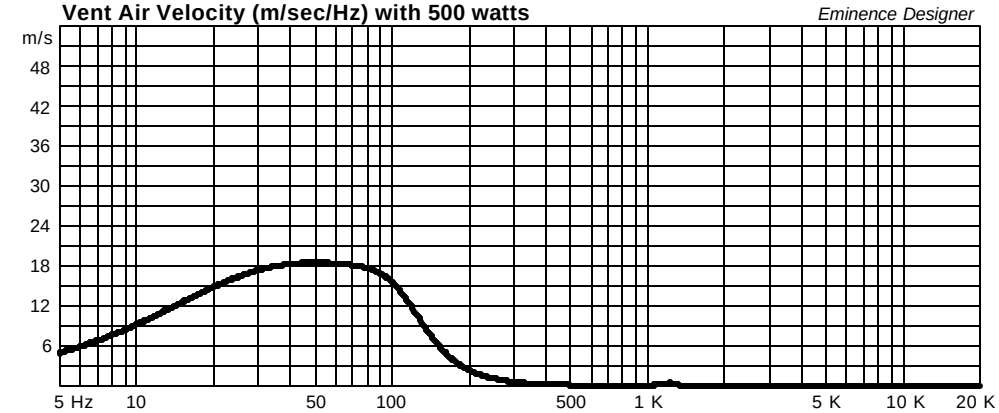
Maximum Electric Input Power (W/Hz) *Eminence Designer*

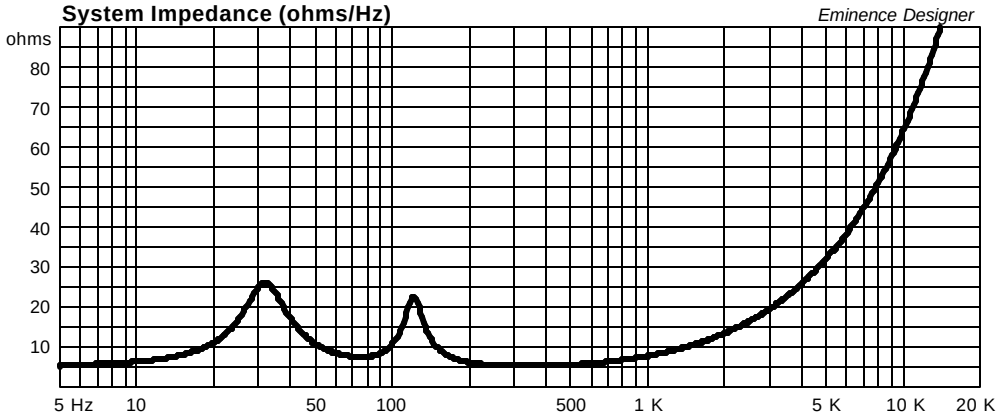


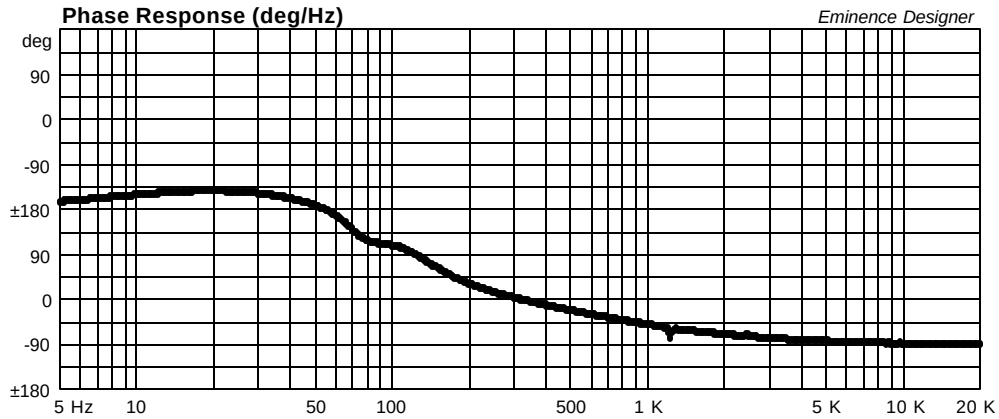
Cone Displacement (mm/Hz) with 500 watts *Eminence Designer*

