



PROFESSIONAL SERIES

LAB15

Subwoofer suited for small vented boxes.
Also suitable for horn loading.



SPECIFICATION

Nominal Basket Diameter	15.0", 381 mm
Nominal Impedance*	6 Ω
Power Rating**	
Watts	600 W
Music Program	1200 W
Resonance	28 Hz
Usable Frequency Range	20 Hz – 0.1 kHz
Sensitivity***	88.5 dB
Magnet Weight	160 oz.
Gap Height	.375", 9.5 mm
Voice Coil Diameter	3.0", 76 mm

THIELE & SMALL PARAMETERS*

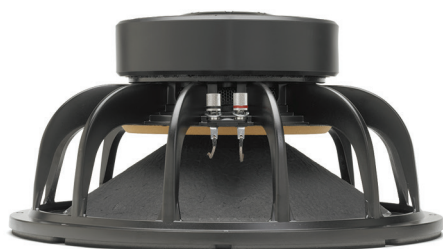
Fs	28 Hz
Re	4.90 Ω
Le	3.23 mH
Qms	5.36
Qes	0.37
Qts	0.35
Vas	3.66 cu.ft., 103.61 liters
Vd	968.0 cc
Cms	0.11 mm/N
BL	26.70 T-M
Mms	308 grams
EBP	75
Xmax	11.80 mm
Sd	823.7 cm ²
Xlim	22.0 mm

MOUNTING INFORMATION

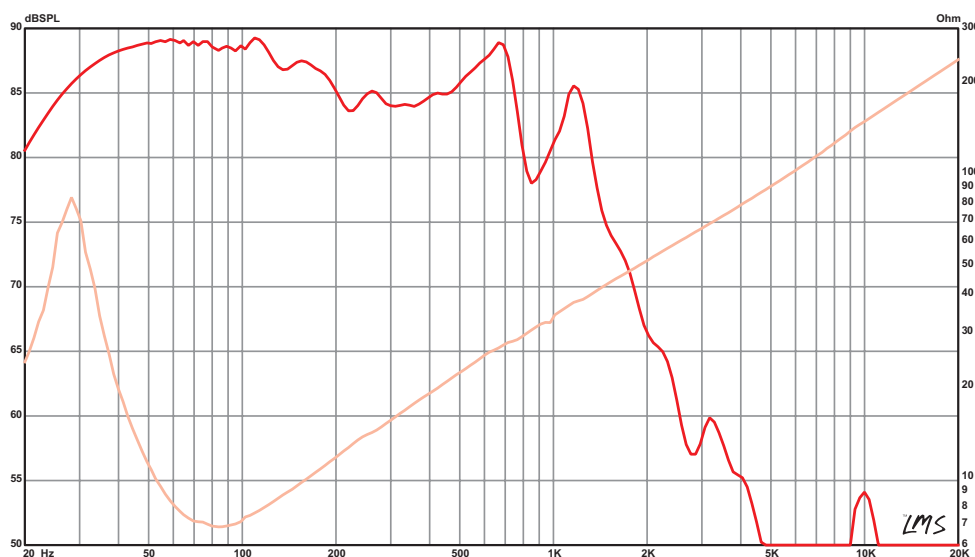
Recommended Enclosure Volume	
Sealed	35.00–108.00 liters, 1.20–3.80 cu.ft.
Vented	71.00–290.00 liters, 2.50–10.30 cu.ft.
Driver Volume Displaced	0.158 cu.ft., 4.46 liters
Overall Diameter	15.34", 389.6 mm
Baffle Hole Diameter	14.00", 355.6 mm
Front Sealing Gasket	Yes
Rear Sealing Gasket	N/A
Mounting Holes Diameter	0.26", 6.6 mm
Mounting Holes B.C.D.	14.70", 373.4 mm
Depth	7.75", 196.9 mm
Net Weight	23.80 lbs , 10.80 kg
Shipping Weight	26.00 lbs , 11.79 kg

MATERIALS OF CONSTRUCTION

Copper voice coil
Aluminum former
Double stacked 80 oz. ferrite magnets
Vented and extended core
Die-cast aluminum basket
Kevlar-reinforced paper cone
Foam cone edge
water resistant treated solid composition paper



FREQUENCY RESPONSE & IMPEDANCE CURVE*



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From design and manufacturing to the stage or studio. Once you've experienced the performance of Eminence, you'll never accept anything else.

MISSION STATEMENT

Eminence is dedicated to providing the best Quality, Value and Service to meet our customers' needs.

FOOTNOTES

- * Please consult www.eminence.com for specifications of models with alternative impedances.
- ** Multiple units exceed published ratings evaluated under EIA 426A specification while tested 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/8Ω, 4V/16Ω. 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 | Carver PM-120 amplifier | 2700 cu. ft. chamber with fiberglass on all six surfaces (three with custom-made wedges).
- **** BETA 8CX, 10CX, and 12CX are coaxial speakers with tweeter sold separately. Published usable frequency response contingent upon use of ASD:1001 HF Driver.
- ***** Multiple units exceeded published ratings evaluated under EIA-426A or AES specification while mounted on Eminence's H290, H290S, or H2EA horn in a non-temperature-controlled environment.
- *****The average on axis output across the entire usable frequency range when applying 1W/1m into the nominal impedance, i.e. 2.83V/8Ω, 4V/16Ω. 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 horn front mounted | Carver PM-120 amplifier | 2700 cu.ft. chamber with fiberglass on all six surfaces (three with custom-made wedges).

Prices, specifications and product cosmetics are subject to change without notice.

EMINENCE SPEAKER LLC

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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

