

# 10MCB700

**LOW & MID FREQUENCY TRANSDUCER Preliminary Data Sheet** 



- 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

- Waterproof cone treatment on both sides of the cone
- 3" DUO double layer in/out copper voice coil
- · Aluminium demodulating ring
- Extended controlled displacement: X<sub>max</sub> ± 7 mm
- 45 mm peak-to-peak excursion before damage
- Optimized for low frequency and mid-bass applications





## TECHNICAL SPECIFICATIONS

Nominal diameter	250	250 mm	
Rated impedance			8 Ω
Minimum impedance			7,1 Ω
Power capacity <sup>1</sup>		700	) W <sub>AES</sub>
Program power <sup>2</sup>		1	.400 W
Sensitivity	96 dB	1W / 1n	n @ Z <sub>N</sub>
Frequency range		80 - 4.	000 Hz
Recom. enclosure		V	' <sub>b</sub> = 14 I
(Bass-reflex design)		F <sub>b</sub> =	76 Hz
Voice coil diameter	76,2	mm	3 in
BI factor		2	0,1 N/A
Moving mass		0	,055 kg
Voice coil length			18 mm
Air gap height		9	9,5 mm
X <sub>damage</sub> (peak to peak)			45 mm

## THIELE-SMALL PARAMETERS 3

Resonant frequency, f <sub>s</sub>	75 Hz
D.C. Voice coil resistance, R <sub>e</sub>	5,3 Ω
Mechanical Quality Factor, Q <sub>ms</sub>	4,9
Electrical Quality Factor, Qes	0,35
Total Quality Factor, Qts	0,33
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	13,2 I
Mechanical Compliance, C <sub>ms</sub>	76 μm / N
Mechanical Resistance, R <sub>ms</sub>	5,5 kg / s
Efficiency, η <sub>0</sub>	1,7 %
Effective Surface Area, S <sub>d</sub>	$0,035 \text{ m}^2$
Maximum Displacement, X <sub>max</sub> <sup>4</sup>	7 mm
Displacement Volume, V <sub>d</sub>	245 cm <sup>3</sup>
Voice Coil Inductance, Le	0,9 mH

### Notes

<sup>&</sup>lt;sup>1</sup> The power capaticty is determined according to AES2-1984 (r2003) standard.

<sup>&</sup>lt;sup>2</sup> Program power is defined as power capacity + 3 dB.

<sup>&</sup>lt;sup>3</sup> 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).

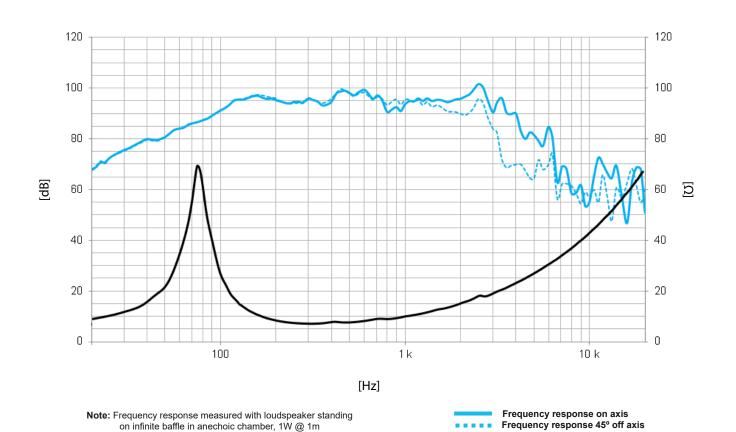
 $<sup>^4</sup>$  The X<sub>max</sub> is calculated as (L<sub>vc</sub> - H<sub>aq</sub>)/2 + (H<sub>aq</sub>/3,5), where L<sub>vc</sub> is the voice coil length and H<sub>aq</sub> is the air gap height.



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# **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**