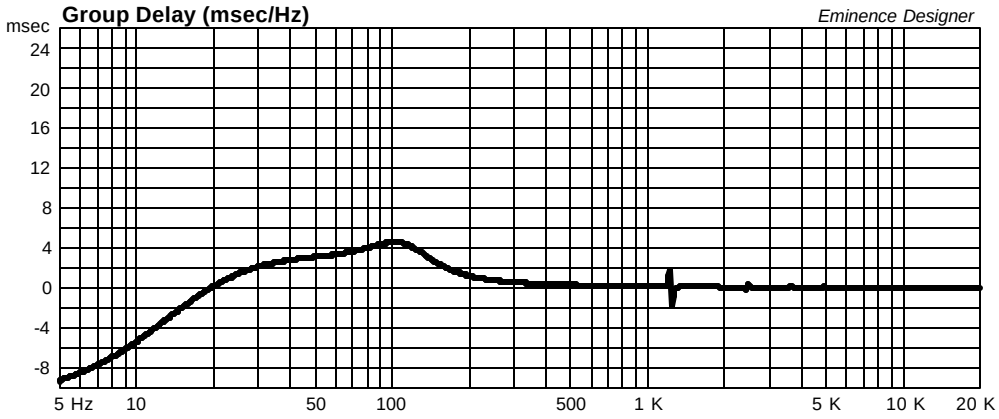


Vent Air Velocity (m/sec/Hz) with 500 watts *Eminence Designer*




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


Phase Response (deg/Hz)
Eminence Designer
deg
90
0
-90
±180
90
0
-90
±180
5 Hz
10
50
100
500
1 K
5 K
10 K
20 K


Group Delay (msec/Hz)
Eminence Designer
msec
24
20
16
12
8
4
0
-4
-8
5 Hz
10
50
100
500
1 K
5 K
10 K
20 K

KappaPro15A Med Vented Box, Pwr Handling Varies With Use

By McJerry, Eminence Speaker LLC
Displacement limited to 125 watts if run down to 65 Hz. Displacement limited to 400 watts if only run down to 180 Hz.

Box Properties

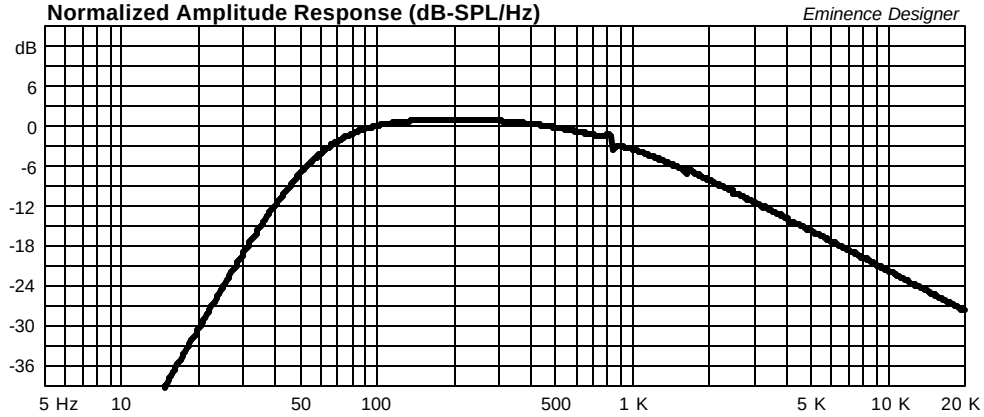
--Description--
Name:
Type: Vented Box
Shape: Prism, square (optimum)
--Box Parameters--
Vb = 3.4 cu.ft
V(total) = 3.596 cu.ft
Fb = 50 Hz
QL = 7
F3 = 65.35 Hz
Fill = minimal
--Vents--
No. of Vents = 2
Vent shape = round
Vent ends = one flush
Dv = 4 in
Lv = 3.531 in

