Specification

Nominal Basket Diameter	12", 304.8mm
Nominal Impedance*	8 ohms
Power Rating**	
Watts	500W
Music Program	1000W
Resonance	37Hz
Usable Frequency Range***	57Hz-2.8kHz
Sensitivity	97.1
Magnet Weight	80 oz
Gap Height	0.375", 9.53mm
Voice Coil Diameter	3", 76.2mm

Thiele & Small Parameters

Resonant Frequency (fs)	37Hz
DC Resistance (Re)	5.46
Coil Inductance (Le)	1.22mH
Mechanical Q (Qms)	6.93
Electromagnetic Q (Qes)	0.25
Total Q (Qts)	0.24
Compliance Equivalent Volume (Vas)	121.0 ltr/4.3 cu. ft.
Peak Diaphragm Displacement Volume (Vd)	249cc
Mechanical Compliance of Suspension (Cms)	0.32mm/N
BL Product (BL)	17.3 T-M
Diaphragm Mass inc. Airload (Mms)	59 grams
Efficiency Bandwidth Product (EBP)	148
Maximum Linear Excursion (Xmax)	4.8mm
Surface Area of Cone (Sd)	519.5cm^2
Maximum Mechanical Limit (Xlim)	14.8mm

Mounting Information

Recommended Enclosure Volume	
Sealed	N/A
Vented	17-34 ltr/0.6-1.2 cu. ft.
Overall Diameter	12.38", 314.5mm
Baffle Hole Diameter	11.07", 281.1mm
Front Sealing Gasket	Fitted as Standard
Rear Sealing Gasket	Fitted as Standard
Mounting Holes Diameter	0.26", 6.5mm
Mounting Holes B.C.D.	11.57", 293.8mm
Depth	6.22", 158mm
Net Weight	16.6 lbs, 7.5 kg
Shipping Weight	18.4 lbs, 8.4 kg

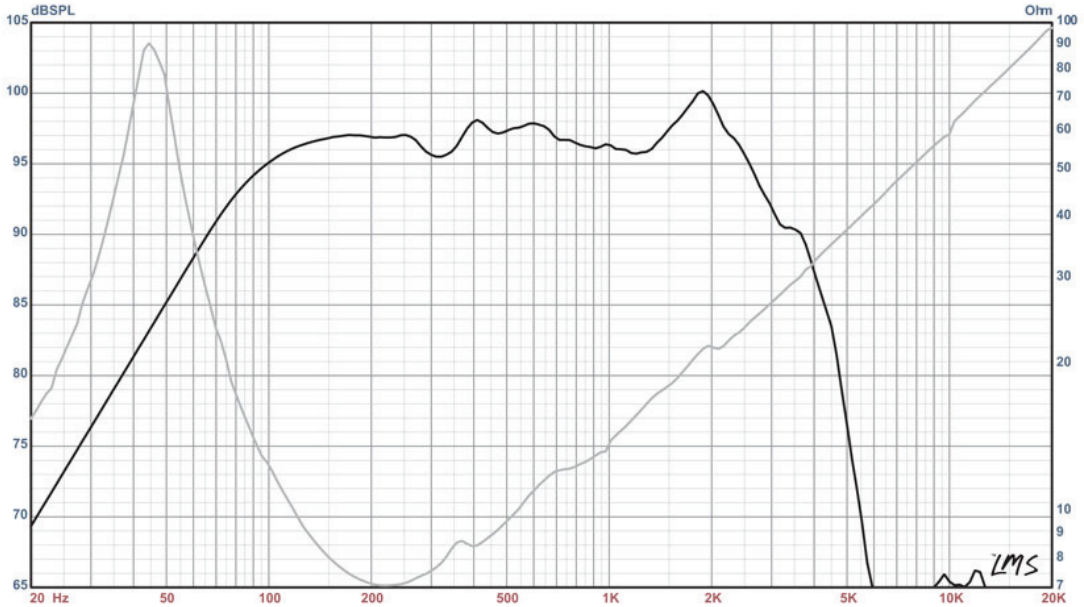
Materials of Construction

Coil Construction	Copper
Coil	Polyimide
Magnet Composition	Ferrite
Core Details	Vented
Basket Materials	Die-Cast Aluminum
Cone Composition	Paper
Cone Edge Composition	Cloth
Dust Cap Composition	Solid Composition Paper

EMINENCE®
The Art and Science of Sound

KAPPA PRO-12A Professional Series

Recommended for professional audio in a vented mid-bass, and vented bass enclosure incorporating a high-pass filter.



