

Specification

Nominal Basket Diameter	15", 381mm
Nominal Impedance*	8 ohms
Power Rating**	
Watts	300W
Music Program	600W
Resonance	35Hz
Usable Frequency Range***	45Hz-3.7kHz
Sensitivity	98.2
Magnet Weight	34 oz
Gap Height	0.312", 7.92mm
Voice Coil Diameter	2", 50.8mm

Thiele & Small Parameters

Resonant Frequency (fs)	35Hz
DC Resistance (Re)	6.32
Coil Inductance (Le)	1.10mH
Mechanical Q (Qms)	8.10
Electromagnetic Q (Qes)	0.63
Total Q (Qts)	0.58
Compliance Equivalent Volume (Vas)	334.6 ltr/11.8 cu. ft.
Peak Diaphragm Displacement Volume (Vd)	330cc
Mechanical Compliance of Suspension (Cms)	0.35mm/N
BL Product (BL)	11.5 T-M
Diaphragm Mass inc. Airlod (Mms)	60 grams
Efficiency Bandwidth Product (EBP)	56
Maximum Linear Excursion (Xmax)	4.0mm
Surface Area of Cone (Sd)	823.7cm ²
Maximum Mechanical Limit (Xlim)	11.6mm

Mounting Information

Recommended Enclosure Volume	
Sealed	45-62 ltr/1.6-2.2 cu. ft.
Vented	99-175.6 ltr/3.5-6.2 cu. ft.
Overall Diameter	15.15", 384.8mm
Baffle Hole Diameter	13.77", 349.6mm
Front Sealing Gasket	Fitted as Standard
Rear Sealing Gasket	Fitted as Standard
Mounting Holes Diameter	0.25", 6.4mm
Mounting Holes B.C.D.	14.56", 369.9mm
Depth	6.05", 154mm
Net Weight	8.8 lbs, 4 kg
Shipping Weight	10.8 lbs, 4.9 kg

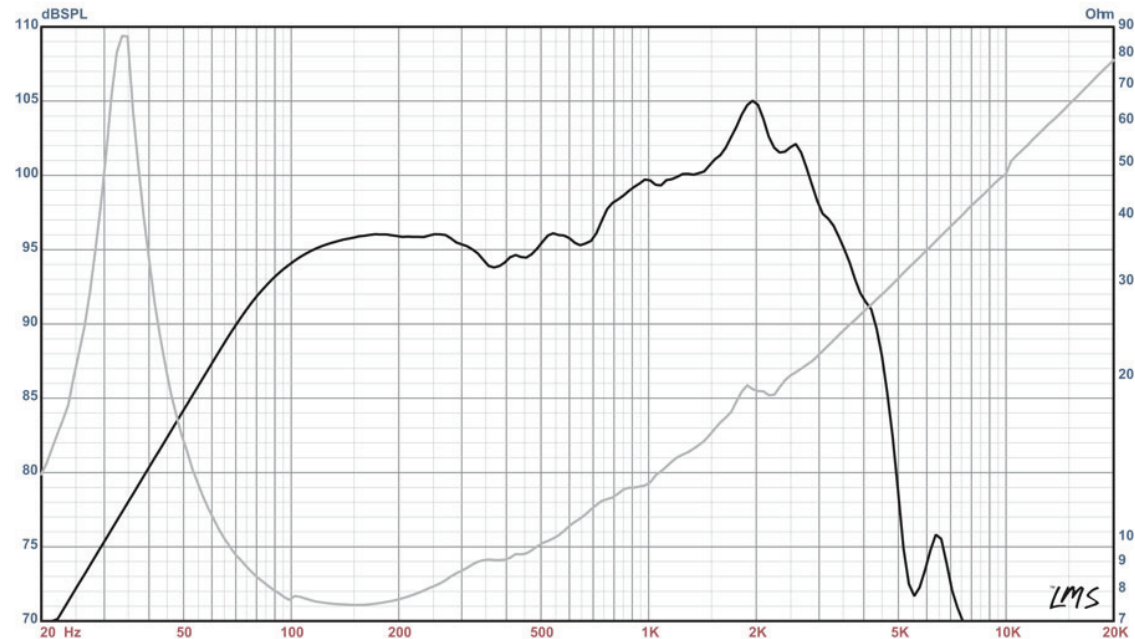
Materials of Construction

Coil Construction	Copper
Coil	Polyimide
Magnet Composition	Ferrite
Core Details	Vented And Extended
Basket Materials	Pressed Steel
Cone Composition	Paper
Cone Edge Composition	Cloth
Dust Cap Composition	Solid Composition Paper



BETA-15A American Standard Series

Recommended for professional audio as a woofer in sealed and vented enclosures.