Driver Properties

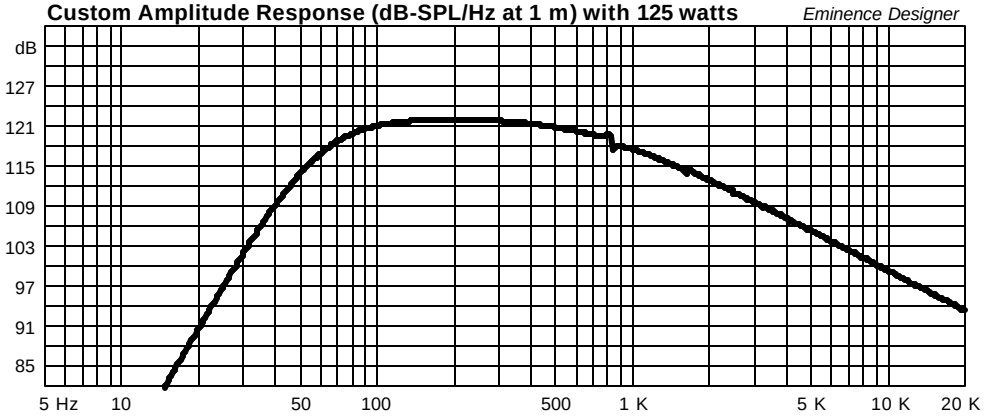
--Description--
Name: Kappa Pro-15
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: Revised NOV 2005
Piston: Ribbed paper cone.
Suspension: Cloth surround.
Dust Cap: Solid composition paper dust cap.
Frame: Diecast aluminum basket.
Voice Coil: 3 inch (76.2 mm) AL Wire Kapton former.
Magnet: 80 oz ferrite magnet.
--Configuration--
No. of Drivers = 1

--Mechanical Parameters--		*--Electrical Parameters--*	
Fs =	47 Hz	Qes =	0.4
Qms =	8.01	Re =	5.23 ohms
Vas =	167.7 liters	Le =	1.01 mH
Cms =	0.16 mm/N	Z =	8 ohms
Mms =	72 g	BL =	16.6 Tm
Rms =	2.62 kg/s	Pe =	500 watts
Xmax =	3.2 mm	*--Electromech. Parameters--*	
Xmech =	13.21 mm	Qts =	0.38
P-Dia =	330.7 mm	no =	4.197 %
Sd =	856.3 sq.cm	1-W SPL =	98.38 dB
P-Vd =	0.272 liters	2.83-V SPL =	100.2 dB

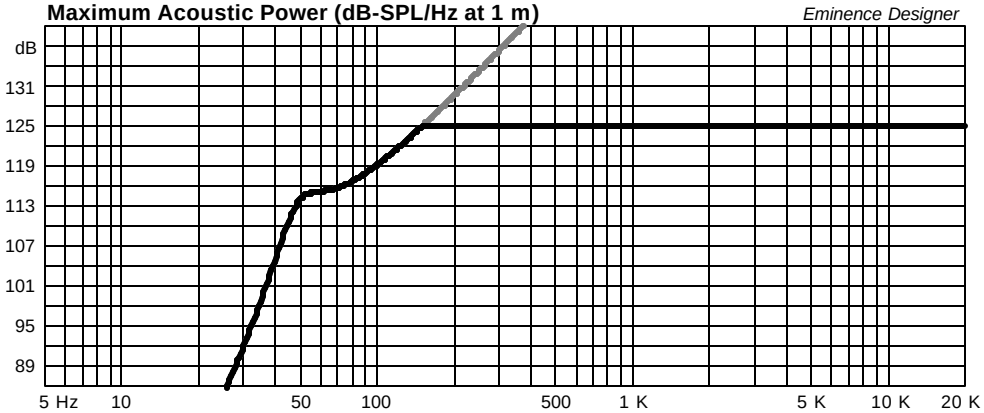
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



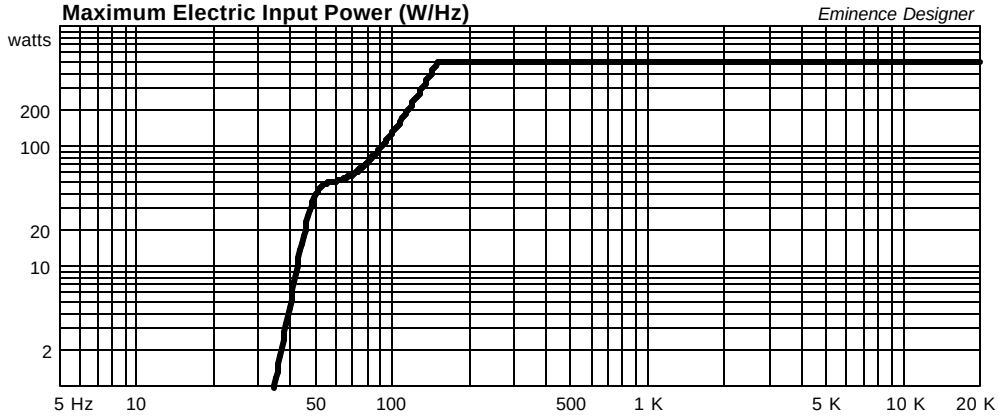
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 125 watts *Eminence Designer*



