

EMINENCE®  
Tour Grade Speaker

**FSW4018-8**

**18" Tour Grade - American Muscle**

Made for the road, it's the most powerful ceramic 18" subwoofer Eminence has to offer. Long linear excursion with extremely high power handling contribute to top notch performance in small to large vented enclosures.

**18" | 3200 W  
8 Ω**



- Midrange     Woofer     Sealed Box     Scoop Loading  
 Midbass     Subwoofer     Bass Guitar     Vented Box     Horn Loading

**SPECIFICATION**

Nominal Basket Diameter	18.0", 457 mm
Nominal Impedance*	8 Ω
Power Rating**	
Watts (AES)	1600 W
Music Program	3200 W
Peak Power	6400 W
Resonance	38 Hz
Usable Frequency Range	28 Hz - 1.5 kHz
Sensitivity***	96.0 dB
Magnet Weight	146 oz.
Gap Height	0.591", 15.0 mm
Voice Coil Diameter	4.0", 102 mm
Winding Height	1.22", 30.99 mm
Mirror Image Twin Spiders	
Water Resistant	

**THIELE SMALL PARAMETERS\***

Fs	38 Hz
Re	5.30 Ω
Le	1.50 mH
Qms	22.89
Qes	0.39
Qts	0.39
Vas	5.08 cu.ft., 143.93 liters
Vd	1716.0 cc
Cms	0.07 mm/N
BL	27.97 T-M
Mms	240 grams
EBP	98
Xmax	14.10 mm
Sd	1217.0 cm <sup>2</sup>
Xlim	28.4 mm

**MOUNTING INFORMATION**

Recommended Enclosure Volume	
Sealed	N/A - liters, N/A - cu.ft.
Vented	99.11 - 339.80 liters, 3.50 - 12.00 cu.ft.
Driver Volume Displaced	0.236 cu.ft., 6.67 liters
Overall Diameter	18.13", 460.5 mm
Baffle Hole Diameter	16.60", 421.6 mm
Front Sealing Gasket	Yes
Rear Sealing Gasket	N/A
Mounting Holes Diameter	0.28", 7.1 mm
Mounting Holes B.C.D.	17.32", 439.9 mm
Depth	9.42", 239.3 mm
Net Weight	31.10 lbs., 14.11 kg
Shipping Weight	33.60 lbs., 15.24 kg

**MATERIALS OF CONSTRUCTION**

I/O Copper Voice Coil	Die-cast Aluminum Basket
Fiberglass Former	X5 Cone Pulp
Ferrite Magnet	Advanced Polycotton Surround
Undercut Plate Core	X5 Dust Cap Pulp





*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](http://www.eminence.com) for specifications of models with alternative impedances.
- \*\* Eminence Speaker LLC Tour Grade Drivers are power tested using the AES-1984 Testing Guidelines.
- \*\*\* 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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# FSW4018-8 Small Vented Box Design

By Matt Marcum, Eminence Speaker LLC

Thermally limited to 1600W; F3 of 40Hz. Use steep high pass filter set to 32Hz

Place ports symmetrically about the woofer to reduce chance of cone rock.



