

Specification

Nominal Basket Diameter	10", 254mm
Nominal Impedance*	8 ohms
Power Rating**	
Watts	250W
Music Program	500W
Resonance	48Hz
Usable Frequency Range***	58Hz-20kHz*
Sensitivity	95.1
Magnet Weight	38 oz.
Gap Height	0.312", 7.92mm
Voice Coil Diameter	2", 50.8mm

Thiele & Small Parameters

Resonant Frequency (fs)	48Hz
DC Resistance (Re)	5.53
Coil Inductance (Le)	0.75mH
Mechanical Q (Qms)	5.21
Electromagnetic Q (Qes)	0.43
Total Q (Qts)	0.39
Compliance Equivalent Volume (Vas)	64.2 liters / 2.3 cu.ft.
Peak Diaphragm Displacement Volume (Vd)	173cc
Mechanical Compliance of Suspension (Cms)	0.39mm/N
BL Product (BL)	10.4 T-M
Diaphragm Mass inc. Airload (Mms)	27 grams
Efficiency Bandwidth Product (EBP)	114
Maximum Linear Excursion (Xmax)	5.0mm
Surface Area of Cone (Sd)	344.9 cm ²
Maximum Mechanical Limit (Xlim)	7.6mm

Mounting Information

Recommended Enclosure Volume	
Sealed	14.2-19.8 liters/0.5-0.7 cu.ft.
Vented	15.6-85 liters/0.55-3 cu.ft.
Driver Volume Displaced	71.3 cu.in. / 1.17 liters
Overall Diameter	10.08", 256.1mm
Baffle Hole Diameter	9.05", 229.7mm
Front Sealing Gasket	Fitted as standard
Rear Sealing Gasket	Fitted as standard
Mounting Holes Diameter	0.25", 6.4mm
Mounting Holes B.C.D.	9.66", 245.4mm
Depth	3.98", 101mm
Net Weight	7.3 lbs., 3.3 kg
Shipping Weight	8.4 lbs., 3.8 kg

Materials of Construction

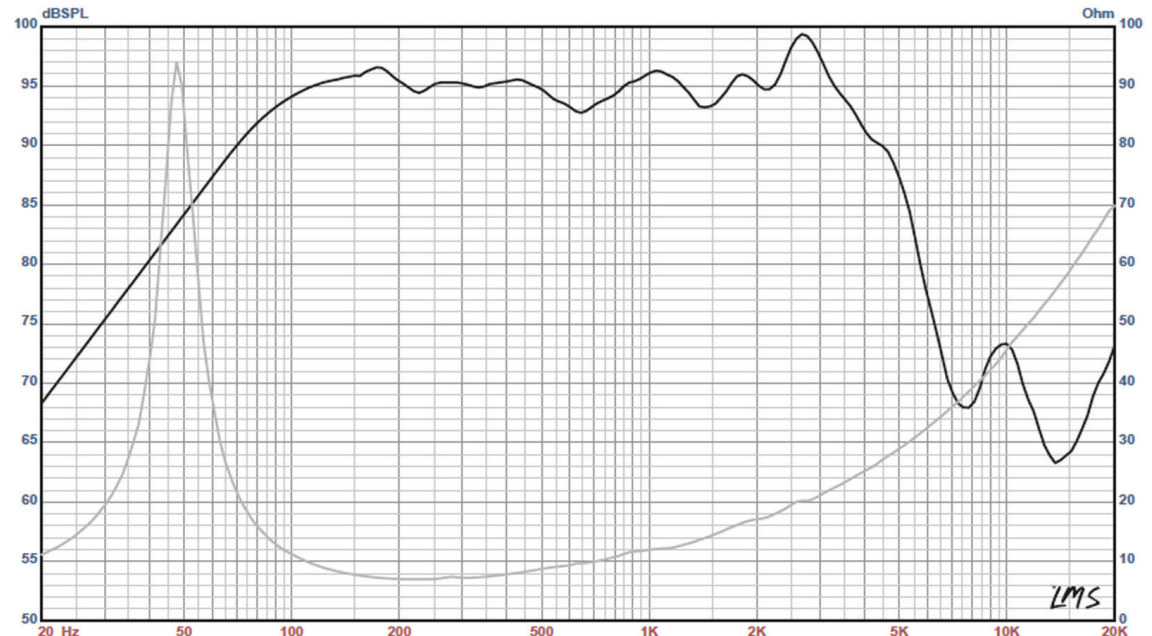
Copper voice coil
Polyimide former
Ferrite magnet
Vented and extended core
Pressed steel basket
Paper Cone
Cloth cone edge
Screened cloth dust cap



EMINENCE[®]
The Art and Science of Sound

BETA-10CX American Standard Series

Recommended for professional audio vocal wedges, or mid-bass in a sealed enclosure. Also works well in a vented enclosure as a satellite or monitor.