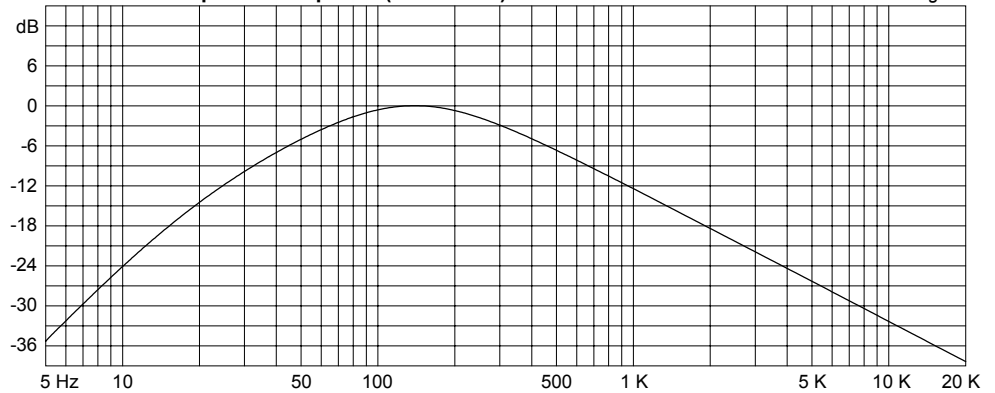
Le = 3.23 mH

Z = 6 ohms

Pe = 600 watts

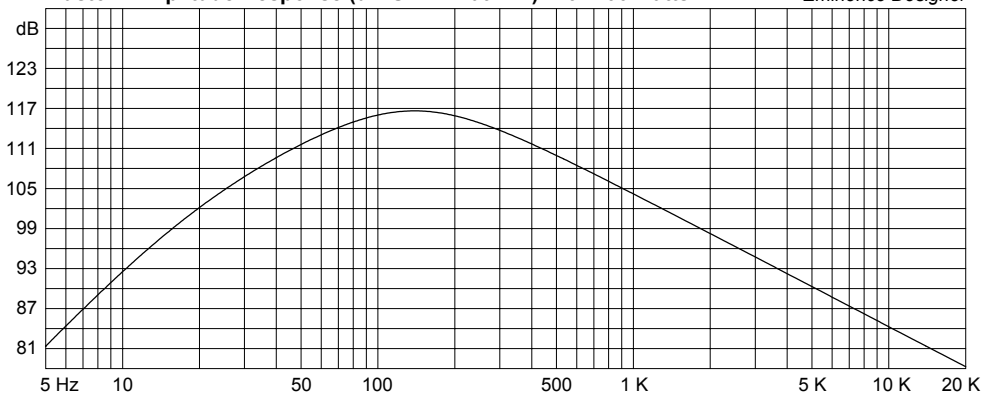
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



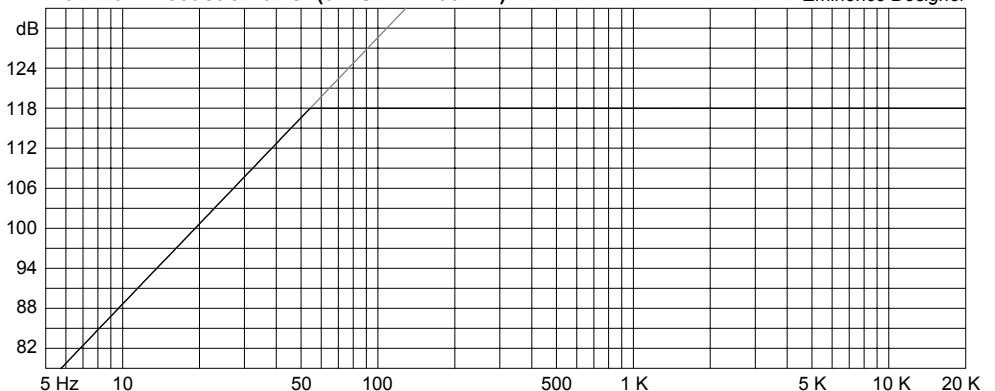
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 400 watts

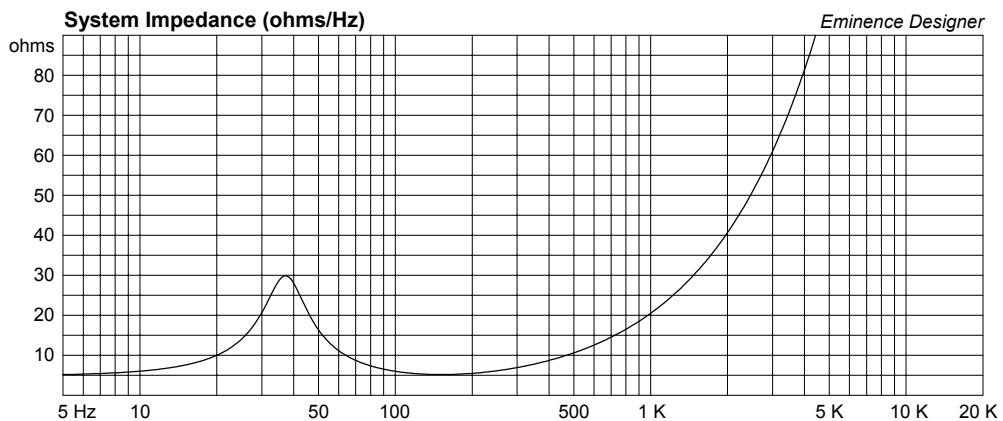
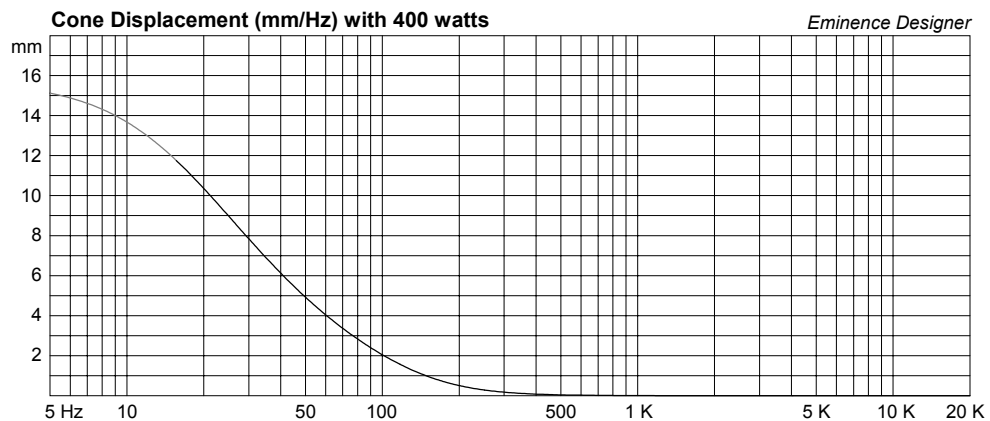
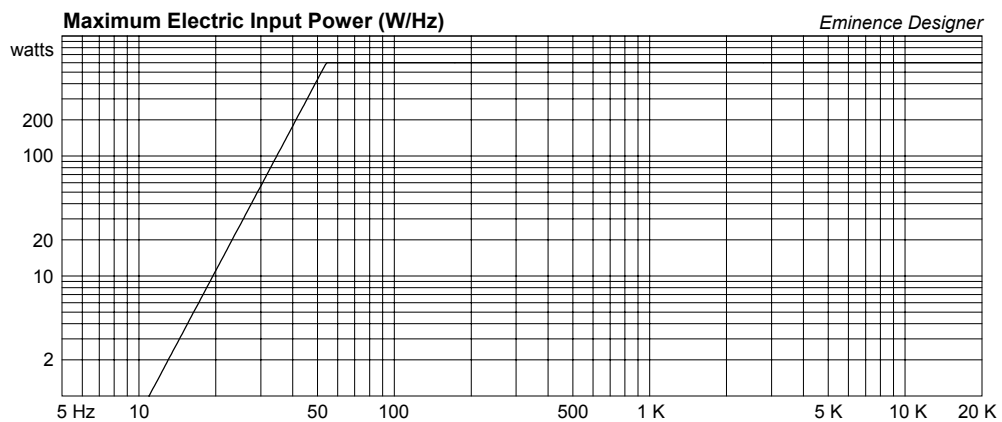
Eminence Designer

