

# LA10850 Large Vented Mid/Bass Design

By Jerry McNutt, Eminence Speaker LLC  
150 Watts; F3 at 90 Hz. Best used above 120 Hz.



## Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 1.2 cu.ft

V(total) = 1.267 cu.ft

Fb = 100 Hz

QL = 7

F3 = 92.87 Hz

Fill = minimal

--Vents--

No. of Vents = 1

Vent shape = round

Vent ends = two flared

Dv = 5.188 in

Lv = 0.75 in

## Driver Properties

--Description--

Name: LA10850

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 10" Midrange

--Configuration--

**No. of Drivers = 1**

--Mechanical Parameters--

Fs = 55.33 Hz

Qms = 9.09

Vas = 57.68 liters

Cms = 0.31 mm/N

Mms = 26.42 g

Rms = 1.01 kg/s

Xmax = 2.9 mm

Xmech = 10.35 mm

P-Dia = 214.7 mm

Sd = 366.1 sq.cm

P-Vd = 0.105 liters

--Electrical Parameters--

Qes = 0.26

Re = 5.13 ohms

Le = 0.54 mH

Z = 8 ohms

BL = 13.44 Tm

Pe = 350 watts

--Electromech. Parameters--

Qts = 0.25

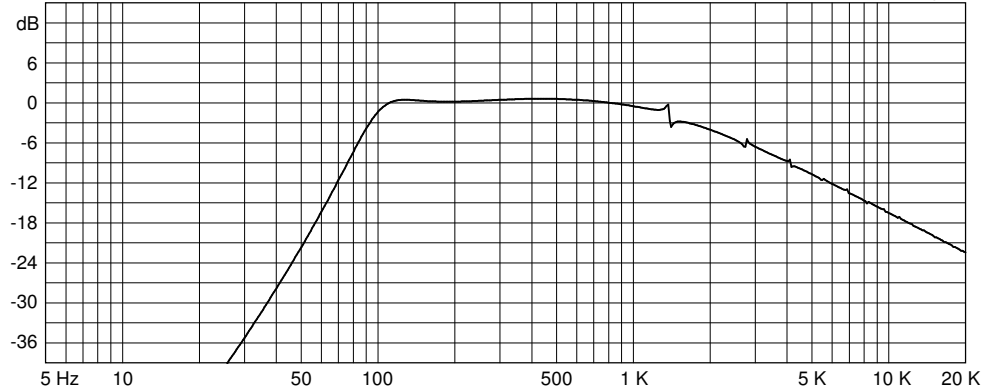
no = 3.623 %

1-W SPL = 97.74 dB

2.83-V SPL = 99.67 dB

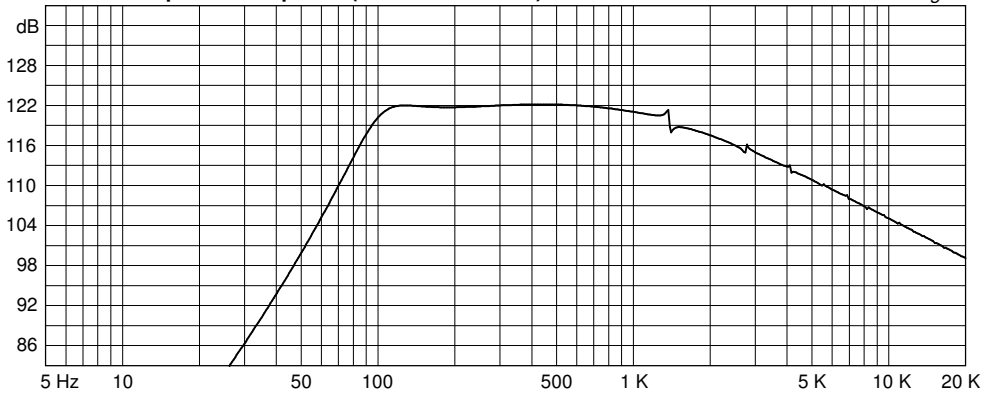
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