## Box Properties

--Description--

Name: Vented Box 1

Type: Vented Box

Shape: Prism, square

Company: Eminence Speaker LLC

--Box Parameters--

Vb = 4.6 cu.ft

V(total) = 5.78 cu.ft

Fb = 40 Hz

QL = 6.679

F3 = 40.3 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = rectangle

Vent ends = one flush

Hv = 2 in

Wv = 16 in

Lv = 19.85 in

## Driver Properties

--Description--

Name: FSW4018-8

Type: Standard one-way driver

Company: Eminence Speaker LLC

--Configuration--

**No. of Drivers = 1**

--Mechanical Parameters--

Fs = 38.5 Hz

Qms = 22.89

Vas = 143.9 liters

Cms = 0.0684 mm/N

Mms = 239.5 g

Rms = 2.64 kg/s

Xmax = 14.1 mm

Xmech = 21 mm

P-Dia = 393.7 mm

Sd = 1217 sq.cm

P-Vd = 1.716 liters

--Electrical Parameters--

Qes = 0.39

Re = 5.3 ohms

Le = 1.5 mH

Z = 8 ohms

BL = 27.97 Tm

Pe = 1600 watts

--Electromech. Parameters--

Qts = 0.383

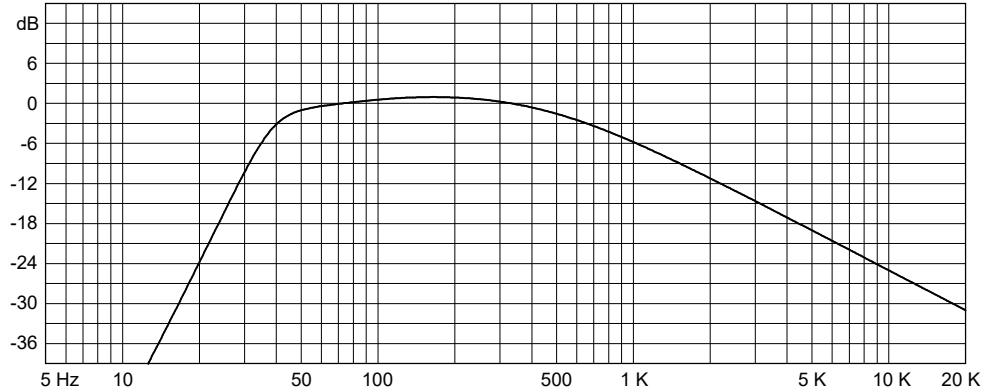
no = 2.031 %

1-W SPL = 95.22 dB

2.83-V SPL = 97.01 dB

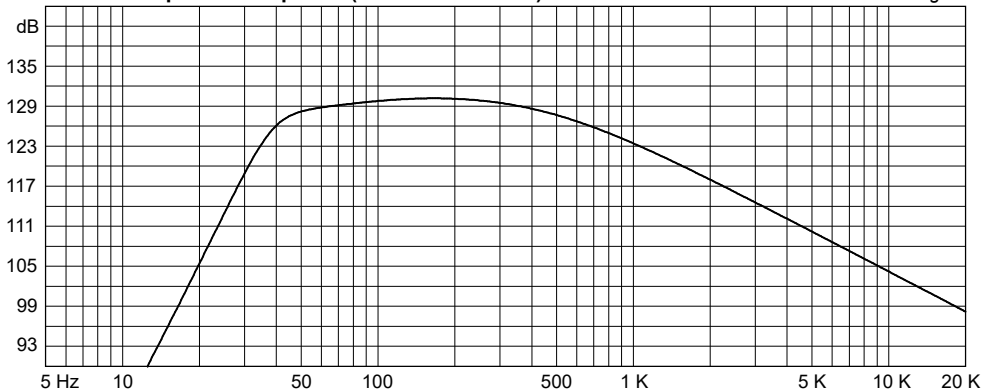
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



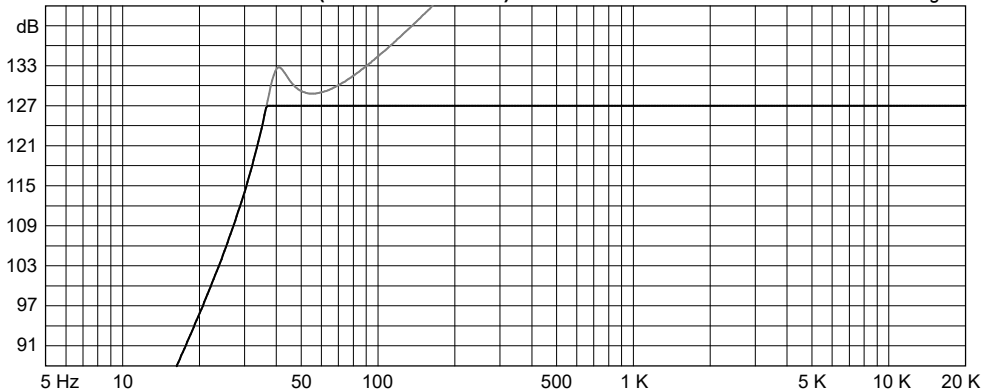
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 1600 watts