* Please inquire about alternative impedances.

** Multiple units exceed published rating evaluated under EIA 426A noise source and test standard while in a free-air, nontemperature-controlled environment.

*** The average output across the usable frequency range when applying 1W/1m into the nominal impedance. Ie: 2.83 V/8 ohms, 4 V/16 ohms.
Eminence response curves are measured under the following conditions: All speakers are tested at 1W/1m using a variety of test set-ups for the appropriate impedance | LMS using 0.25" supplied microphone (software calibrated) mounted 1m from wall/baffle | 2 ft. X 2 ft. baffle is built into the wall with the speaker mounted flush against a steel ring for minimum diffraction | Hafler P1500 Trans-Nova amplifier | 2700 cu.ft. chamber with fiberglass on all six surfaces (three with custom-made wedges)

KappaPro12A Larger Vented Box, Med Power, Med F3

By McJerry, Eminence Speaker LLC
Displacement limited to 300 watts. Must use a 24 dB per octave High Pass Filter set to 50 Hz or higher to protect driver from overexcursion.

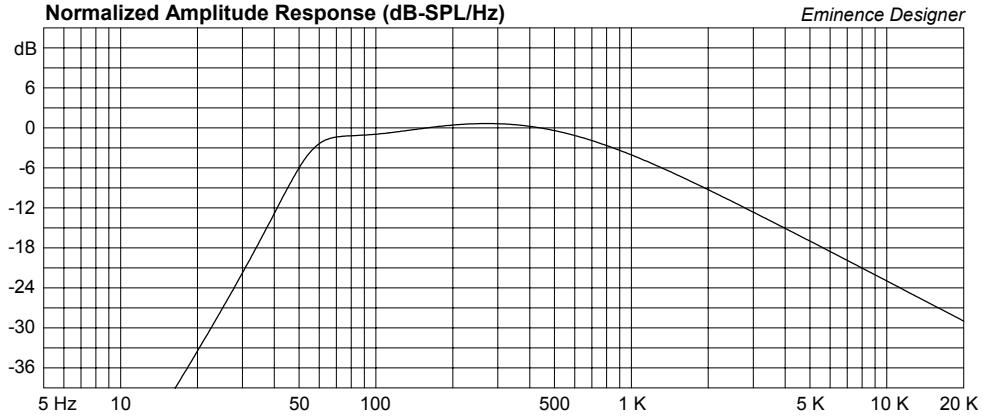
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square (optimum)
--Box Parameters--
Vb = 1.68 cu.ft
V(total) = 1.92 cu.ft
Fb = 55 Hz
QL = 7
F3 = 57.28 Hz
Fill = minimal
--Vents--
No. of Vents = 2
Vent shape = round
Vent ends = one flush
Dv = 4 in
Lv = 9.105 in

