beyma))

PROFESSIONAL LOUDSPEAKERS
www.beyma.com

15MC500
LOW & MID FREQUENCY TRANSDUCER

KEY FEATURES

- High power handling: 1.000 W program power
- 2,5" copper wire voice coil
- Malt Cross© Cooling System
- Low power compression looses
- High sensitiviy: 98 dB
- FEA optimized magnetic circuit
- Designed with MMSS technology for high control, linearity and low harmonic distortion
- Aluminum demodulating ring
- Waterproof cone treatment on both sides of the cone
- Extended controlled displacement (X_{max}): 8 mm
- X_{damage} ± 40 mm
- Weight 6,2 kg
- Optimized for 2 or 3 way PA systems and line array for utlimate professional applications


TECHNICAL SPECIFICATIONS

Nominal diameter	380 mm	15 in
Rated impedance		8 Ω
Minimum impedance		6,6 Ω
Power capacity*		500 W$_{AES}$
Program power		1.000 W
Sensitivity	98 dB @ 1W @ Z$_N$	
Frequency range		40 - 4.000 Hz
Recom. enclosure vol.	60 / 150 l	2,10 / 5,25 ft^3
Voice coil diameter	63,5 mm	2,5 in
Bl factor		18,25 N/A
Moving mass		0,098 kg
Voice coil length		19,5 mm
Air gap height		10 mm
X_{damage} (peak to peak)		40 mm

THIELE-SMALL PARAMETERS**

Resonant frequency, f_s	46 Hz
D.C. Voice coil resistance, R_e	5,7 Ω
Mechanical Quality Factor, Q_{ms}	8
Electrical Quality Factor, Q_{es}	0,49
Total Quality Factor, Q_{ts}	0,46
Equivalent Air Volume to C_{ms}, V_{as}	131,5 l
Mechanical Compliance, C_{ms}	120 μm / N
Mechanical Resistance, R_{ms}	3,5 kg / s
Efficiency, η_0	2,55 %
Effective Surface Area, S_d	0,088 m^2
Maximum Displacement, X_{max} ***	8 mm
Displacement Volume, V_d	704 cm^3
Voice Coil Inductance, L_e	1,15 mH

DIMENSION DRAWINGS
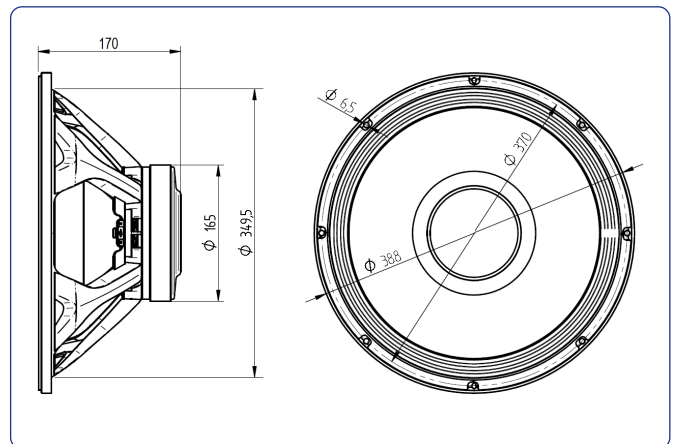
MOUNTING INFORMATION

|		
Overall diameter	388 mm	15,28 in
Bolt circle diameter	370 mm	14,57 in
Baffle cutout diameter:		
- Front mount	349,5 mm	13,76 in
Depth	170 mm	6,70 in
Net weight	6,2 kg	13,7 lb
Shipping weight	7,2 kg	15,9 lb

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.

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TECHNOLOGY

FREE AIR IMPEDANCE CURVE
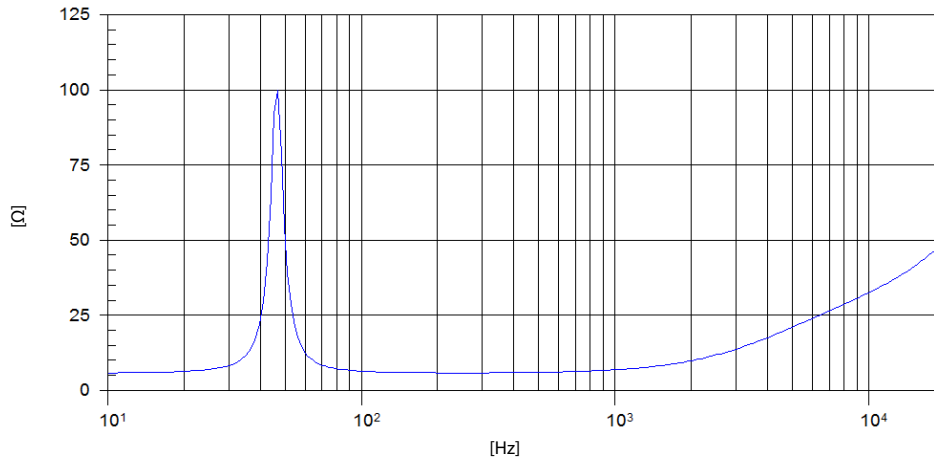
FREQUENCY RESPONSE AND DISTORTION
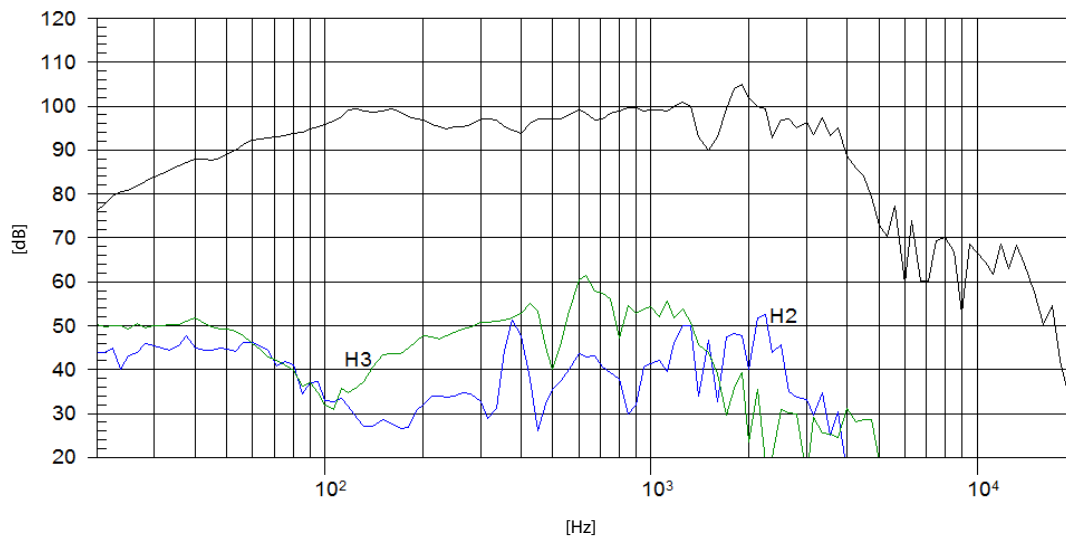
Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

02/14