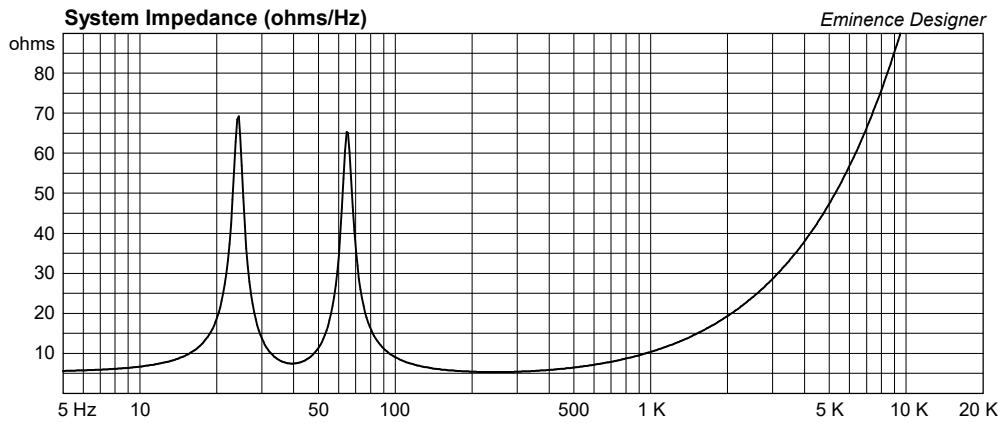
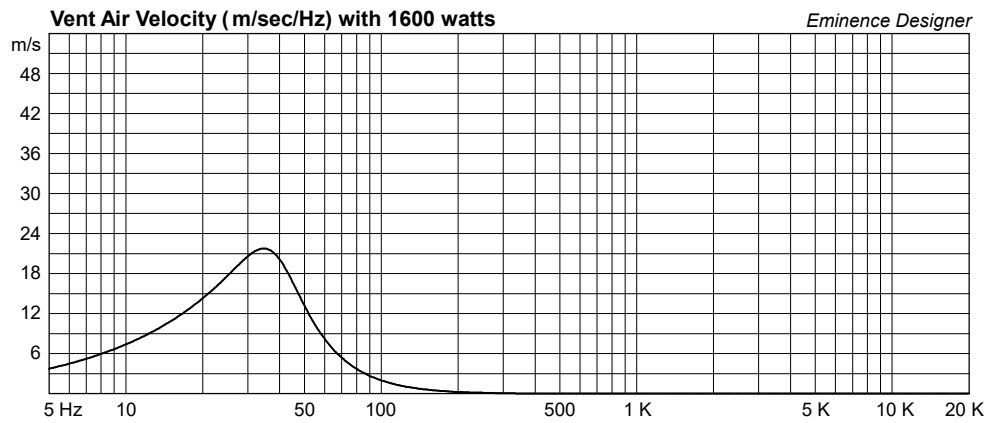
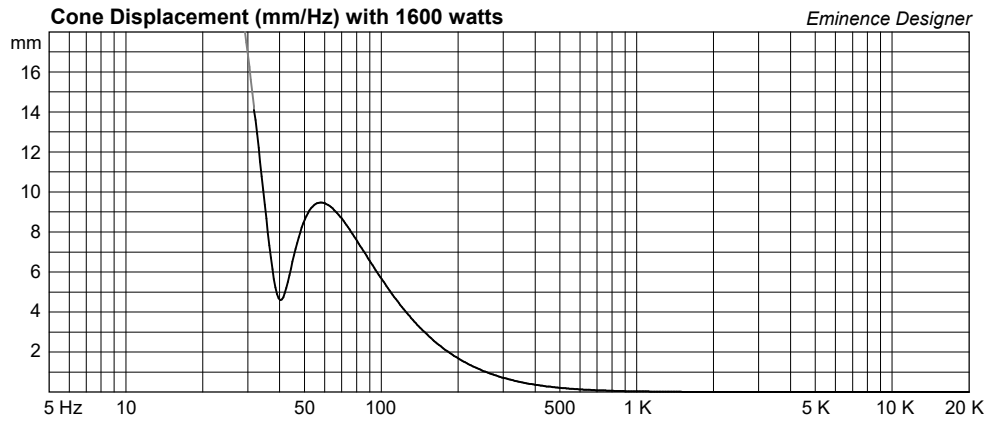
Eminence Designer



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

Eminence Designer





# FSW4018-8 Dual 18 Su

By Matt Marcum, Eminence Speaker LLC  
Thermally limited to 1600W; F3 of 34Hz. Use steep high pass filter set to 29Hz  
Place ports symmetrically about the woofer to reduce chance of cone rock.



## Box Properties

--Description--

Name: Vented Box 4  
Type: Vented Box  
Shape: Prism, square  
Company: Eminence Speaker LLC

--Box Parameters--

Vb = 14 cu.ft  
V(total) = 16.35 cu.ft  
Fb = 34 Hz  
QL = 6.679  
F3 = 34.1 Hz  
Fill = minimal

--Vents--

No. of Vents = 2  
Vent shape = rectangle  
Vent ends = one flush  
Hv = 3 in  
Wv = 24 in  
Lv = 18.16 in

## Driver Properties

--Description--

Name: FSW4018-8  
Type: Standard one-way driver  
Company: Eminence Speaker LLC

--Configuration--

**No. of Drivers =**

Mounting = Standard  
Wiring = Parallel  
Drivers sum coherently = Yes

--Mechanical Parameters--

Fs = 38.5 Hz  
Qms = 22.89  
Vas = 143.9 liters 287.9  
Cms = 0.0684 mm/N 0.0342  
Mms = 239.5 g 479  
Rms = 2.64 kg/s 5.28  
Xmax = 14.1 mm  
Xmech = 21 mm  
P-Dia = 393.7 mm 556.8  
Sd = 1217 sq.cm 2434  
P-Vd = 1.716 liters 3.432