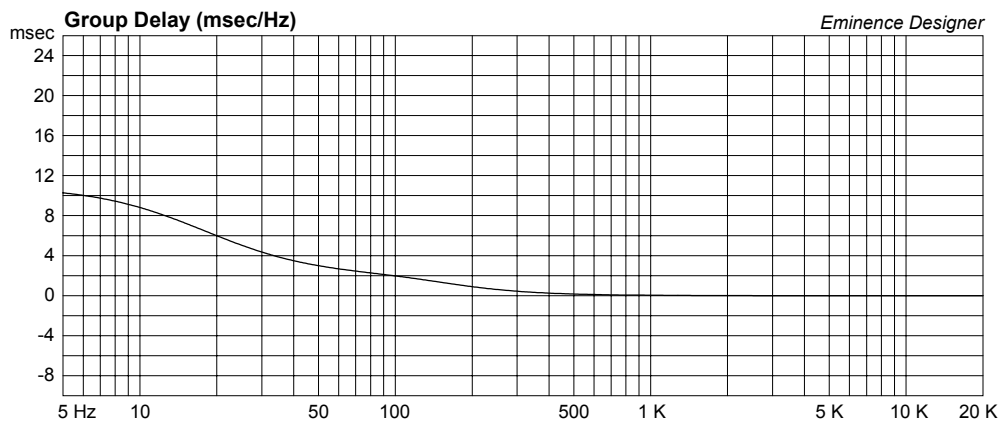
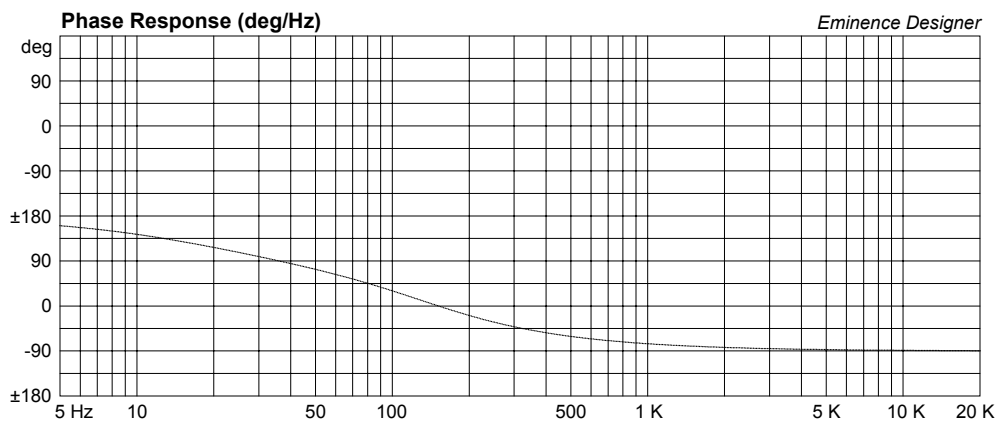


Maximum Acoustic Power (dB-SPL/Hz at 1 m)

Eminence Designer







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

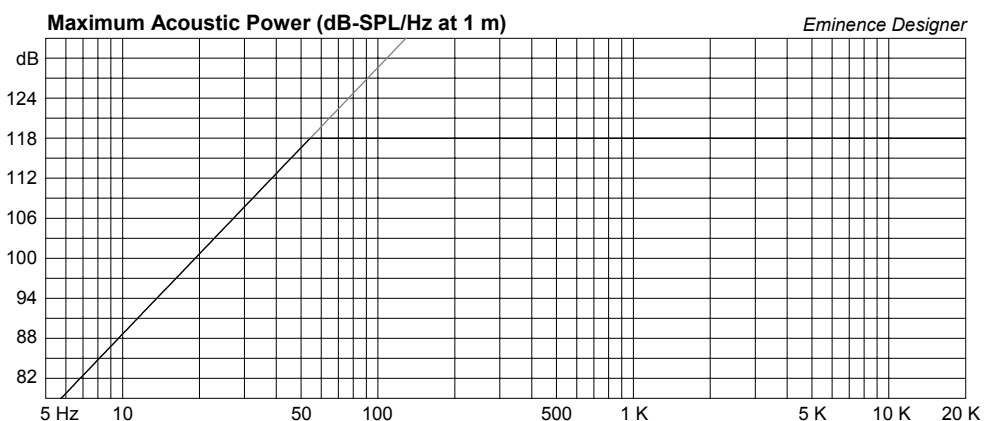
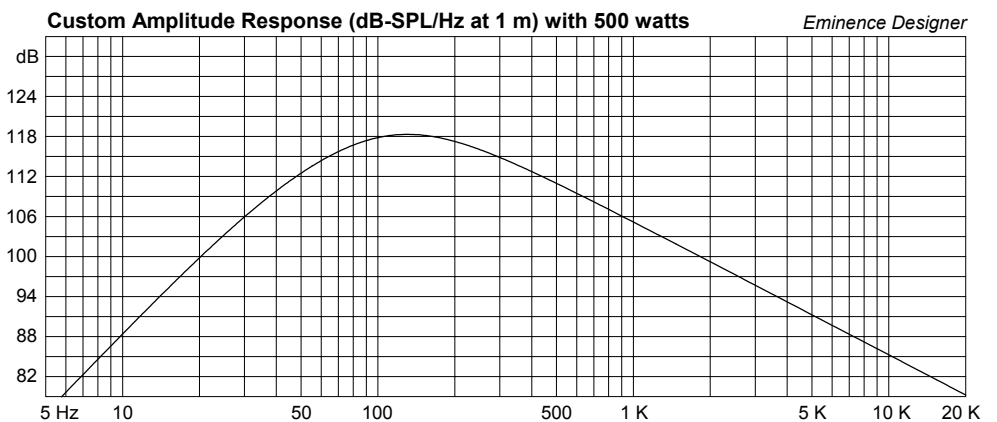
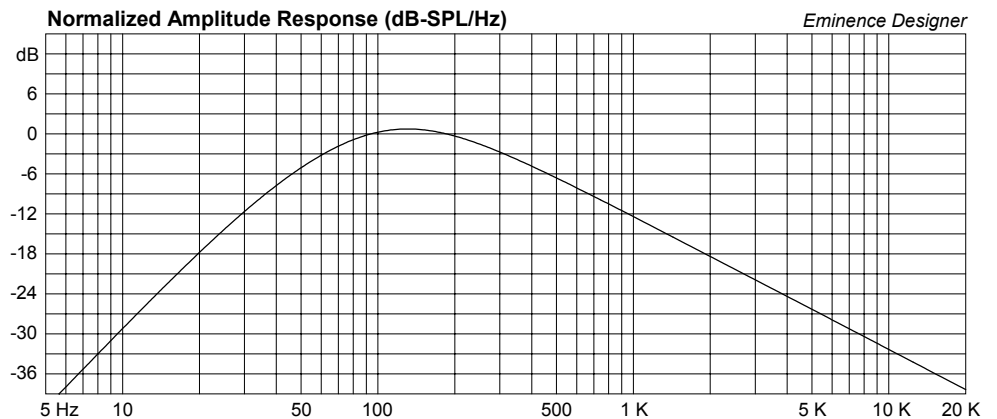
Qes = 0.37