* Please inquire about alternative impedances.

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

*** The average output across the usable frequency range when applying 1W/1M into the nominal impedance. Ie: 2.83V/8ohms, 4V/16ohms.

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 | 2ft. X 2ft. 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)

Beta10CX Larger Hi Quality Studio Monitor Type Cab

By McJerry, Eminence Speaker LLC

Displacement Limited to 60 Watts; F3 of 67 Hz, with a very slow roll-off below that. Use a 30 Hz high pass filter if used full range.

Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 2.798 cu.ft

V(total) = 2.916 cu.ft

Fb = 35 Hz

QL = 7

F3 = 66.66 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 3 in

Lv = 7.992 in

Driver Properties

--Description--

Name: Beta-10CX - LF

Type: Two-way coaxial driver

Company: Eminence Speaker LLC

Comment: Revised NOV 2005

Piston: Paper cone.

Suspension: Cloth surround.

Dust Cap: Solid composition paper dust cap.

Frame: Pressed steel basket.

Voice Coil: 2 inch (50.8 mm) coated copper.

Magnet: 38 oz ferrite magnet.

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 48.85 Hz

Qms = 5.21

Vas = 64.2 liters

Xmax = 5 mm

Sd = 344.9 sq.cm

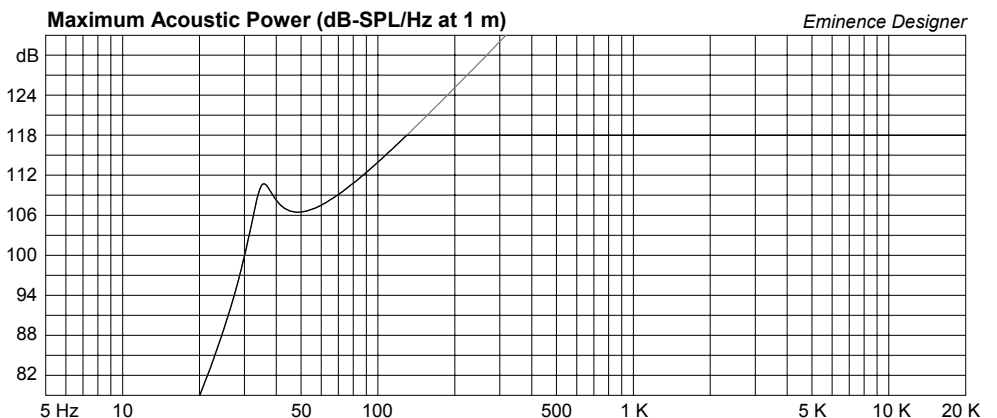
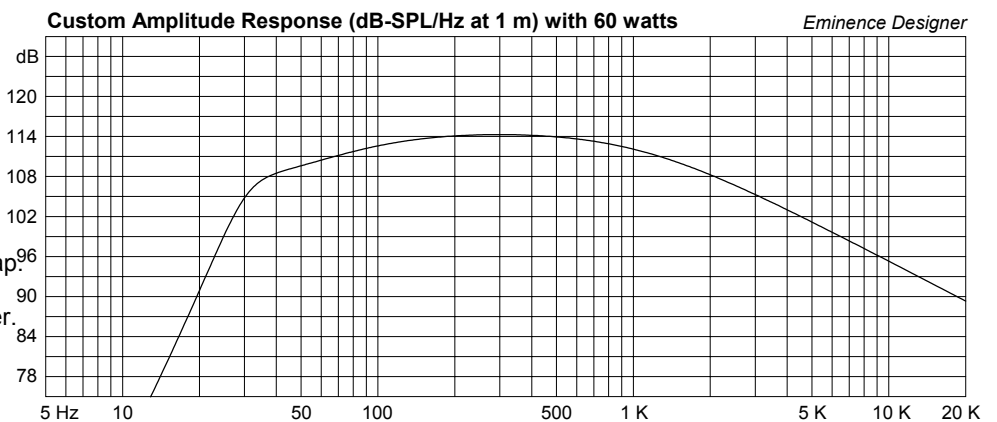
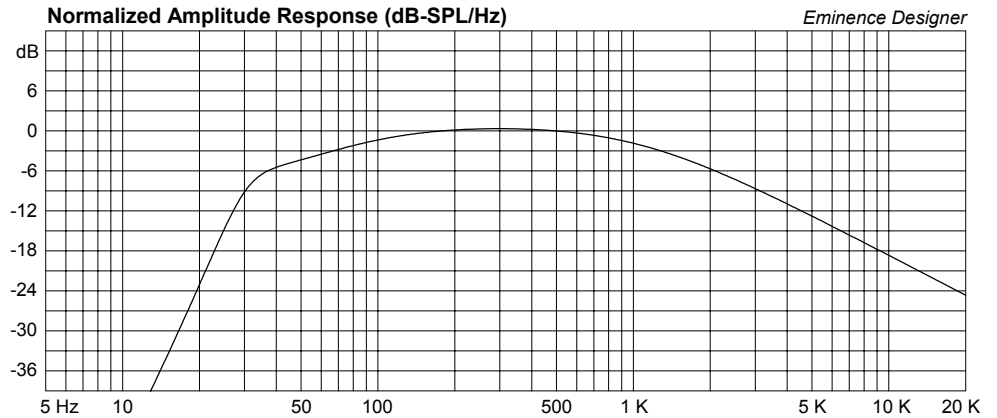
Qes = 0.43