--Electrical Parameters--

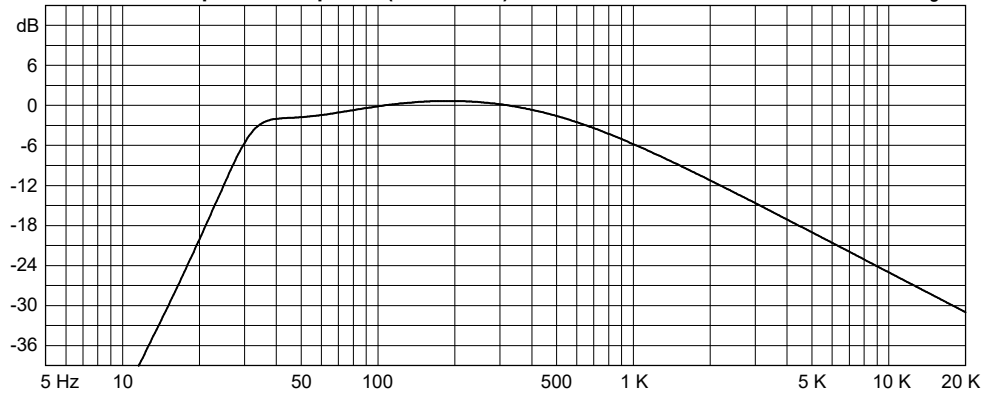
Qes = 0.39  
Re = 5.3 ohms 2.65  
Le = 1.5 mH 0.75  
Z = 8 ohms 4  
BL = 27.97 Tm 28.06  
Pe = 1600 watts 3200

--Electromech. Parameters--

Qts = 0.383  
no = 2.031 % 4.062  
1-W SPL = 95.22 dB 98.23  
2.83-V SPL = 97.01 dB 103

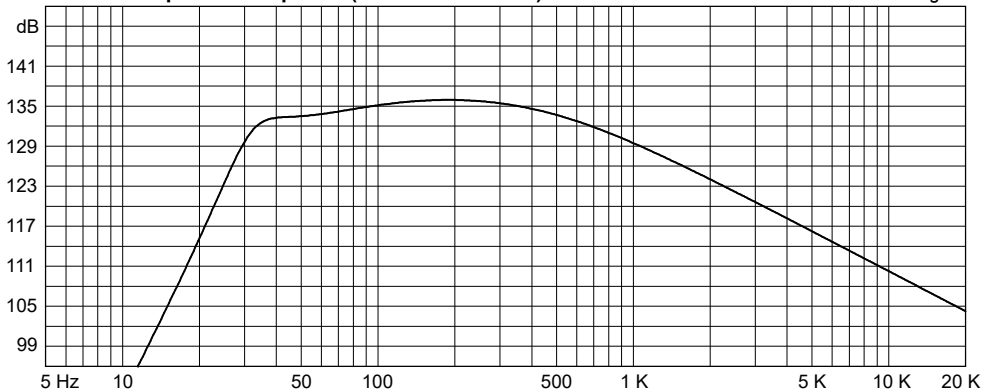
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



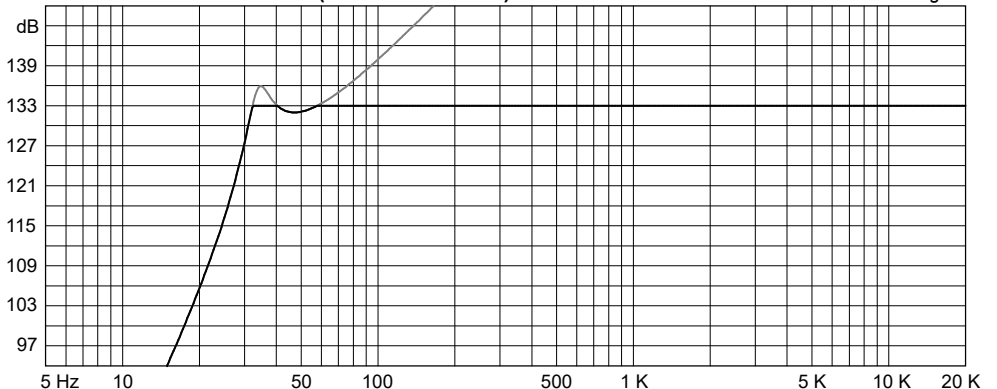
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 00 watts