* 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)

Beta15A Large Vented Woofer Enclosure

By McJerry, Eminence Speaker LLC

Displacement Limited to 100 Watts; use above 40 Hz.

Will require EQ for flat playback.

Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 6 cu.ft

V(total) = 6.133 cu.ft

Fb = 47.79 Hz

QL = 7

F3 = 44.78 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 4.25 in

Lv = 0.75 in

Driver Properties

--Description--

Name: Beta-15

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: Revised OCT 2005

Piston: Ribbed 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 = 35 Hz

Qms = 8.1

Vas = 334.6 liters

Xmax = 4 mm

Sd = 823.7 sq.cm

Qes = 0.63

Re = 6.32 ohms

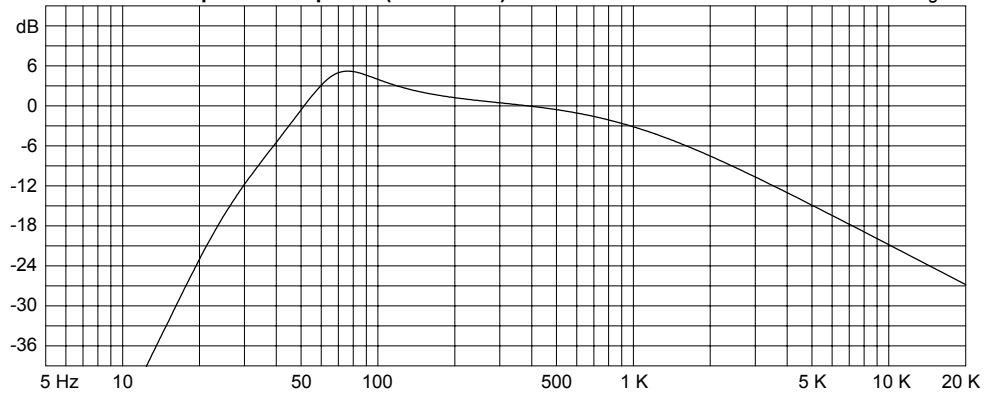
Le = 1.1 mH

Z = 8 ohms

Pe = 350 watts

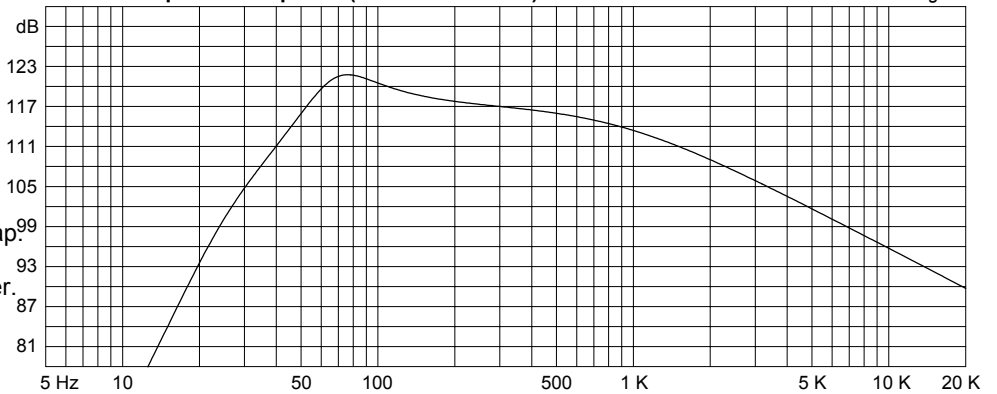
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



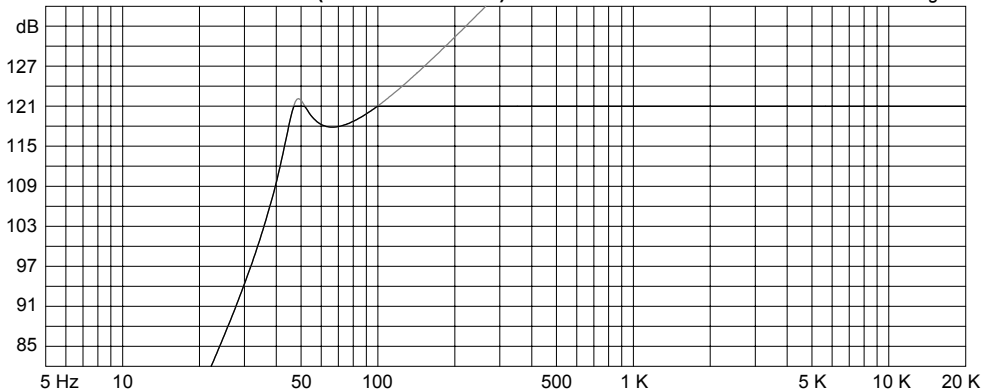
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 100 watts