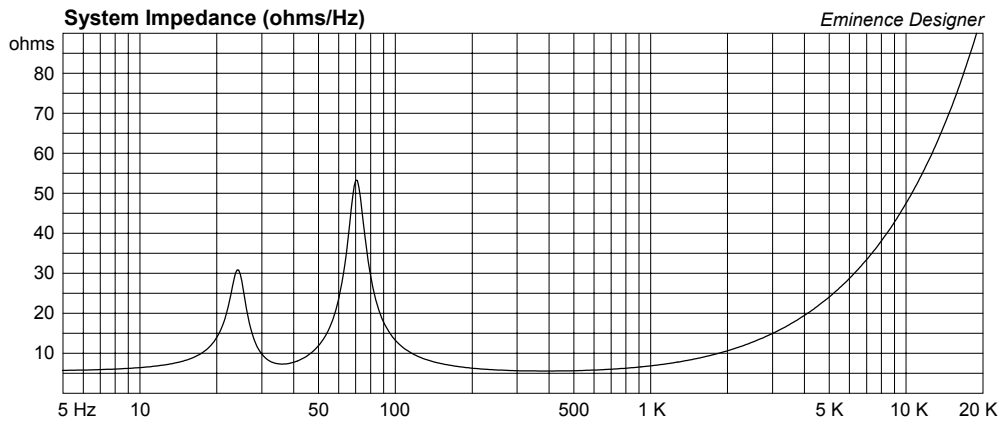
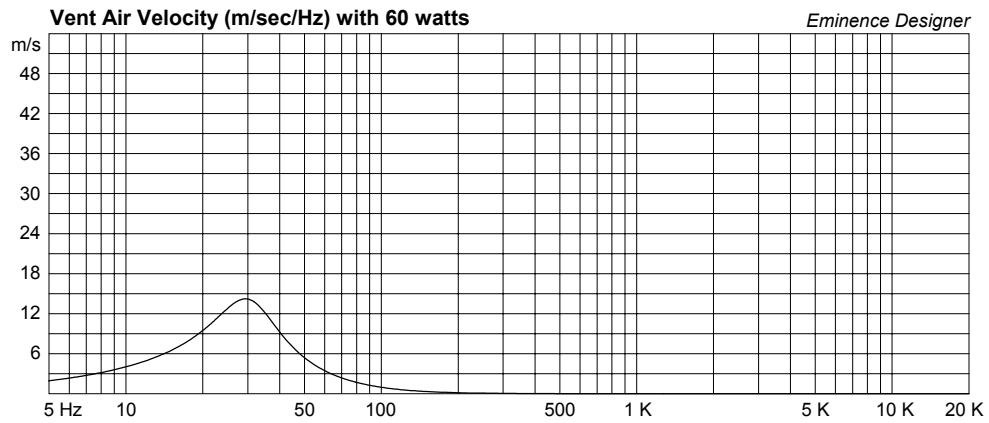
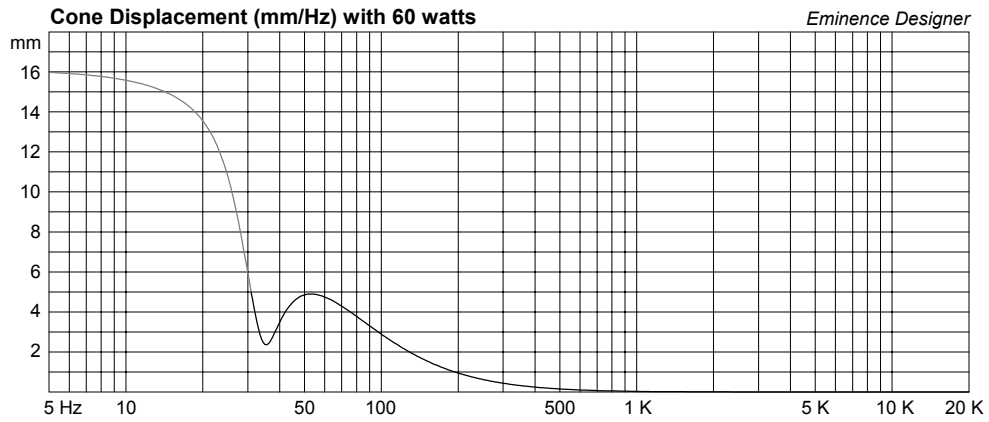
Re = 5.53 ohms

