beyma

PROFESSIONAL LOUDSPEAKERS
www.beyma.com

15G450/N

LOW FREQUENCY TRANSDUCER
G50 Series

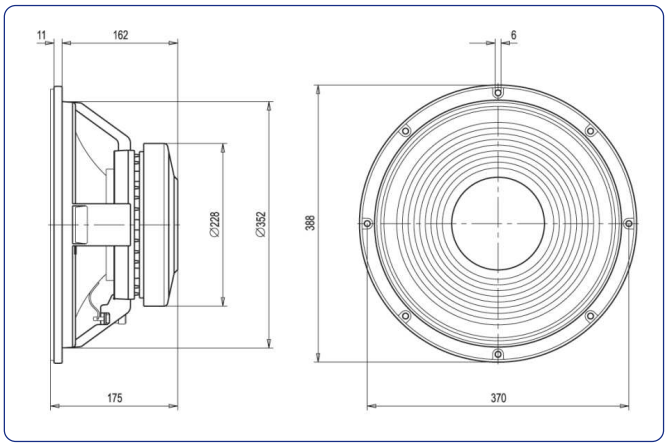
KEY FEATURES

- High power handling (750 W_{AES})
- 4,5" copper voice coil with polymide fiber glass former
- Large X_{MAX} allowing longer voice coil displacements
- Dual spider configuration to improve mechanical properties at high power
- Excellent heat dissipation due to the use of a metal intercooler
- Designed for high demanding subwoofer and woofer applications

TECHNICAL SPECIFICATIONS

Nominal diameter	380 mm	15 in
Rated impedance		8 Ω
Minimum impedance		6,5 Ω
Power capacity*		750 W_{AES}
Program power		1500 W
Sensitivity	98 dB	1W @ 1m @ Z_N
Frequency range		40 - 1.500 Hz
Voice coil diameter	114 mm	4,5 in
Bl factor		24,1 N/A
Moving mass		0,135 kg
Voice coil length		19,5 mm
Air gap height		10 mm
X_{damage} (peak to peak)		35 mm

DIMENSION DRAWINGS



THIELE-SMALL PARAMETERS**

Resonant frequency, f_s	44 Hz
D.C. Voice coil resistance, R_e	5,6 Ω
Mechanical Quality Factor, Q_{ms}	7
Electrical Quality Factor, Q_{es}	0,36
Total Quality Factor, Q_{ts}	0,34
Equivalent Air Volume to C_{ms}, V_{as}	106 l
Mechanical Compliance, C_{ms}	97 μm / N
Mechanical Resistance, R_{ms}	5,3 kg / s
Efficiency, η_0	2,43 %
Effective Surface Area, S_d	0,088 m^2
Maximum Displacement, X_{max} * **	7,5 mm
Displacement Volume, V_d	660 cm^3
Voice Coil Inductance, L_e @ 1 kHz	1,5 mH

MOUNTING INFORMATION

Overall diameter	388 mm	15,28 in
Bolt circle diameter	370 mm	14,57 in
Baffle cutout diameter:		
- Front mount	352 mm	13,86 in
Depth	175 mm	6,88 in
Net weight	11,5 kg	25,3 lb
Shipping weight	12,5 kg	27,5 lb

Notes:

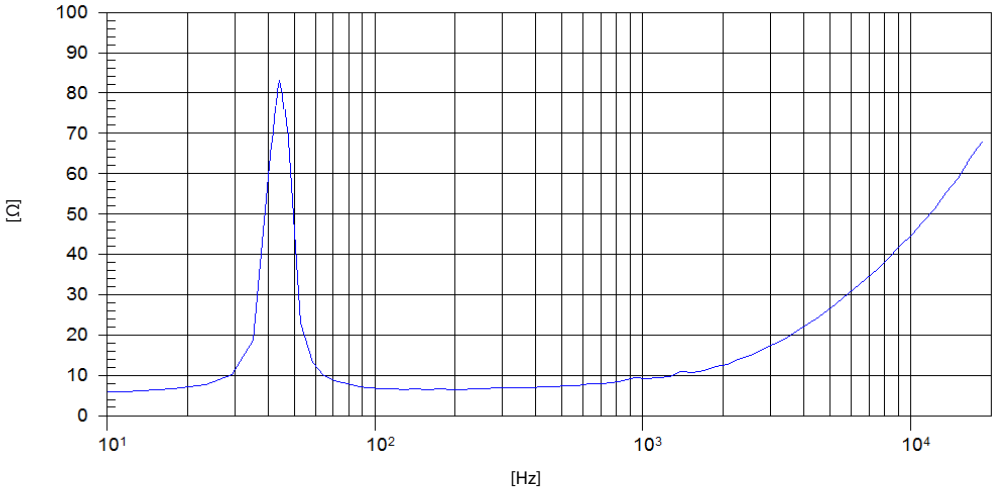
* The power capaticty is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer's ability to handle normal music program material.

** 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).

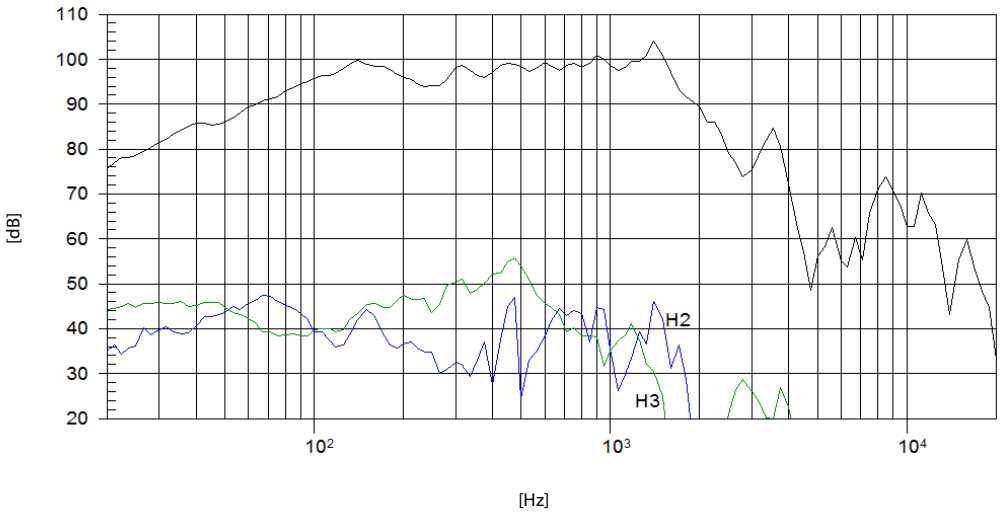
*** The X_{max} is calculated as $(L_{vc} - H_{ag})/2 + (H_{ag}/3,5)$, where L_{vc} is the voice coil length and H_{ag} is the air gap height.

15G450/N
LOW FREQUENCY TRANSDUCER
G50 Series

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

beyma
Polígono Industrial Moncada II ▪ C/. Pont Sec, 1c ▪ 46113 MONCADA - Valencia (Spain)
▪ Tel.: (34) 96 130 13 75 ▪ Fax: (34) 96 130 15 07 ▪ http://www.beyma.com ▪ E-mail: beyma@beyma.com ▪