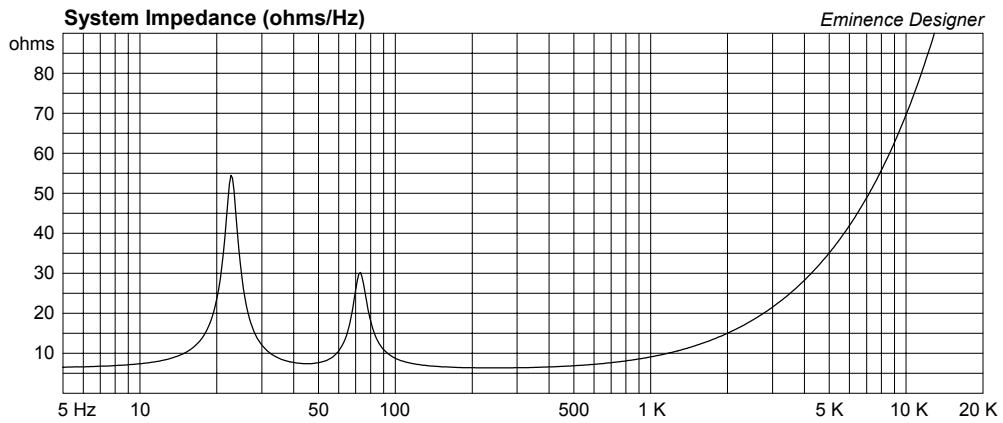
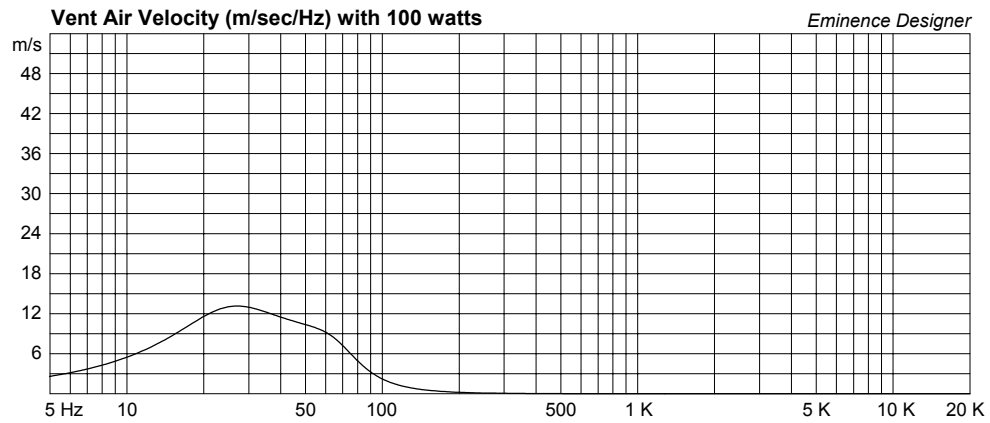
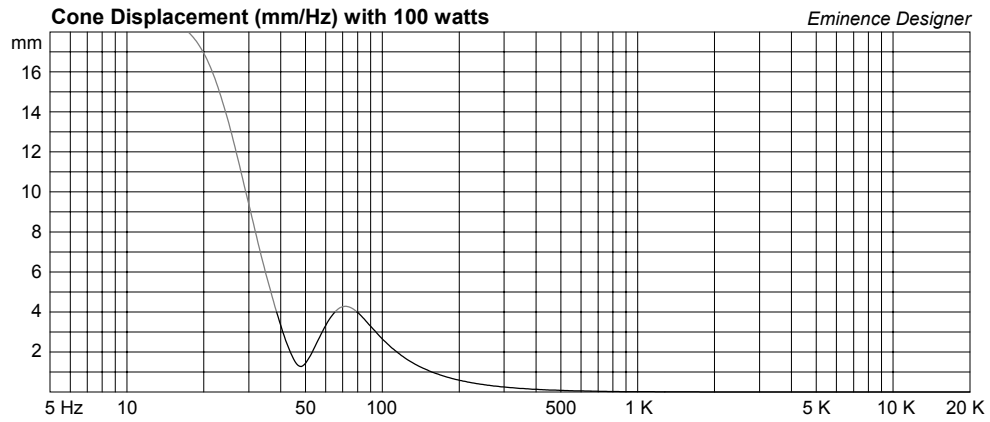
Eminence Designer



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

Eminence Designer





Beta15A Sealed Semi-Full Range Enclosure

By McJerry, Eminence Speaker LLC

Displacement Limited to 175 Watts; use above 70 Hz.

