Sub118

18 inch Direct-Radiating Subwoofer



Overview

The Sub118 is an all purpose, 18 inch, vented subwoofer that is designed to provide extended low frequency support in a wide variety of installations. Its premium, high power transducer is physically engaging, yet is musically articulate enough to reproduce the subtlety and harmonic nuance of an upright bass or the low strings of a piano.

The Sub118 requires digital signal processing, and many platforms are supported. The Sub118 is an excellent option any time a compact subwoofer with robust SPL capability is needed. This makes it the perfect choice for medium-sized houses of worship and theatres, and for distributed low frequency reinforcement in nightclubs, restaurants, and theme parks. It is also well suited for use in DJ booths and as a VLF channel in A/V screening rooms or for multi-media playback.

Technologies

The 18 inch woofer in the Sub118 has a high power, 4 inch voice coil, and is capable of impressively large excursion. The enclosure is optimally tuned to provide maximum low frequency output in a compact package.

Performance Specifications[1]

Operating Mode
Single-amplified w/ DSP

Operating Range [2]
25 Hz to 141 Hz

Nominal Beamwidth
Spherical within operating range

Transducers
LF: 18.0" woofer, 4.0" voice coil; ceramic magnet

Power Handling @ Nominal Impedance [3]
98 V / 1200 W @ 8 Ω

Nominal Sensitivity @ Input Voltage [4] (half / whole space)
100 dB / 94 dB @ 2.83 V

Nominal Maximum Continuous SPL (half / whole space)
136 dB / 130 dB peak
130 dB / 124 dB continuous

Equalized Sensitivity @ Input Voltage [5] (half / whole space)
98 dB / 92 dB @ 2.83 V

Equalized Maximum SPL [6] (half / whole space)
135 dB / 129 dB peak
129 dB / 123 dB continuous

Recommended Power Amplifier
1200 W to 1800 W @ 8 Ω

Physical Specifications

Connections
(2) Neutrik NL4 Speakon
Pin 1+/-: LF
Pin 2+/-: No Connection

Mounting / Suspension Points
(16) M10 eye bolt angle points

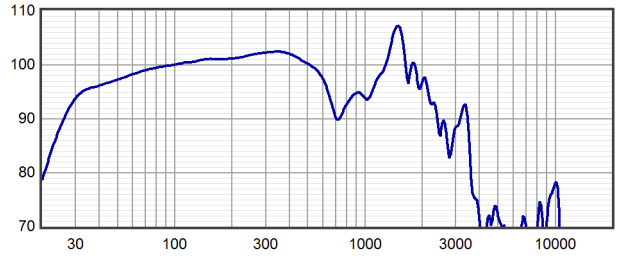
Dimensions / Weight
See pages 4 & 5

Finish
Black painted enclosure w/ matte black grille, or
White painted enclosure w/ matte white grille

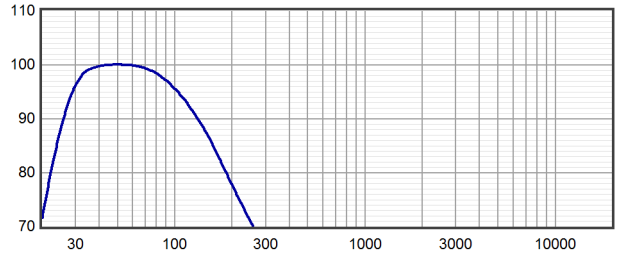
Options

Terminal strip input, Custom color finish,
Weather-resistant (WR) enclosure & hardware

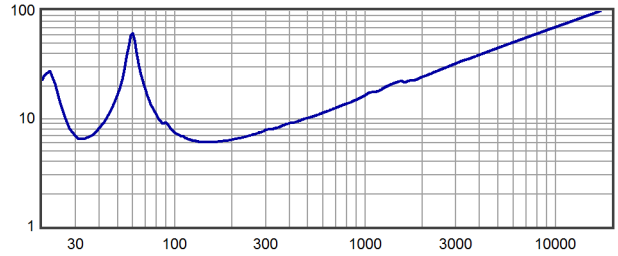
Axial Sensitivity (dB SPL, 2.83 V @ 1 m, half space)[7, 8]



Axial Processed Response (dB, half space)[7, 9]

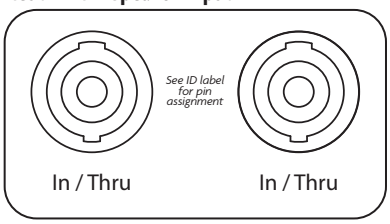


Impedance (ohms)