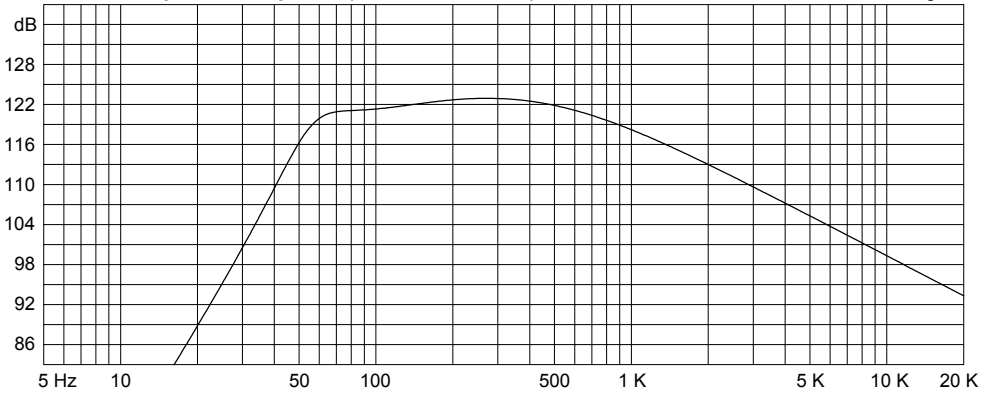
Driver Properties

--Description--
Name: Kappa Pro-12
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: Revised NOV 2005
Piston: Paper cone.
Suspension: Cloth surround.
Dust Cap: Solid paper dust cap.
Frame: Diecast aluminum basket.
Voice Coil: 3 inch (76.2 mm) copper.
Magnet: 80 oz ferrite magnet.
--Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 37 Hz
Qms = 6.93
Vas = 121 liters
Xmax = 4.8 mm
Sd = 519.5 sq.cm
Qes = 0.25
Re = 5.46 ohms
Le = 1.22 mH
Z = 8 ohms
Pe = 500 watts

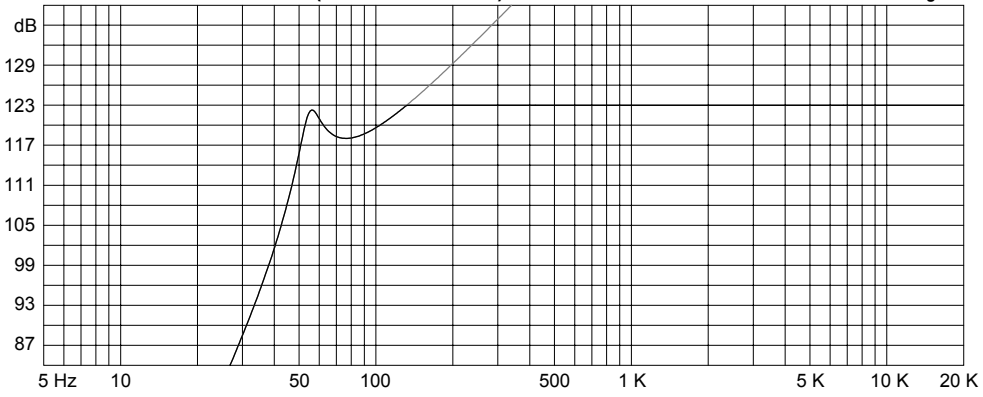
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