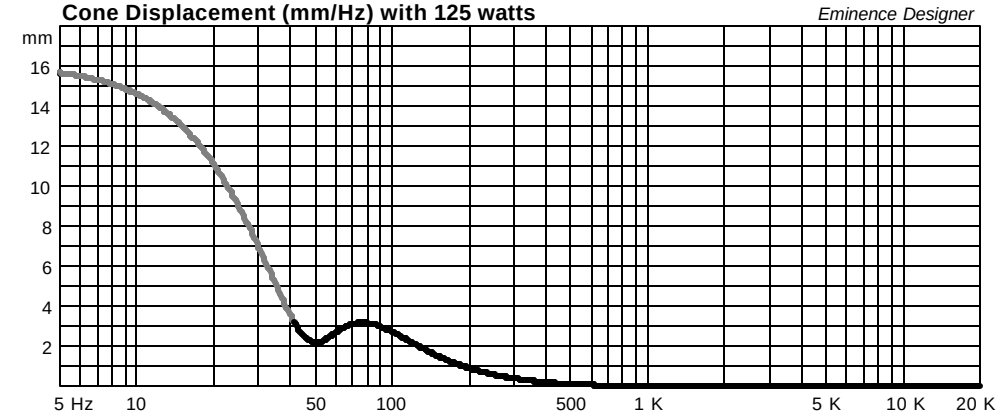
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



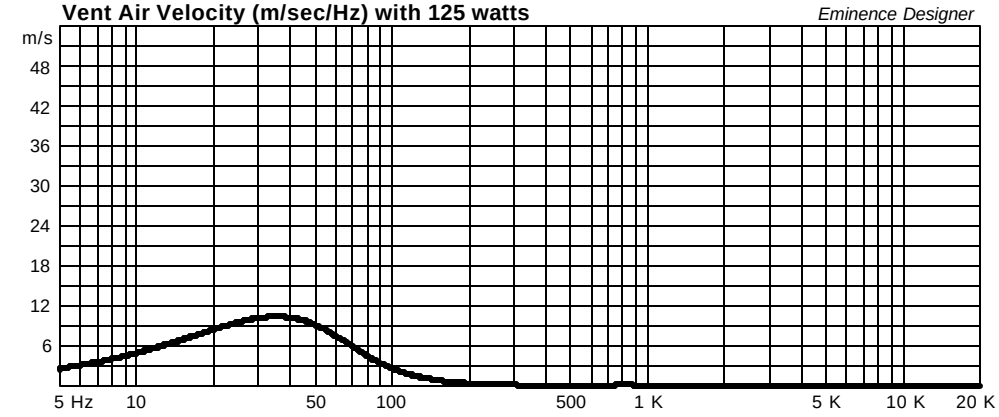
Maximum Electric Input Power (W/Hz) *Eminence Designer*

