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PROFESSIONAL LOUDSPEAKERS
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10MCB700

LOW & MID FREQUENCY TRANSDUCER

MCB Series

KEY FEATURES

maltcross TECHNOLOGY

- High power handling: 1.400 W program power
- Exclusive Malt Cross® Technology Cooling System
- Low power compression losses
- High sensitivity: 96 dB (1W / 1m)
- FEA optimized magnetic circuit
- Optimized non-linear behaviour
- Weatherproof cone treatment on both sides of the cone
- 3" DUO double layer in/out copper voice coil
- Aluminium demodulating ring
- Extended controlled displacement: X_{max} ± 7 mm
- 45 mm peak-to-peak excursion before damage
- Optimized for low frequency and mid-bass applications





TECHNICAL SPECIFICATIONS

Nominal diameter	250 mm	10 in
Rated impedance		8 Ω
Minimum impedance		7,1 Ω
Power capacity [1]		700 W_{AES}
Program power [2]		1.400 W
Sensitivity	96 dB	1W / 1m @ Z_N
Frequency range		80 - 4.000 Hz
Recom. enclosure		V_b = 14 l
(Bass-reflex design)		F_b = 76 Hz
Voice coil diameter	76,2 mm	3 in
Bl factor		20,1 N/A
Moving mass		0,055 kg
Voice coil length		18 mm
Air gap height		9,5 mm
X_{damage} (peak to peak)		45 mm

THIELE-SMALL PARAMETERS [3]

Resonant frequency, f_s	75 Hz
D.C. Voice coil resistance, R_e	5,3 Ω
Mechanical Quality Factor, Q_{ms}	4,9
Electrical Quality Factor, Q_{es}	0,35
Total Quality Factor, Q_{ts}	0,33
Equivalent Air Volume to C_{ms}, V_{as}	13,2 l
Mechanical Compliance, C_{ms}	76 μm / N
Mechanical Resistance, R_{ms}	5,5 kg / s
Efficiency, η_0	1,7 %
Effective Surface Area, S_d	0,035 m^2
Maximum Displacement, X_{max} [4]	7 mm
Displacement Volume, V_d	245 cm^3
Voice Coil Inductance, L_e	0,9 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] 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).

[4] 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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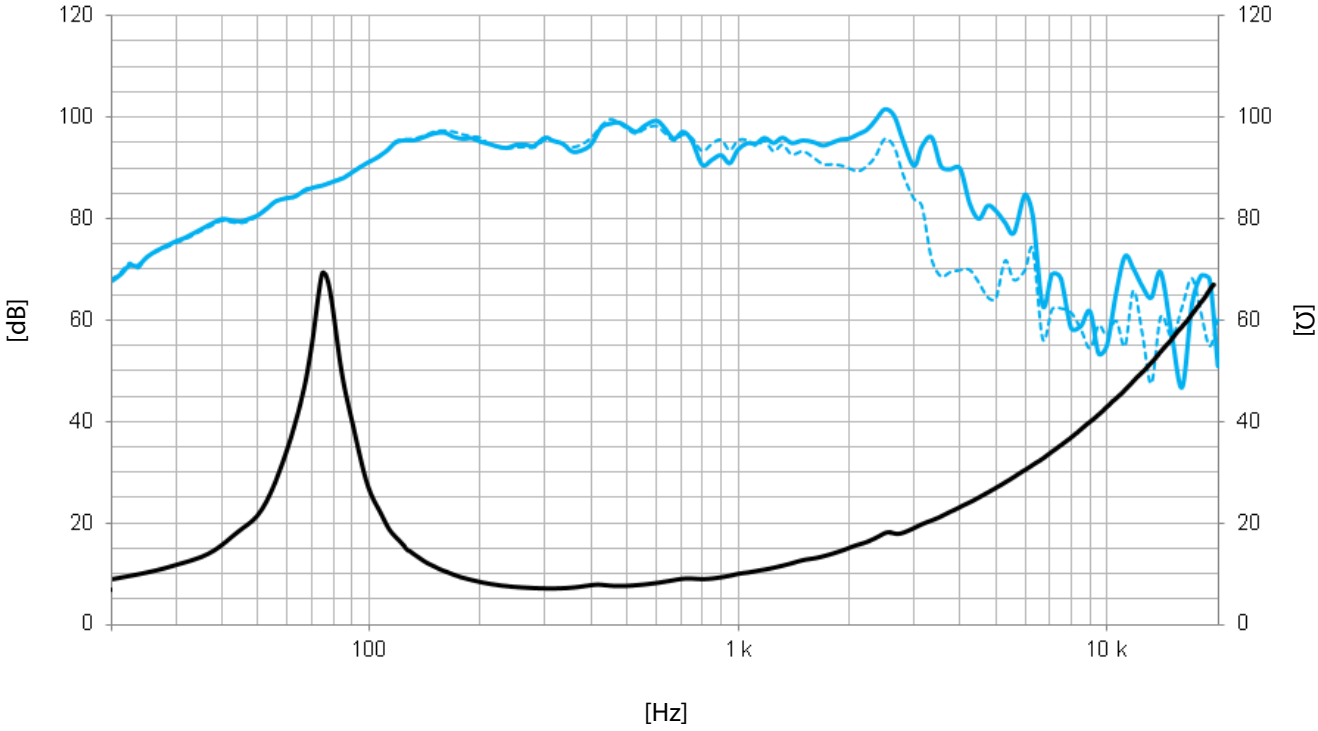
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Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

Frequency response on axis
Frequency response 45º off axis

MOUNTING INFORMATION

Overall diameter	261 mm	10,3 in
Bolt circle diameter	243,5 mm	9,6 in
Baffle cutout diameter:		
- Front mount	228 mm	9,0 in
Depth	129 mm	5,1 in
Net weight	7,6 kg	16,7 lb
Shipping weight	8,1 kg	17,8 lb

DIMENSION DRAWING