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

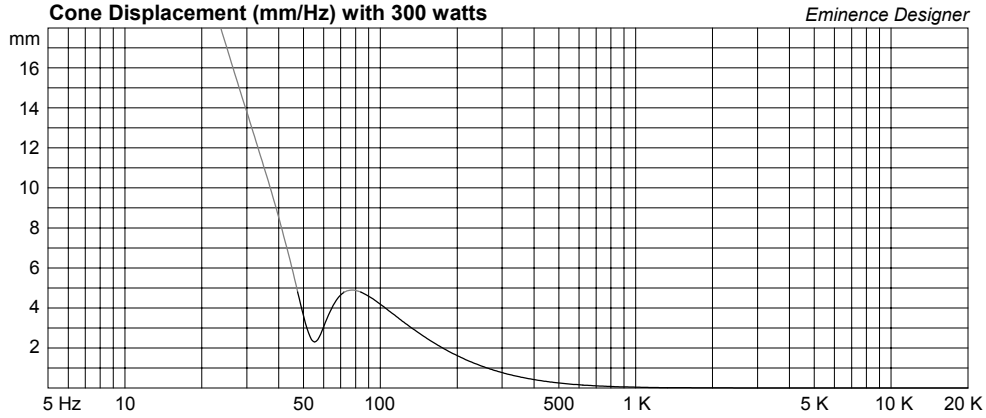


Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



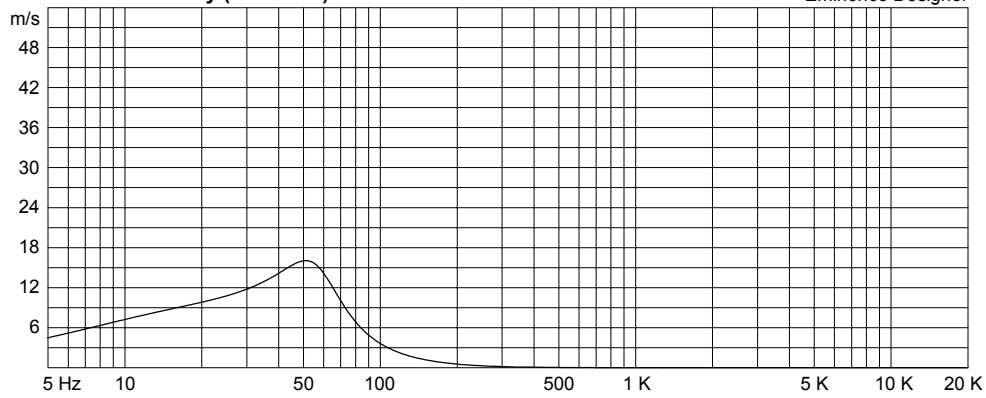
Cone Displacement (mm/Hz) with 300 watts

Eminence Designer



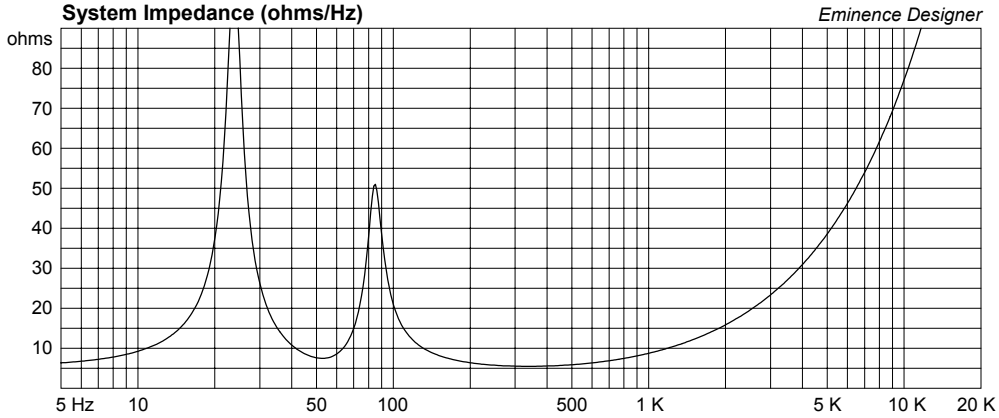
Vent Air Velocity (m/sec/Hz) with 300 watts

Eminence Designer



System Impedance (ohms/Hz)

Eminence Designer



KappaPro12A Med, Mid High Box, Use with a Sub

By McJerry, Eminence Speaker LLC

Displacement and thermally limited to 500 watts. Must use a 24 dB per octave High Pass Filter set to 100 Hz or higher to protect driver from overexcursion. Not a full range design. Must use a sub-woofer.

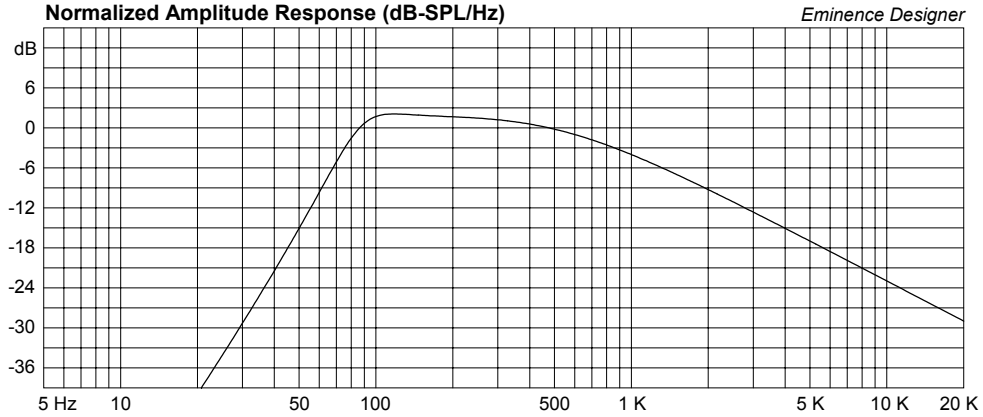
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square (optimum)
--Box Parameters--
Vb = 0.98 cu.ft
V(total) = 1.176 cu.ft
Fb = 80 Hz
QL = 7
F3 = 75.47 Hz
Fill = minimal
--Vents--
No. of Vents = 2
Vent shape = round
Vent ends = one flush
Dv = 4 in
Lv = 6.475 in