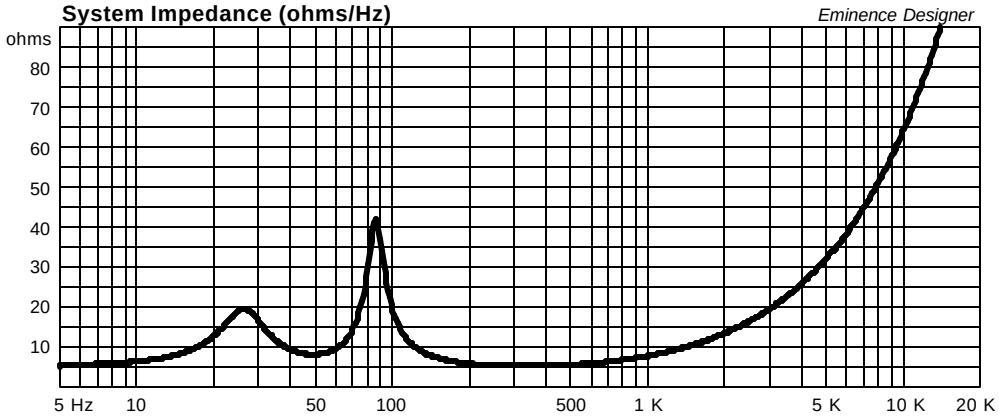


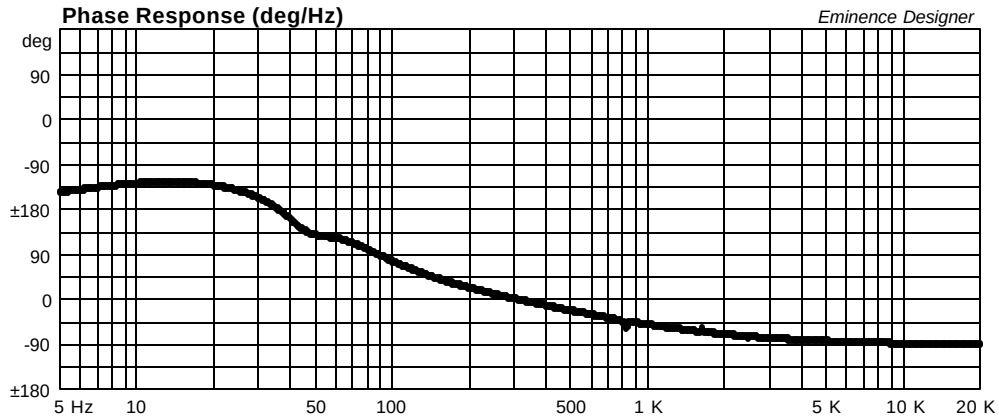
Cone Displacement (mm/Hz) with 125 watts *Eminence Designer*

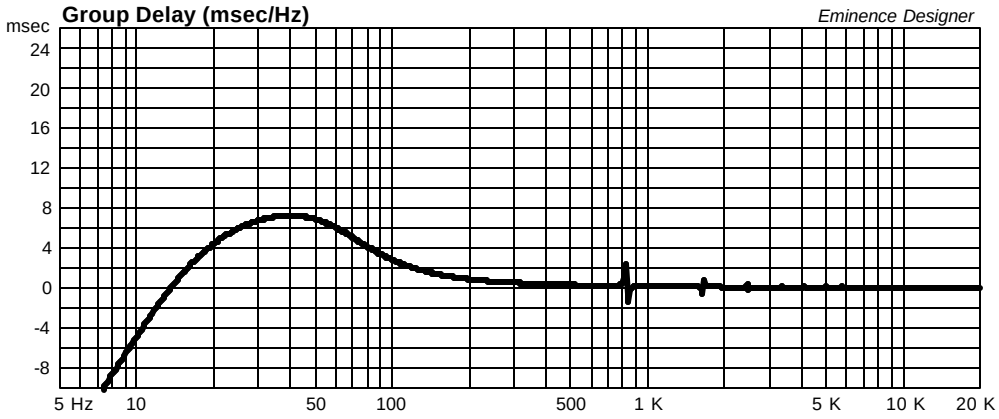


Vent Air Velocity (m/sec/Hz) with 125 watts *Eminence Designer*




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


Phase Response (deg/Hz)
Eminence Designer
deg
90
0
-90
±180
90
0
-90
±180
5 Hz
10
50
100
500
1 K
5 K
10 K
20 K


Group Delay (msec/Hz)
Eminence Designer
msec
24
20
16
12
8
4
0
-4
-8
5 Hz
10
50
100
500
1 K
5 K
10 K
20 K

KappaPro15A, Large Vented Cabinet for PA or Bass Guitar

By McJerry, Eminence Speaker LLC
Displacement limted to 75 watts if used full range. Displacement limited to 400 watts if used as a mid/high box crossed over at 150 Hz. Use a 35 Hz HPF if run full range.

Box Properties

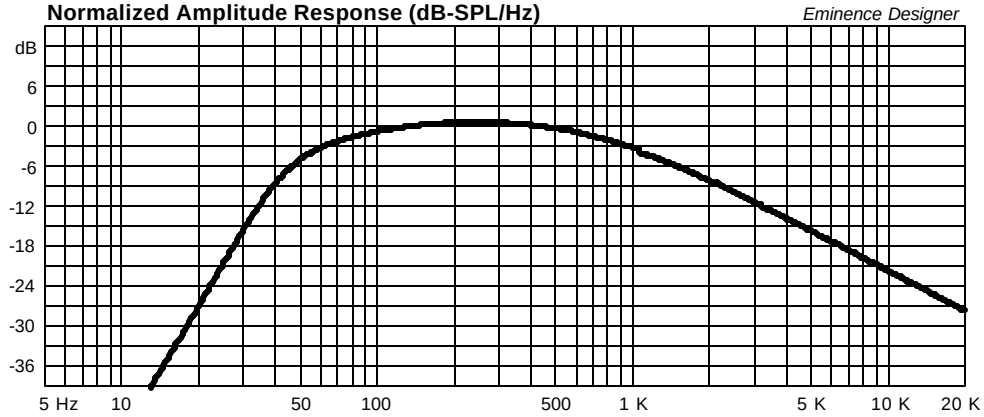
--Description--
Name:
Type: Vented Box
Shape: Prism, square (optimum)
--Box Parameters--
Vb = 6.25 cu.ft
V(total) = 6.415 cu.ft
Fb = 42 Hz
QL = 7
F3 = 62.14 Hz
Fill = minimal
--Vents--
No. of Vents = 2
Vent shape = round
Vent ends = one flush
Dv = 4 in
Lv = 1.633 in

