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PROFESSIONAL LOUDSPEAKERS
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10MCF400Nd

MID FREQUENCY TRANSDUCER
Preliminary Data Sheet

KEY FEATURES

- Very high efficiency mid-range driver
- Carbon fiber cone for optimum loading behaviour and low distortion
- Extremely linear frequency response
- 4” edgewound aluminium voice coil
- 800 W Program Power
- High efficiency and sensitivity
- FEA optimized neodymium motor structure
- Sealed cast aluminium frame
- Designed for high performance mid-frequency line array and horn loading applications

TECHNICAL SPECIFICATIONS

Nominal diameter	250 mm	10 in
Rated impedance		8 Ω
Minimum impedance		7,5 Ω
Power capacity*		400 W_{AES}
Program power		800 W
Sensitivity	102 dB	1W / 1m @ Z_N
Frequency range		300 - 5.000 Hz
Voice coil diameter	101,6 mm	4 in
Bl factor		28,8 N/A
Moving mass		0,038 kg
Voice coil length		11,5 mm
Air gap height		10 mm

THIELE-SMALL PARAMETERS**

Resonant frequency, f_s	270 Hz
D.C. Voice coil resistance, R_e	5,9 Ω
Mechanical Quality Factor, Q_{ms}	14,5
Electrical Quality Factor, Q_{es}	0,47
Total Quality Factor, Q_{ts}	0,45
Equivalent Air Volume to C_{ms}, V_{as}	1,8 l
Mechanical Compliance, C_{ms}	9 µm / N
Mechanical Resistance, R_{ms}	4,4 kg / s
Efficiency, η_0	7,55 %
Effective Surface Area, S_d	0,038 m^2
Maximum Displacement, X_{max} * **	3,5 mm
Displacement Volume, V_d	133 cm^3
Voice Coil Inductance, L_e @ 1 kHz	0,5 mH

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.

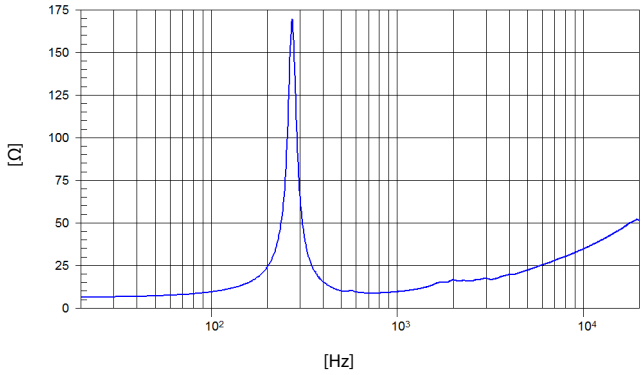
** T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

*** 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.

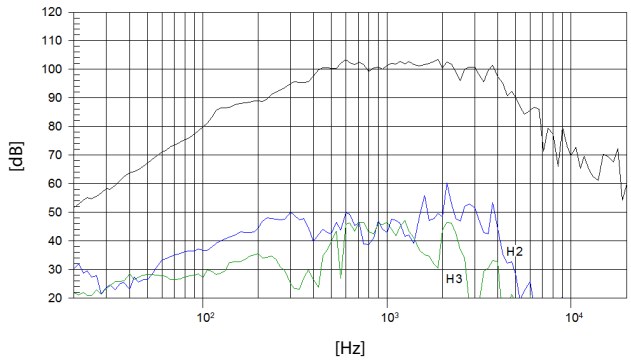
MOUNTING INFORMATION

Overall diameter	270 mm	10,63 in
Bolt circle diameter	248 mm	9,76 in
Baffle cutout diameter:		
- Front mount	227 mm	8,94 in
Depth	103 mm	4,05 in
Net weight	6,2 kg	13,67 lb
Shipping weight	6,6 kg	14,55 lb

FREE AIR IMPEDANCE CURVE



FREQUENCY RESPONSE & DISTORTION



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