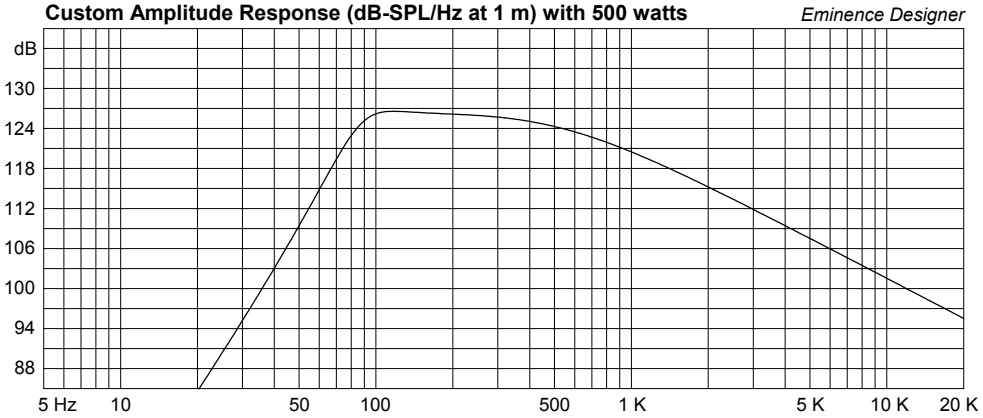
Driver Properties

--Description--
Name: Kappa Pro-12
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: Revised NOV 2005
Piston: Paper cone.
Suspension: Cloth surround.
Dust Cap: Solid paper dust cap.
Frame: Diecast aluminum basket.
Voice Coil: 3 inch (76.2 mm) copper.
Magnet: 80 oz ferrite magnet.
--Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 37 Hz
Qms = 6.93
Vas = 121 liters
Xmax = 4.8 mm
Sd = 519.5 sq.cm
Qes = 0.25
Re = 5.46 ohms
Le = 1.22 mH
Z = 8 ohms
Pe = 500 watts

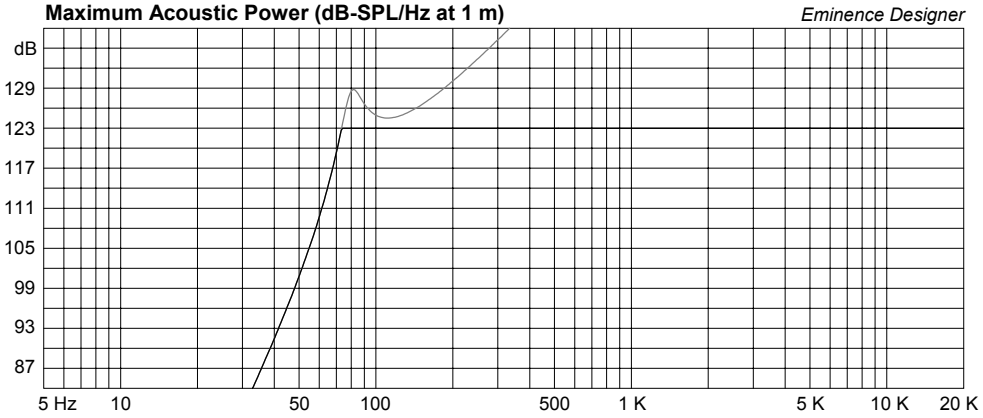
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