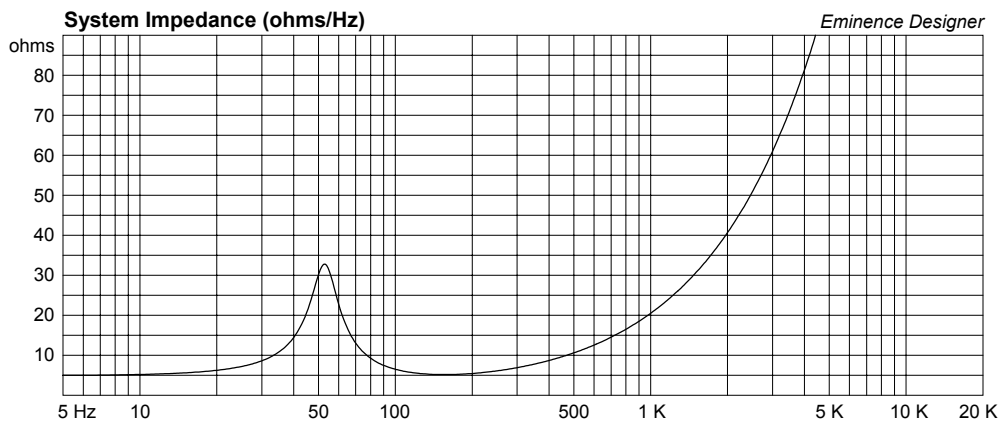
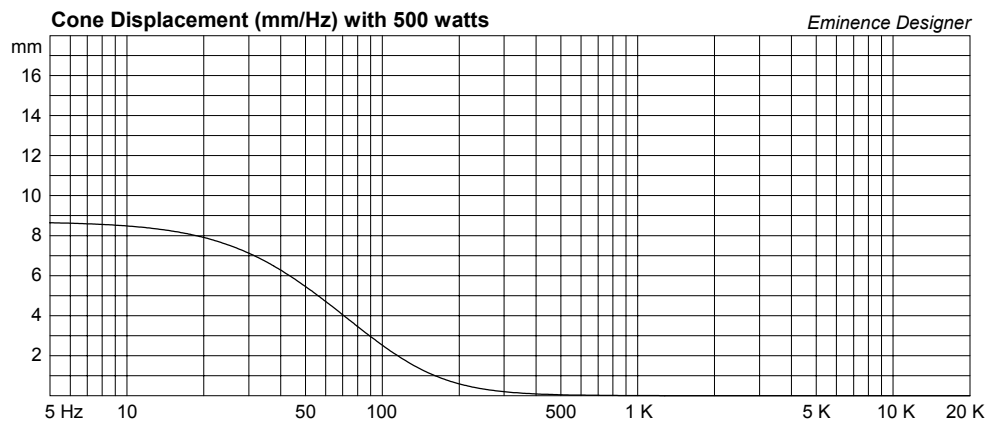
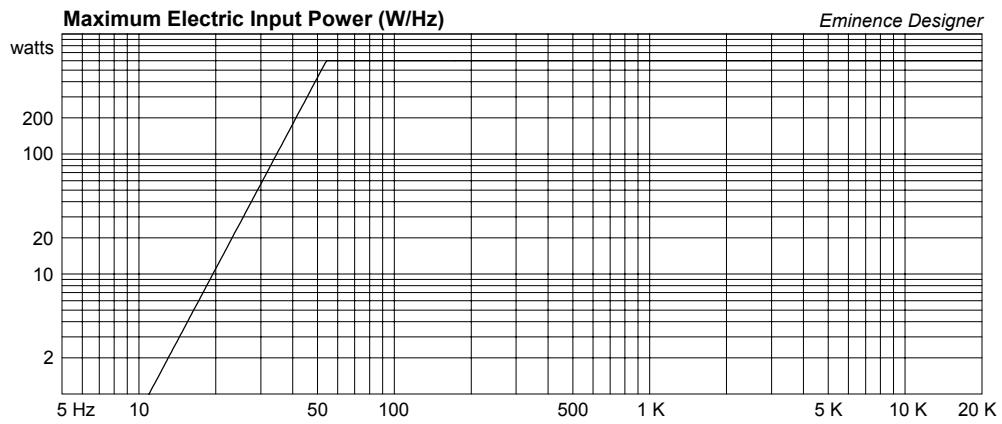
Re = 4.91 ohms

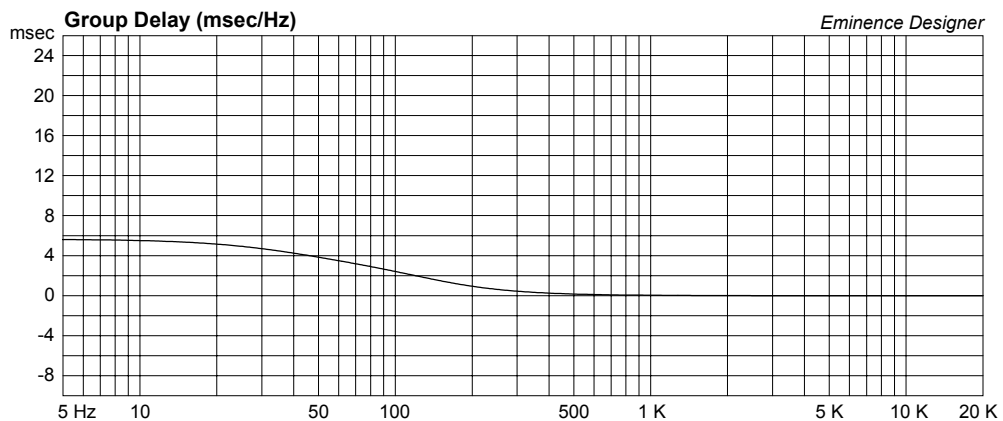
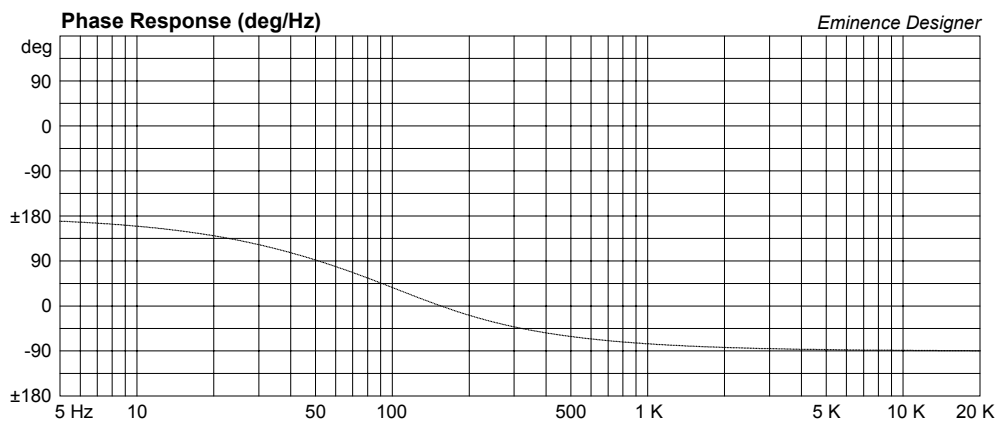
Le = 3.23 mH