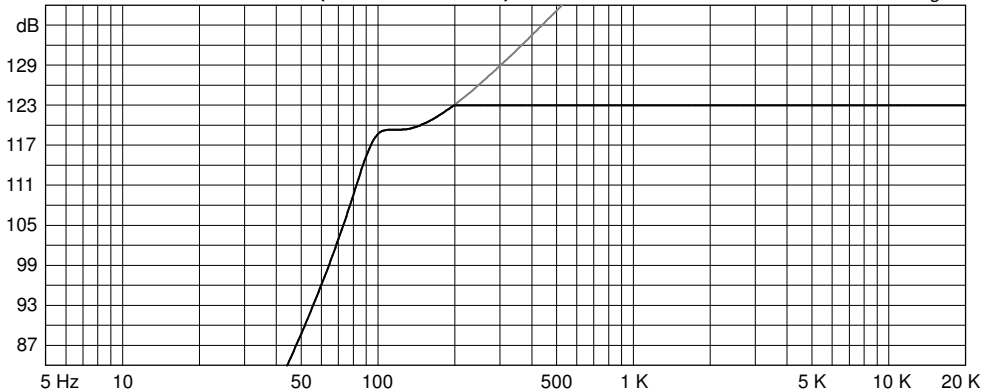
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 150 watts

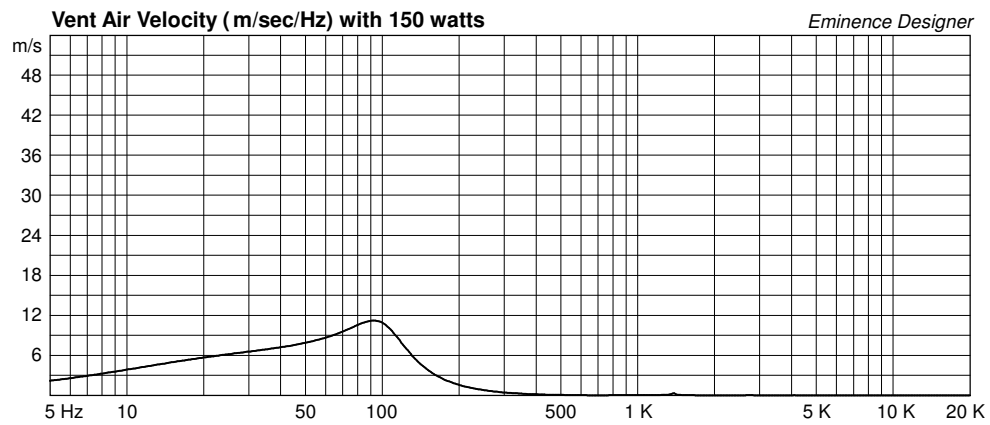
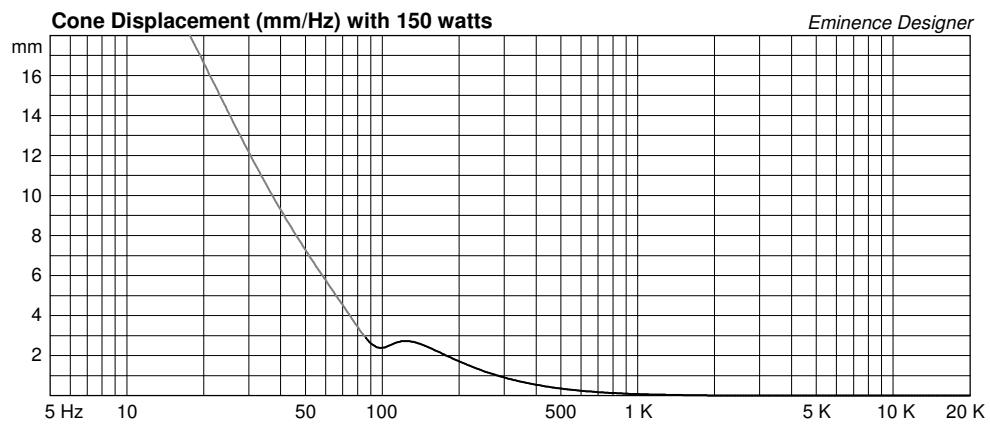
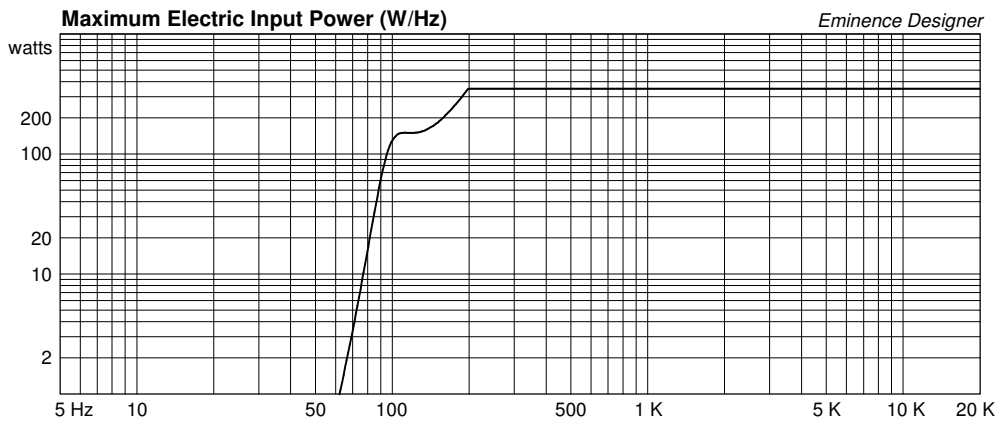
Eminence Designer

