

SM-115/N

LOW FREQUENCY TRANSDUCER
SM Series

KEY FEATURES

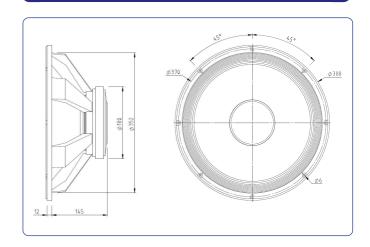
- High sensitivity: 98 dB
- High power handling: 400 W_{AES}
- 3" copper voice coil
- Optimum winding length for increased linear excursion
- Extremely linear frequency response
- Extended response in the medium frequency range
- Low harmonic distortion
- High power woofer and midbass applications



TECHNICAL SPECIFICATIONS

Nominal diameter		380 mm	15 in
Rated impedance			8 Ω
Minimum impedance			7,2 Ω
Power capacity*		40	0 W _{AES}
Program power			800 W
Sensitivity	98 dB	1W @ 1	m @ Z _N
Frequency range		35 - 3	.000 Hz
Voice coil diameter		77 mm	3 in
BI factor		1	7,4 N/A
Moving mass		0	,086 kg
Voice coil length		1	7,5 mm
Air gap height			7 mm
X _{damage} (peak to peak)			30 mm

DIMENSION DRAWINGS



THIELE-SMALL PARAMETERS**

Resonant frequency, f _s	35 Hz
D.C. Voice coil resistance, R _e	6,4Ω
Mechanical Quality Factor, Q _{ms}	8,5
Electrical Quality Factor, Q _{es}	0,40
Total Quality Factor, Q _{ts}	0,38
Equivalent Air Volume to C _{ms} , V _{as}	267 I
Mechanical Compliance, C _{ms}	243 μm / N
Mechanical Resistance, R _{ms}	2,2 kg / s
Efficiency, η ₀	2,7 %
Effective Surface Area, S _d	0,088 m ²
Maximum Displacement, X _{max} ***	7,25 mm
Displacement Volume, V _d	638 cm ³
Voice Coil Inductance, L _e @ 1 kHz	1,2 mH

MOUNTING INFORMATION

Overall diameter	388 mm	15,28 in
Bolt circle diameter	370 mm	14,57 in
Baffle cutout diameter:		
- Front mount	352 mm	13,86 in
Depth	160 mm	6,3 in
Volume displaced by driver	6 I	$0,22 \text{ ft}^3$
Net weight	6,5 kg	14,33 lb
Shipping weight	7,4 kg	16,31 lb

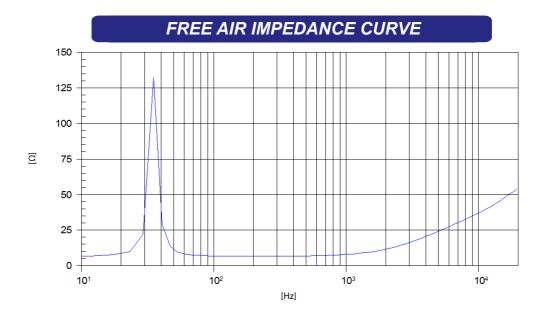
Notes

- * 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.

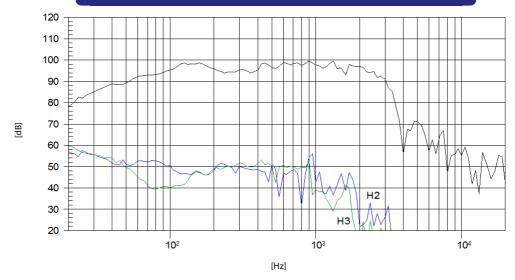


SM-115/N OW EREQUENCY TRANSDUCER

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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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