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

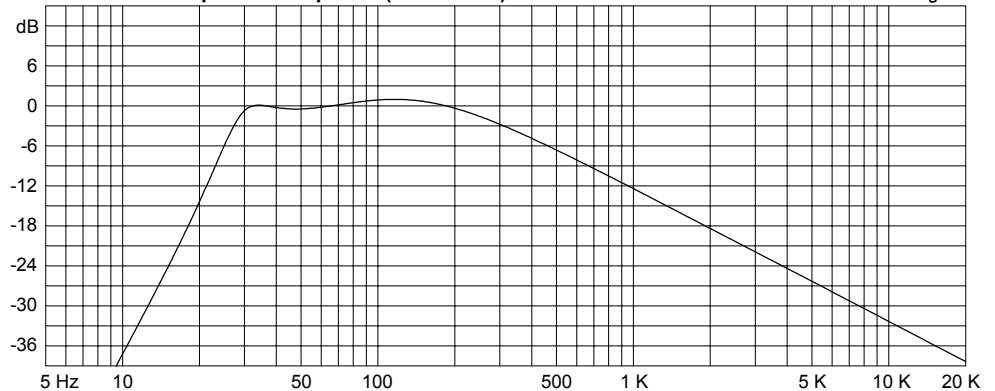
Le = 3.23 mH

Z = 6 ohms

Pe = 600 watts

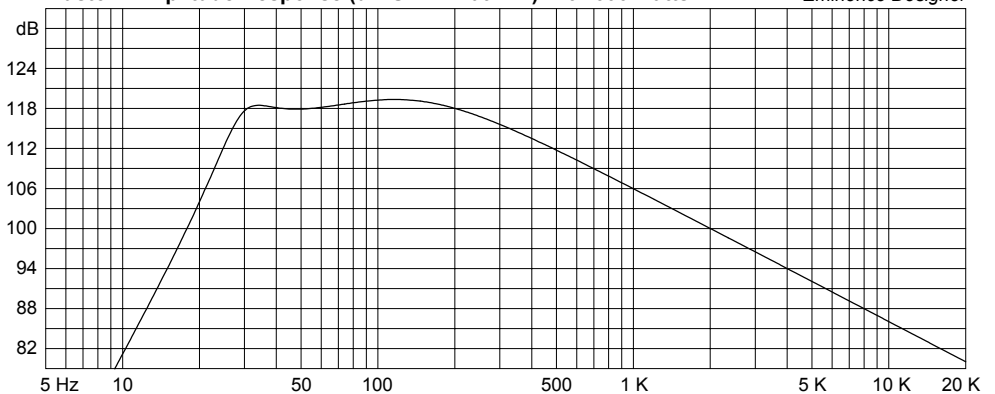
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



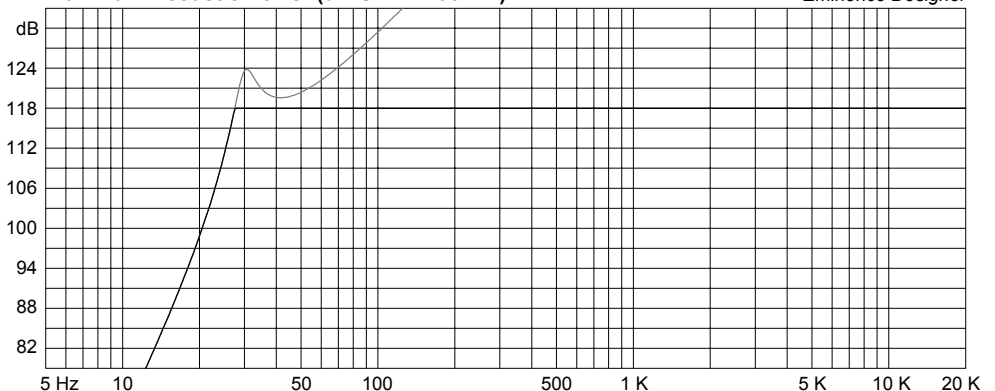
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 600 watts

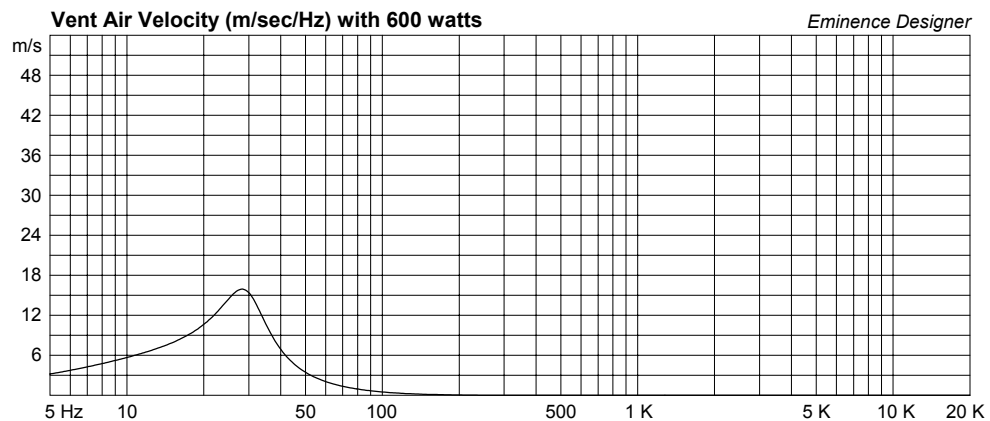
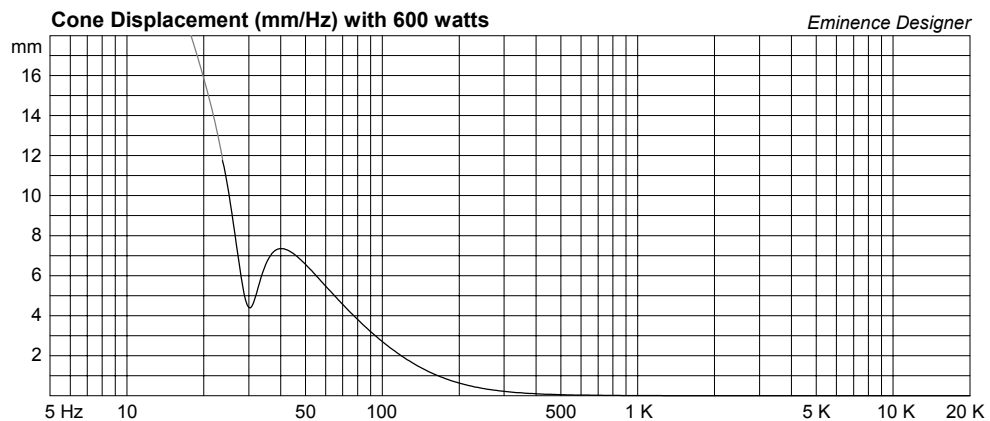
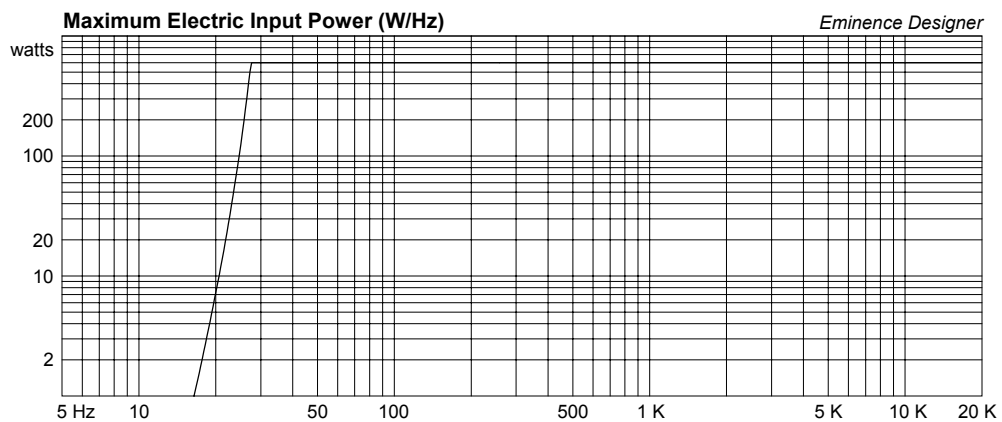
Eminence Designer

