

Specification

Nominal Basket Diameter	15", 381.0mm
Nominal Impedance*	6 ohms
Power Rating**	
Watts	600W
Music Program	1200W
Resonance	28Hz
Usable Frequency Range***	20Hz-125Hz
Sensitivity	88.5
Magnet Weight	160 oz.
Gap Height	0.375", 9.53mm
Voice Coil Diameter	3.0", 76.2mm

Thiele & Small Parameters

Resonant Frequency (fs)	28Hz
DC Resistance (Re)	4.9
Coil Inductance (Le)	3.23mH
Mechanical Q (Qms)	5.36
Electromagnetic Q (Qes)	.37
Total Q (Qts)	.35
Compliance Equivalent Volume (Vas)	103.61 liters / 3.7 cu.ft.
Peak Diaphragm Displacement Volume (Vd)	968cc
Mechanical Compliance of Suspension (Cms)	0.11mm/N
BL Product (BL)	26.7 T-M
Diaphragm Mass inc. Airload (Mms)	308 grams
Efficiency Bandwidth Product (EBP)	75
Maximum Linear Excursion (Xmax)	11.8mm
Surface Area of Cone (Sd)	823.7 cm ²
Maximum Mechanical Limit (Xlim)	22mm

Mounting Information

Recommended Enclosure Volume	
Sealed	35-108 liters/1.2-3.8 cu.ft.
Vented	71-290 liters/2.5-10.3 cu.ft.
Driver Volume Displaced	272.1 cu.in. / 4.46 liters
Overall Diameter	15.34", 389.6mm
Baffle Hole Diameter	14.00", 355.5mm
Front Sealing Gasket	Fitted as standard
Rear Sealing Gasket	N/A
Mounting Holes Diameter	0.26", 6.6mm
Mounting Holes B.C.D.	14.70", 373.5mm
Depth	7.75", 197mm
Net Weight	23.8 lbs., 10.80 kg
Shipping Weight	26 lbs., 11.8 kg

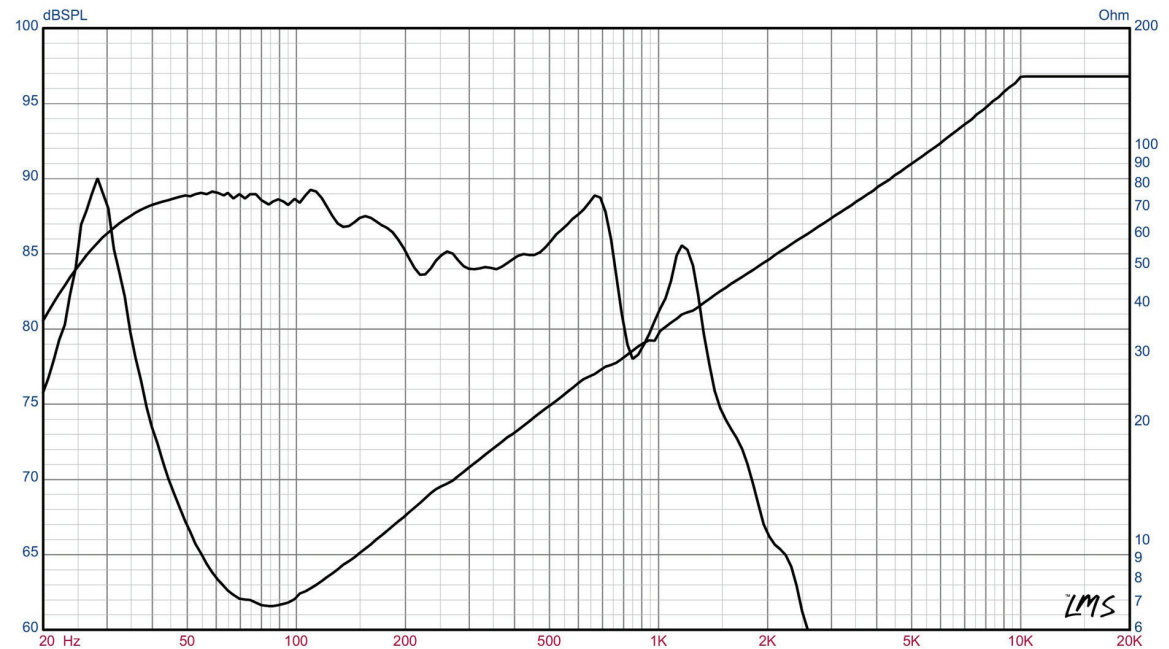
Materials of Construction

Copper voice coil
 AL former
 Double stacked 80 oz. ferrite magnets
 Vented and extended core
 Die-cast aluminum basket
 Kevlar-reinforced paper cone
 Foam cone edge
 Acrylic wetlook Solid composition paper dust cap



LAB15 Professional Series

Subwoofer suited for small vented boxes and for Horn Loading



* 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. I.e: 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)

LAB15 Large Sealed Box

By Jerry McNutt, Eminence Speaker LLC
Limit to 400 Watts; F3 at 65 Hz. Can be EQ'd much lower F3 point.
If used in a car, not much EQ will be needed.



Box Properties

--Description--

Name:

Type: Closed Box

Shape: Cube

--Box Parameters--

Vb = 3.6 cu.ft

V(total) = 3.6 cu.ft

Qtc = 0.425

QL = 18.75

F3 = 64.71 Hz

Fill = heavy

Driver Properties

--Description--

Name: LAB 15

Type: Standard one-way driver

Company: Eminence Speaker LLC

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 27.82 Hz

Qms = 5.36

Vas = 3.659 cu.ft

Xmax = 0.463 in

Sd = 127.7 sq.in

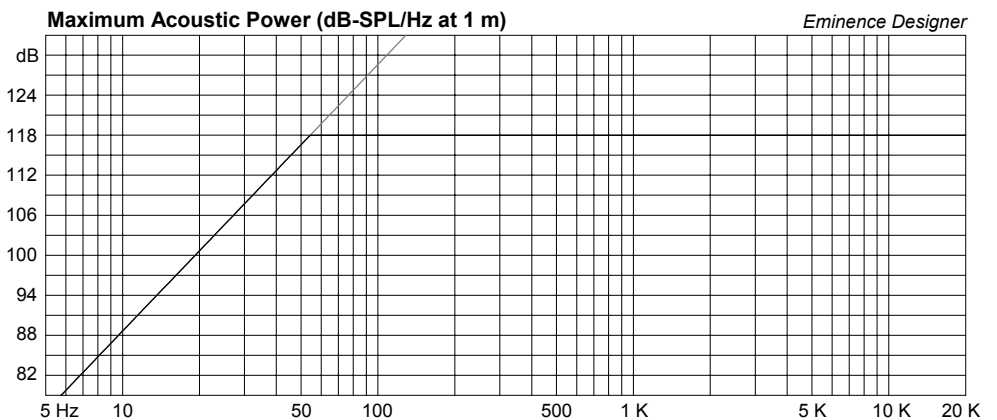
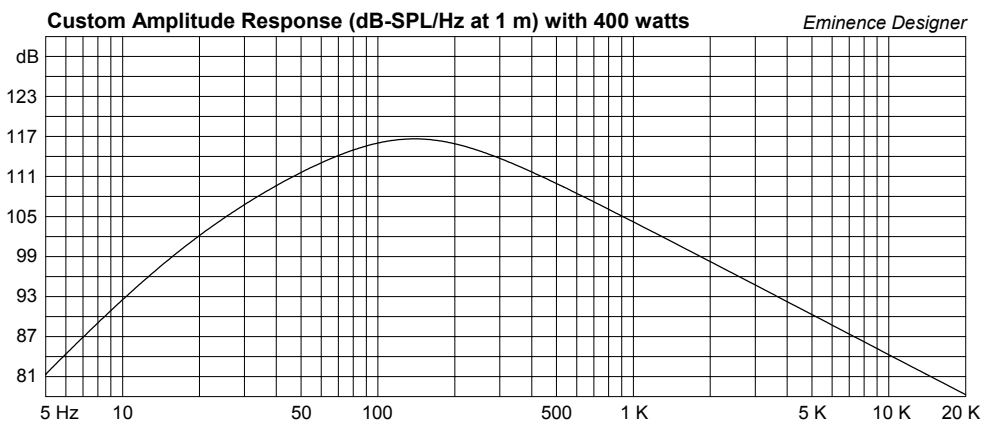
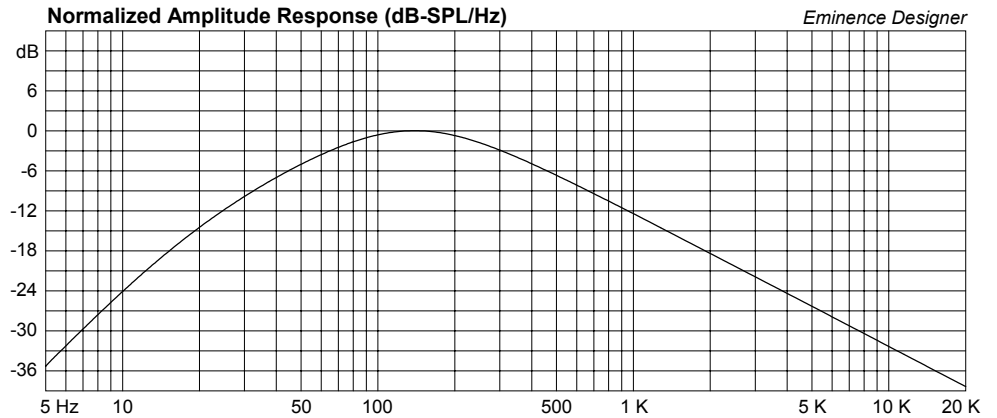
Qes = 0.37

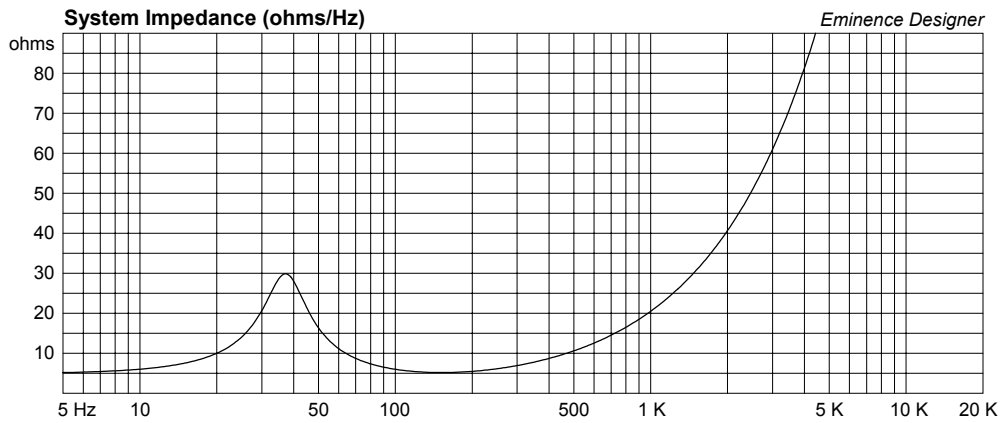
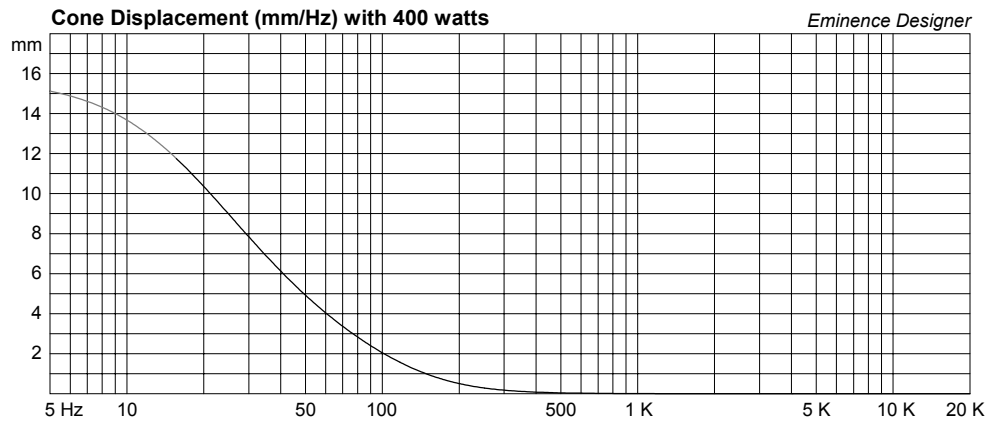
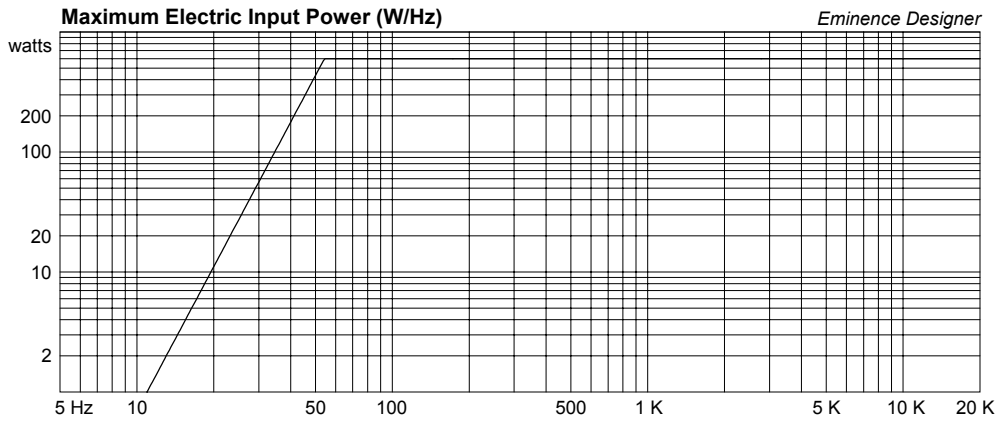
Re = 4.91 ohms

