

12CXA400Nd

COAXIAL TRANSDUCER

KEY FEATURES

- Program power: 800 / 180 W_{AES} (LF / HF)
- Sensitivity: 98 / 105 dB (1W / 1m) (LF / HF)
- 4" voice coil woofer
- 2.85" voice coil compression driver
- Common neodymium magnet system design

- Demodulating rings in both LF and HF units
- Composite titanium / polyester 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,	8 / 11,3 Ω
Power capacity 1 (LF/HF)		400 /	90 W _{AES}
Program power ² (LF/HF)		80	0 / 180 W
Sensitivity (LF/HF ³)	98 dB	1W /	1m @ Z _N
	105 dB	1W /	1m @ Z _N
Frequency range		50 - 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
	72,4	mm	2,85 in
BI factor			21,4 N/A
Moving mass			0,064 kg
Voice coil length			16 mm
Air gap height			9 mm
X _{damage} (peak to peak)			28 mm

THIELE-SMALL PARAMETERS 4

Resonant frequency, f _s	45 Hz
D.C. Voice coil resistance, R _e	6,6 Ω
Mechanical Quality Factor, Q _{ms}	7,1
Electrical Quality Factor, Q _{es}	0,26
Total Quality Factor, Q _{ts}	0,25
Equivalent Air Volume to C _{ms} , V _{as}	88,5 I
Mechanical Compliance, C _{ms}	207 μm / N
Mechanical Resistance, R _{ms}	2,5 kg / s
Efficiency, η ₀	2,75 %
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 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

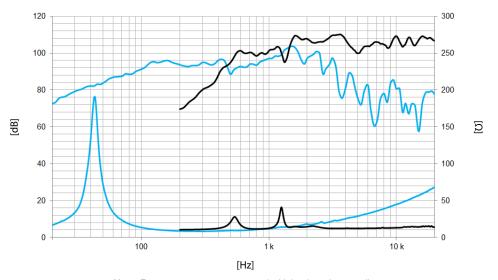
⁴ T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $^{^{6}}$ The 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.



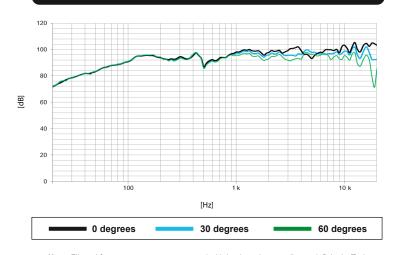
12CXA400Nd

COAXIAL TRANSDUCER



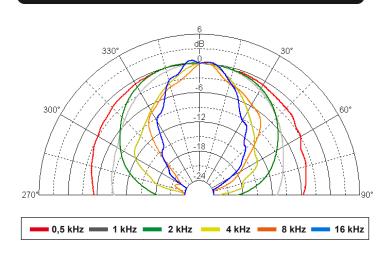
Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

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

312 mm	12,3 in
298 mm	11,7 in
283 mm	11,1 in
152 mm	6,0 in
6,5 kg	14,3 lb
7,2 kg	15,8 lb
	298 mm 283 mm 152 mm 6,5 kg

DIMENSION DRAWING