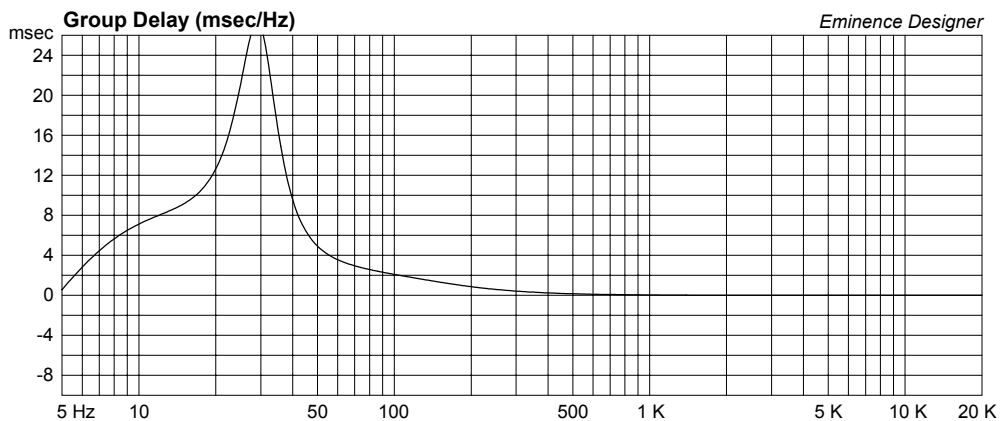
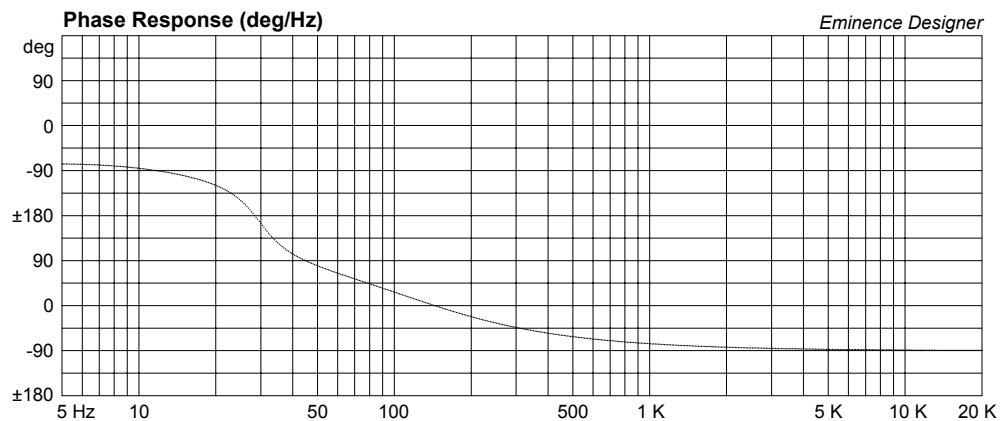
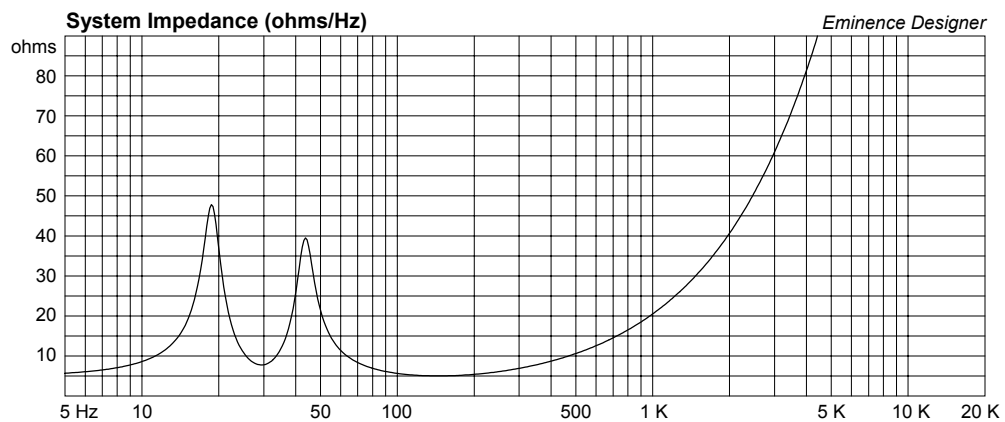


Maximum Acoustic Power (dB-SPL/Hz at 1 m)