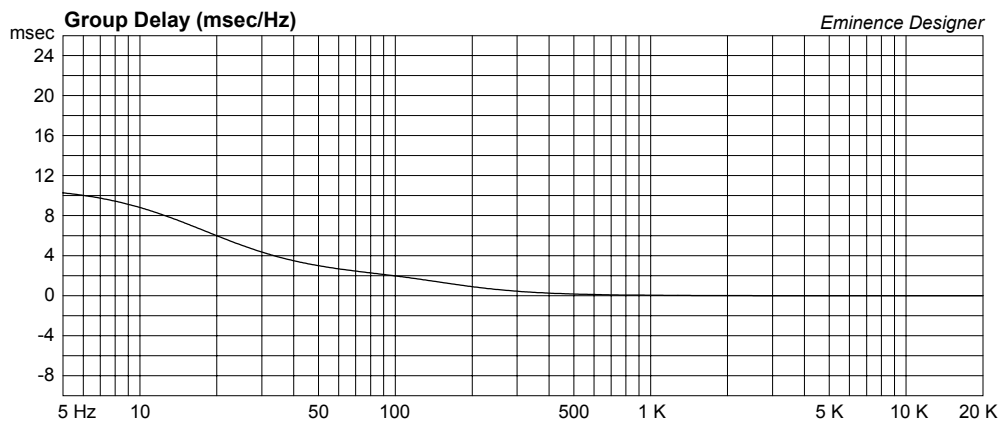
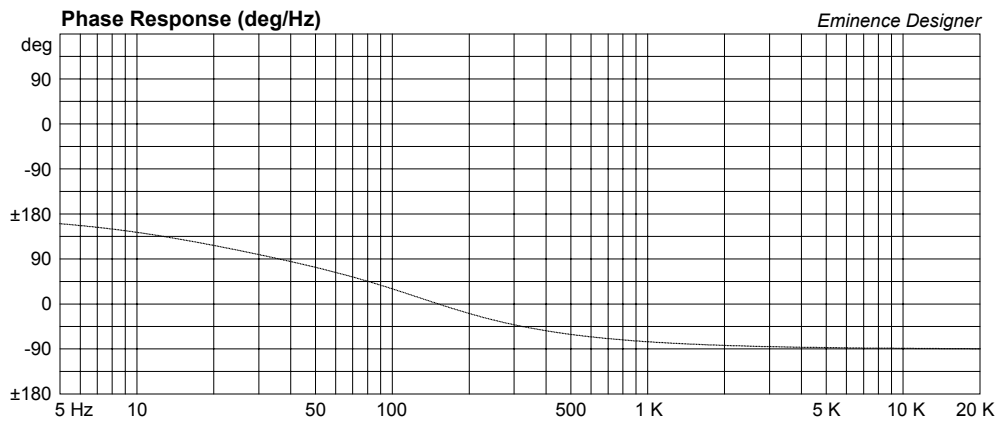
Le = 3.23 mH

Z = 6 ohms

Pe = 600 watts







LAB15 Small Sealed Car Sub Design

By Jerry McNutt, Eminence Speaker LLC

Limit to 500 Watts; F3 of 61 Hz. F3 will be MUCH lower in a car.

If you use two woofers, double the box volume and use a divider.



Box Properties

--Description--

Name:

Type: Closed Box

Shape: Prism, square

--Box Parameters--

Vb = 1.252 cu.ft

V(total) = 1.469 cu.ft

Qtc = 0.612

QL = 20

F3 = 61.23 Hz

Fill = normal

Driver Properties

--Description--

Name: LAB 15

Type: Standard one-way driver

Company: Eminence Speaker LLC

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 27.82 Hz

Qms = 5.36

Vas = 3.659 cu.ft

Xmax = 0.463 in

Sd = 127.7 sq.in

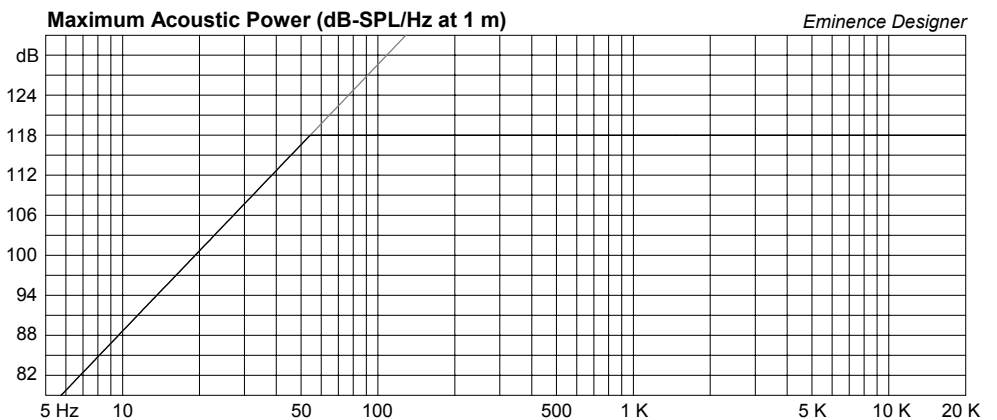
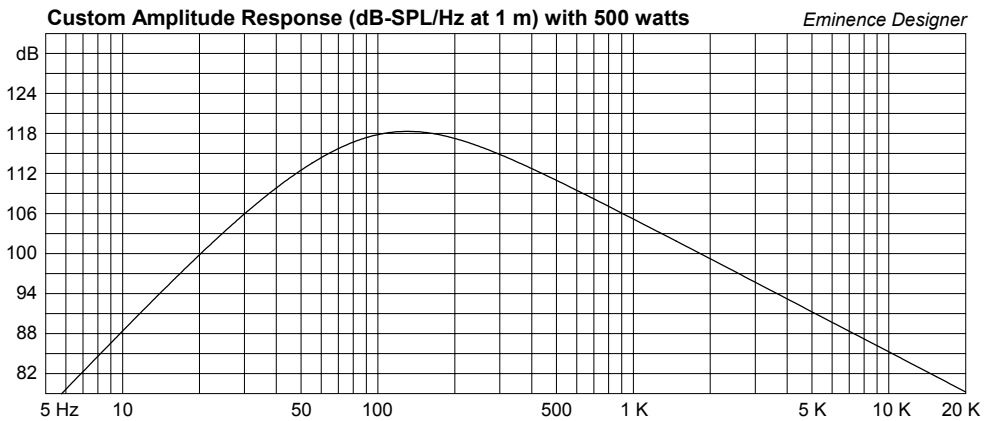
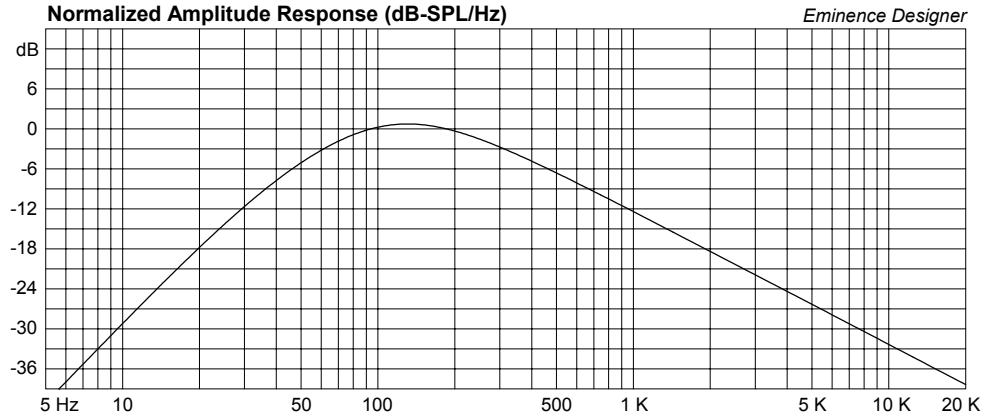
Qes = 0.37

