beyma

PROFESSIONAL LOUDSPEAKERS
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12CXA400Nd
COAXIAL TRANSDUCER

KEY FEATURES

- 12” woofer with 4” voice coil and 2,8” voice coil compression driver
- Program power: 800 W LF / 180 W HF
- Sensitivity: 98 dB LF and 105 dB HF
- Low weight and compact common magnet system design
- Demodulating rings in LF and HF units
- Composite Titanium/Mylar diaphragm
- Waterproof LF cone
- 60º coverage horn for HF dispersion control

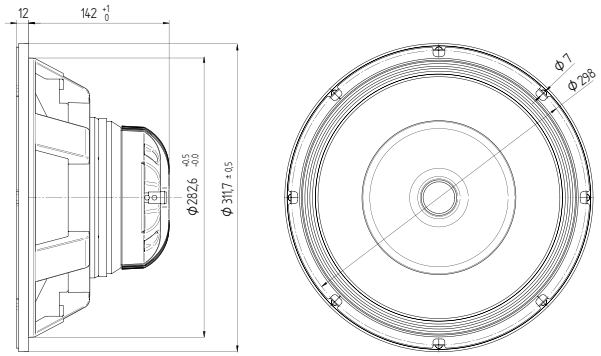
TECHNICAL SPECIFICATIONS

Nominal diameter	300 mm	12 in
Rated impedance (LF/HF)	8 / 16 Ω	
Minimum impedance (LF/HF)	6,8 / 11,3 Ω	
Power capacity* (LF/HF)	400 / 90 W_{AES}	
Program power (LF/HF)	800 / 180 W	
Sensitivity (LF/HF**)	98 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	2,84 in
BL 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***

Resonant frequency, f_s	45 Hz
D.C. Voice coil resistance, R_e	6,6 Ω
Mechanical Quality Factor, Q_{ms}	7,10
Electrical Quality Factor, Q_{es}	0,26
Total Quality Factor, Q_{ts}	0,25
Equivalent Air Volume to C_{ms}, V_{as}	88,5 l
Mechanical Compliance, C_{ms}	207 μm / N
Mechanical Resistance, R_{ms}	2,48 kg / s
Efficiency, η_0	2,75 %
Effective Surface Area, S_d	0,055 m^2
Maximum Displacement, X_{max} ****	6 mm
Displacement Volume, V_d	210 cm^3
Voice Coil Inductance, L_e @ 1 kHz	1 mH

DIMENSION DRAWINGS



MOUNTING INFORMATION

Overall diameter	311,7 mm	12,27 in
Bolt circle diameter	298 mm	11,73 in
Baffle cutout diameter:		
- Front mount	282,6 mm	11,13 in
- Rear mount	286 mm	11,26 in
Depth	154 mm	6,06 in
Volume displaced by driver	6,5 l	0,23 ft^3
Net weight	7,18 kg	15,83 lb
Shipping weight	8,05 kg	17,75 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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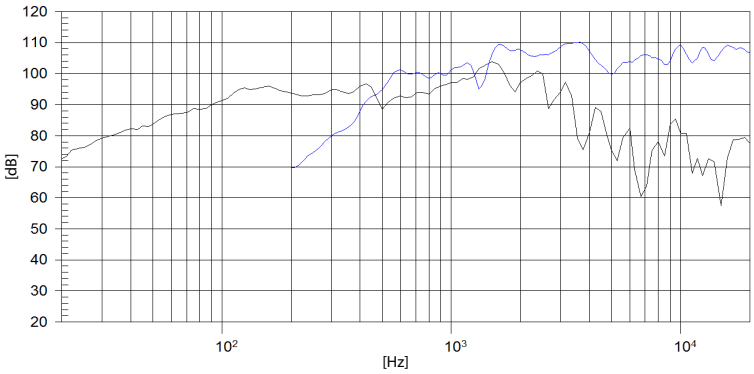
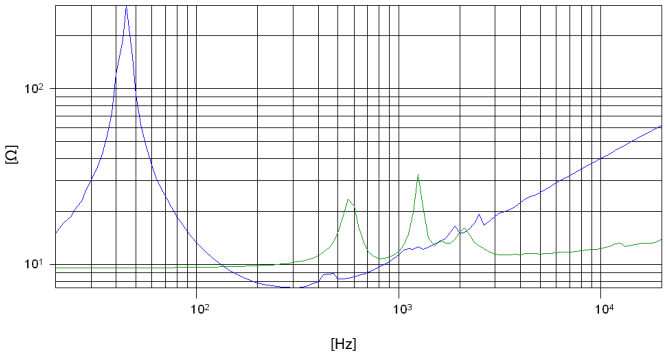
FREQUENCY RESPONSE

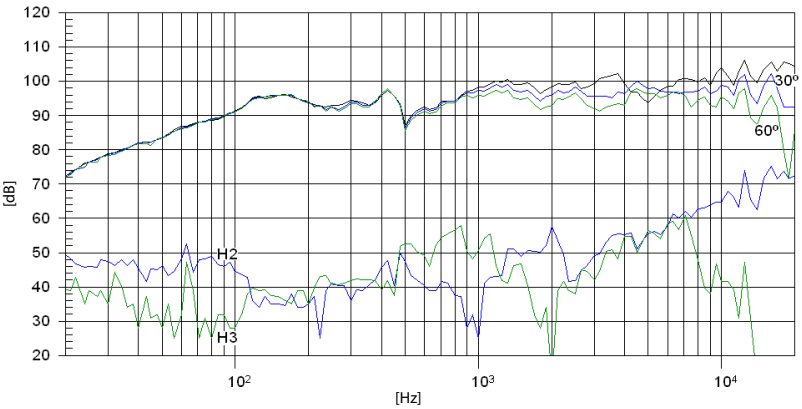


Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

FREE AIR IMPEDANCE CURVE

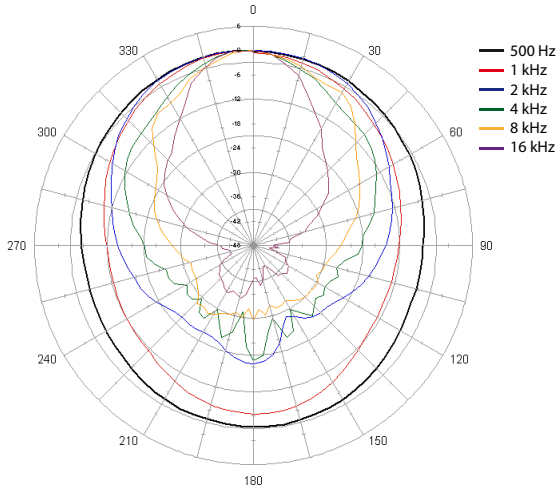


FILTERED FREQUENCY RESPONSE



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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