Le = 0.75 mH

Z = 8 ohms

Pe = 250 watts





Beta10CX Med Vented Cab; Semi FR PA or Monitor

By McJerry, Eminence Speaker LLC

Displacement Limited to 150 Watts; F3 of 57 Hz. Use a steep high pass filter set to 50 Hz.

Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 1.55 cu.ft

V(total) = 1.625 cu.ft

Fb = 60 Hz

QL = 7

F3 = 57.61 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 3 in

Lv = 3.534 in

Driver Properties

--Description--

Name: Beta-10CX - LF

Type: Two-way coaxial driver

Company: Eminence Speaker LLC

Comment: Revised NOV 2005

Piston: Paper cone.

Suspension: Cloth surround.

Dust Cap: Solid paper dust cap.

Frame: Pressed steel basket.

Voice Coil: 2 inch (50.8 mm) coated copper.

Magnet: 38 oz ferrite magnet.

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 48.85 Hz

Qms = 5.21

Vas = 64.2 liters

Xmax = 5 mm

Sd = 344.9 sq.cm

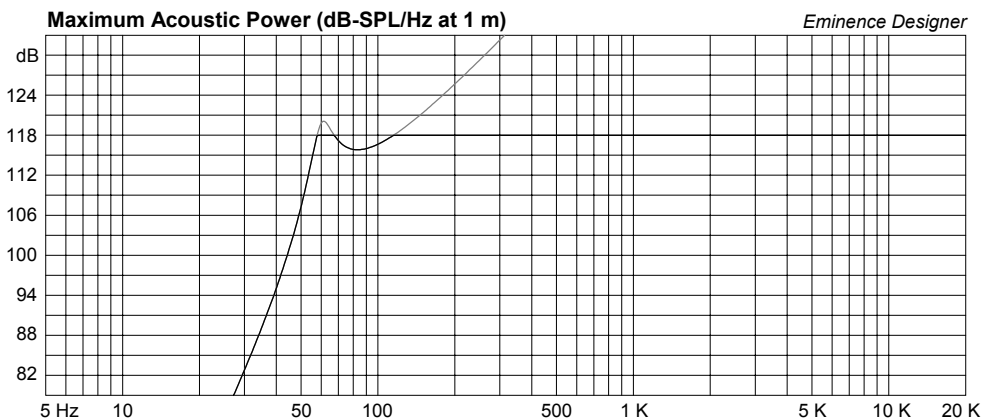
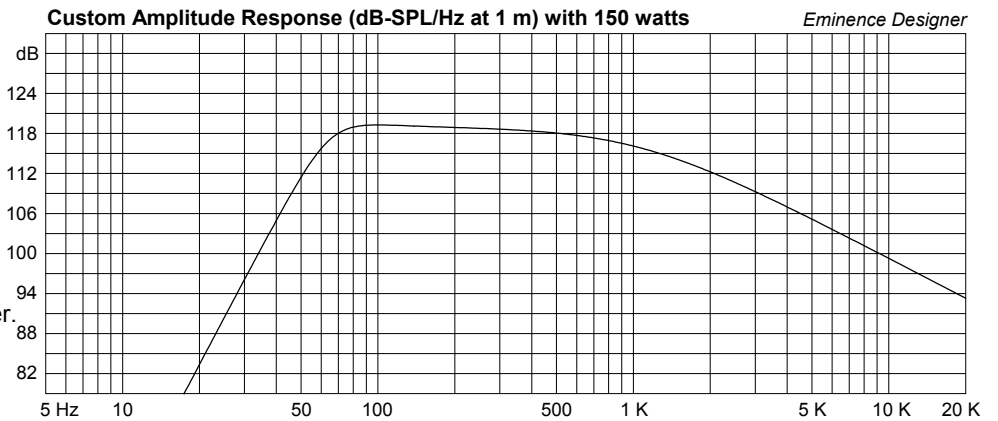
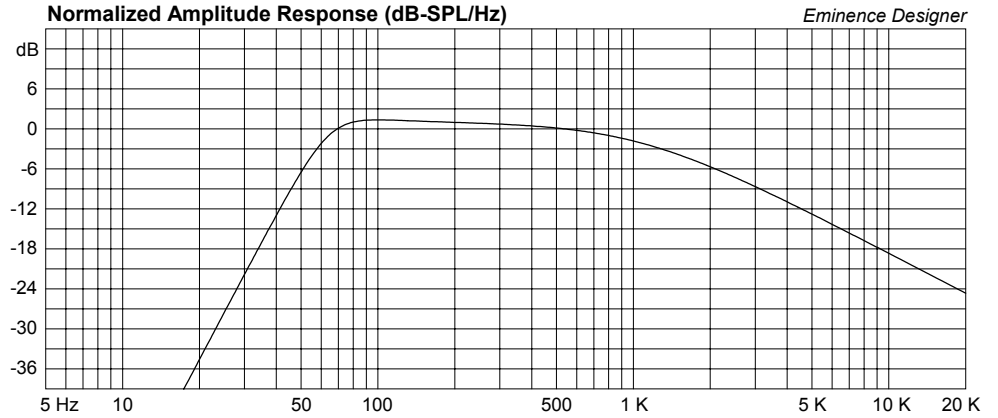
Qes = 0.43

