beyma Full Range Frequency Transducer User Manual

Contents

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KEY FEATURES

- 3” full-range compact ferrite loudspeaker
- 60 W program power
- FEA optimized magnetic circuit
- Shorting cup for extended response and very low distortion
- Optimized surround design for minimal resonance behaviour KEY FEATURES Acústica Beyma SL – P.I. Moncada II, C/ Pont Sec, 1C – 46113 Moncada, Valencia (Spain) – Tel. +34 96 130 13 75 – beyma@beyma.com
- Optimized linearity and dispersion pattern
- Weatherproof paper cone and extreme resistance elastomer surround
- Pressed Steel Frame
- Ideal for beam-steering application, portable array, columns and compact applications

TECHNICAL SPECIFICATIONS

Nominal diameter	77 mm 3 in
Rated impedance	8 Ω
Minimum impedance	7 Ω

Power capacity 1	30 WAES
Program power 2	60 W
Sensitivity	90,5 dB 1W / 1m @ ZN
Frequency range	135 – 20.000 Hz
Voice coil diameter	20,3 mm 0,8 in
Bl factor	4,5 N/A
Moving mass	0,0023 kg
Voice coil length	6 mm
Air gap height	5 mm

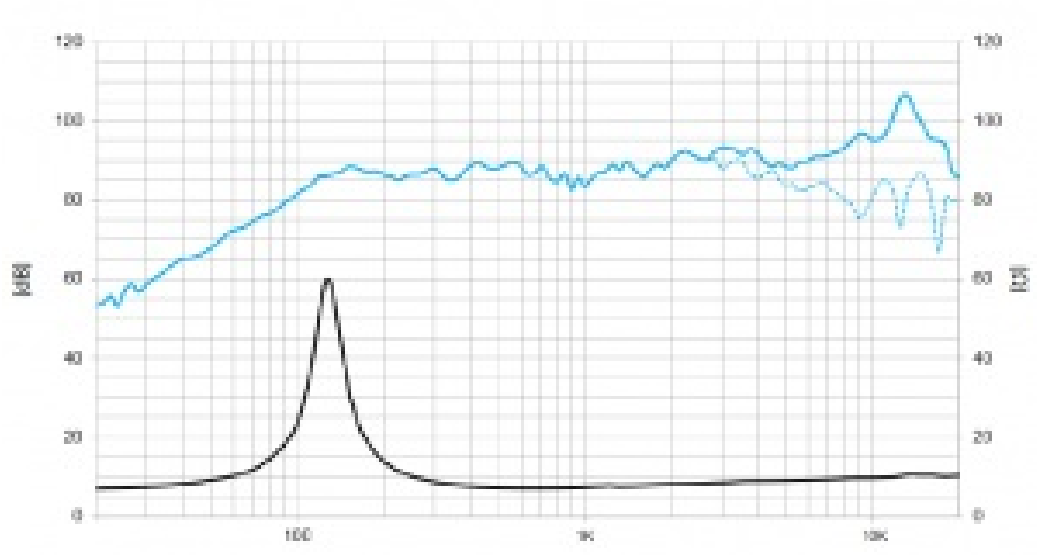
Notes:

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 Xmax is calculated as (Lvc – Hag)/2 + (Hag/3,5), where Lvc is the voice coil length and Hag is the air gap height.
5. Product designed by Acústica Beyma S.L.

THIELE-SMALL PARAMETERS 3

Resonant frequency, fs	133 Hz
D.C. Voice coil resistance, Re	5,8 Ω
Mechanical Quality Factor, Qms	5,9
Electrical Quality Factor, Qes	0,56
Total Quality Factor, Qts	0,51
Equivalent Air Volume to Cms, Vas	1,0 l
Mechanical Compliance, Cms	624 µm / N
Mechanical Resistance, Rms	0,32 kg / s
Efficiency, η0	0,4 %
Effective Surface Area, Sd	0,003 m2
Maximum Displacement, Xmax 4	2 mm
Displacement Volume, Vd	5 cm3
Voice Coil Inductance, Le @ 1 kHz	0,16 mH

FULL RANGE FREQUENCY TRANSDUCER



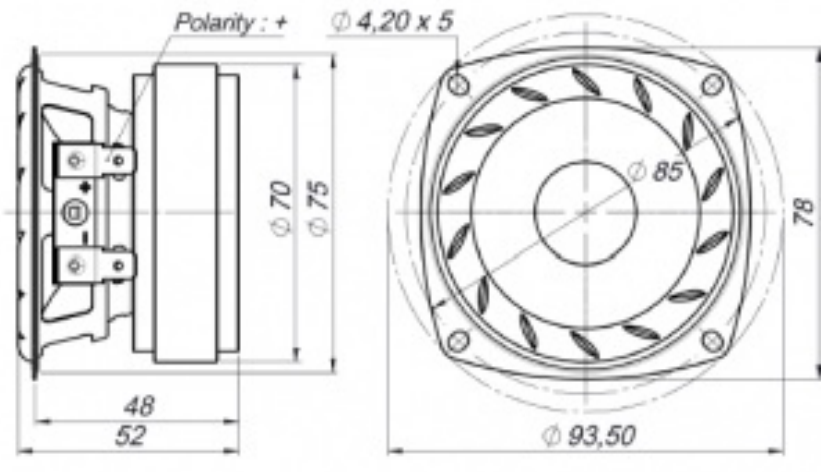
Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

Frequency response on axis Frequency response 45º off axis

MOUNTING INFORMATION

Overall diameter	93,5 mm 3,7 in
Bolt circle diameter	85 mm 3,4 in
Baffle cutout diameter:	75 mm 3,9 in
– Front mount	52 mm 2 in
Depth	0,57 kg 1,2 lb
Net weight	0,70 kg 1,5 lb
Shipping weight	

DIMENSION DRAWING



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References

- **Acústica Beyma - Fabricante Altavoces Profesionales desde 1969**