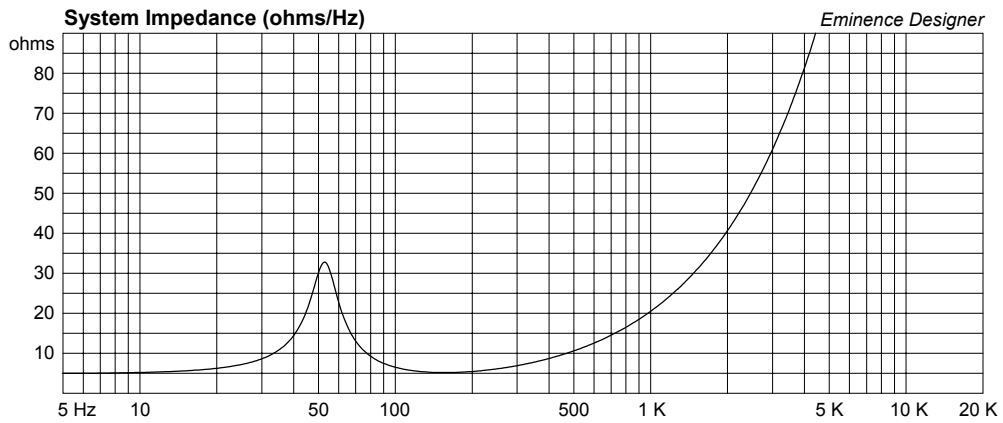
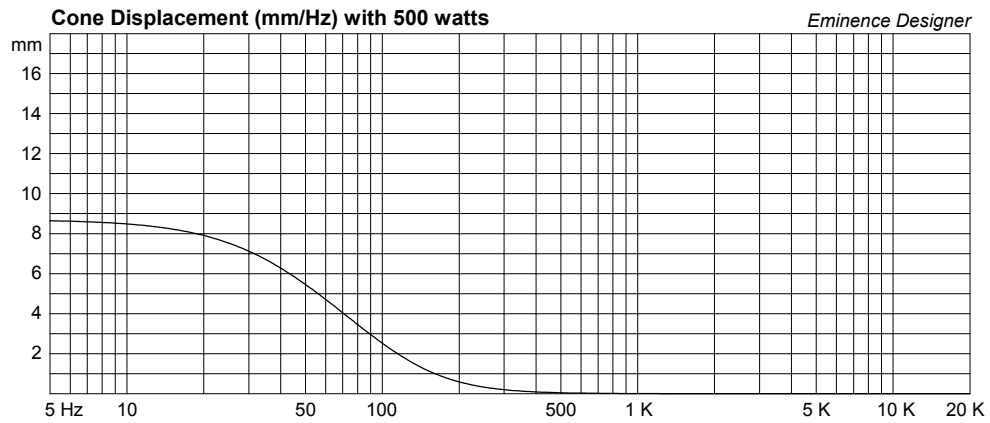
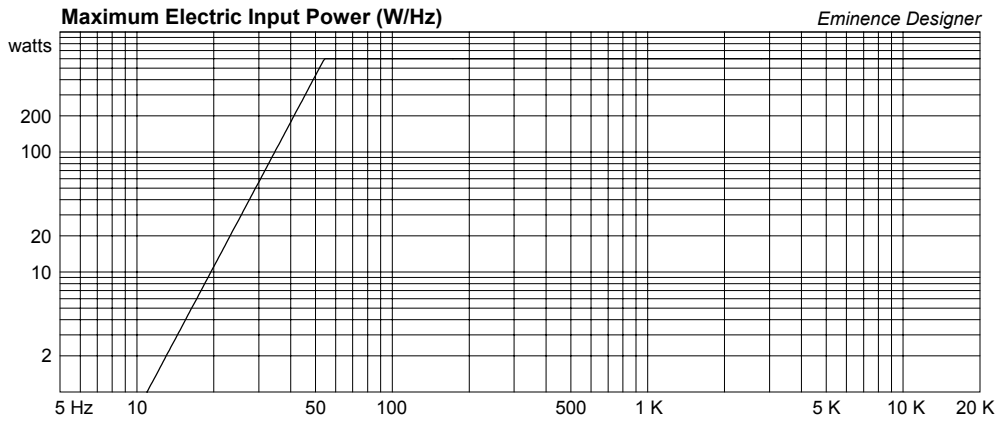
Re = 4.91 ohms

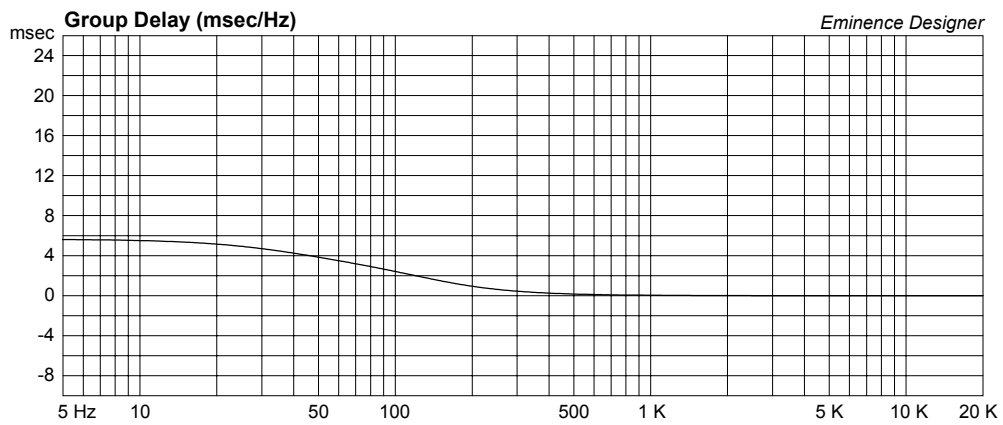
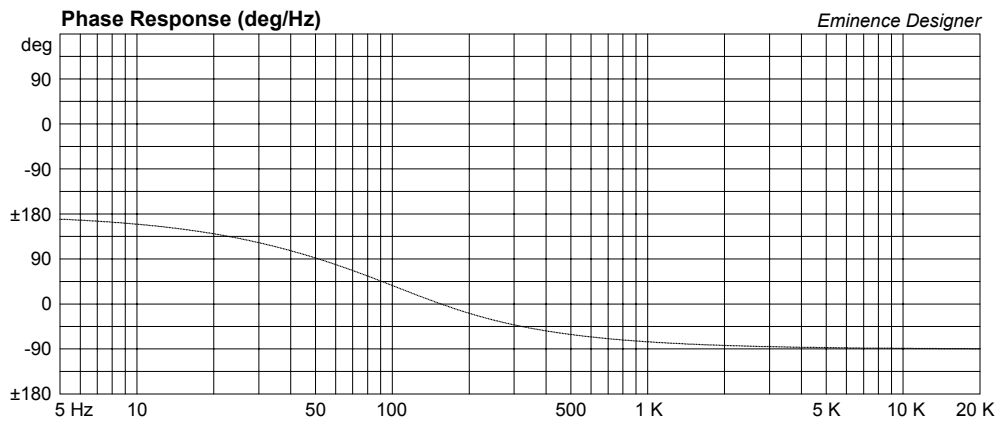
Le = 3.23 mH

Z = 6 ohms

Pe = 600 watts







LAB15 Med Sized Vented Club Sub

By Jerry McNutt, Eminence Speaker LLC

Limit to 600 Watts; F3 of 27 Hz.

Use a steep High Pass filter at 25 Hz to protect your investment.