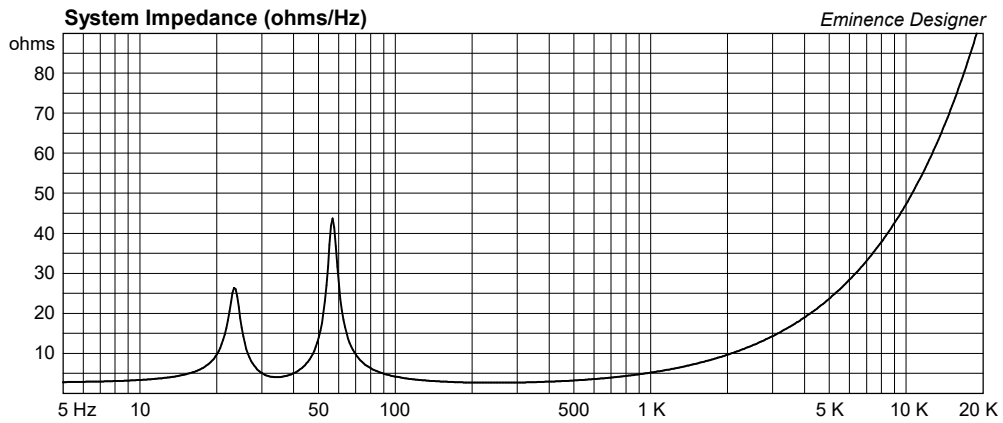
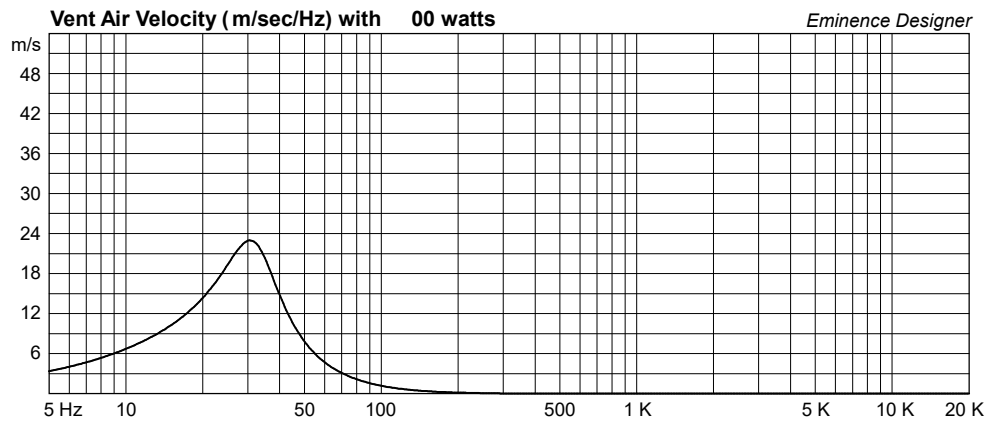
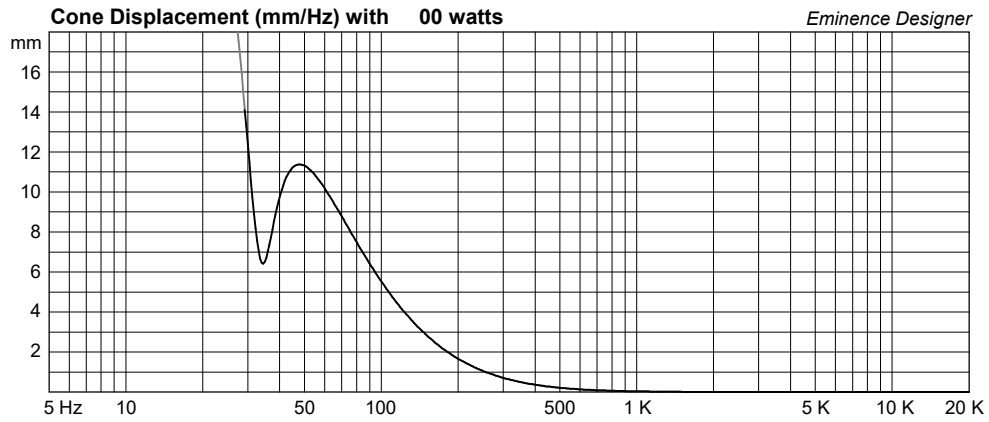
Eminence Designer



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

Eminence Designer





# FSW4018-8 Large Vented Box Design

By Matt Marcum, Eminence Speaker LLC

Thermally limited to 1600W; F3 of 28Hz. Use steep high pass filter set to 27Hz

Place ports symmetrically about the woofer to reduce chance of cone rock.