Connections

Neutrik NL4 Speakon Input



Mechanical Specification Drawings

2D and 3D DWG dimensional drawings are available for download at www.fulcrum-acoustic.com/resources

Notes

[1] **Performance Specifications** *All acoustic specifications rounded to nearest whole number. External DSP with Fulcrum Acoustic-provided settings is required to achieve the specified performance.*

[2] **Operating Range** *The frequency range within which the processed response is within 10 dB of the average.*

[3] **Power Handling** *Based on the AES power handling of the transducers.*

[4] **Nominal Sensitivity** *The 1-meter-referenced SPL produced by a 1 watt band limited pink noise signal, with no processing applied.*

[5] **Equalized Sensitivity** *The 1-meter-referenced SPL produced when an EIA-426-B signal is applied to an equalized loudspeaker system, at a level which produces a total power of 1 watt, in sum, to the loudspeaker subsections.*

[6] **Equalized Maximum SPL** *The 1-meter-referenced SPL produced when an EIA-426-B signal is applied to an equalized loudspeaker system, at a level which drives at least one subsection to its rated power.*

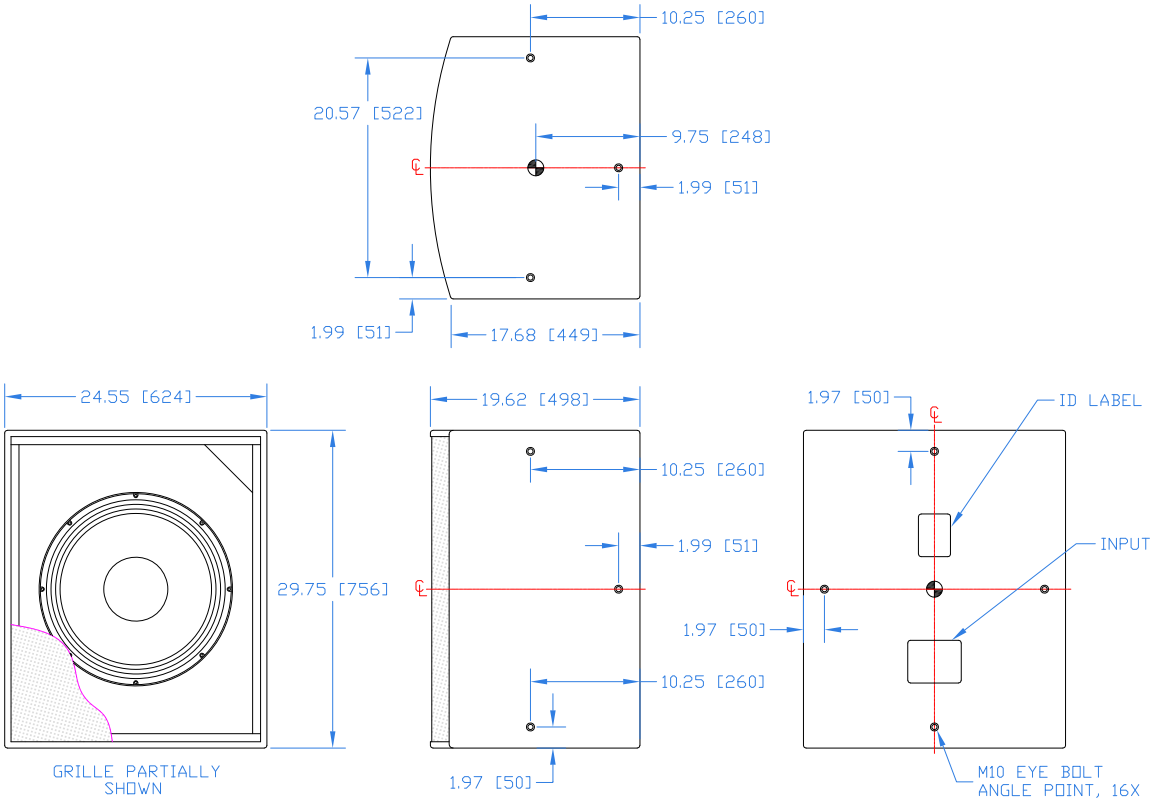
[7] **Resolution** *All response graphs are subjected to 1/6 octave cepstral smoothing with a gaussian weighting function.*

[8] **Axial Sensitivity** *The SPL plotted against frequency for a 1 watt swept sine wave, referenced to 1 m with no signal processing.*

[9] **Axial Processed Response** *The axial magnitude response with recommended signal processing applied.*