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 4.5 cu.ft

V(total) = 5.294 cu.ft

Fb = 30 Hz

QL = 7

F3 = 27.27 Hz

Fill = minimal

--Vents--

No. of Vents = 1

Vent shape = rectangle

Vent ends = one flush

Hv = 6.5 in

Wv = 6.5 in

Lv = 21.9 in

Driver Properties

--Description--

Name: LAB 15

Type: Standard one-way driver

Company: Eminence Speaker LLC

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 27.82 Hz

Qms = 5.36

Vas = 3.659 cu.ft

Xmax = 0.463 in

Sd = 127.7 sq.in

Qes = 0.37

Re = 4.91 ohms

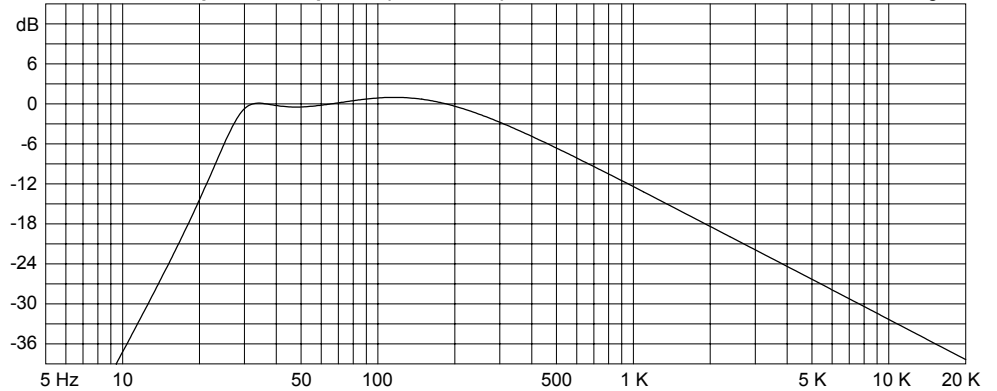
Le = 3.23 mH

Z = 6 ohms

Pe = 600 watts

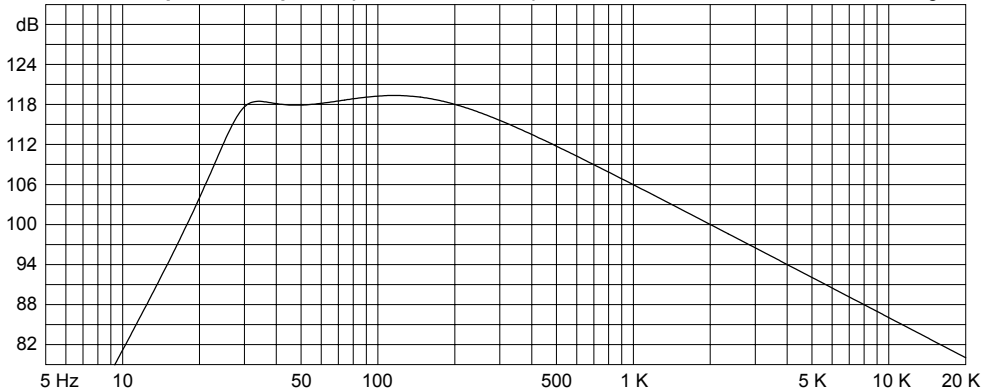
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



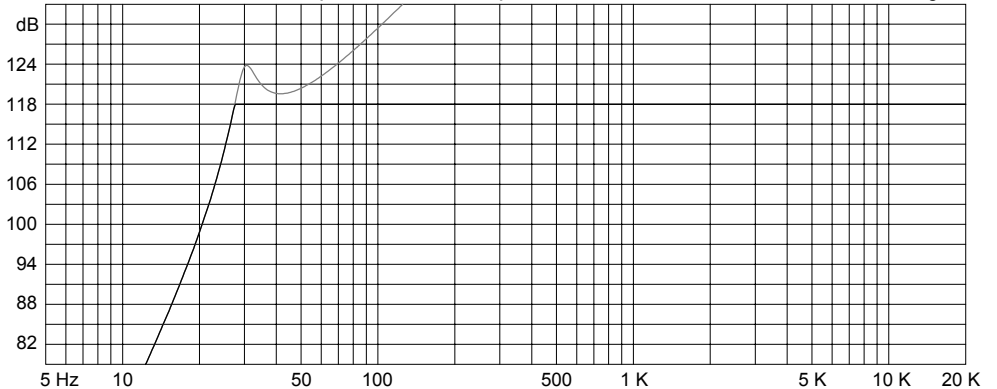
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 600 watts

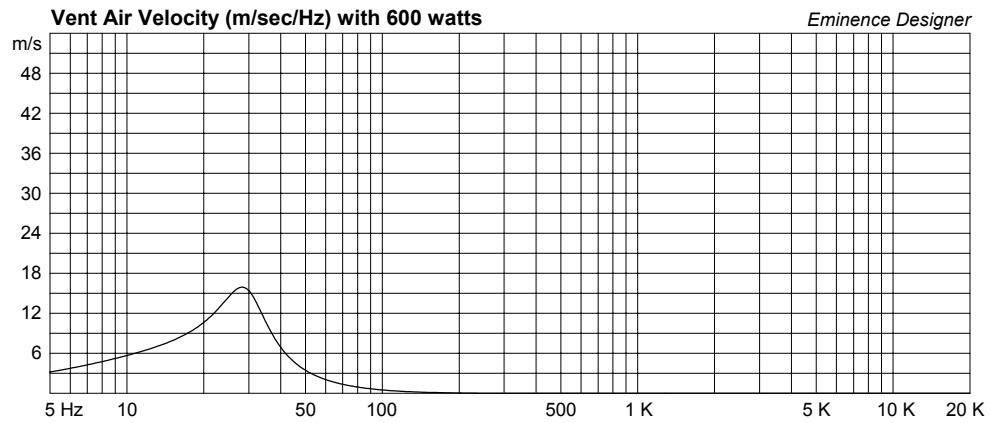
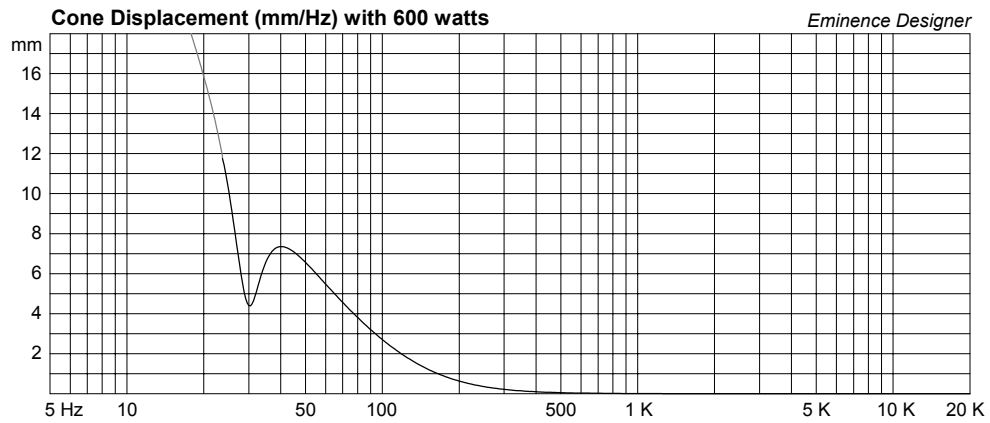
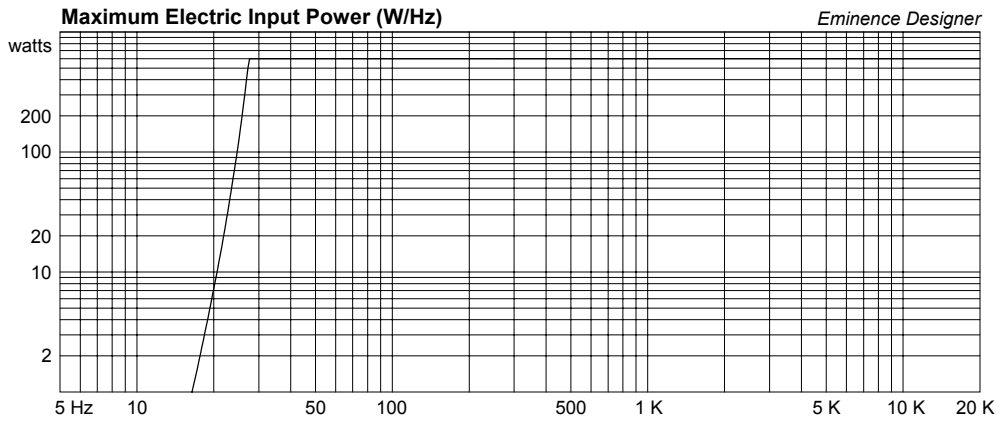
Eminence Designer