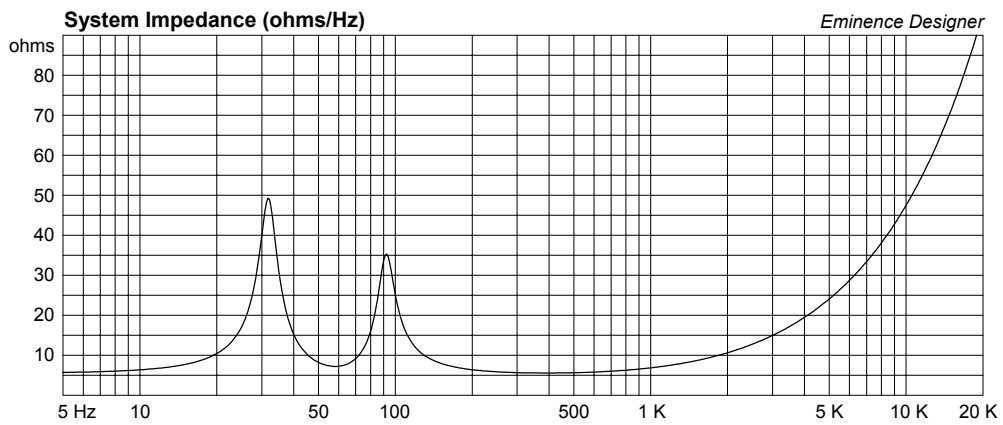
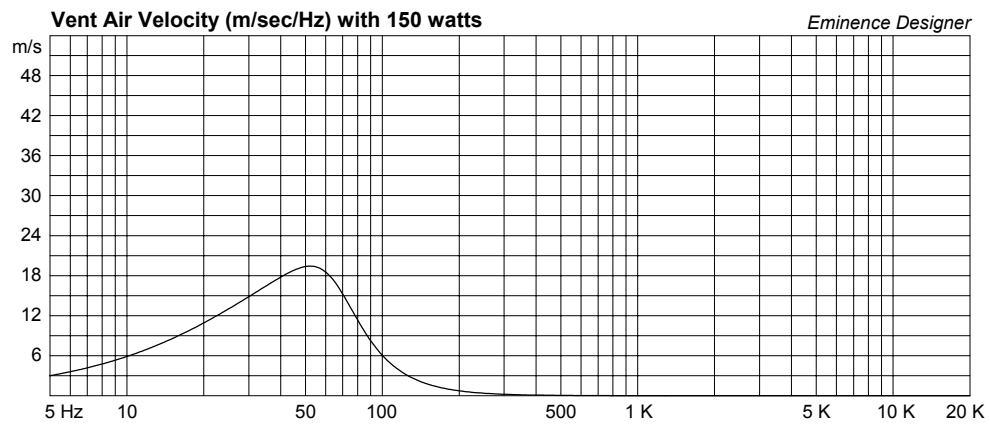
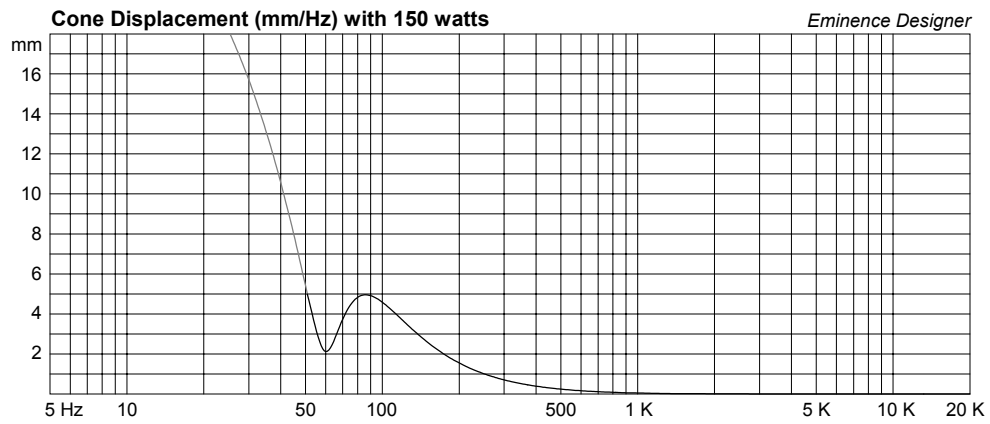
Re = 5.53 ohms