Notes:
1. Net Weight = Approx. 92.0 lb / 41.7 kg
2. Symbol ⊙ = M10 x 1.5 eye bolt angle point
3. Symbol ⊕ = CoG

REVISIONS		
REV	DESCRIPTION	APPR / DATE
1	RELEASED TO PRODUCTION	RAF 3/8/11
2	UPDATE LINEWEIGHTS	RAF 12/12/11
3	MOVE INPUT DOWN	RAF 8/23/16
4	UPDATE MTG POINT DIMS	RAF 3/7/24
5	UPDATE NOTES	RAF 2/9/26



THIRD ANGLE PROJECTION

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UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES

TOLERANCE IN INCHES
.X±.1 .XX±.015 .XXX±.005
FRACTIONS ±1/32
ANGLES ±1/2°

(X.XX) = REF DIMS NO TOLERANCE IMPLIED

TSC = THEORETICAL SHARP CORNER

DIMENSIONS ACROSS CENTERLINES TO BE SYMETRICAL

STATUS RELEASED

APPROVALS		DATE
DRAWN:	RAF	3/8/11
CHECKED:	DWG	3/9/11
DES ENG:		
MFG ENG:		

FULCRUM ACOUSTIC, LLC
1 MAIN STREET, WHITINSVILLE, MA 01588 USA

TITLE: Mechanical Spec. Sub118

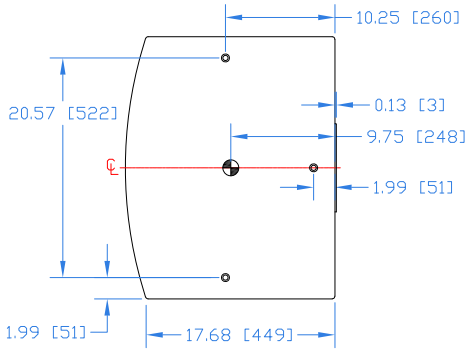
B | SHEET 1 OF 1 | SCALE: 1:16

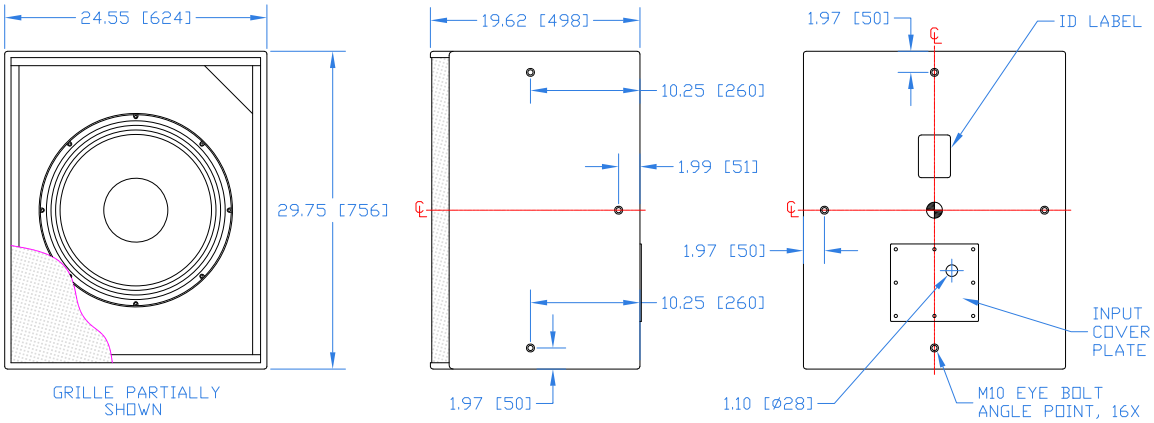
DWG. NO. 820-100-039 | REV 5

Drawing is reduced. Do not scale.

Notes:
1. Net Weight <= Approx. 92.0 lb / 41.7 kg
2. Symbol ⌾ = M10 x 1.5 eye bolt angle point
3. Symbol ⌖ = CoG

REVISIONS		
REV	DESCRIPTION	APPR / DATE
1	NEW ISSUE	RAF 3/7/16
2	NEW INPUT DOWN	RAF 8/23/16
3	REDRAW FOR FRP MATERIAL	DEW 6/18/18
4	UPDATE NOTES	RAF 2/9/26





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		APPROVALS / DATE	TITLE: Mechanical Spec. Sub118-WR
		DRAWN: RAF 3/7/16	
		CHECKED: DWG 3/7/16	
		DES ENG:	B SHEET 1 OF 1 SCALE: 1:16
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