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

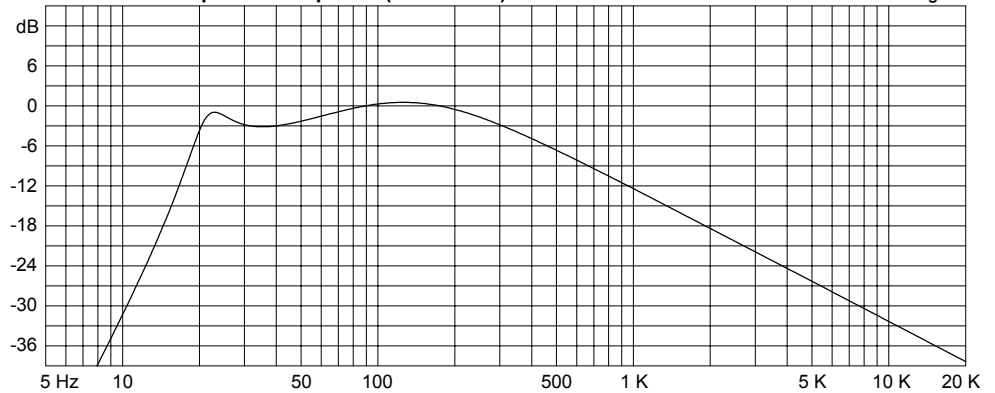
Le = 3.23 mH

Z = 6 ohms

Pe = 600 watts

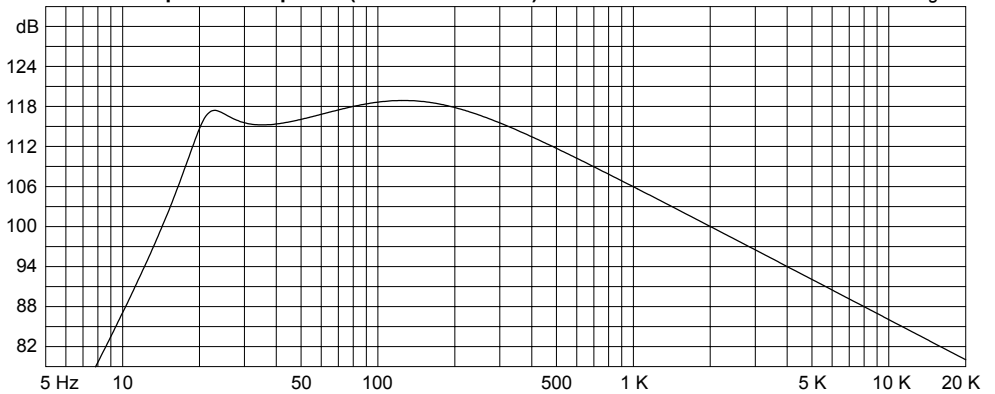
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



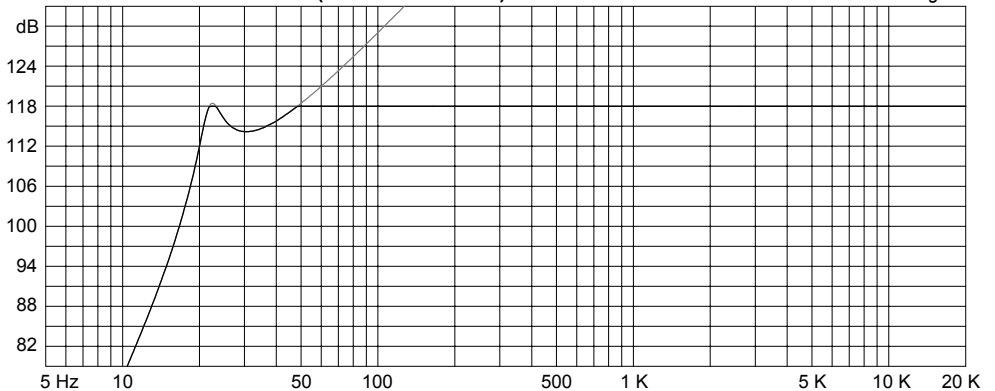
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 600 watts

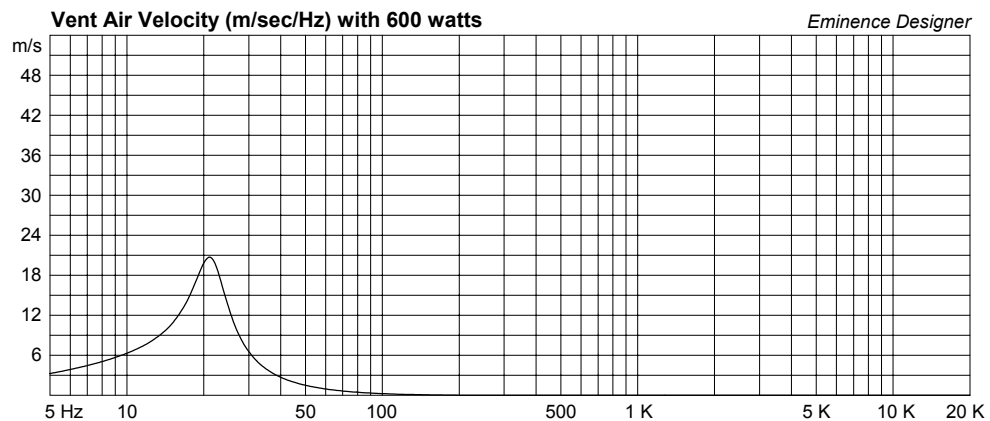
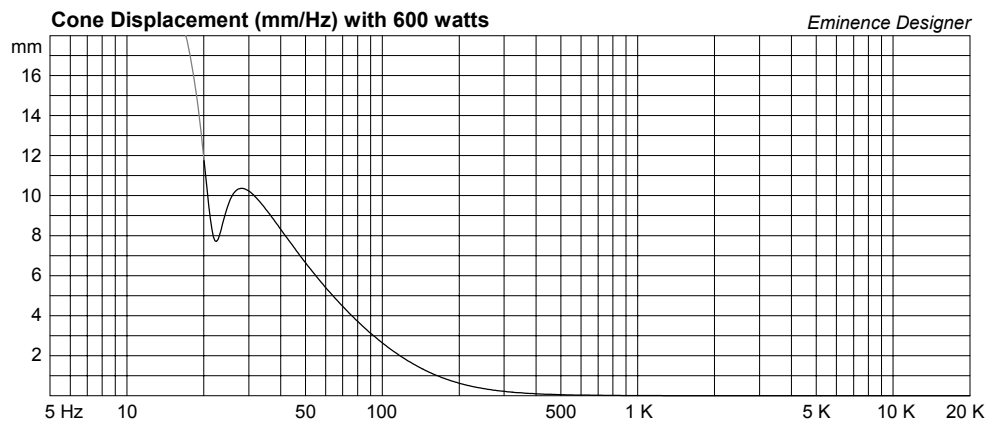
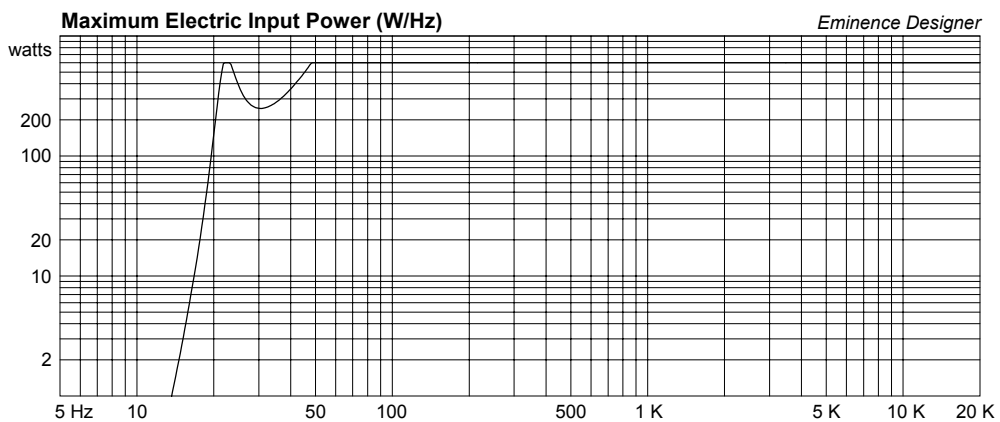
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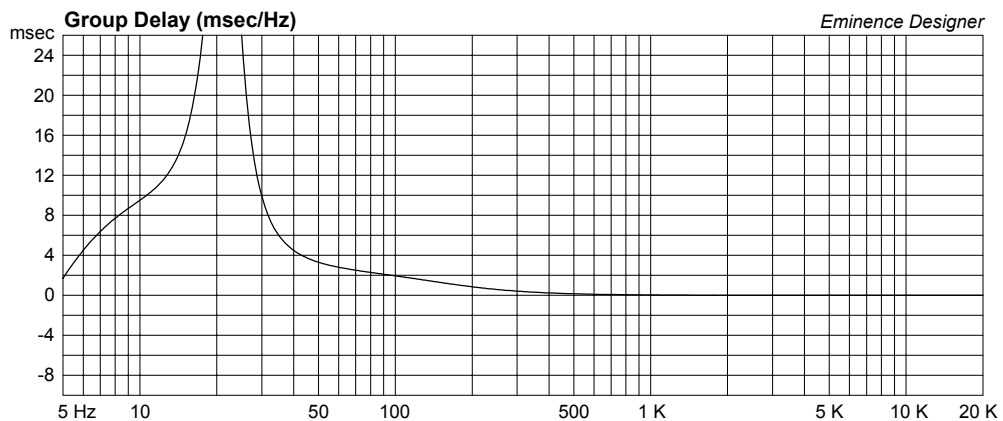
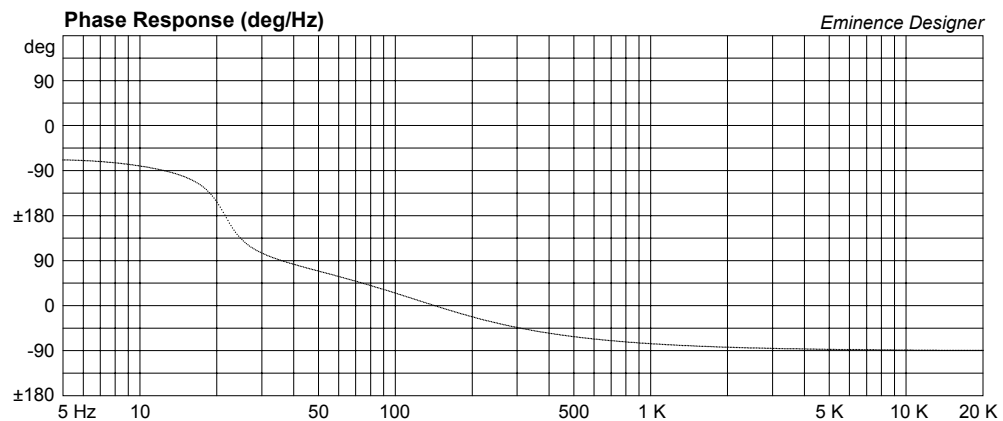
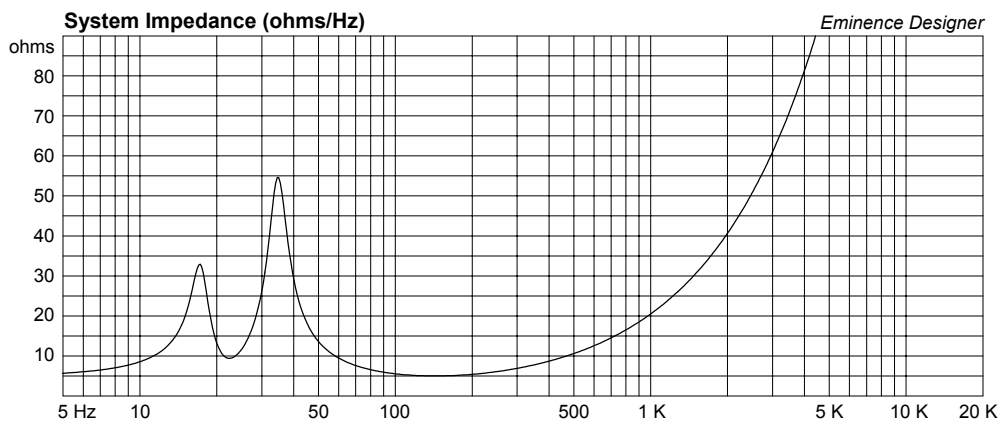


