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PROFESSIONAL LOUDSPEAKERS

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15MC700

LOW & MID FREQUENCY TRANSDUCER

Preliminary Data Sheet

KEY FEATURES

maltcross TECHNOLOGY

- High power handling: 1.400 W program power
- Exclusive Malt Cross® Technology Cooling System
- Low power compression losses
- High sensitivity: 98 dB (1W / 1m)
- FEA optimized magnetic circuit
- Designed with MMSS technology
- Optimized non-linear behavior
- Waterproof cone treatment on both sides of the cone
- 3” DUO double layer in/out copper voice coil
- Aluminum demodulating ring
- Extended controlled displacement: X_{max} ± 9,8 mm
- 40 mm peak-to-peak excursion before damage
- Optimized for low frequency and mid-bass applications

TECHNICAL SPECIFICATIONS

Nominal diameter	380 mm	15 in
Rated impedance		8 Ω
Minimum impedance		7,6 Ω
Power capacity [1]		700 W_{AES}
Program power [2]		1.400 W
Sensitivity	98 dB	1W / 1m @ Z_N
Frequency range		45 - 4.000 Hz
Voice coil diameter	76,2 mm	3 in
Bl factor		20,6 N/A
Moving mass		0,106 kg
Voice coil length		23 mm
Air gap height		8 mm
X_{damage} (peak to peak)		40 mm

THIELE-SMALL PARAMETERS [3]

Resonant frequency, f_s	41 Hz
D.C. Voice coil resistance, R_e	5,9 Ω
Mechanical Quality Factor, Q_{ms}	4,8
Electrical Quality Factor, Q_{es}	0,38
Total Quality Factor, Q_{ts}	0,35
Equivalent Air Volume to C_{ms}, V_{as}	153 l
Mechanical Compliance, C_{ms}	140 μm / N
Mechanical Resistance, R_{ms}	5,7 kg / s
Efficiency, η_0	2,7 %
Effective Surface Area, S_d	0,088 m^2
Maximum Displacement, X_{max} [4]	9,8 mm
Displacement Volume, V_d	880 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 $(L_{vc} - H_{ag})/2 + (H_{ag}/3,5)$, where L_{vc} is the voice coil length and H_{ag} is the air gap height.

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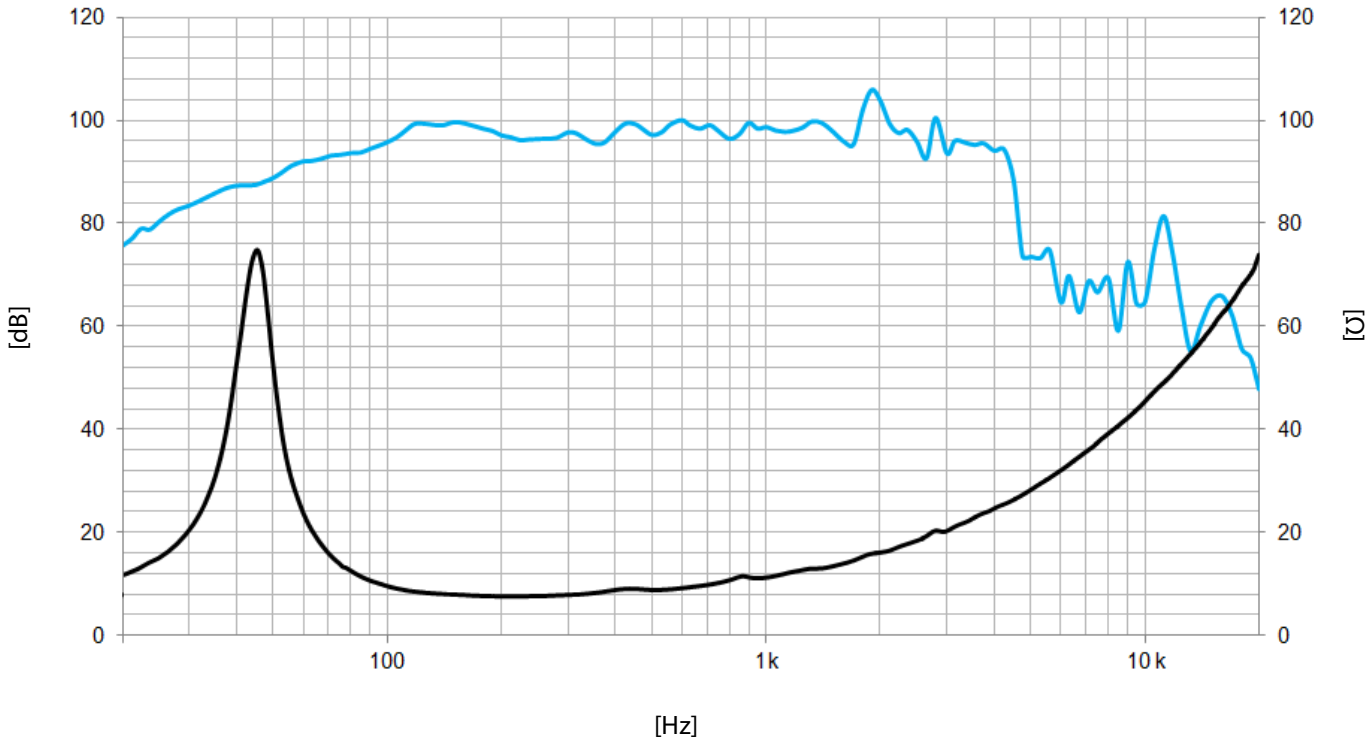

Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

MOUNTING INFORMATION

Overall diameter	388 mm	15,27 in
Bolt circle diameter	370 mm	14,56 in
Baffle cutout diameter:		
- Front mount	349,5 mm	13,76 in
Depth	175 mm	6,89 in
Net weight	7,5 kg	16,5 lb
Shipping weight	8,5kg	18,7 lb

DIMENSION DRAWING