## Box Properties

--Description--

Name: Vented Box 3

Type: Vented Box

Shape: Prism, square

Company: Eminence Speaker LLC

--Box Parameters--

Vb = 12 cu.ft

V(total) = 13.83 cu.ft

Fb = 28 Hz

QL = 6.679

F3 = 27.83 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = rectangle

Vent ends = one flush

Hv = 2 in

Wv = 24 in

Lv = 23.6 in

## Driver Properties

--Description--

Name: FSW4018-8

Type: Standard one-way driver

Company: Eminence Speaker LLC

--Configuration--

**No. of Drivers = 1**

--Mechanical Parameters--

Fs = 38.5 Hz

Qms = 22.89

Vas = 143.9 liters

Cms = 0.0684 mm/N

Mms = 239.5 g

Rms = 2.64 kg/s

Xmax = 14.1 mm

Xmech = 21 mm

P-Dia = 393.7 mm

Sd = 1217 sq.cm

P-Vd = 1.716 liters

--Electrical Parameters--

Qes = 0.39

Re = 5.3 ohms

Le = 1.5 mH

Z = 8 ohms

BL = 27.97 Tm

Pe = 1600 watts

--Electromech. Parameters--

Qts = 0.383

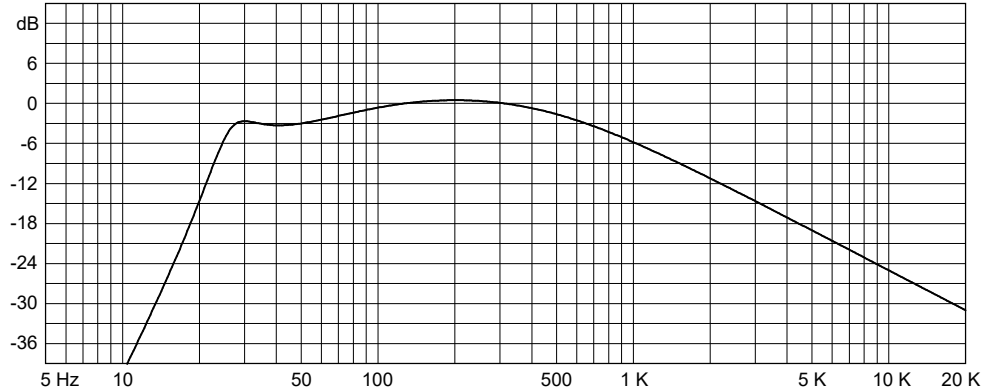
no = 2.031 %

1-W SPL = 95.22 dB

2.83-V SPL = 97.01 dB

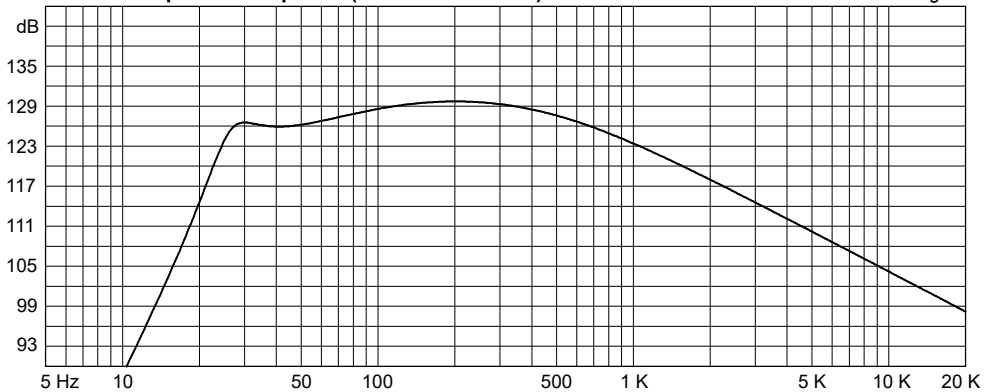
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



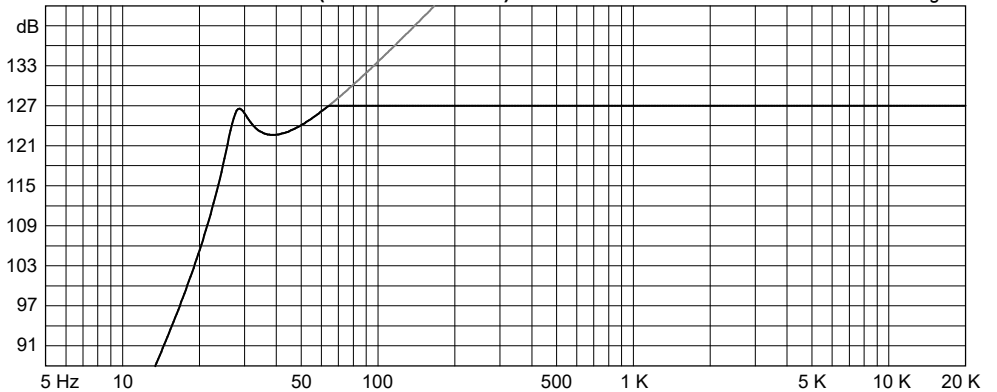
Custom Amplitude Response (dB-SPL/Hz at 1 m) with 1600 watts