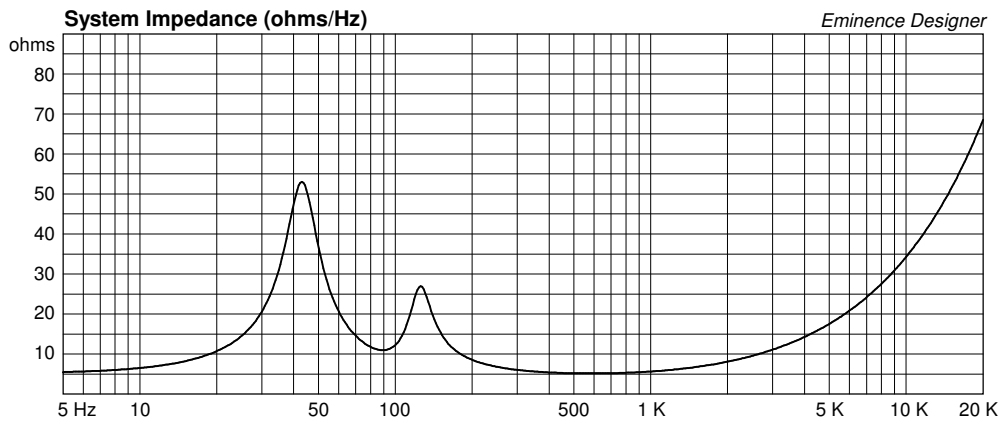


Maximum Acoustic Power (dB-SPL/Hz at 1 m)

Eminence Designer







# LA10850 Large Sealed Midrange Design

By Jerry McNutt, Eminence Speaker LLC  
300 Watts; best used above 230 Hz.



## Box Properties

--Description--

Name:

Type: Closed Box

Shape: Prism, square

--Box Parameters--

Vb = 1 cu.ft

V(total) = 1.067 cu.ft

Qtc = 0.372

QL = 20

F3 = 189.5 Hz

Fill = heavy

## Driver Properties

--Description--

Name: LA10850

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 10" Midrange

--Configuration--

**No. of Drivers = 1**

--Mechanical Parameters--

Fs = 55.33 Hz

Qms = 9.09

Vas = 57.68 liters

Cms = 0.31 mm/N

Mms = 26.42 g

Rms = 1.01 kg/s

Xmax = 2.9 mm

Xmech = 10.35 mm

P-Dia = 214.7 mm

Sd = 366.1 sq.cm

P-Vd = 0.105 liters

--Electrical Parameters--

Qes = 0.26

Re = 5.13 ohms

Le = 0.54 mH

Z = 8 ohms

BL = 13.44 Tm

Pe = 350 watts

--Electromech. Parameters--

Qts = 0.25

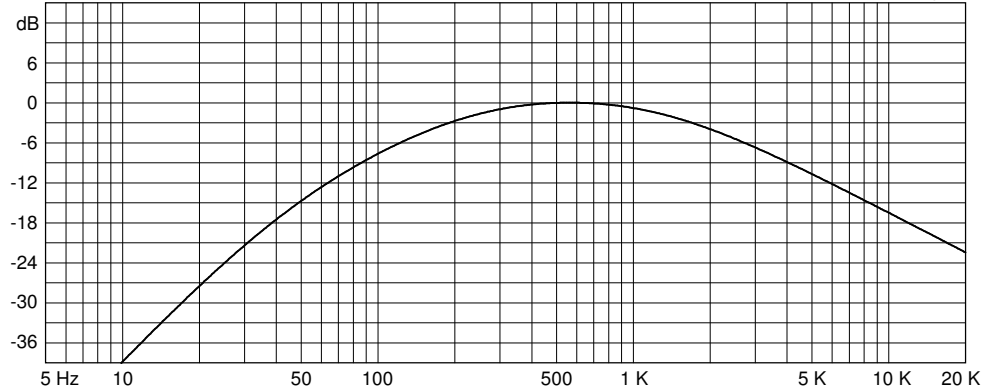
no = 3.623 %

1-W SPL = 97.74 dB

2.83-V SPL = 99.67 dB

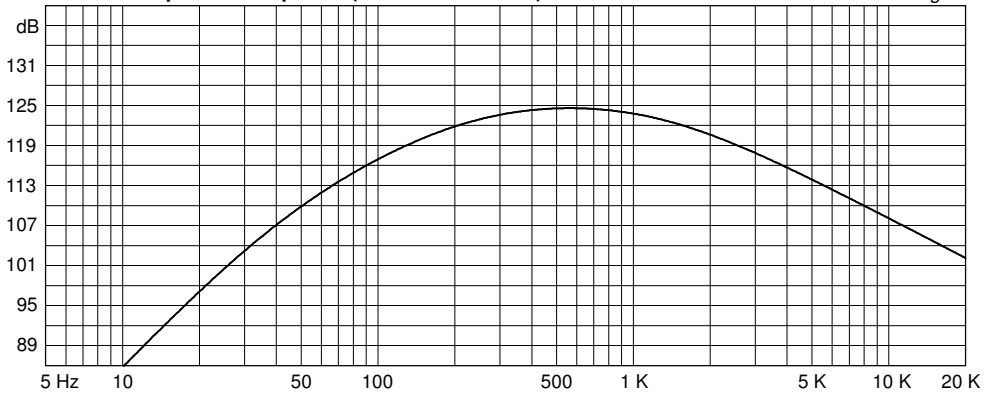
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



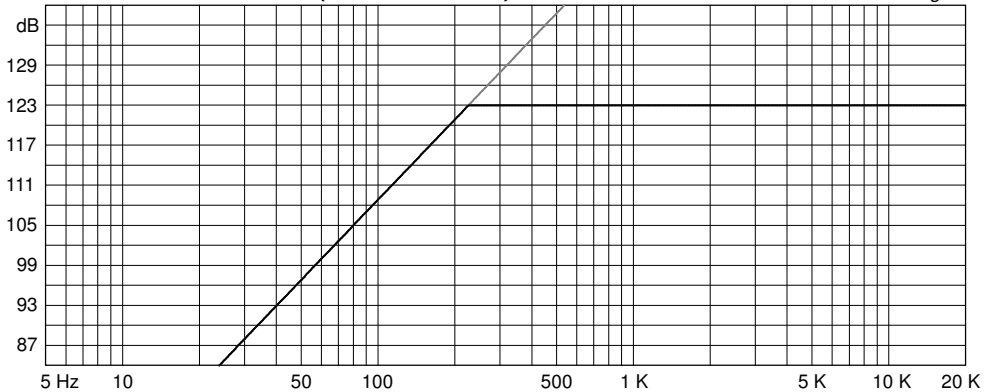
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 300 watts