Le = 0.75 mH

Z = 8 ohms

Pe = 250 watts





Beta10CX Small Sealed Mid/Hi Sat or Vocal Wedge

By McJerry, Eminence Speaker LLC

Limited to 175 Watts; use a steep high pass filter above 140 Hz. Not for full range use. High Quality vocal monitor or Mid/Hi Sat cabinet.

Box Properties

--Description--

Name:

Type: Closed Box

Shape: Prism, square

--Box Parameters--

Vb = 0.5 cu.ft

V(total) = 0.541 cu.ft

Qtc = 0.703

QL = 20

F3 = 107 Hz

Fill = heavy

Driver Properties

--Description--

Name: Beta-10CX - LF

Type: Two-way coaxial driver

Company: Eminence Speaker LLC

Comment: Revised NOV 2005

Piston: Paper cone.

Suspension: Cloth surround.

Dust Cap: Solid paper dust cap.

Frame: Pressed steel basket.

Voice Coil: 2 inch (50.8 mm) coated copper.

Magnet: 38 oz ferrite magnet.

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 48.85 Hz

Qms = 5.21

Vas = 64.2 liters

Xmax = 5 mm

Sd = 344.9 sq.cm

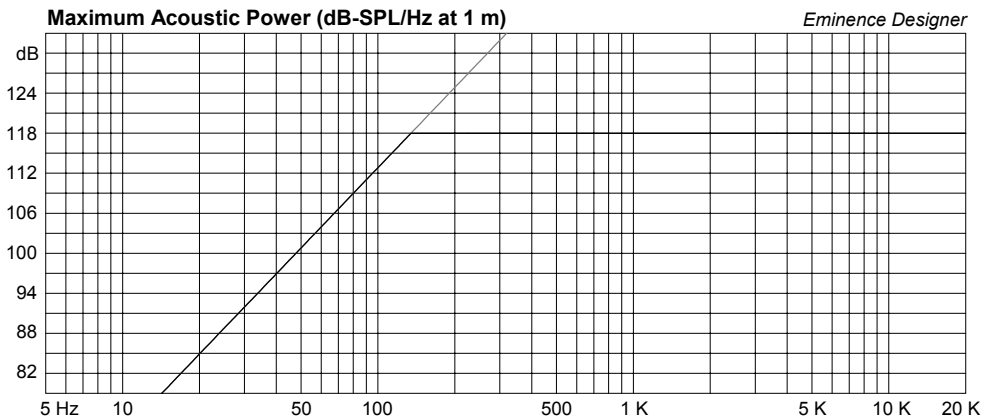
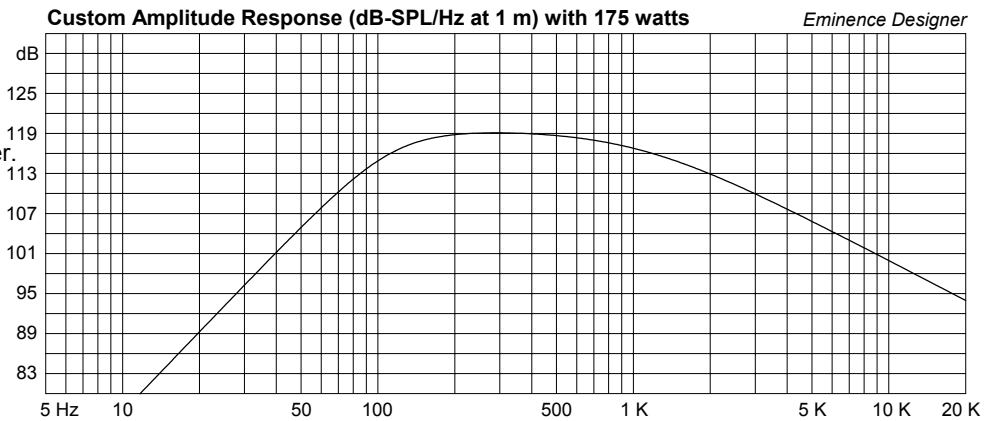
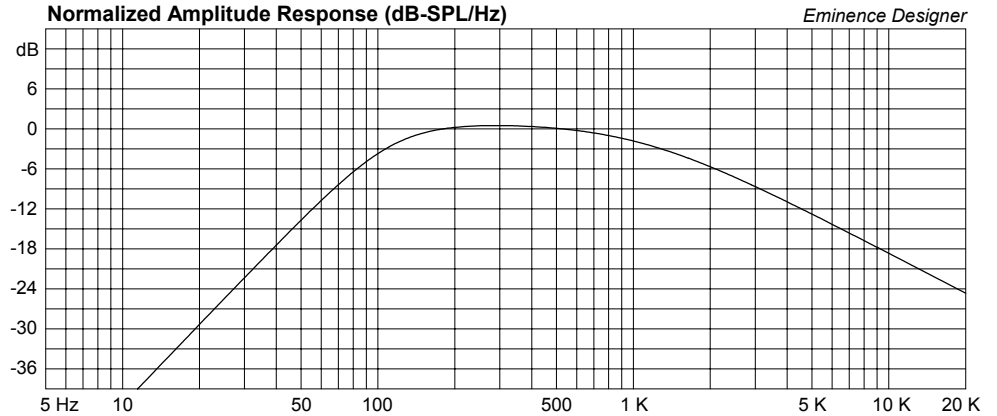
Qes = 0.43

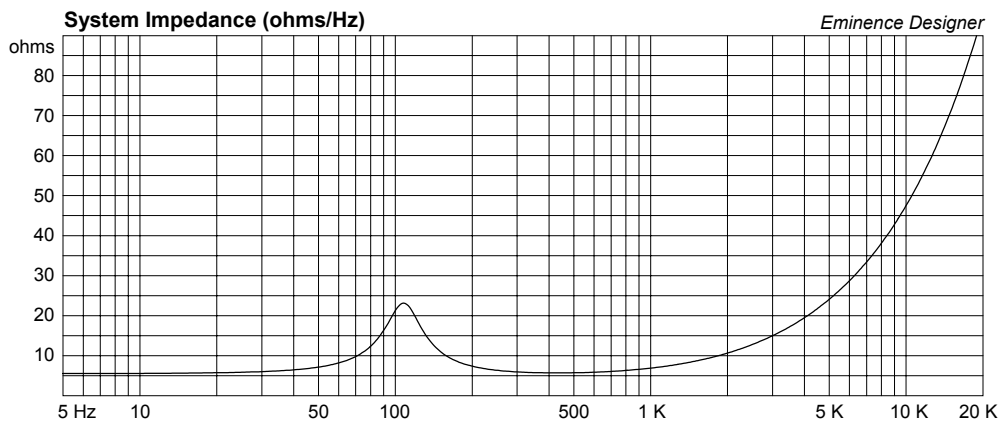
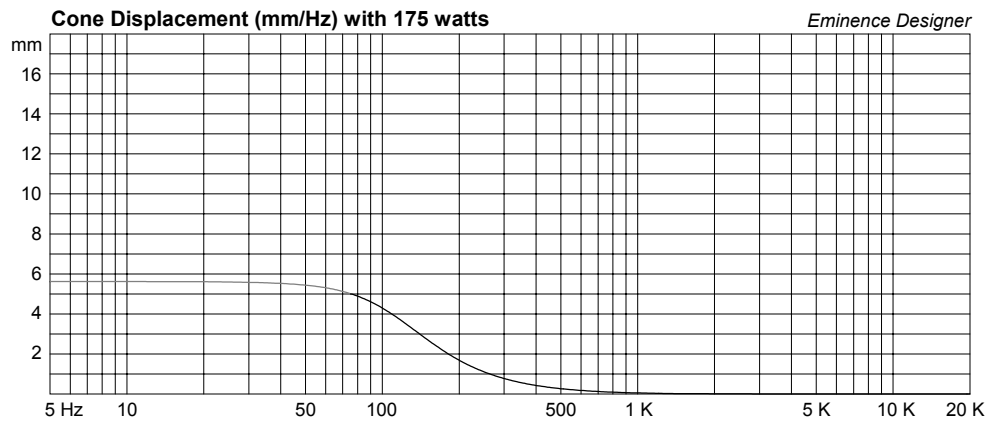
Re = 5.53 ohms