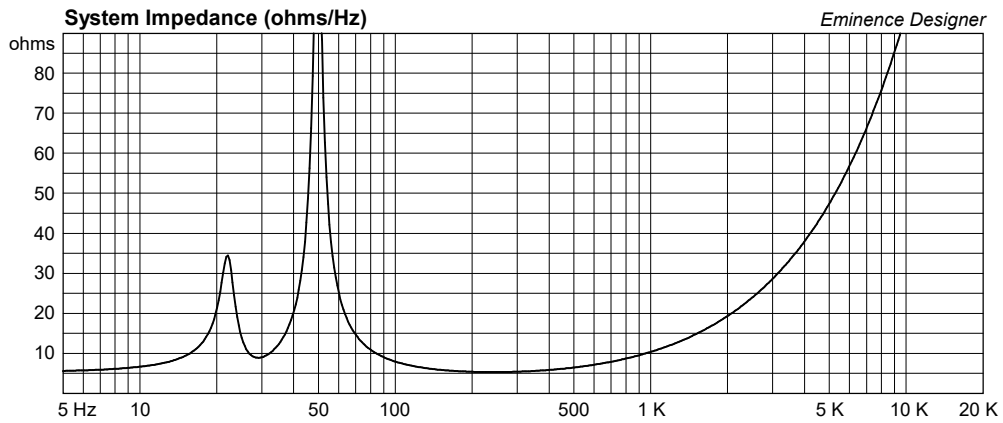
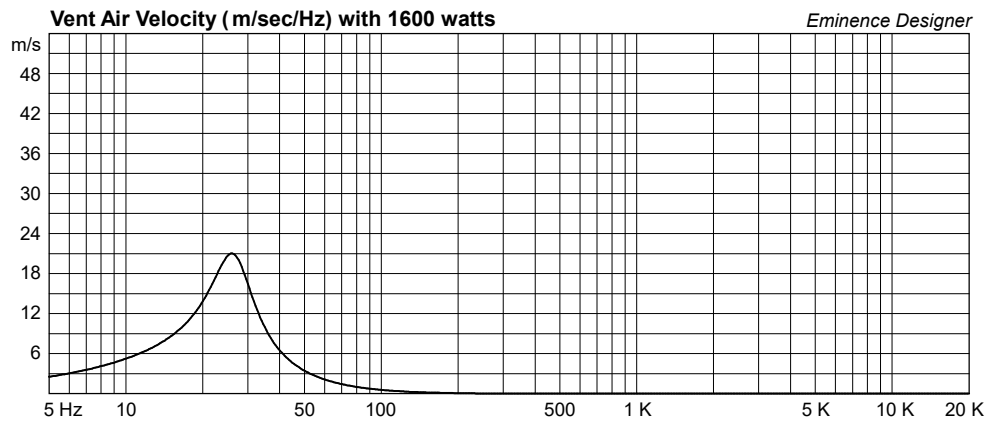
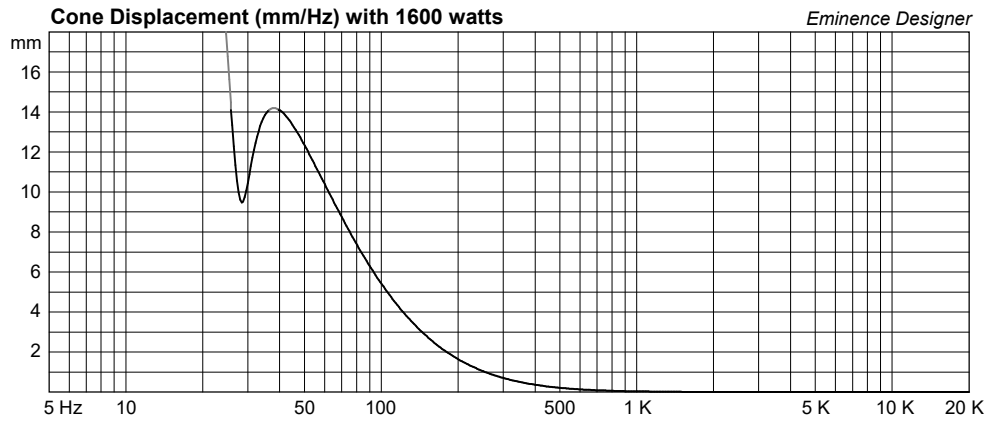
Eminence Designer



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

Eminence Designer







# FSW4018-8 Medium Vented Box Design

By Matt Marcum, Eminence Speaker LLC

Thermally limited to 1600W; F3 of 34Hz. Use steep high pass filter set to 30Hz

Place ports symmetrically about the woofer to reduce chance of cone rock.



