

12MC700Nd

LOW & MID FREQUENCY TRANSDUCER MC Series



- High power handling: 1.400 W program power
- Exclusive Malt Cross® Technology Cooling System
- Low power compression losses
- High sensitivity: 99 dB (1W / 1m)
- FEA optimized neodymium magnetic circuit
- · Optimized non-linear behaviour
- 3" DUO double layer in/out copper voice coil

- · Aluminium demodulating ring
- Weatherproof cone with treatment for both sides
- Extended controlled displacement: X_{max} ± 7 mm
- 48 mm peak-to-peak excursion before damage
- Weight 3,7 kg
- Optimized for bass or mid-bass high performance audio systems





TECHNICAL SPECIFICATIONS

Nominal diameter	300 mm	12 in
Rated impedance		8 Ω
Minimum impedance		7 Ω
Power capacity ¹		700 W _{AES}
Program power ²		1.400 W
Sensitivity	99 dB 1W /	1m @ Z _N
Frequency range	60 -	- 4.000 Hz
Recom. enclosure		$V_{b} = 40 \text{ I}$
(Bass-reflex design)	F	= _b = 67 Hz
Voice coil diameter	76,2 mm	3 in
BI factor		21,6 N/A
Moving mass		0,072 kg
Voice coil length		18 mm
Air gap height		10 mm
X _{damage} (peak to peak)		48 mm

THIELE-SMALL PARAMETERS3

Resonant frequency, f _s	51 Hz
D.C. Voice coil resistance, Re	5,2 Ω
Mechanical Quality Factor, Q _{ms}	4,1
Electrical Quality Factor, Q _{es}	0,26
Total Quality Factor, Q _{ts}	0,24
Equivalent Air Volume to C _{ms} , V _{as}	58 I
Mechanical Compliance, C _{ms}	136 μm / N
Mechanical Resistance, R _{ms}	5,6 kg / s
Efficiency, η ₀	2,8 %
Effective Surface Area, S _d	$0,055 \text{ m}^2$
Maximum Displacement, X _{max} ⁴	7 mm
Displacement Volume, V _d	375 cm ³
Voice Coil Inductance, L _e @ 1 kHz	1 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).

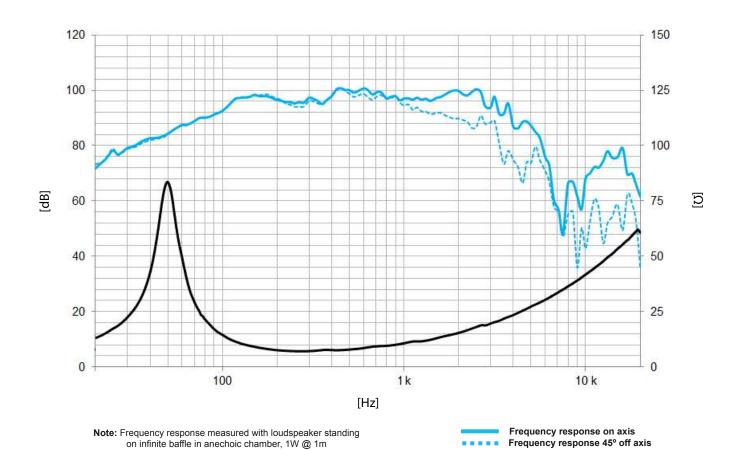
 $^{^4}$ The X_{max} is calculated as $(L_{VC} - H_{aq})/2 + (H_{aq}/3.5)$, where L_{VC} is the voice coil length and H_{aq} is the air gap height.



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MOUNTING INFORMATION

Overall diameter	312 mm	12,3 in
Bolt circle diameter	294,5 mm	11,6 in
Baffle cutout diameter:		
- Front mount	278 mm	10,9 in
Depth	143 mm	5,6 in
Net weight	3,7 kg	8,2 lb
Shipping weight	4,4 kg	9,7 lb