Maximum Acoustic Power (dB-SPL/Hz at 1 m)

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

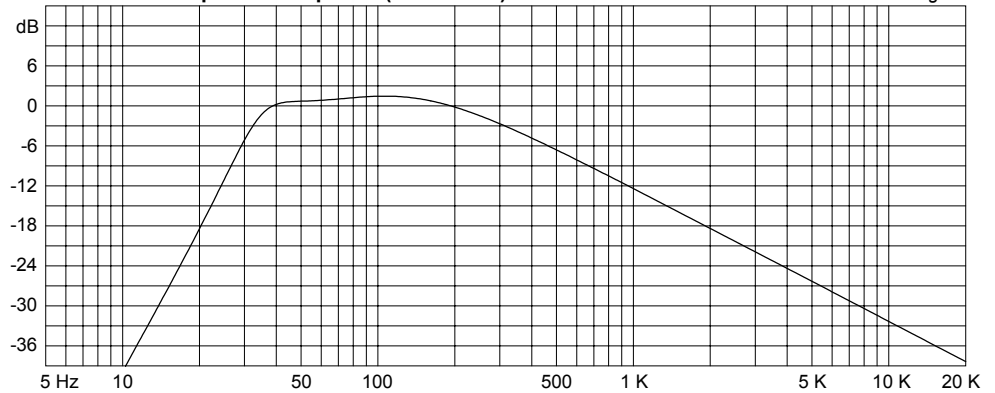
Le = 3.23 mH

Z = 6 ohms

Pe = 600 watts

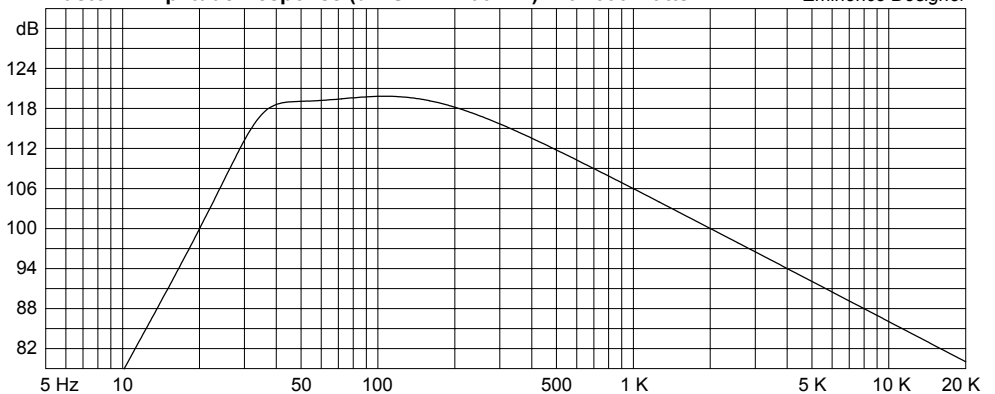
Normalized Amplitude Response (dB-SPL/Hz)

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

