beyma

PROFESSIONAL LOUDSPEAKERS
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15XA38Nd
COAXIAL TRANSDUCER

KEY FEATURES

- High power handling: 350 / 90 W_{AES} (LF / HF)
- High sensitivity: 99 / 105 dB (LF / HF)
- Low resonant frequency: 38 Hz
- Low weight and compact common magnet system design
- Demodulating rings in LF and HF units
- Composite Titanium/Mylar diaphragm
- 80º coverage horn for HF dispersion control

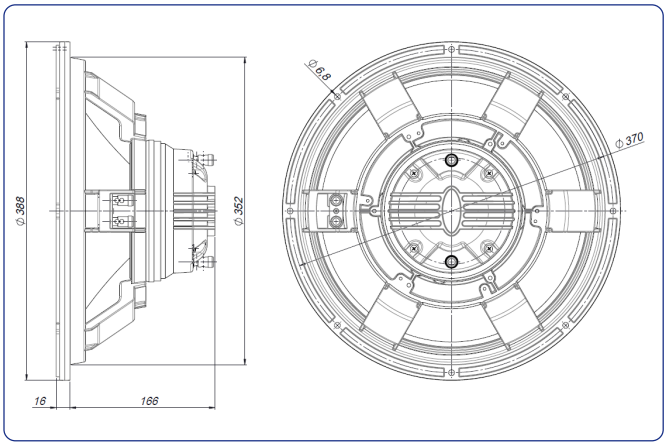
TECHNICAL SPECIFICATIONS

Nominal diameter	380 mm	15 in
Rated impedance (LF/HF)	8 / 16 Ω	
Minimum impedance (LF/HF)	8,4 / 12,6 Ω	
Power capacity* (LF/HF)	350 / 90 W_{AES}	
Program power (LF/HF)	700 / 180 W	
Sensitivity (LF/HF**)	99 dB	1W / 1m @ Z_N
	105 dB	1W / 1m @ Z_N
Frequency range	40 - 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
BL factor	20,4 N/A	
Moving mass	0,082 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	38 Hz
D.C. Voice coil resistance, R_e	6,7 Ω
Mechanical Quality Factor, Q_{ms}	6,4
Electrical Quality Factor, Q_{es}	0,31
Total Quality Factor, Q_{ts}	0,30
Equivalent Air Volume to C_{ms}, V_{as}	238 l
Mechanical Compliance, C_{ms}	217 µm / N
Mechanical Resistance, R_{ms}	3 kg / s
Efficiency, η_0	3,9 %
Effective Surface Area, S_d	0,088 m^2
Maximum Displacement, X_{max} ****	6 mm
Displacement Volume, V_d	528 cm^3
Voice Coil Inductance, L_e @ 1 kHz	1 mH

DIMENSION DRAWINGS



MOUNTING INFORMATION

Overall diameter	388 mm	15,28 in
Bolt circle diameter	370 mm	14,57 in
Baffle cutout diameter:		
- Front mount	352 mm	13,85 in
Depth	182 mm	7,17 in
Net weight	6,8 kg	14,96 lb
Shipping weight	7,4 kg	16,28 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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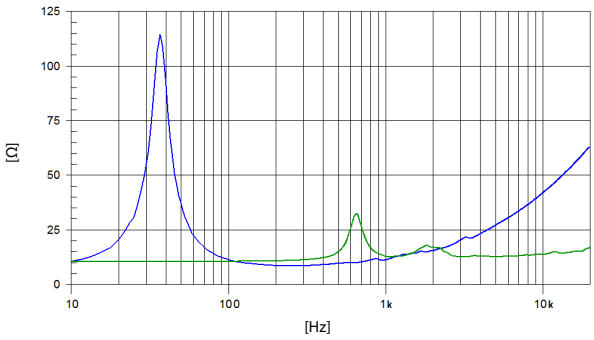
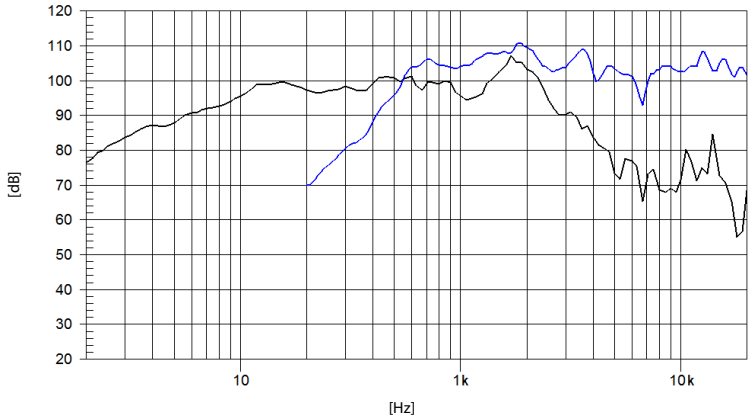
FREE AIR IMPEDANCE CURVE

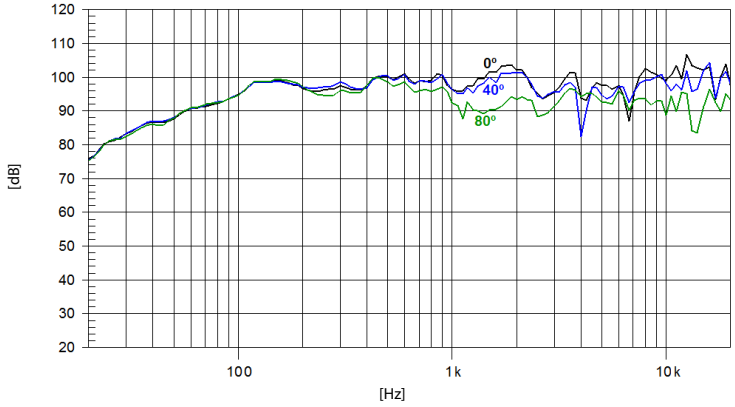


FREQUENCY RESPONSE CURVE



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

FILTERED AND OFF-AXIS FREQUENCY RESPONSE



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

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