Good Floor Monitor or as a general voice PA cabinet.

Box Properties

--Description--

Name:

Type: Closed Box

Shape: Prism, square

--Box Parameters--

Vb = 1.75 cu.ft

V(total) = 1.869 cu.ft

Qtc = 1.018

QL = 8.85

F3 = 70.73 Hz

Fill = heavy

Driver Properties

--Description--

Name: Beta-15

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: Revised OCT 2005

Piston: Ribbed 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 = 35 Hz

Qms = 8.1

Vas = 334.6 liters

Xmax = 4 mm

Sd = 823.7 sq.cm

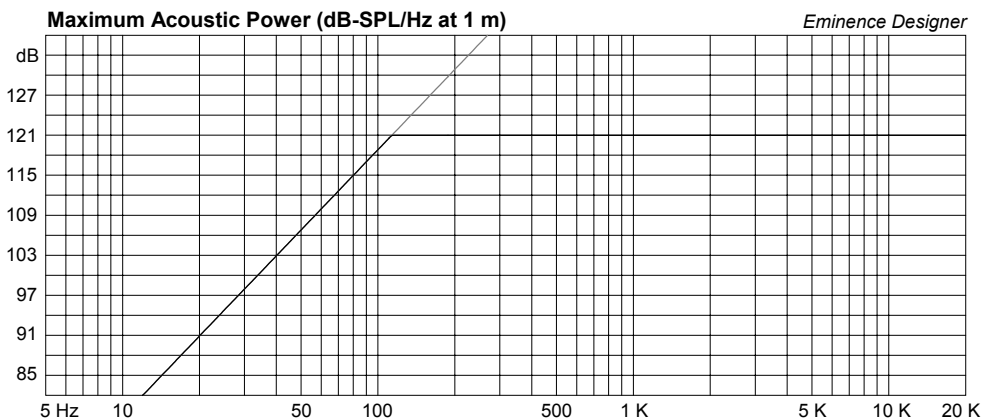
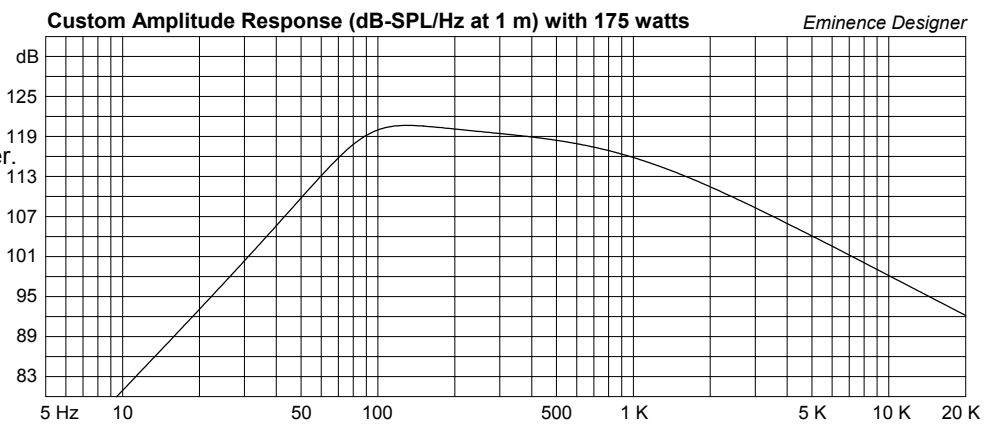
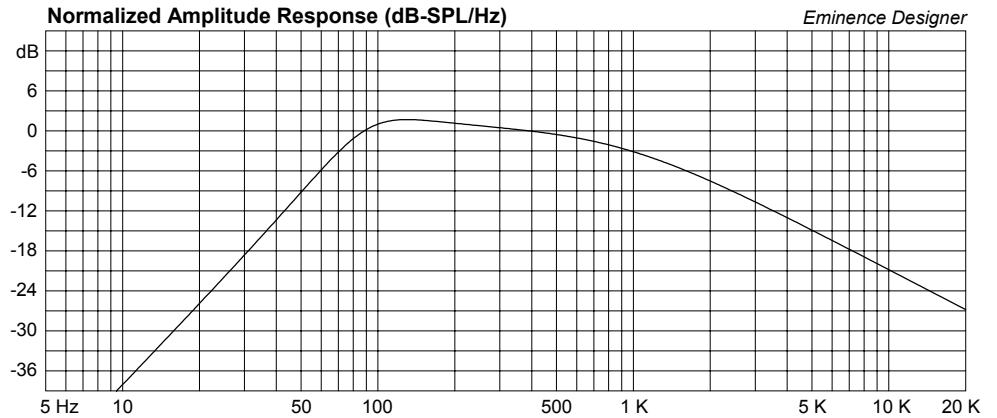
Qes = 0.63