Le = 0.75 mH

Z = 8 ohms

Pe = 250 watts





Beta10CX Small Vented Hi Pwr Mid/Hi Sat or Vocal Wedge

By McJerry, Eminence Speaker LLC

Thermally Limited to 250 Watts; F3 of 92 Hz. Use a high pass filter set to 100 Hz or higher.

Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 0.478 cu.ft

V(total) = 0.569 cu.ft

Fb = 75 Hz

QL = 7

F3 = 91.46 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 2.5 in

Lv = 7.267 in

Driver Properties

--Description--

Name: Beta-10CX - LF

Type: Two-way coaxial driver

Company: Eminence Speaker LLC

Comment: Revised NOV 2005

Piston: Paper cone.

Suspension: Cloth surround.

Dust Cap: Solid paper dust cap.

Frame: Pressed steel basket.

Voice Coil: 2 inch (50.8 mm) coated copper.

Magnet: 38 oz ferrite magnet.

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 48.85 Hz

Qms = 5.21

Vas = 64.2 liters

Xmax = 5 mm

Sd = 344.9 sq.cm

Qes = 0.43

Re = 5.53 ohms

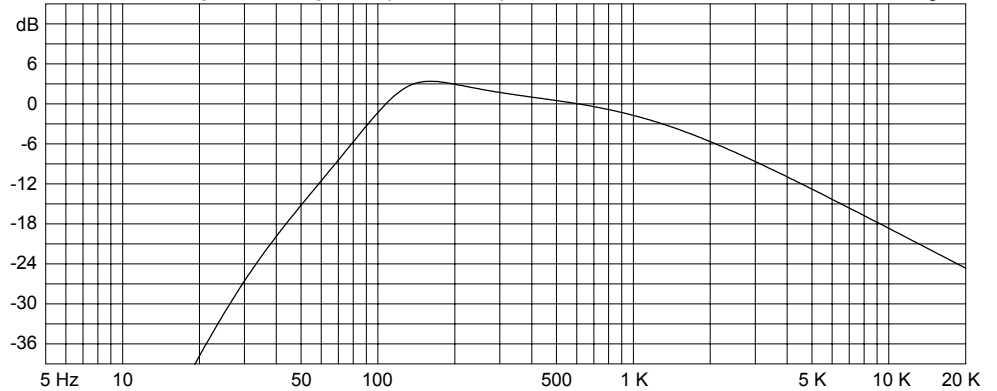
Le = 0.75 mH

Z = 8 ohms

Pe = 250 watts

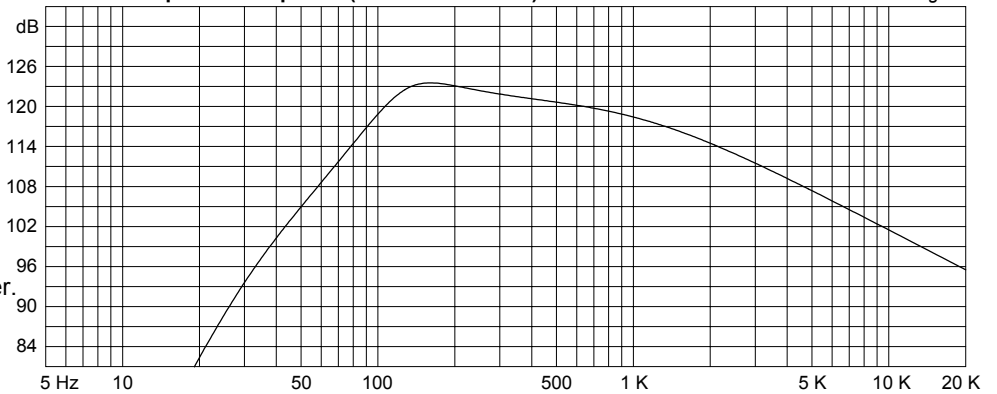
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 250 watts

Eminence Designer



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

Eminence Designer

