

12CXA400Fe COAXIAL TRANSDUCER

KEY FEATURES

- 12" coaxial with 4" voice coil woofer and 2,85" voice coil compression driver
- Program power: 800 / 160 W_{AES} (LF / HF)
- Sensitivity: 96 dB LF and 105 dB HF
- Common ferrite magnet system design
- Demodulating rings in both LF and HF units
- Composite titanium / mylar diaphragm
- Waterproof LF cone
- 60° coverage horn for HF dispersion control

TECHNICAL SPECIFICATIONS

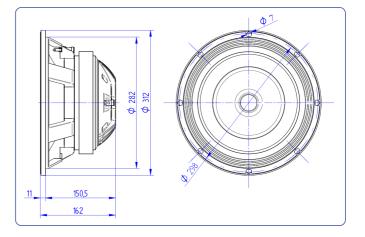
Nominal diameter	300 mm 12 in	
Rated impedance (LF/HF)	8 / 16 Ω	
Minimum impedance (LF/HF)	6,2 / 12,2 Ω	
Power capacity* (LF/HF)	400 / 80 W _{AES}	
Program power (LF/HF)	800 / 160 W	
Sensitivity (LF/HF**)	96 dB 1W @ Z _N	
	105 dB 1W @ Z _N	
Frequency range	35 - 20.000 Hz	
Recom. HF crossover	1,5 kHz or higher	
	(12 dB/oct min slope)	
Voice coil diameter (LF/HF)	101,6 mm 4 in	
	72,2 mm 2,87 in	
BL factor	18,75 N/A	
Moving mass	0,052 kg	
Voice coil length	16 mm	
Air gap height	10 mm	
X _{damage} (peak to peak)	51 mm	
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THIELE-SMALL PARAMETERS***

Resonant frequency, f _s	42 Hz
D.C. Voice coil resistance, R _e	6,6 Ω
Mechanical Quality Factor, Q _{ms}	7,20
Electrical Quality Factor, Qes	0,26
Total Quality Factor, Q _{ts}	0,24
Equivalent Air Volume to C _{ms} , V _{as}	119 I
Mechanical Compliance, C _{ms}	279 μm / N
Mechanical Resistance, R _{ms}	1,90 kg / s
Efficiency, η ₀	3,3 %
Effective Surface Area, S _d	0,055 m²
Maximum Displacement, X _{max} ****	6 mm
Displacement Volume, V _d	210 cm ³
Voice Coil Inductance, L _e @ 1 kHz	1,1 mH



DIMENSION DRAWINGS



MOUNTING INFORMATION

Overall diameter Bolt circle diameter Baffle cutout diameter:	311,7 mm 298 mm	12,27 in 11,73 in
- Front mount Depth Volume displaced by driver Net weight	282,6 mm 165 mm 6,5 l 11,3 kg	11,13 in 6,5 in 0,23 ft ³ 24,9 lb
Shipping weight	11,7 kg	25,8 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.

 ** Sensitivity was measured at 1m distance, on axis, with 1W input, averaged in the range 1 - 7 kHz.

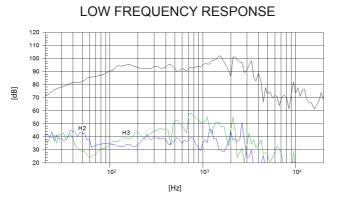
*** T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

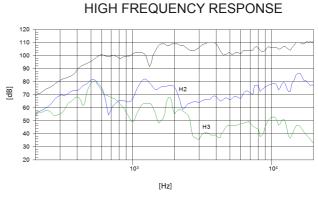
**** The X_{max} is calculated as (L_{vc} - H_{ag})/2 + (H_{ag}/3,5), where L_{vc} is the voice coil length and H_{ag} is the air gap height.



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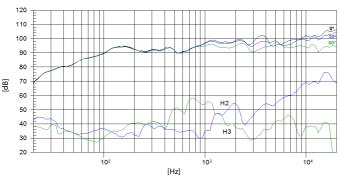
FREQUENCY RESPONSE AND DISTORTION



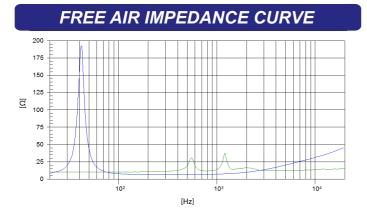


Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

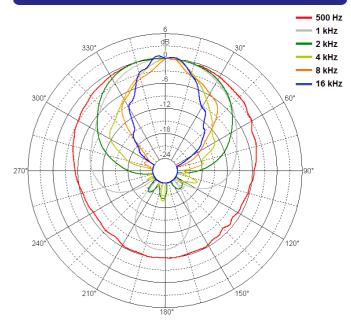
FILTERED FREQUENCY RESPONSE



Note: Filtered frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m with FD-2XA



POLAR PATTERN



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