

12CXA400Fe

COAXIAL TRANSDUCER

KEY FEATURES

- Program power: 800 / 160 W_{AES} (LF / HF)
- Sensitivity: 96 / 105 dB (1W / 1m) (LF / HF)
- 4" voice coil woofer
- 2.85" voice coil compression driver
- Common ferrite magnet system design

- Demodulating rings in both LF and HF units
- Composite Titanium / Polyester HF diaphragm
- Weatherproof 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 1 (LF/HF)		400 /	80 W _{AES}
Program power ² (LF/HF)		80	0 / 160 W
Sensitivity (LF/HF ³)	96 dB	1W /	1m @ Z _N
	105 dB	1W /	1m @ Z _N
Frequency range		40 - 2	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	2 mm	2,87 in
BI factor			19,8 N/A
Moving mass			0,066 kg
Voice coil length			16 mm
Air gap height			10 mm
X _{damage} (peak to peak)			51 mm

THIELE-SMALL PARAMETERS4

Resonant frequency, f _s	42 Hz
D.C. Voice coil resistance, R _e	6,6 Ω
Mechanical Quality Factor, Q _{ms}	7,2
Electrical Quality Factor, Q _{es}	0,26
Total Quality Factor, Qts	0,25
Equivalent Air Volume to C _{ms} , V _{as}	94 I
Mechanical Compliance, C _{ms}	220 μm / N
Mechanical Resistance, R _{ms}	2,4 kg / s
Efficiency, η ₀	2,2 %
Effective Surface Area, S _d	0,055 m ²
Maximum Displacement, X _{max} ⁵	6 mm
Displacement Volume, V _d	210 cm ³
Voice Coil Inductance, L _e	1,1 mH

Notes

¹ The power capaticty is determined according to AES2-1984 (r2003) standard.

² Program power is defined as power capacity + 3 dB.

³ Sensitivity was measured at 1m distance, on axis, with 1W input, averaged in the range 1 - 7 kHz

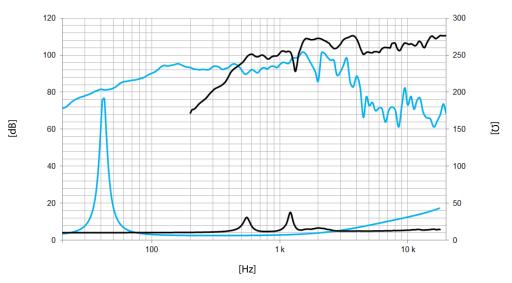
⁴ T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $^{^{6}}$ The $\rm X_{max}$ is calculated as ($\rm L_{vc}$ - $\rm H_{ag}$ //2 + ($\rm H_{ag}$ /3,5), where $\rm L_{vc}$ is the voice coil length and $\rm H_{ag}$ is the air gap height.



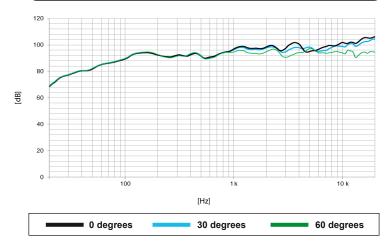
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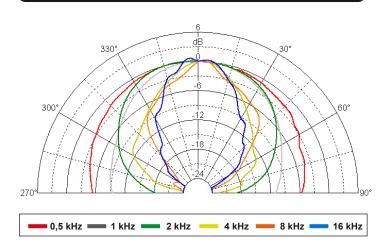
Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

FILTERED FREQUENCY RESPONSE



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

POLAR PATTERN



MOUNTING INFORMATION

Overall diameter	312 mm	12,3 in
Bolt circle diameter	298 mm	11,7 in
Baffle cutout diameter:		
- Front mount	283 mm	11,1 in
Depth	165 mm	6,5 in
Net weight	11,3 kg	24,9 lb
Shipping weight	11,7 kg	25,8 lb

DIMENSION DRAWING