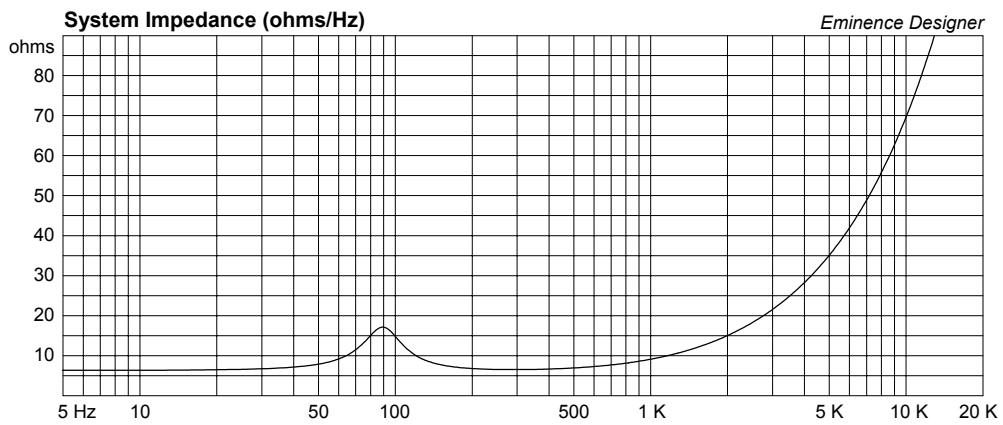
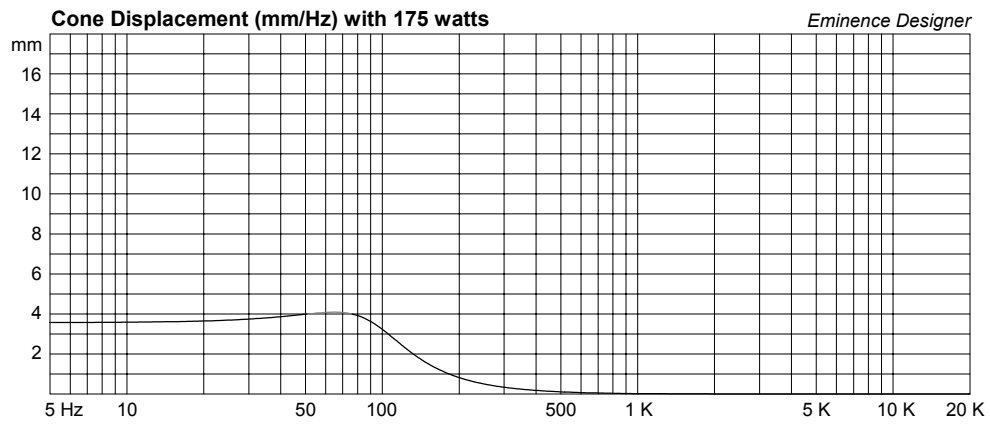
Re = 6.32 ohms

Le = 1.1 mH

Z = 8 ohms

Pe = 350 watts





Beta15A Med Vented Woofer Enclosure

By McJerry, Eminence Speaker LLC

Displacement Limited to 200 Watts; use above 60 Hz.

Will require EQ for flat playback.

Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 3.58 cu.ft

V(total) = 3.715 cu.ft

Fb = 65 Hz

QL = 7

F3 = 58.83 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 4.64 in

Lv = 0.75 in

Driver Properties

--Description--

Name: Beta-15

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: Revised OCT 2005

Piston: Ribbed 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 = 35 Hz

Qms = 8.1

Vas = 334.6 liters

Xmax = 4 mm

Sd = 823.7 sq.cm

Qes = 0.63

Re = 6.32 ohms

Le = 1.1 mH

Z = 8 ohms

Pe = 350 watts