Driver Properties

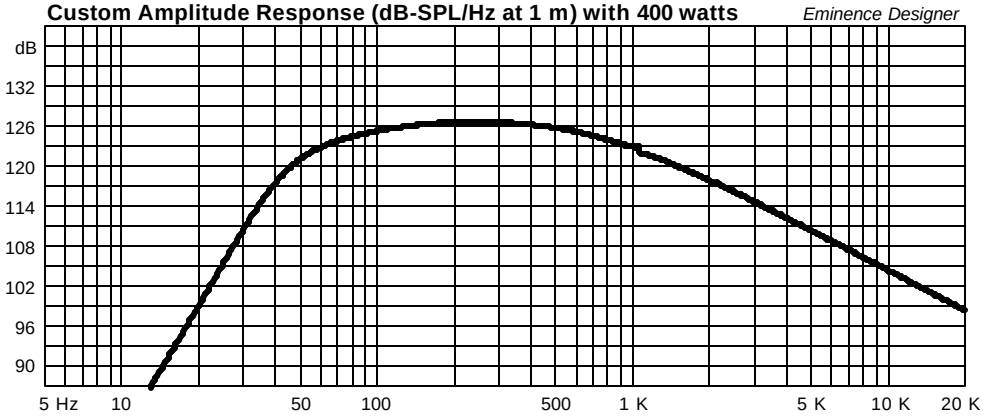
--Description--
Name: Kappa Pro-15
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: Revised NOV 2005
Piston: Ribbed paper cone.
Suspension: Cloth surround.
Dust Cap: Solid composition paper dust cap.
Frame: Diecast aluminum basket.
Voice Coil: 3 inch (76.2 mm) AL Wire Kapton former.
Magnet: 80 oz ferrite magnet.
--Configuration--
No. of Drivers = 1

--Mechanical Parameters--		*--Electrical Parameters--*	
Fs =	47 Hz	Qes =	0.4
Qms =	8.01	Re =	5.23 ohms
Vas =	167.7 liters	Le =	1.01 mH
Cms =	0.16 mm/N	Z =	8 ohms
Mms =	72 g	BL =	16.6 Tm
Rms =	2.62 kg/s	Pe =	500 watts
Xmax =	3.2 mm	*--Electromech. Parameters--*	
Xmech =	13.21 mm	Qts =	0.38
P-Dia =	330.7 mm	no =	4.197 %
Sd =	856.3 sq.cm	1-W SPL =	98.38 dB
P-Vd =	0.272 liters	2.83-V SPL =	100.2 dB

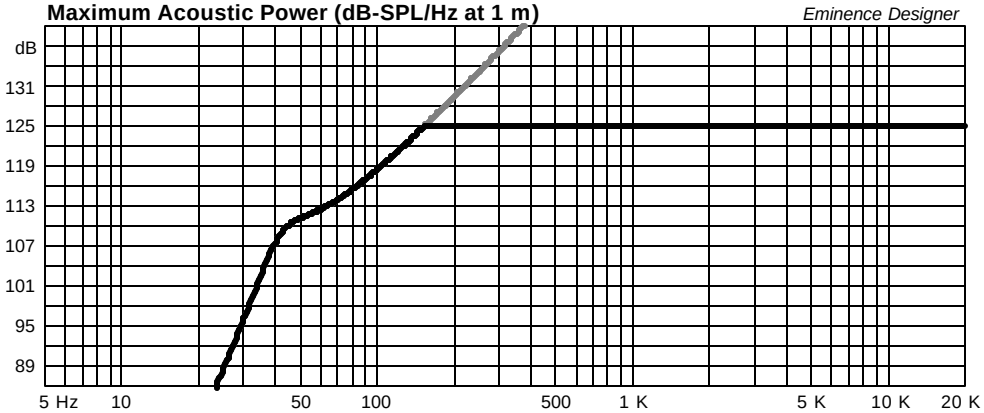
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