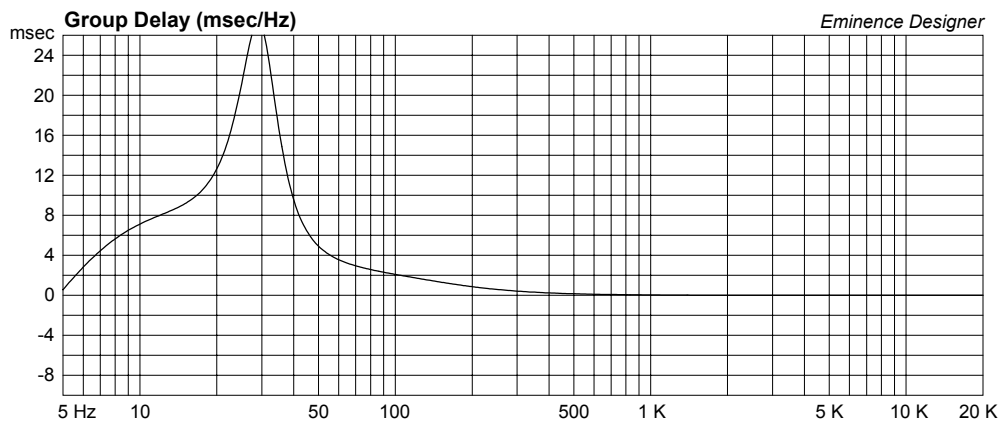
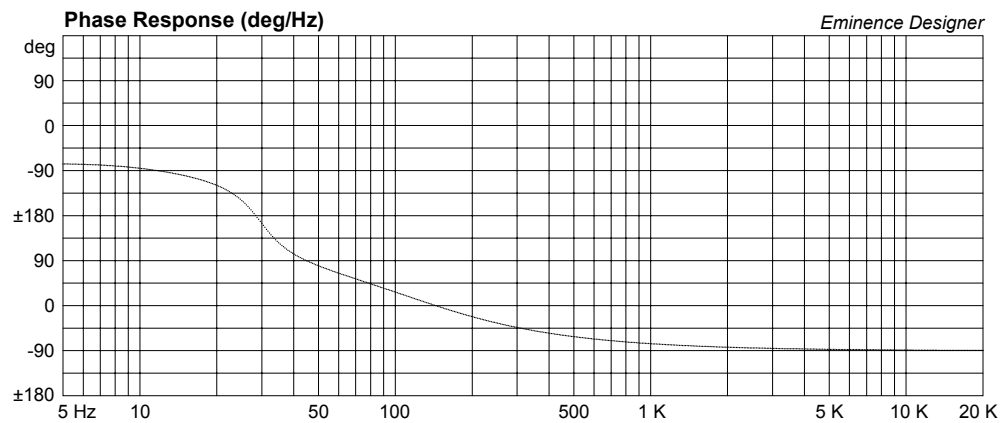
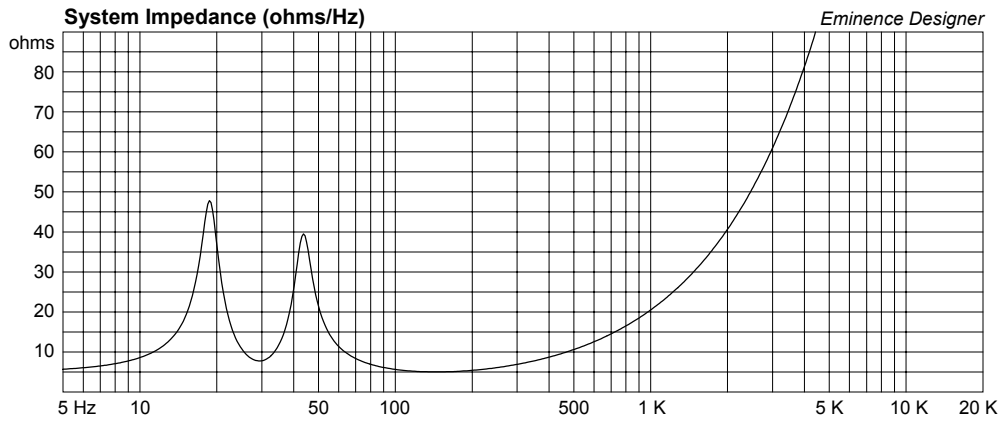


Maximum Acoustic Power (dB-SPL/Hz at 1 m)

Eminence Designer







LAB15 Large Deep Bass Design

By Jerry McNutt, Eminence Speaker LLC
Thermally Limited to 600 Watts; F3 at 21Hz.
Use a steep high pass at 18 Hz to protect your investment.