## Box Properties

--Description--

Name: Vented Box 2

Type: Vented Box

Shape: Prism, square

Company: Eminence Speaker LLC

--Box Parameters--

Vb = 7 cu.ft

V(total) = 8.304 cu.ft

Fb = 34 Hz

QL = 6.679

F3 = 34.05 Hz

Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = rectangle

Vent ends = one flush

Hv = 2 in

Wv = 18 in

Lv = 20.29 in

## Driver Properties

--Description--

Name: FSW4018-8

Type: Standard one-way driver

Company: Eminence Speaker LLC

--Configuration--

**No. of Drivers = 1**

--Mechanical Parameters--

Fs = 38.5 Hz

Qms = 22.89

Vas = 143.9 liters

Cms = 0.0684 mm/N

Mms = 239.5 g

Rms = 2.64 kg/s

Xmax = 14.1 mm

Xmech = 21 mm

P-Dia = 393.7 mm

Sd = 1217 sq.cm

P-Vd = 1.716 liters

--Electrical Parameters--

Qes = 0.39

Re = 5.3 ohms

Le = 1.5 mH

Z = 8 ohms

BL = 27.97 Tm

Pe = 1600 watts

--Electromech. Parameters--

Qts = 0.383

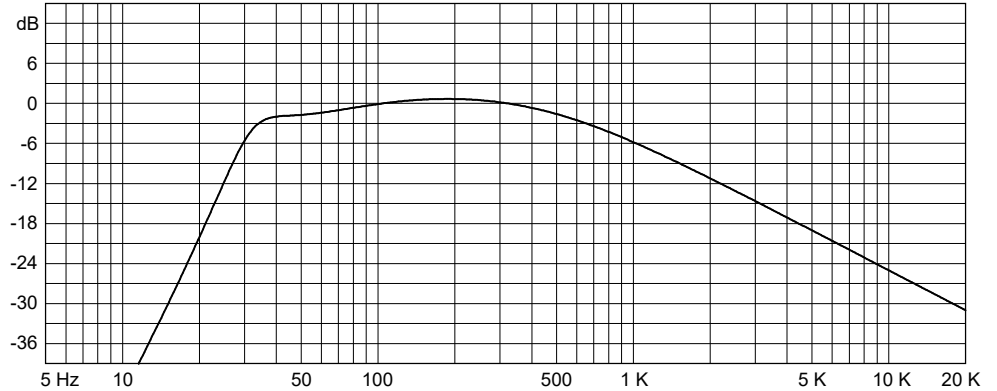
no = 2.031 %

1-W SPL = 95.22 dB

2.83-V SPL = 97.01 dB

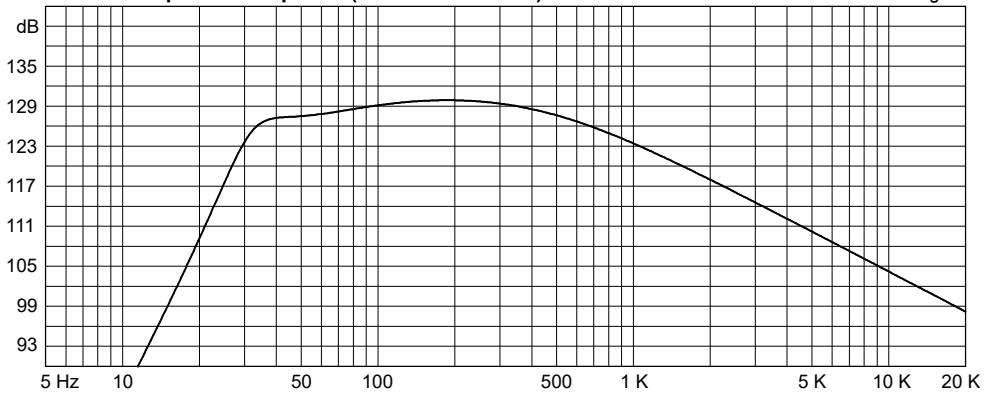
Normalized Amplitude Response (dB-SPL/Hz)

Eminence Designer



Custom Amplitude Response (dB-SPL/Hz at 1 m) with 1600 watts

Eminence Designer



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

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