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

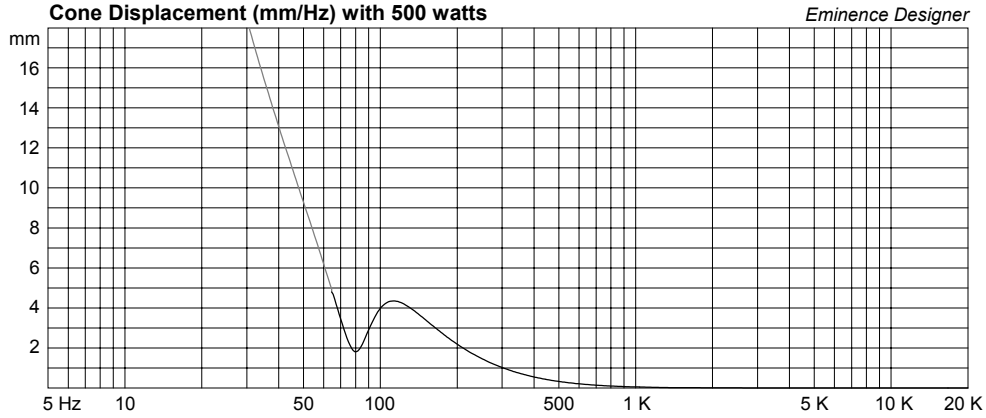


Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



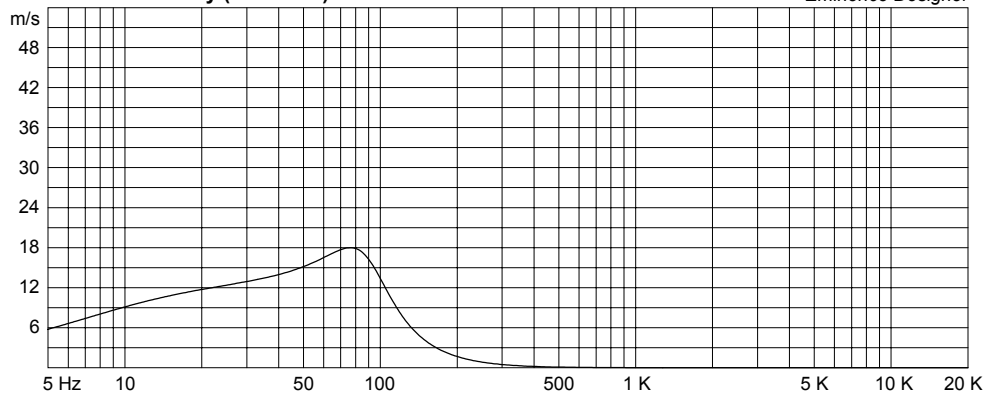
Cone Displacement (mm/Hz) with 500 watts

Eminence Designer



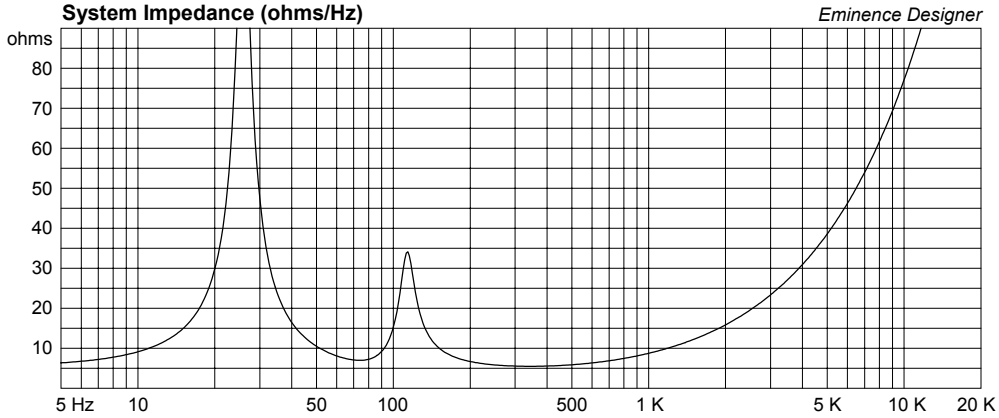
Vent Air Velocity (m/sec/Hz) with 500 watts

Eminence Designer



System Impedance (ohms/Hz)

Eminence Designer



KappaPro12A Small Mid High Box, Must use with a Sub!

By McJerry, Eminence Speaker LLC

Displacement and thermally limited to 500 watts. Must use a 24 dB per octave High Pass Filter set to 100 Hz or higher to protect driver from overexcursion. Not a full range design! Use with a good sub-woofer system.

