beyma

PROFESSIONAL LOUDSPEAKERS
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8CX300Nd/N

COAXIAL TRANSDUCER

KEY FEATURES

- High power handling: 500 / 100 W program power
- High sensitivity: 96 / 104 dB (1W / 1m) (LF / HF)
- 2,5" / 1,75" voice coil (LF/HF)
- Common neodymium magnet system design
- Shorting cap for extended response
- Weatherproof Carbon Fiber loaded paper cone
- Santoprene™ surround
- PM4 HF diaphragm
- 70º coverage horn for HF dispersion control

TECHNICAL SPECIFICATIONS

Nominal diameter	200 mm	8 in
Rated impedance (LF/HF)		8 / 8 Ω
Minimum impedance (LF/HF)		5,3 / 4,7 Ω
Power capacity [1] (LF/HF)		250 / 50 W_{AES}
Program power [2] (LF/HF)		500 / 100 W
Sensitivity (LF/HF [3])	96 dB	1W / 1m @ Z_N
	104 dB	1W / 1m @ Z_N
Frequency range		60 - 20.000 Hz
Recom. HF crossover		1,5 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		12 N/A
Moving mass		0,020 kg
Voice coil length		15 mm
Air gap height		7 mm
X_{damage} (peak to peak)		24 mm

THIELE-SMALL PARAMETERS [4]

Resonant frequency, f_s	61 Hz
D.C. Voice coil resistance, R_e	5,4 Ω
Mechanical Quality Factor, Q_{ms}	13
Electrical Quality Factor, Q_{es}	0,30
Total Quality Factor, Q_{ts}	0,29
Equivalent Air Volume to C_{ms}, V_{as}	23 l
Mechanical Compliance, C_{ms}	335 μm / N
Mechanical Resistance, R_{ms}	0,6 kg / s
Efficiency, η_0	1,6 %
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	0,3 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).

[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.

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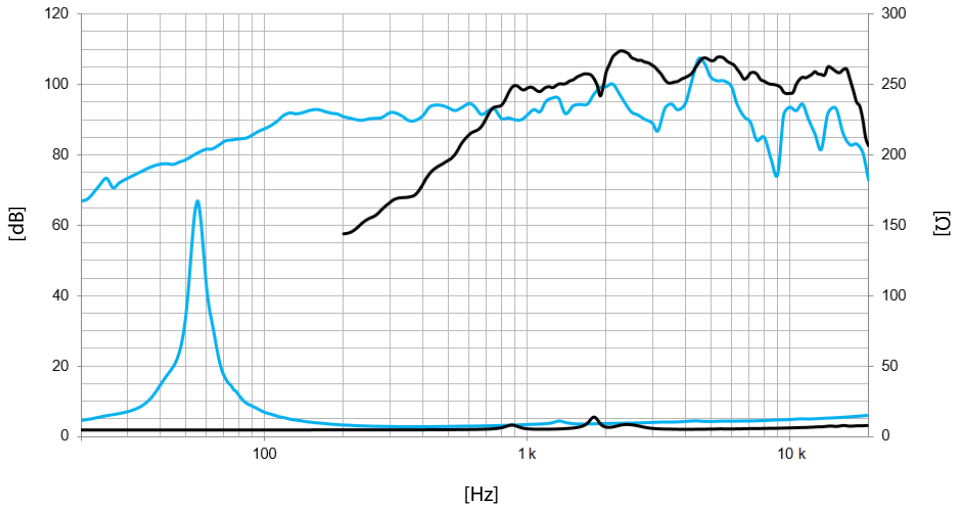
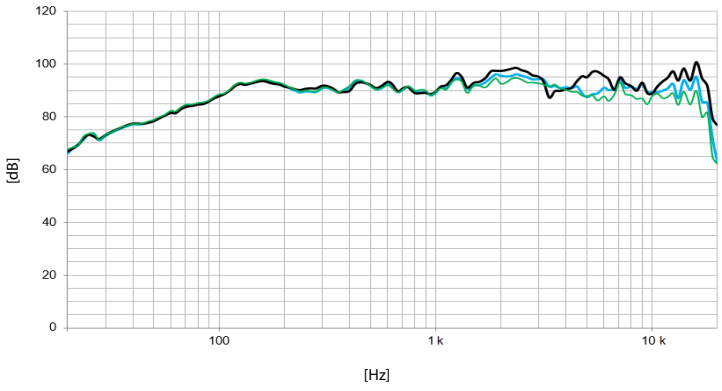


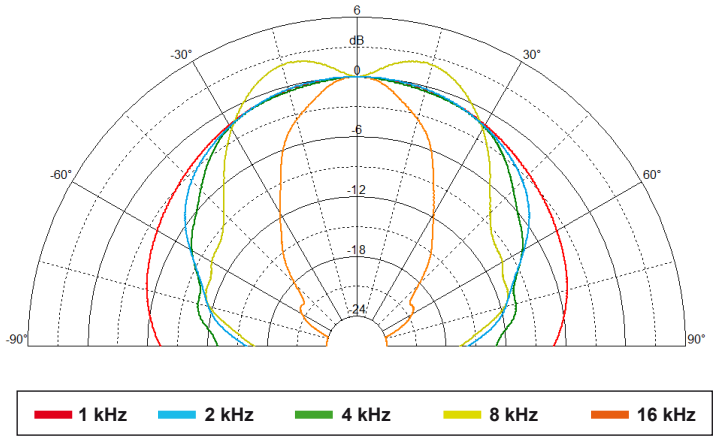
Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

FILTERED FREQUENCY RESPONSE



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

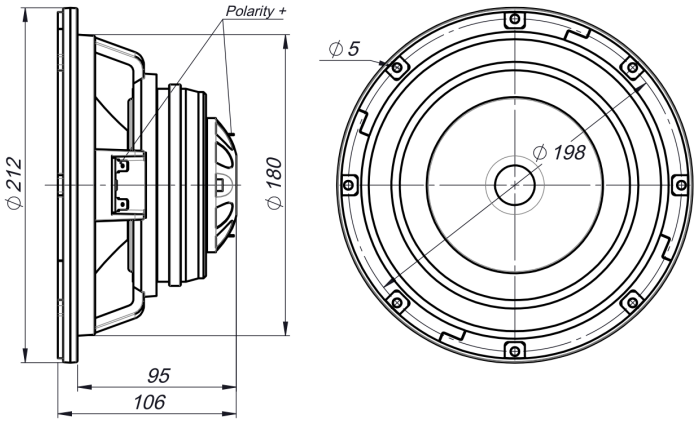
POLAR PATTERN



MOUNTING INFORMATION

Overall diameter	212 mm	8,3 in
Bolt circle diameter	198 mm	7,8 in
Baffle cutout diameter:		
- Front mount	180 mm	7,1 in
Depth	106 mm	4,2 in
Net weight	2,8 kg	6,2 lb
Shipping weight	3,0 kg	6,6 lb

DIMENSION DRAWING



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