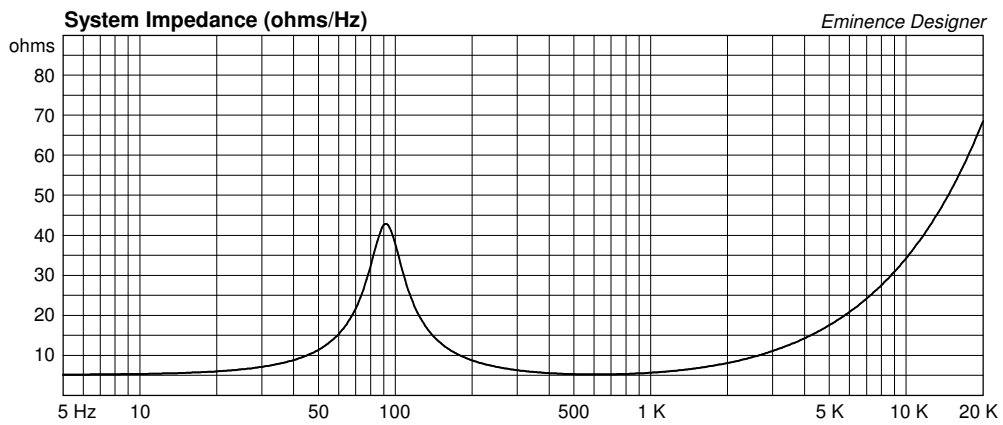
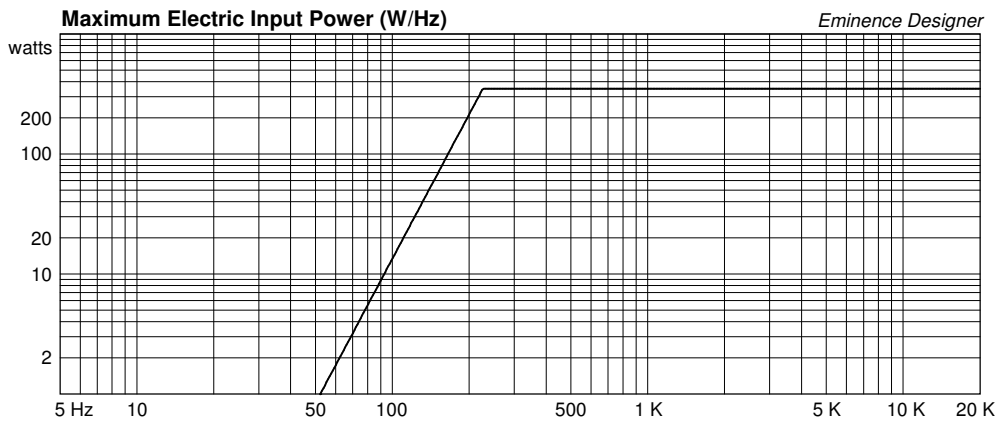
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Maximum Acoustic Power (dB-SPL/Hz at 1 m)

Eminence Designer





# LA10850 Small Sealed Midrange Design

By Jerry McNutt, Eminence Speaker LLC  
300 Watts; best used above 230 Hz.



## Box Properties

--Description--

Name:

Type: Closed Box

Shape: Prism, square

--Box Parameters--

Vb = 0.544 cu.ft

V(total) = 0.611 cu.ft

Qtc = 0.45

QL = 20

F3 = 184.7 Hz

Fill = heavy

## Driver Properties

--Description--

Name: LA10850

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 10" Midrange

--Configuration--

**No. of Drivers = 1**

--Mechanical Parameters--

Fs = 55.33 Hz

Qms = 9.09

Vas = 57.68 liters

Cms = 0.31 mm/N

Mms = 26.42 g

Rms = 1.01 kg/s

Xmax = 2.9 mm

Xmech = 10.35 mm

P-Dia = 214.7 mm

Sd = 366.1 sq.cm

P-Vd = 0.105 liters

--Electrical Parameters--

Qes = 0.26

Re = 5.13 ohms

Le = 0.54 mH

Z = 8 ohms

BL = 13.44 Tm

Pe = 350 watts

--Electromech. Parameters--

Qts = 0.25

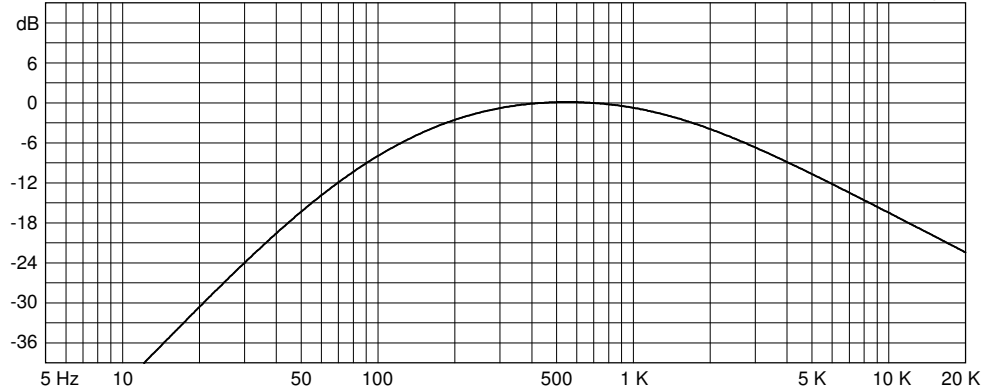
no = 3.623 %

1-W SPL = 97.74 dB

2.83-V SPL = 99.67 dB

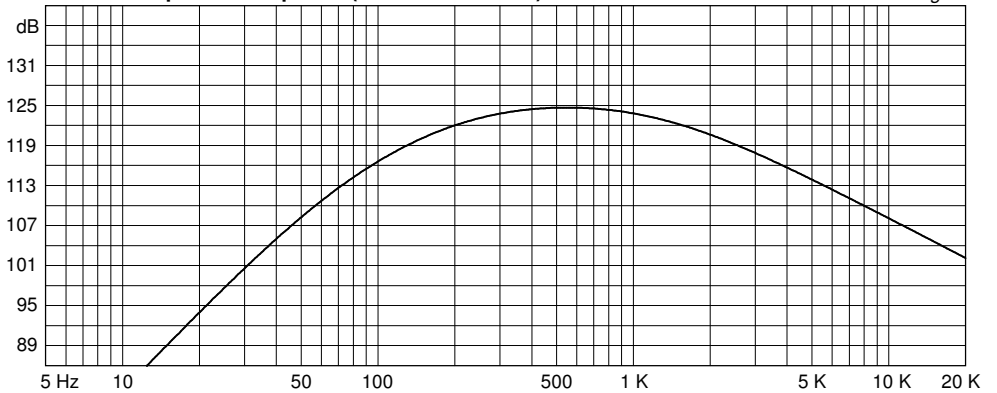
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



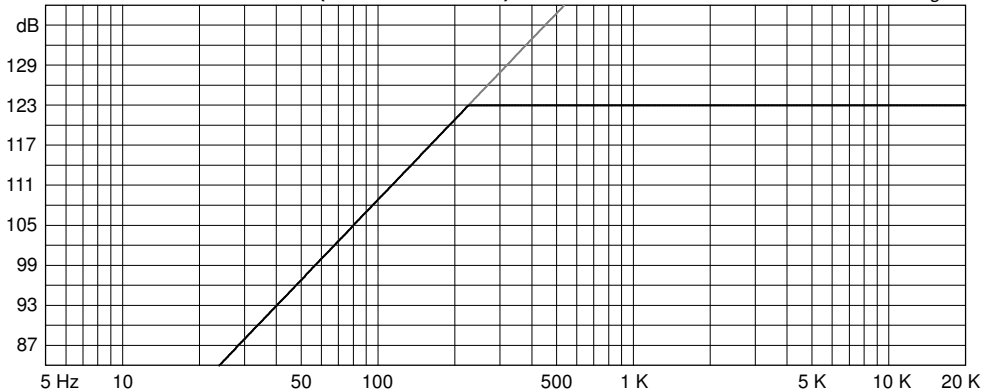
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 300 watts