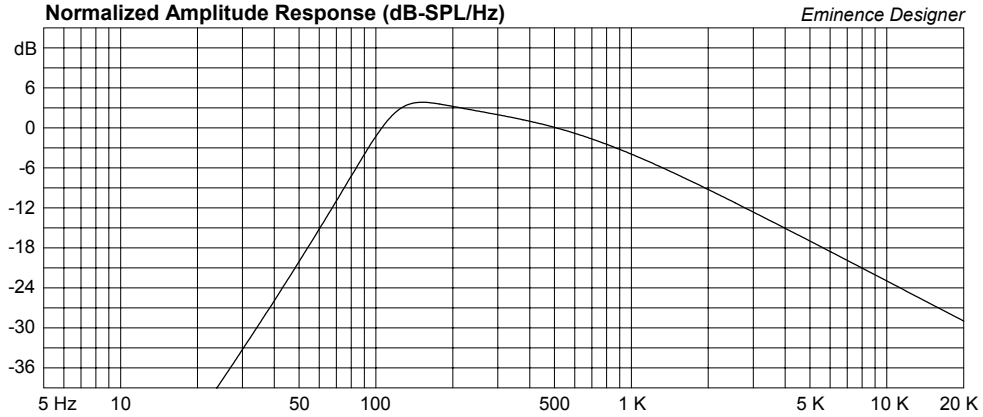
Box Properties

--Description--
Name:
Type: Vented Box
Shape: Prism, square
--Box Parameters--
Vb = 0.616 cu.ft
V(total) = 0.733 cu.ft
Fb = 100 Hz
QL = 7
F3 = 93.39 Hz
Fill = minimal
--Vents--
No. of Vents = 2
Vent shape = round
Vent ends = one flush
Dv = 3 in
Lv = 2.868 in

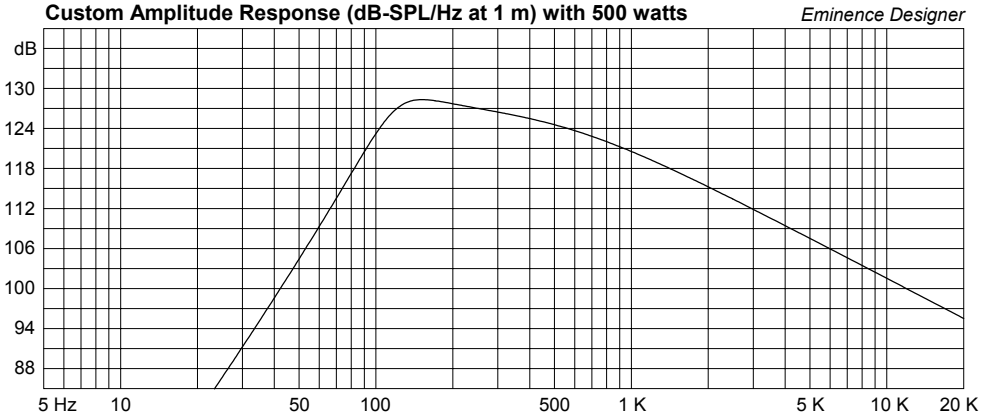
Driver Properties

--Description--
Name: Kappa Pro-12
Type: Standard one-way driver
Company: Eminence Speaker LLC
Comment: Revised NOV 2005
Piston: Paper cone.
Suspension: Cloth surround.
Dust Cap: Solid paper dust cap.
Frame: Diecast aluminum basket.
Voice Coil: 3 inch (76.2 mm) copper.
Magnet: 80 oz ferrite magnet.
--Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 37 Hz
Qms = 6.93
Vas = 121 liters
Xmax = 4.8 mm
Sd = 519.5 sq.cm
Qes = 0.25
Re = 5.46 ohms
Le = 1.22 mH
Z = 8 ohms
Pe = 500 watts