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 10 cu.ft

V(total) = 10.67 cu.ft

Fb = 22 Hz

QL = 7

F3 = 20.37 Hz

Fill = minimal

--Vents--

No. of Vents = 1

Vent shape = rectangle

Vent ends = one flush

Hv = 6.5 in

Wv = 6.5 in

Lv = 17.12 in

Driver Properties

--Description--

Name: LAB 15

Type: Standard one-way driver

Company: Eminence Speaker LLC

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 27.82 Hz

Qms = 5.36

Vas = 3.659 cu.ft

Xmax = 0.463 in

Sd = 127.7 sq.in

Qes = 0.37

Re = 4.91 ohms

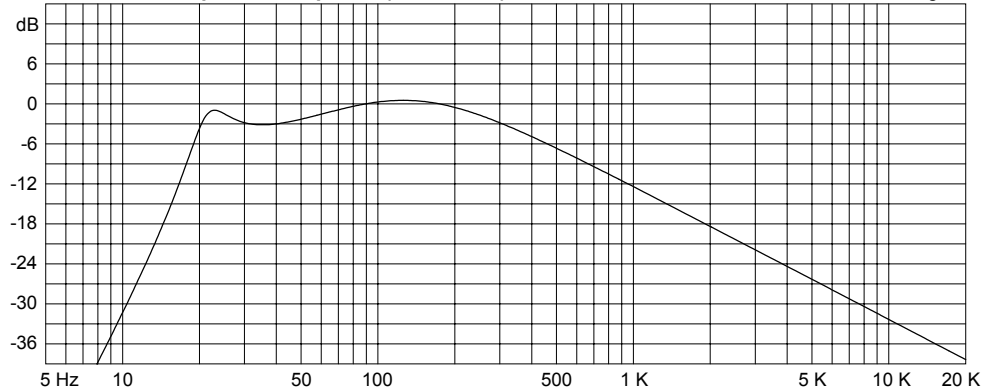
Le = 3.23 mH

Z = 6 ohms

Pe = 600 watts

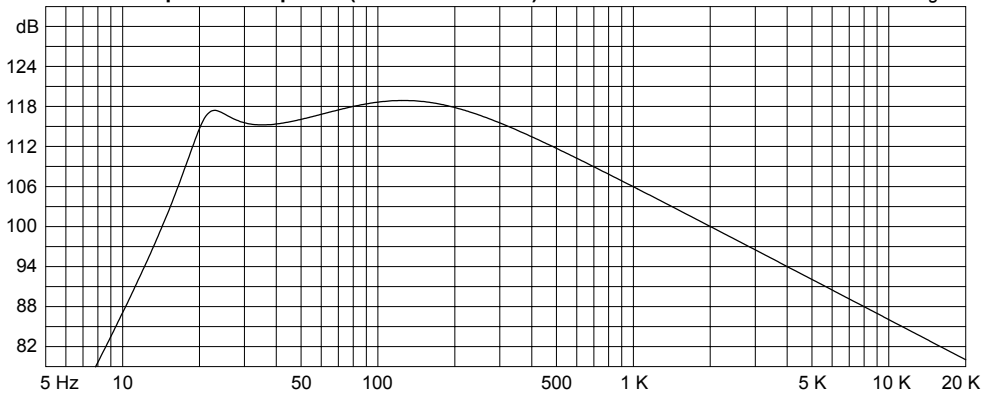
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



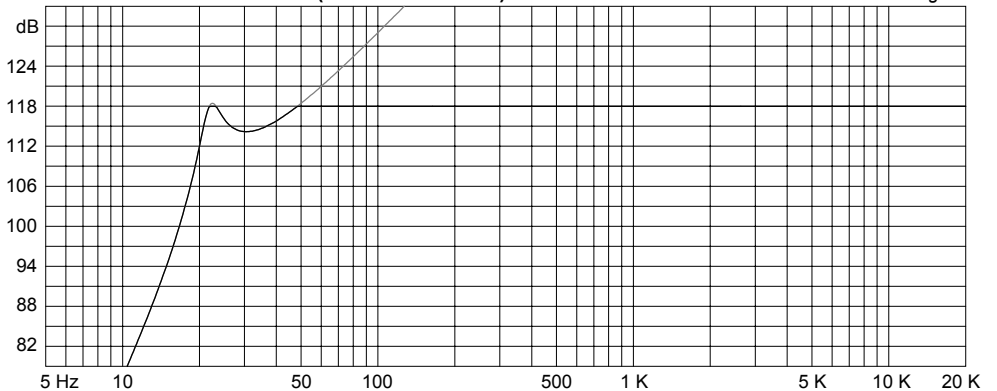
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 600 watts

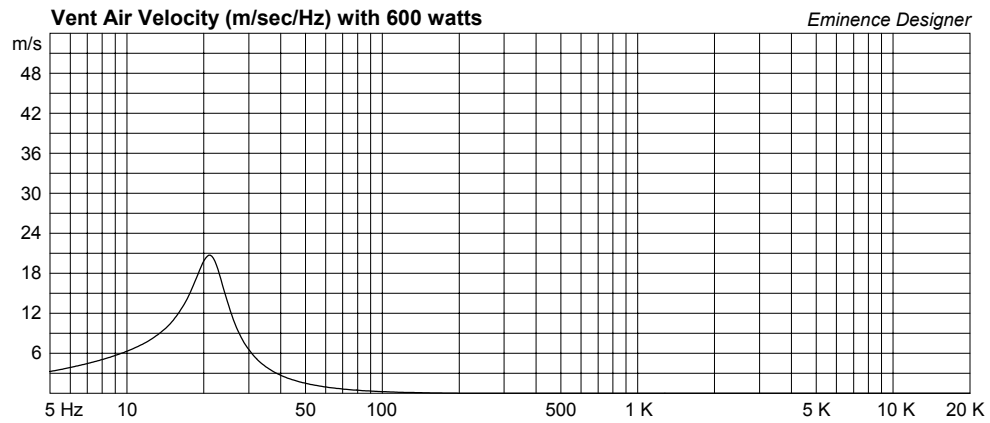
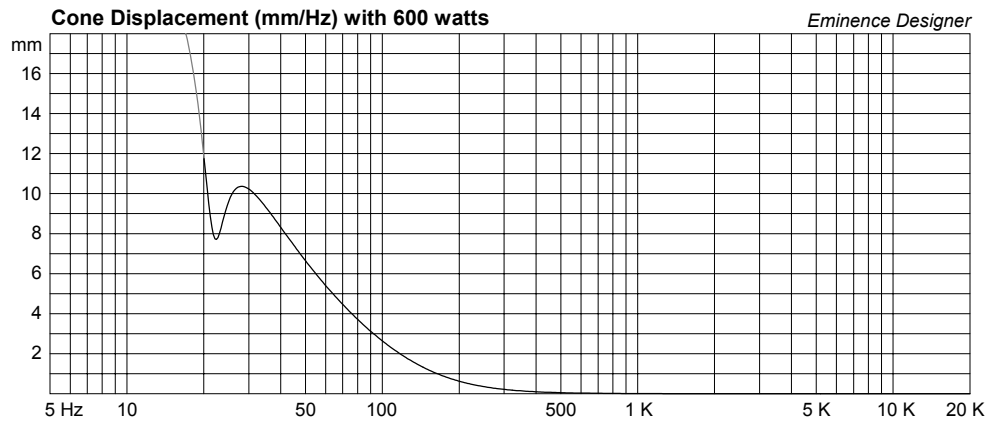
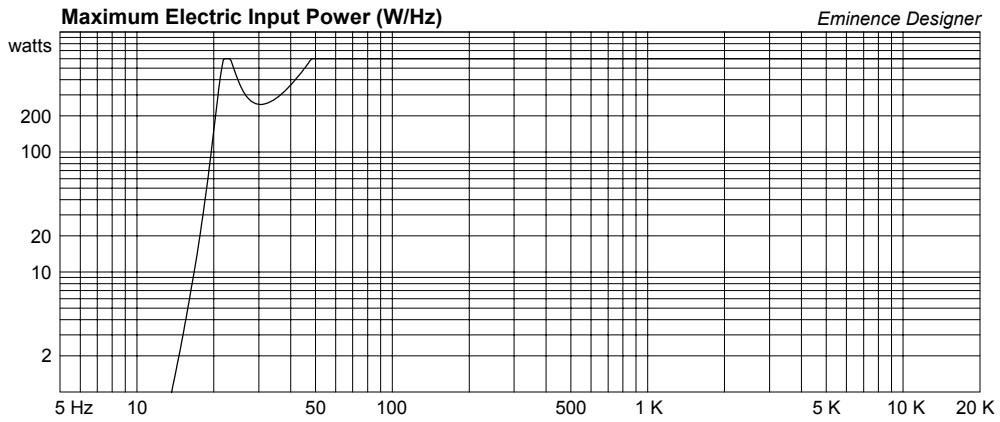
Eminence Designer