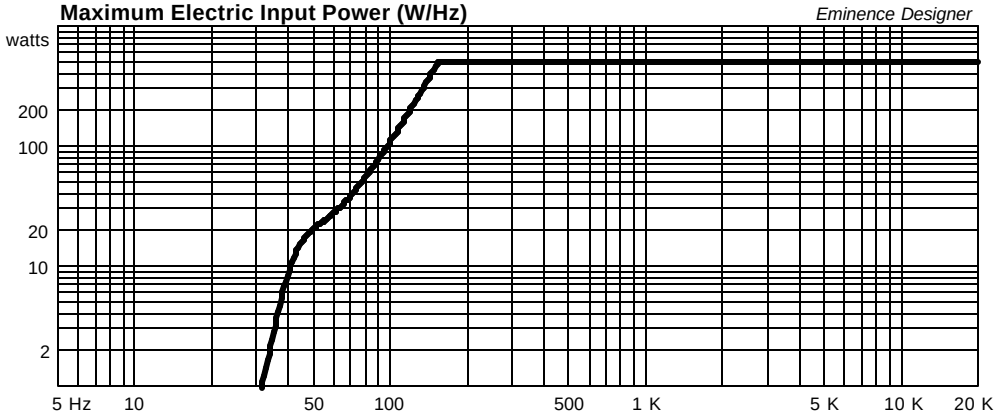
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 400 watts *Eminence Designer*



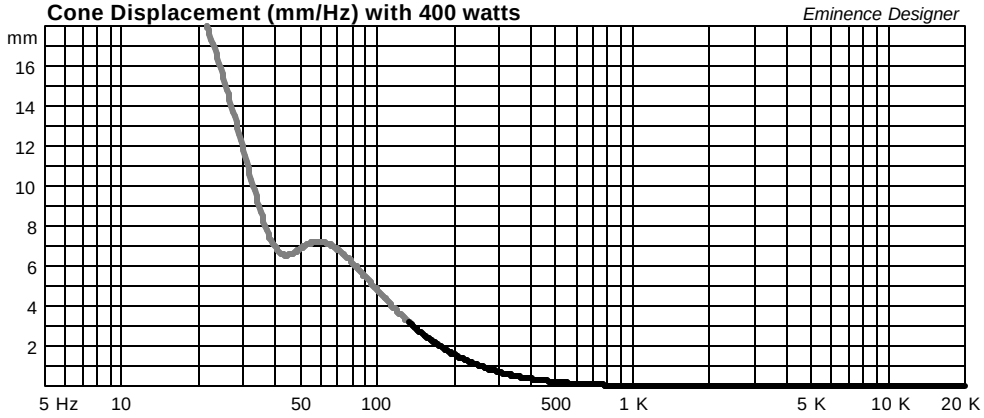
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



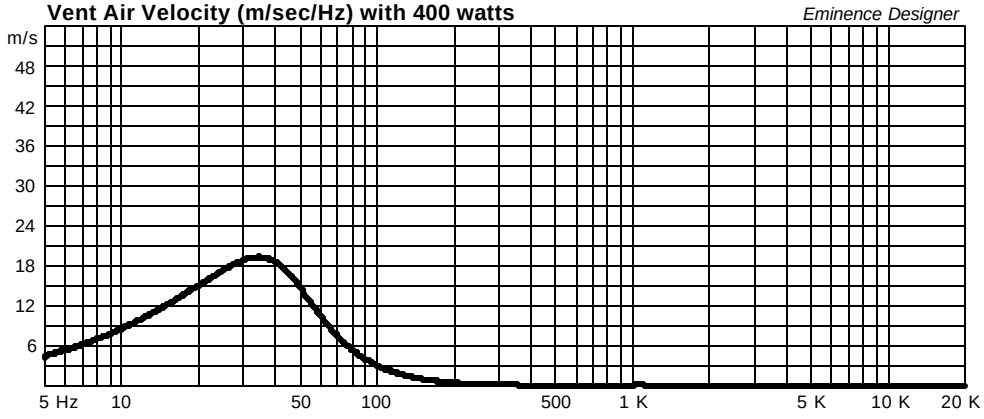
Maximum Electric Input Power (W/Hz) *Eminence Designer*

