beyma))

10CX300Fe
COAXIAL TRANSDUCER

KEY FEATURES

- High power handling: 600 / 100 W program power
- 2,5" / 1,75" voice coil (LF/HF)
- High sensitivity: 96,5 / 104 dB
- FEA optimized common magnet circuit
- Designed with MMSS technology
- Shorting cap for extended response
- Waterproof cone with treatment for both sides of the cone
- PM4 diaphragm for natural sound
- 70° conical coverage horn

TECHNICAL SPECIFICATIONS

Nominal diameter	250 mm	10 in
Rated impedance (LF/HF)	8 / 16 Ω	
Minimum impedance (LF/HF)	5,7 / 10,1 Ω	
Power capacity* (LF/HF)	300 / 50 W_{AES}	
Program power (LF/HF)	600 / 100 W	
Sensitivity (LF/HF**)	96,5 dB	1W / 1m @ Z_N
	104 dB	1W / 1m @ Z_N
Frequency range	50 - 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
	44,45 mm	1,75 in
BL factor	11,65 N/A	
Moving mass	0,035 kg	
Voice coil length	17,5 mm	
Air gap height	10 mm	
X_{damage} (peak to peak)	30 mm	

THIELE-SMALL PARAMETERS***

Resonant frequency, f_s	48 Hz
D.C. Voice coil resistance, R_e	5,2 Ω
Mechanical Quality Factor, Q_{ms}	5,3
Electrical Quality Factor, Q_{es}	0,41
Total Quality Factor, Q_{ts}	0,38
Equivalent Air Volume to C_{ms}, V_{as}	62,7 l
Mechanical Compliance, C_{ms}	307 μm / N
Mechanical Resistance, R_{ms}	2,05 kg / s
Efficiency, η_0	1,65 %
Effective Surface Area, S_d	0,038 m^2
Maximum Displacement, X_{max} ****	6,75 mm
Displacement Volume, V_d	256 cm^3
Voice Coil Inductance, L_e @ 1 kHz	0,4 mH

DIMENSION DRAWINGS
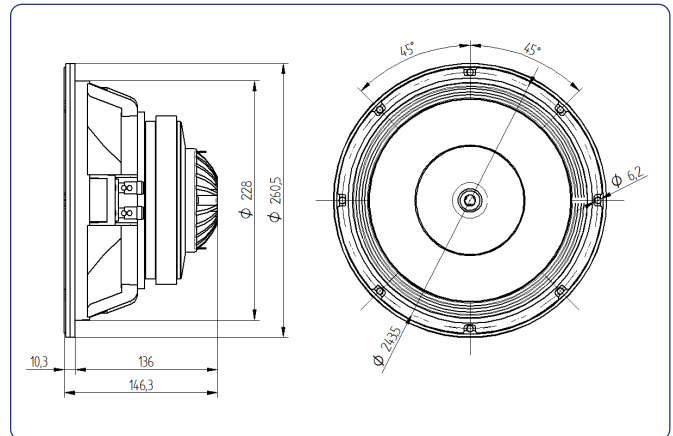
MOUNTING INFORMATION

|		
Overall diameter	260,5 mm	10,26 in
Bolt circle diameter	243,5 mm	9,59 in
Baffle cutout diameter:		
- Front mount	228 mm	8,98 in
Depth	153 mm	6,02 in
Net weight	5,1 kg	11,24 lb
Shipping weight	5,5 kg	12,13 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 - 8 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).
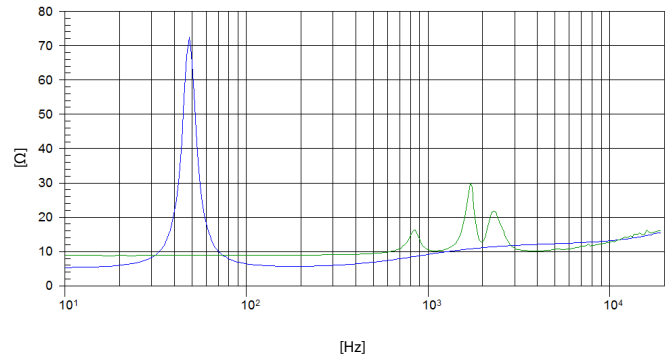
**** The X_{max} is calculated as $(L_{vc} - H_{ag})/2 + (H_{ag}/3,5)$, where L_{vc} is the voice coil length and H_{ag} is the air gap height.
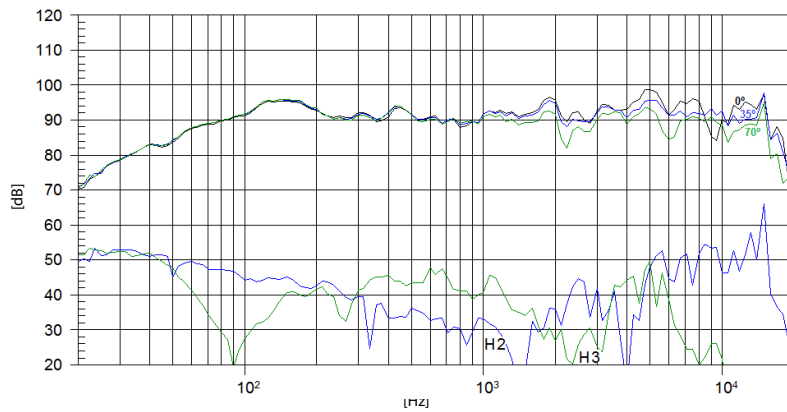
FREQUENCY RESPONSE
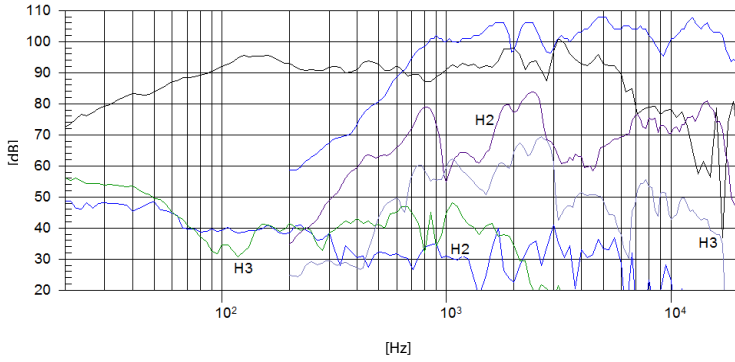
Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

FREE AIR IMPEDANCE CURVE

FILTERED FREQUENCY RESPONSE

Note: Filtered frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m using an active filter with the following specifications:
LF cut-off freq: 2.2 kHz, HF cut-off freq: 3.5 kHz,
Crossover: 3.4 kHz, HF attenuation: 7 dB

POLAR PATTERN

■	500 Hz
■	1 kHz
■	2 kHz
■	4 kHz
■	8 kHz
■	16 kHz

06/14