

SM-118/N

LOW FREQUENCY TRANSDUCER
SM Series

KEY FEATURES

- High power handling: 400 W_{AES}
- 3" copper voice coil
- High sensitivity: 97 dB
- Low harmonic distortion
- Optimum winding length for increased linear excursion
- Extended response in the medium frequency range
- Designed for high power subwoofer applications



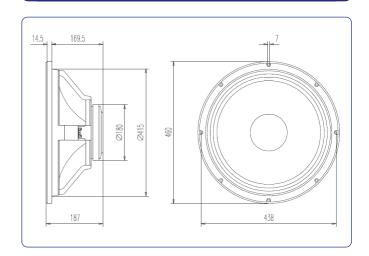
TECHNICAL SPECIFICATIONS

Nominal diameter	460 mm	18 in
Rated impedance		8 Ω
Minimum impedance		7,4 Ω
Power capacity*	400	W _{AES}
Program power	8	00 W
Sensitivity	97 dB 1W / 1m	@ Z _N
Frequency range	40 - 4.00	00 Hz
Recom. enclosure vol.	60 / 150 I 2,1 / 9	5,3 ft ³
Voice coil diameter	77 mm	3 in
Magnetic assembly weight	5 kg	11 lb
BI factor	18,	3 N/A
Moving mass	0,1	30 kg
Voice coil length	17,	5 mm
Air gap height		7 mm
X _{damage} (peak to peak)	3	0 mm

THIELE-SMALL PARAMETERS**

Resonant frequency, f _s	42 Hz
D.C. Voice coil resistance, R _e	6,3 Ω
Mechanical Quality Factor, Q _{ms}	5,5
Electrical Quality Factor, Q _{es}	0,65
Total Quality Factor, Q _{ts}	0,58
Equivalent Air Volume to C _{ms} , V _{as}	206 I
Mechanical Compliance, C _{ms}	110 μm / N
Mechanical Resistance, R _{ms}	6,2 kg / s
Efficiency, η ₀	2,3 %
Effective Surface Area, S _d	0,1150 m ²
Maximum Displacement, X _{max} ***	7,25 mm
Displacement Volume, V _d	834 cm ³
Voice Coil Inductance, L _e	1,1 mH

DIMENSION DRAWINGS



MOUNTING INFORMATION

Overall diameter	460 mm	18,11 in
Bolt circle diameter	438 mm	17,24 in
Baffle cutout diameter:		
- Front mount	415 mm	16,34 in
Depth	187 mm	7,36 in
Net weight	7 kg	15,43 lb
Shipping weight	8 kg	17,63 lb

Notes:

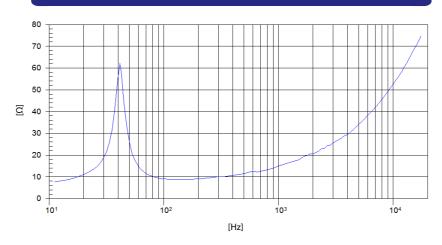
- * The power capaticty is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer's ability to handle normal music program material.
- ** T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).
- *** The X_{max} is calculated as $(L_{vc} H_{ag})/2 + (H_{ag}/3,5)$, where L_{vc} is the voice coil length and H_{ag} is the air gap height.



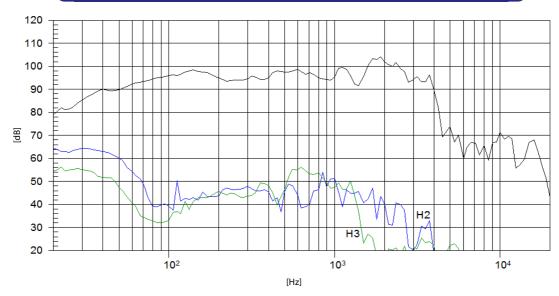
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FREQUENCY RESPONSE AND DISTORTION



Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

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