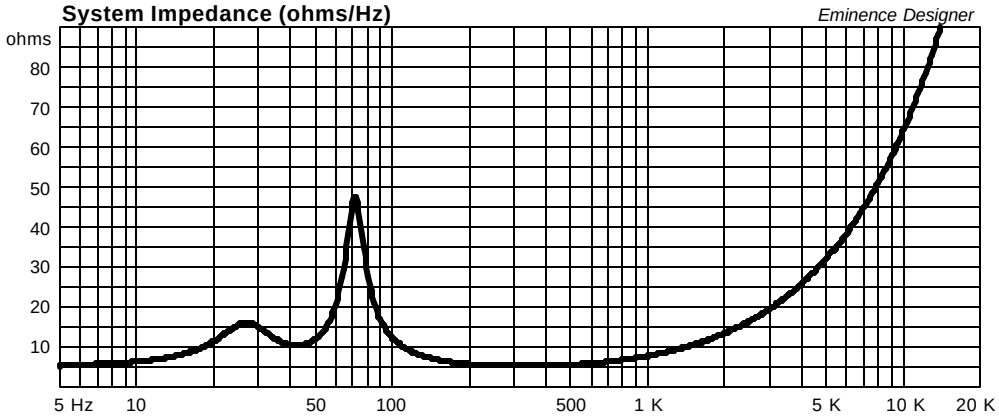


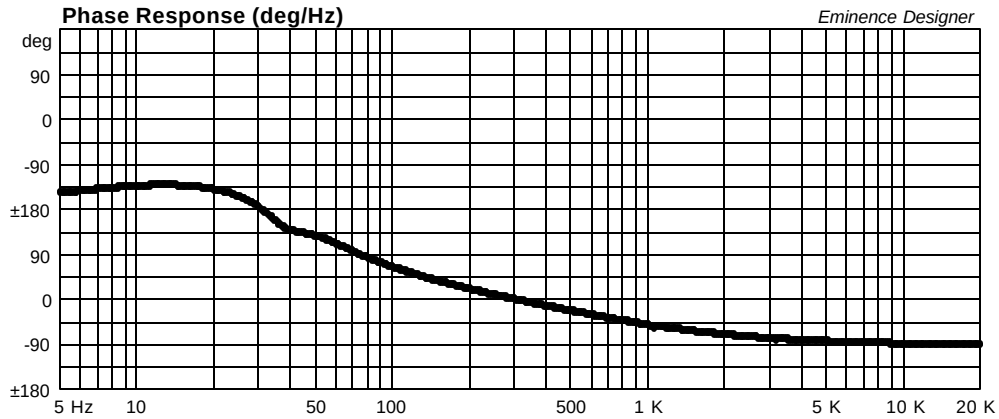
Cone Displacement (mm/Hz) with 400 watts *Eminence Designer*

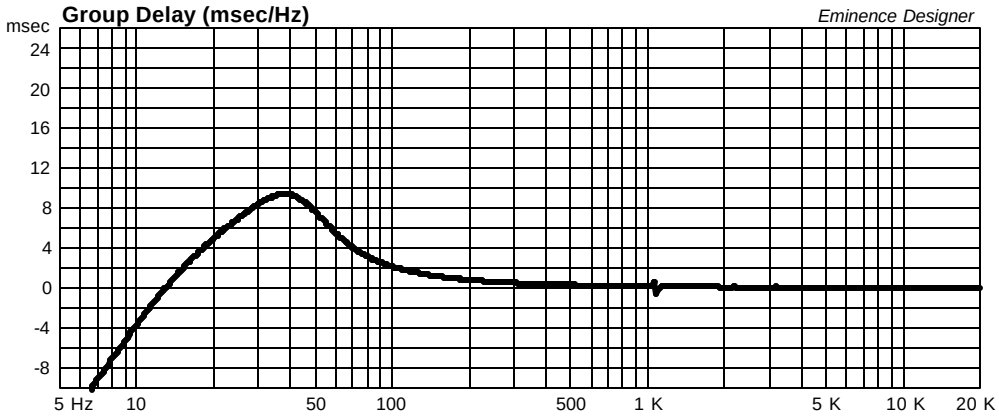


Vent Air Velocity (m/sec/Hz) with 400 watts *Eminence Designer*




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


Phase Response (deg/Hz)
Eminence Designer
deg
90
0
-90
±180
90
0
-90
±180
5 Hz
10
50
100
500
1 K
5 K
10 K
20 K


Group Delay (msec/Hz)
Eminence Designer
msec
24
20
16
12
8
4
0
-4
-8
5 Hz
10
50
100
500
1 K
5 K
10 K
20 K