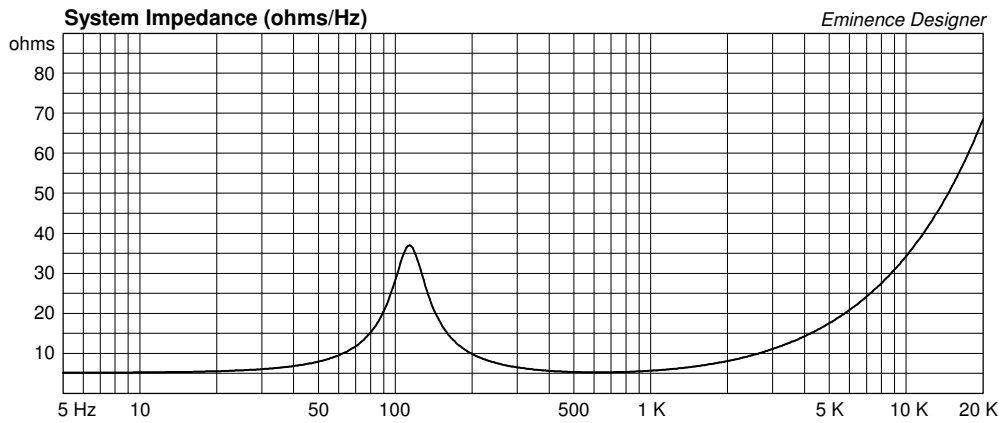
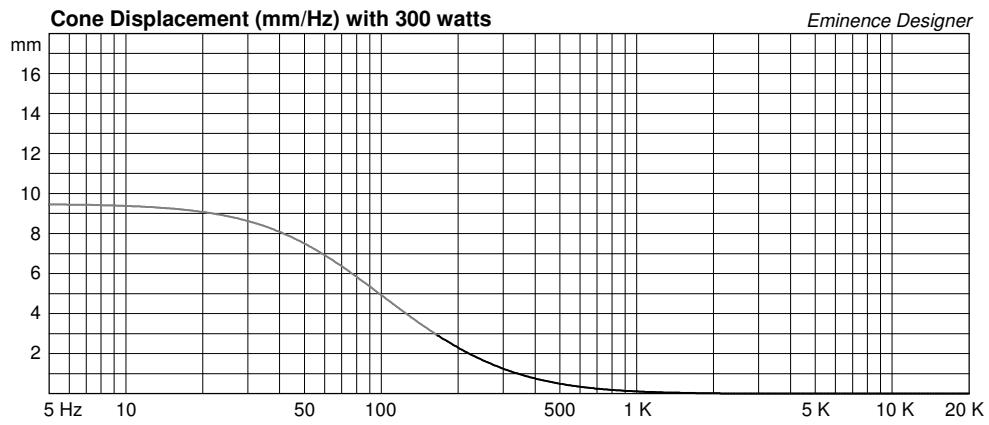
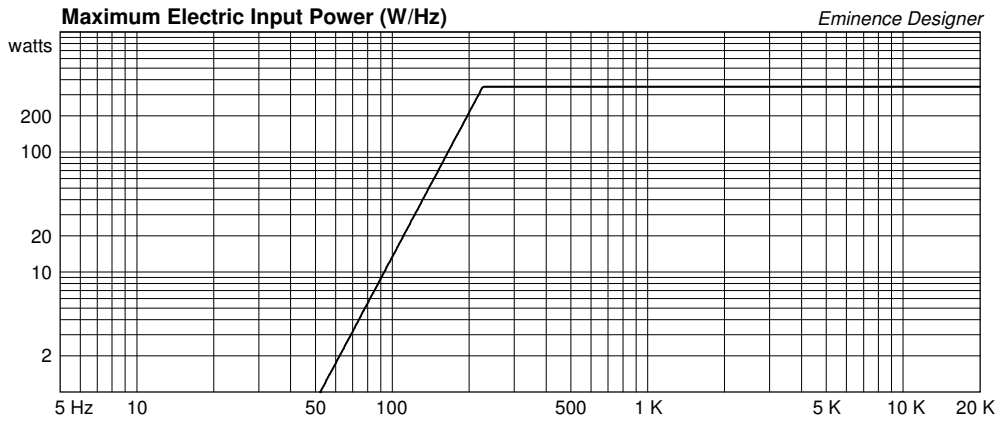
Eminence Designer



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

Eminence Designer





# LA10850 Small Vented Mid/Bass Design

By Jerry McNutt, Eminence Speaker LLC  
300 Watts; F3 at 117 Hz. Best used above 125 Hz.



## Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square

--Box Parameters--

Vb = 0.523 cu.ft

V(total) = 0.59 cu.ft

Fb = 125 Hz

QL = 7

F3 = 113.4 Hz

Fill = minimal

--Vents--

No. of Vents = 1

Vent shape = round

Vent ends = one flush

Dv = 4.354 in

Lv = 0.75 in

## Driver Properties

--Description--

Name: LA10850

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 10" Midrange

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 55.33 Hz

Qms = 9.09

Vas = 57.68 liters

Cms = 0.31 mm/N

Mms = 26.42 g

Rms = 1.01 kg/s

Xmax = 2.9 mm

Xmech = 10.35 mm

P-Dia = 214.7 mm

Sd = 366.1 sq.cm

P-Vd = 0.105 liters

--Electrical Parameters--

Qes = 0.26

Re = 5.13 ohms

Le = 0.54 mH

Z = 8 ohms

BL = 13.44 Tm

Pe = 350 watts

--Electromech. Parameters--

Qts = 0.25

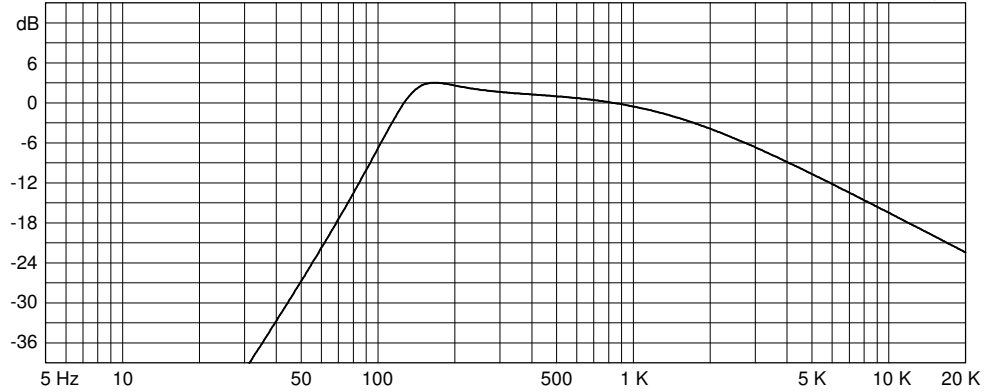
no = 3.623 %

1-W SPL = 97.74 dB

2.83-V SPL = 99.67 dB

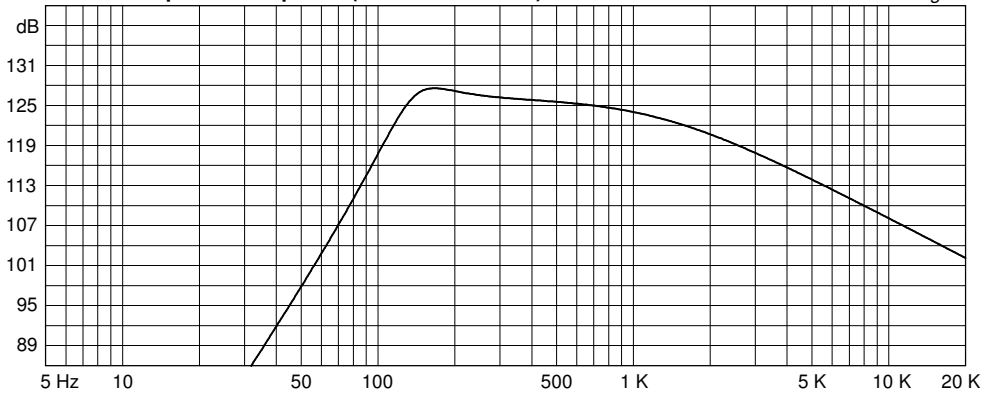
Normalized Amplitude Response (dB-SPL/Hz)

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

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

Eminence Designer

