

PROFESSIONAL LOUDSPEAKERS www.beyma.com

10CX300/Fe

COAXIAL TRANSDUCER Preliminary Data Sheet

KEY FEATURES

- High power handling: 600 W program power
- 2,5" / 1,75" voice coil (LF/HF)
- High sensitivity: 96,5 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
- 60° conical coverage horn

TECHNICAL SPECIFICATIONS

Nominal diameter	250 mm 10 in
Rated impedance (LF/HF)	8 / 16 Ω
Minimum impedance (LF/HF)	5,6 / 10,1 Ω
Power capacity* (LF/HF)	300 / 50 W _{AES}
Program power (LF/HF)	600 / 100 W
Sensitivity (LF/HF**) 96,5	/ 104 dB (1W @ 1m @ Z _N)
Frequency range	50 - 20.000 Hz
Recomended 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
Air gap height	10 mm
Voice coil length	17,5 mm
BI factor	11,9 N/A
Moving mass	0,036 kg
X _{damage} (peak to peak)	30 mm

MOUNTING INFORMATION

Overall diameter	260,5 mm	10,26 in
Bolt circle diameter	243,5 mm	9,59 in
Baffle cutout diameter	228 mm	8,98 in
Depth	153 mm	6,02in
Net weight	5,1 kg	11,24 lb

Notes:

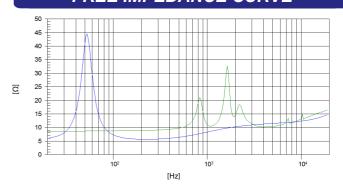
- * The power capaticty is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer's ability to handle normal music program material.
- ** Sensitivity was measured at 1m distance, on axis, with 1W input, averaged in the range 1 8 kHz.
- *** T-S parameters are measured 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
- **** The $\rm X_{max}$ is calculated as ($\rm L_{vc}$ $\rm H_{ag}$)/2 + ($\rm H_{ag}$ /3,5), where $\rm L_{vc}$ is the voice coil length and $\rm H_{ag}$ is the air gap height.



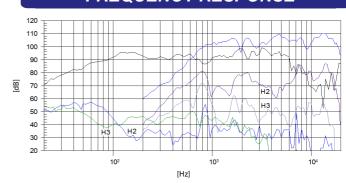
THIELE-SMALL PARAMETERS***

Resonant frequency, f _s	52 Hz
D.C. Voice coil resistance, R _e	5,1 Ω
Mechanical Quality Factor, Q _{ms}	3,3
Electrical Quality Factor, Qes	0,43
Total Quality Factor, Qts	0,38
Equivalent Air Volume to C _{ms} , V _{as}	52,3 I
Mechanical Compliance, C _{ms}	256 μm / N
Mechanical Resistance, R _{ms}	3,6 kg / s
Efficiency, η ₀	1,7 %
Effective Surface Area, S _d	$0,038 \text{ m}^2$
Maximum Displacement, X _{max} ****	6,6 mm
Voice Coil Inductance, Le	0,36 mH

FREE IMPEDANCE CURVE



FREQUENCY RESPONSE



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