beyma ♪♪

3FR30Nd
FULL RANGE FREQUENCY TRANSDUCER

KEY FEATURES

- 3" full-range compact neodymium loudspeaker
- 60 W program power
- Extended response and low distortion
- Paper cone and treated cloth surround

- Steel basket
- Ideal for beam-steering application (columns), portable array and compact applications

TECHNICAL SPECIFICATIONS

Nominal diameter	77 mm	3 in
Rated impedance	8 Ω	
Minimum impedance	6,4 Ω	
Power capacity [1]	30 W_{AES}	
Program power [2]	60 W	
Sensitivity	91 dB	1W / 1m @ Z_N
Frequency range	180 - 20.000 Hz	
Voice coil diameter	20,3 mm	0,8 in
Bl factor	4,8 N/A	
Moving mass	0,002 kg	
Voice coil length	10,5 mm	
Air gap height	3 mm	

THIELE-SMALL PARAMETERS [3]

|	
Resonant frequency, f_s	180 Hz
D.C. Voice coil resistance, R_e	5,5 Ω
Mechanical Quality Factor, Q_{ms}	9,5
Electrical Quality Factor, Q_{es}	0,60
Total Quality Factor, Q_{ts}	0,55
Equivalent Air Volume to C_{ms}, V_{as}	0,55 l
Mechanical Compliance, C_{ms}	357 μm / N
Mechanical Resistance, R_{ms}	0,26 kg / s
Efficiency, η_0	0,52 %
Effective Surface Area, S_d	0,003 m^2
Maximum Displacement, X_{max} [4]	4,5 mm
Displacement Volume, V_d	13,5 cm^3
Voice Coil Inductance, L_e @ 1 kHz	0,3 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.
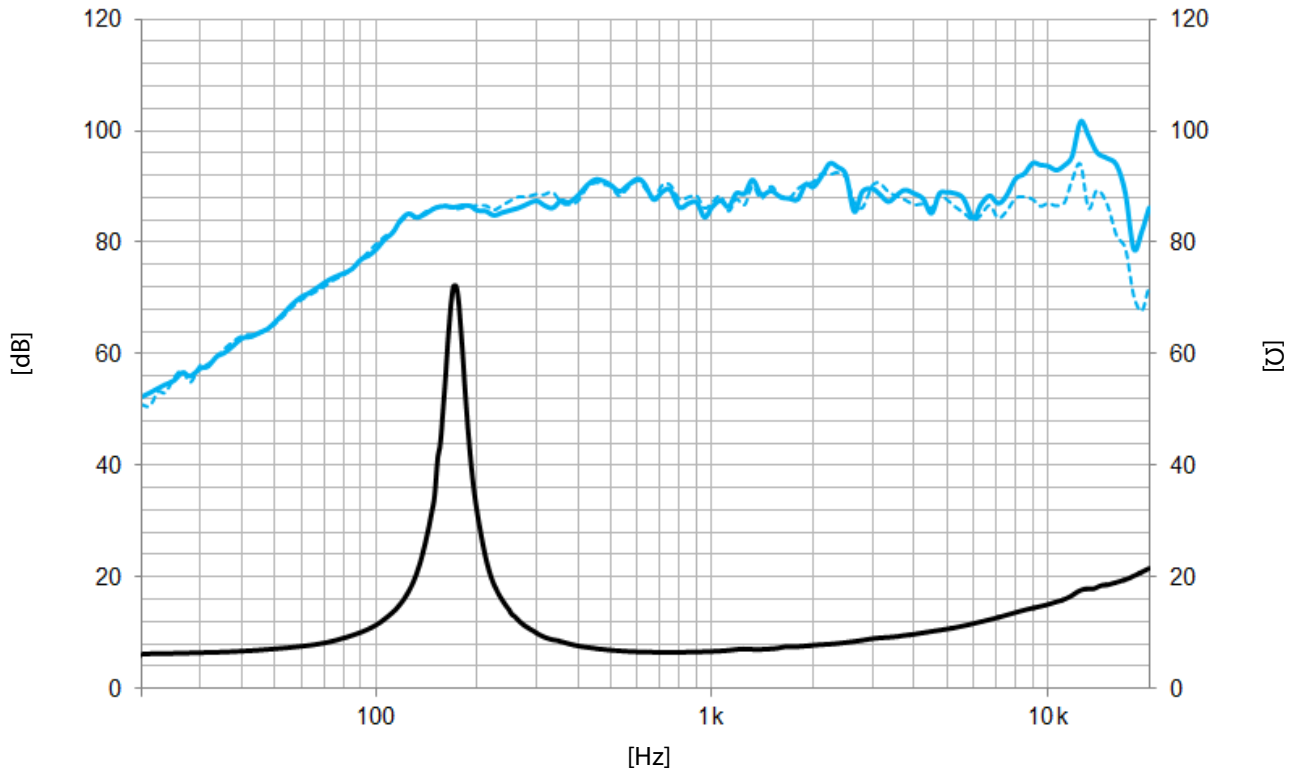
Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

— Frequency response on axis
···· Frequency response 45º off axis

MOUNTING INFORMATION

Overall diameter	93,5 mm	3,7 in
Bolt circle diameter	85 mm	3,3 in
Baffle cutout diameter:		
- Front mount	75 mm	2,9 in
Depth	41 mm	1,6 in
Net weight	0,25 kg	0,5 lb
Shipping weight	0,40 kg	0,9 lb

DIMENSION DRAWING

ø 5 x 4,2
ø 85
ø 52
ø 75
41

Acústica Beyma SL - P.I. Moncada II, C/ Pont Sec, 1C - 46113 Moncada, Valencia (Spain) - Tel. +34 96 130 13 75 - beyma@beyma.com

01/18