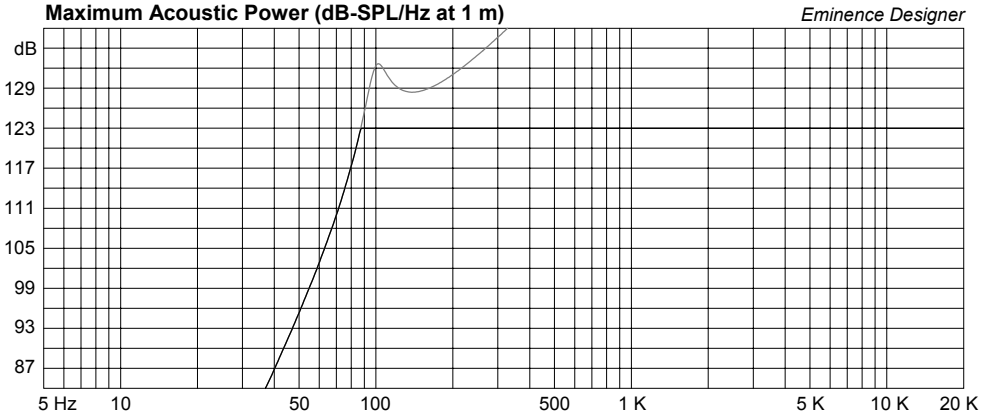
Normalized Amplitude Response (dB-SPL/Hz) *Eminence Designer*



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



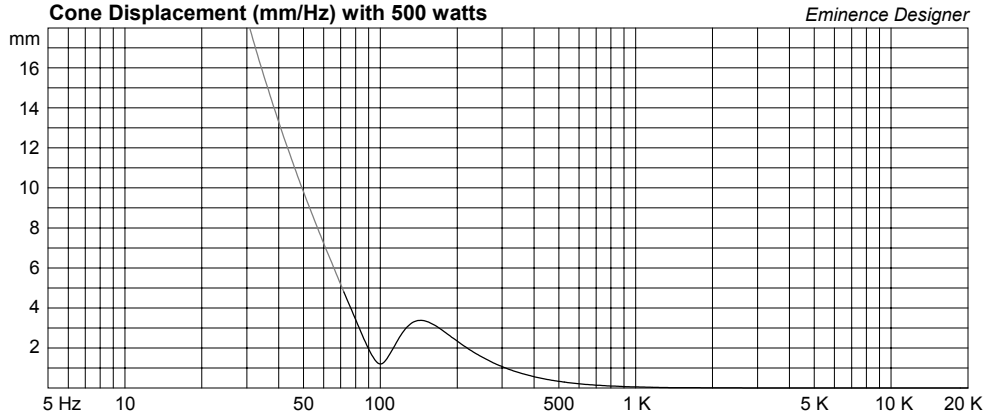
Maximum Acoustic Power (dB-SPL/Hz at 1 m) *Eminence Designer*



File: KappaPro12ASmallMidHighBox.bb6

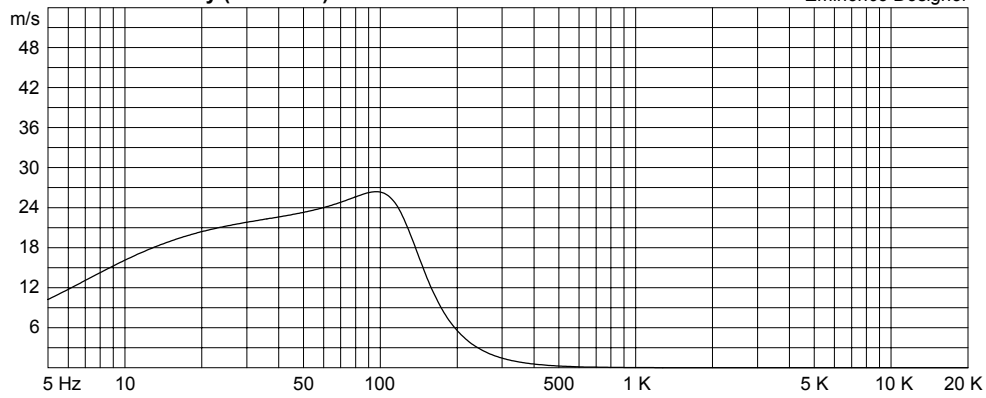
Cone Displacement (mm/Hz) with 500 watts

Eminence Designer



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

Eminence Designer



System Impedance (ohms/Hz)

Eminence Designer