beyma

PROFESSIONAL LOUDSPEAKERS

www.beyma.com

12WRS400

LOW FREQUENCY TRANSDUCER

WRS Series

KEY FEATURES

- High power handling: 800 W program power
- 3” copper wire voice coil
- High sensitivity: 97 dB (1W / 1m)
- Optimized pressed steel frame
- FEA optimized ceramic magnetic circuit
- Weatherproof cone treatment for both sides of the cone
- Low harmonic distortion and linear response
- Wide range of applications of low and mid-low frequencies





TECHNICAL SPECIFICATIONS

Nominal diameter	300 mm	12 in
Rated impedance		8 Ω
Minimum impedance		7 Ω
Power capacity [1]		400 W_{AES}
Program power [2]		800 W
Sensitivity	97 dB	1W / 1m @ Z_N
Frequency range		45 - 5.000 Hz
Recom. enclosure vol.	30 / 100 l	1,06 / 3,53 ft^3
Voice coil diameter	76,2 mm	3 in
Bl factor		17,4 N/A
Moving mass		0,063 kg
Voice coil length		16 mm
Air gap height		8 mm
X_{damage} (peak to peak)		30 mm

THIELE-SMALL PARAMETERS [3]

Resonant frequency, f_s	42 Hz
D.C. Voice coil resistance, R_e	5,6 Ω
Mechanical Quality Factor, Q_{ms}	7,7
Electrical Quality Factor, Q_{es}	0,31
Total Quality Factor, Q_{ts}	0,29
Equivalent Air Volume to C_{ms}, V_{as}	91 l
Mechanical Compliance, C_{ms}	228 μm / N
Mechanical Resistance, R_{ms}	2,2 kg / s
Efficiency, η_0	2,1 %
Effective Surface Area, S_d	0,053 m^2
Maximum Displacement, X_{max} [4]	6,3 mm
Displacement Volume, V_d	334 cm^3
Voice Coil Inductance, L_e	1,3 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.

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

beyma

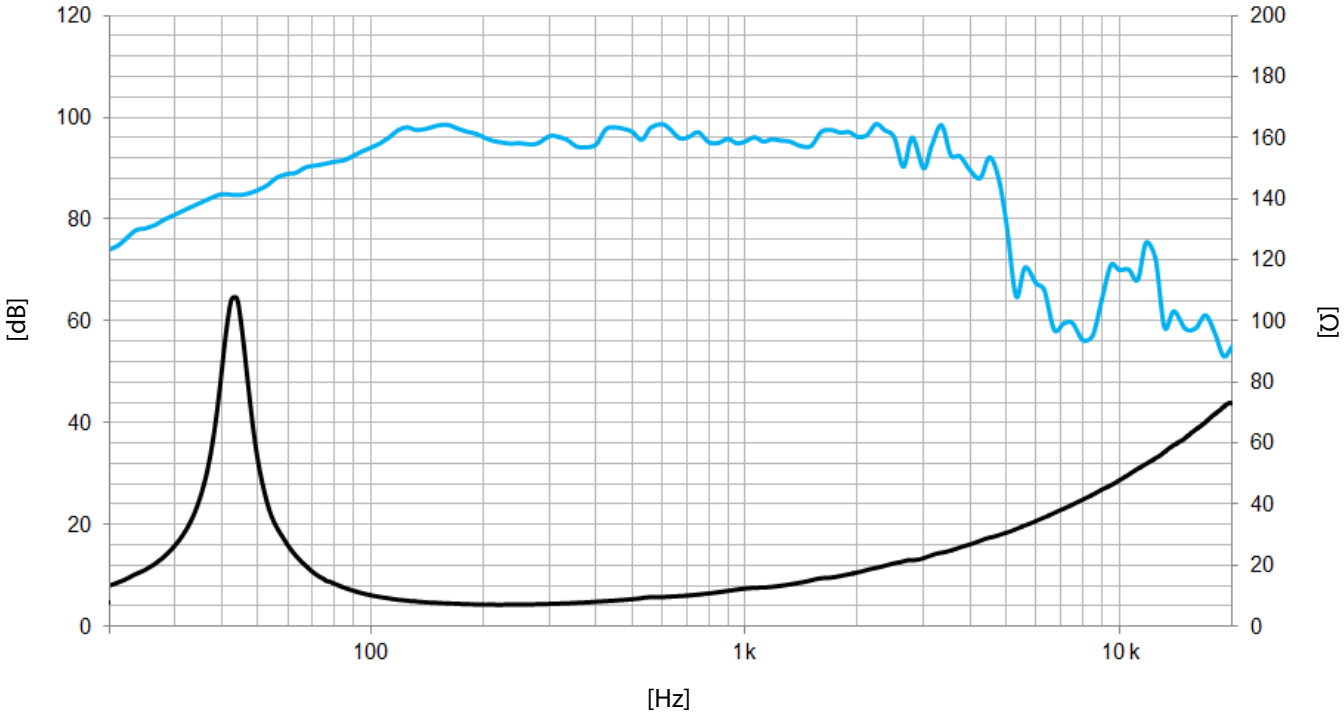
PROFESSIONAL LOUDSPEAKERS

www.beyma.com

12WRS400

LOW FREQUENCY TRANSDUCER

WRS Series



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

MOUNTING INFORMATION

Overall diameter	310 mm	12,2 in
Bolt circle diameter	292 mm	11,5 in
Baffle cutout diameter:		
- Front mount	280 mm	11,0 in
Depth	131 mm	5,2 in
Net weight	5,5 kg	12,1 lb
Shipping weight	6 kg	13,2 lb

DIMENSION DRAWING

