beyma

PROFESSIONAL LOUDSPEAKERS
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8CX300Fe

COAXIAL TRANSDUCER

KEY FEATURES

- High power handling: 600 W / 100 W program power
- 2,5” / 1,75” voice coil (LF/HF)
- High sensitivity: 95 / 105 dB (1W / 1m) (LF/HF)
- FEA optimized common magnet circuit
- Shorting cap for extended response
- Waterproof cone with treatment for both sides of the cone
- PM4 diaphragm for natural sound
- 70º conical coverage horn

TECHNICAL SPECIFICATIONS

Nominal diameter	200 mm	8 in
Rated impedance (LF/HF)		8 / 16 Ω
Minimum impedance (LF/HF)		6,6 / 10,1 Ω
Power capacity [1] (LF/HF)		300 / 50 W_{AES}
Program power [2] (LF/HF)		600 / 100 W
Sensitivity (LF/HF [3])	95 dB	1W / 1m @ Z_N
	105 dB	1W / 1m @ Z_N
Frequency range		90 - 20.000 Hz
Recom. HF crossover		2 kHz or higher (12 dB/oct min slope)
Voice coil diameter (LF/HF)	63,5 mm	2,5 in
	44,4 mm	1,75 in
Bl factor		9,6 N/A
Moving mass		0,020 kg
Voice coil length		15 mm
Air gap height		7 mm

THIELE-SMALL PARAMETERS [4]

Resonant frequency, f_s	89 Hz
D.C. Voice coil resistance, R_e	5,2 Ω
Mechanical Quality Factor, Q_{ms}	4,2
Electrical Quality Factor, Q_{es}	0,63
Total Quality Factor, Q_{ts}	0,55
Equivalent Air Volume to C_{ms}, V_{as}	10,8 l
Mechanical Compliance, C_{ms}	158 μm / N
Mechanical Resistance, R_{ms}	2,7 kg / s
Efficiency, η_0	1,2 %
Effective Surface Area, S_d	0,022 m^2
Maximum Displacement, X_{max} [5]	6 mm
Displacement Volume, V_d	132 cm^3
Voice Coil Inductance, L_e @ 1 kHz	0,2 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 2 - 10 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).

[5] 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.

Acústica Beyma SL - P.I. Moncada II, C/ Pont Sec, 1C - 46113 Moncada, Valencia (Spain) - Tel. +34 96 130 13 75 - beyma@beyma.com

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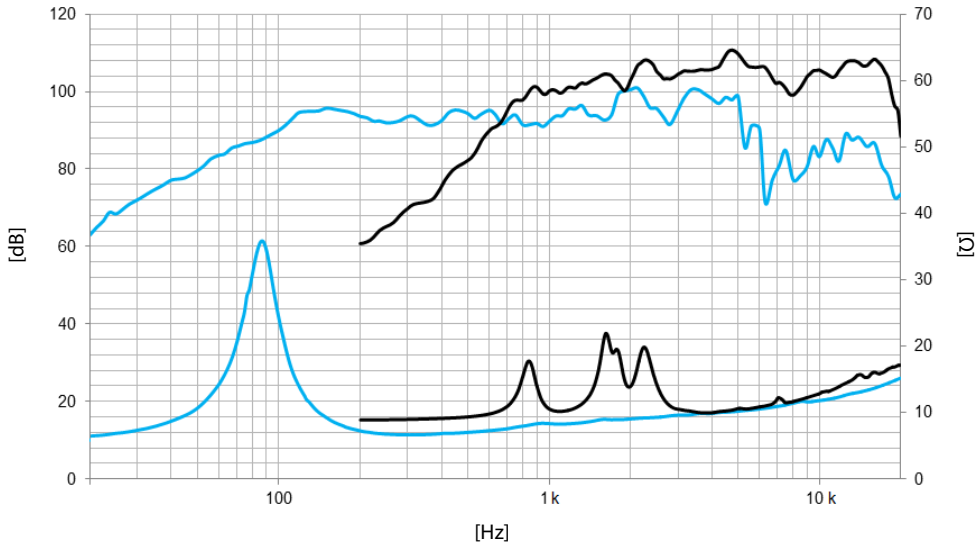
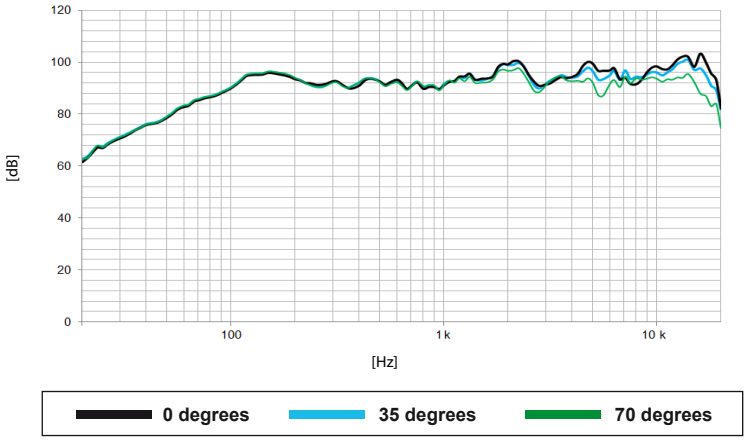


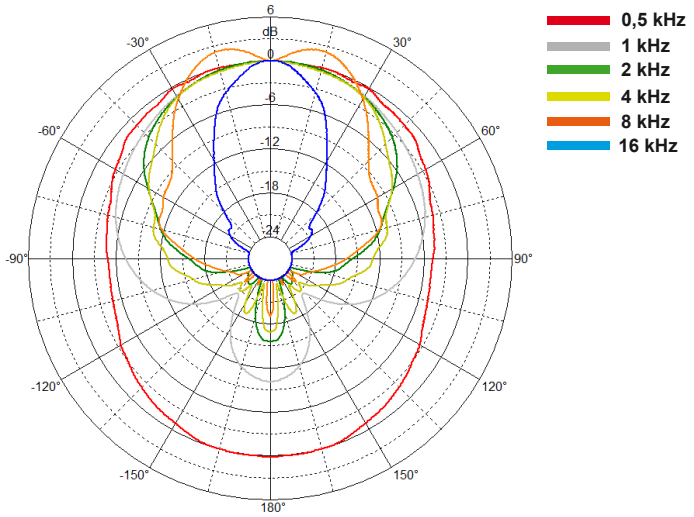
Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

FILTERED FREQUENCY RESPONSE



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

POLAR PATTERN



MOUNTING INFORMATION

Overall diameter	211,5 mm	8,3 in
Bolt circle diameter	198 mm	7,8 in
Baffle cutout diameter:		
- Front mount	179,5 mm	7,1 in
Depth	126 mm	4,9 in
Net weight	4,6 kg	10,1 lb
Shipping weight	4,9 kg	10,8 lb

DIMENSION DRAWING