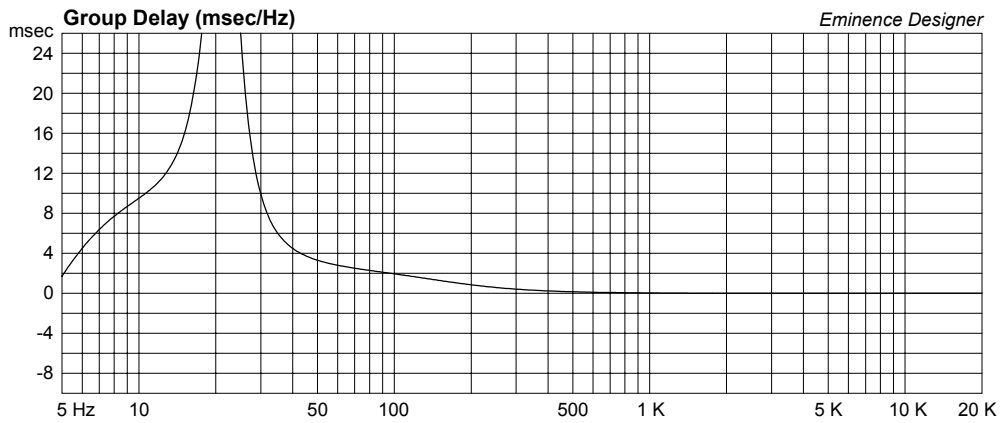
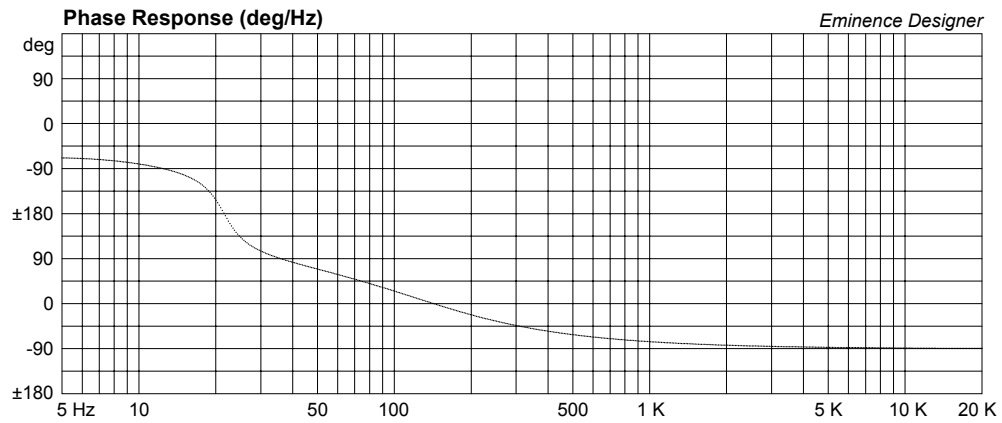
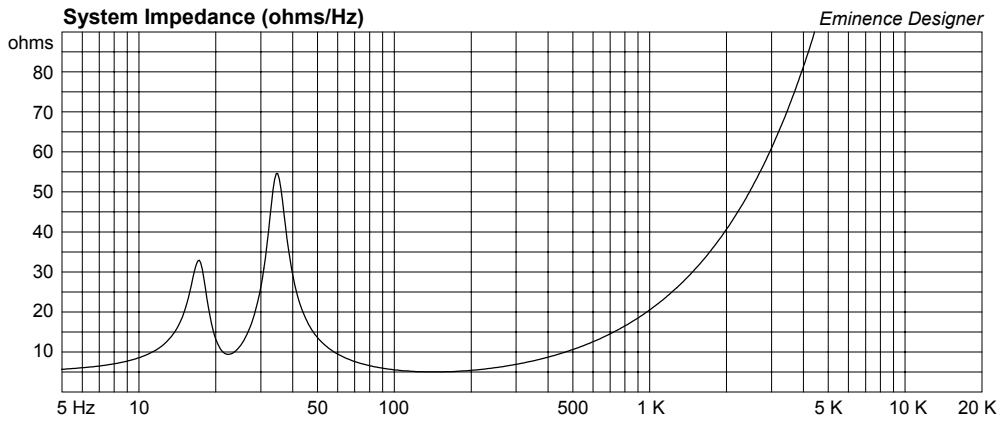


Maximum Acoustic Power (dB-SPL/Hz at 1 m)

Eminence Designer







LAB15 Small Vented Sub Design

By Jerry McNutt, Eminence Speaker LLC

Limit to 600 Watts; F3 of 32 Hz.

Use a steep high pass filter set at 25 Hz to protect your investment.



Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 2.75 cu.ft

V(total) = 3.232 cu.ft

Fb = 35 Hz

QL = 7

F3 = 32.37 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 4 in

Lv = 16.16 in

Driver Properties

--Description--

Name: LAB 15

Type: Standard one-way driver

Company: Eminence Speaker LLC

--Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 27.82 Hz

Qms = 5.36

Vas = 3.659 cu.ft

Xmax = 0.463 in

Sd = 127.7 sq.in

Qes = 0.37

Re = 4.91 ohms

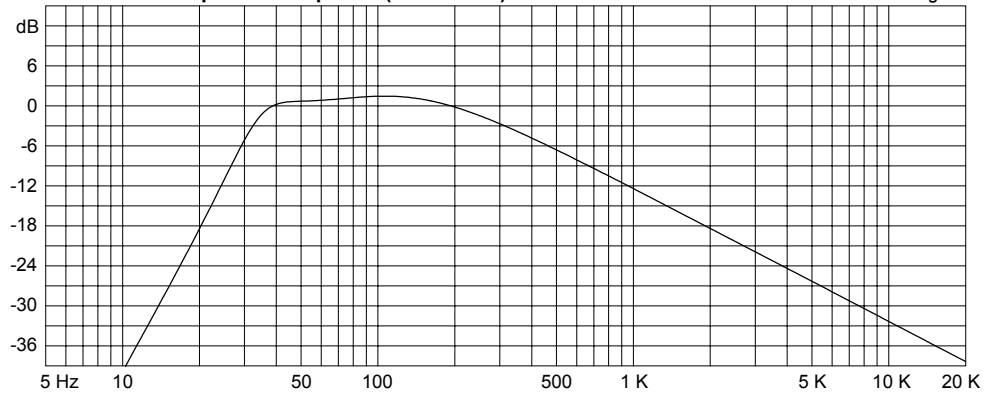
Le = 3.23 mH

Z = 6 ohms

Pe = 600 watts

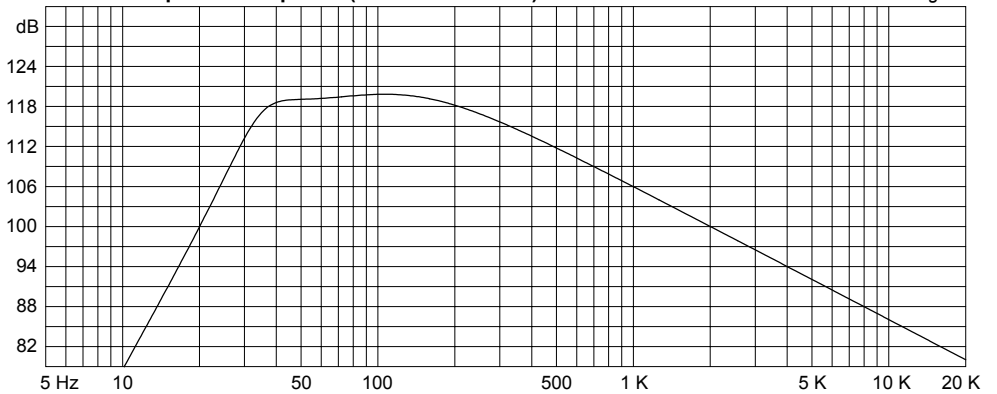
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 600 watts

Eminence Designer



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

Eminence Designer

