beyma

PROFESSIONAL LOUDSPEAKERS

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# 15WRS400

## LOW FREQUENCY TRANSDUCER

### WRS Series

## KEY FEATURES

- High power handling: 800 W program power
- 3” copper wire voice coil
- High sensitivity: 98,5 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** | 380 mm | 15 in |
| **Rated impedance** | | 8 Ω |
| **Minimum impedance** | | 7 Ω |
| **Power capacity** [1] | | 400 $W_{AES}$ |
| **Program power** [2] | | 800 W |
| **Sensitivity** | 98,5 dB | 1W / 1m @ $Z_N$ |
| **Frequency range** | | 40 - 4.000 Hz |
| **Recom. enclosure vol.** | 70 / 150 l | 2,5 / 5,2 $ft^3$ |
| **Voice coil diameter** | 76,2 mm | 3 in |
| **Bl factor** | | 18,2 N/A |
| **Moving mass** | | 0,091 kg |
| **Voice coil length** | | 16 mm |
| **Air gap height** | | 8 mm |
| **$X_{damage}$ (peak to peak)** | | 30 mm |

## THIELE-SMALL PARAMETERS [3]

| | |
|---|---|
| **Resonant frequency, $f_s$** | 36 Hz |
| **D.C. Voice coil resistance, $R_e$** | 5,6 Ω |
| **Mechanical Quality Factor, $Q_{ms}$** | 9,1 |
| **Electrical Quality Factor, $Q_{es}$** | 0,35 |
| **Total Quality Factor, $Q_{ts}$** | 0,33 |
| **Equivalent Air Volume to $C_{ms}$, $V_{as}$** | 236 l |
| **Mechanical Compliance, $C_{ms}$** | 215 μm / N |
| **Mechanical Resistance, $R_{ms}$** | 2,3 kg / s |
| **Efficiency, $\eta_0$** | 3 % |
| **Effective Surface Area, $S_d$** | 0,088 $m^2$ |
| **Maximum Displacement, $X_{max}$** [4] | 6,3 mm |
| **Displacement Volume, $V_d$** | 555 $cm^3$ |
| **Voice Coil Inductance, $L_e$** | 1,1 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.

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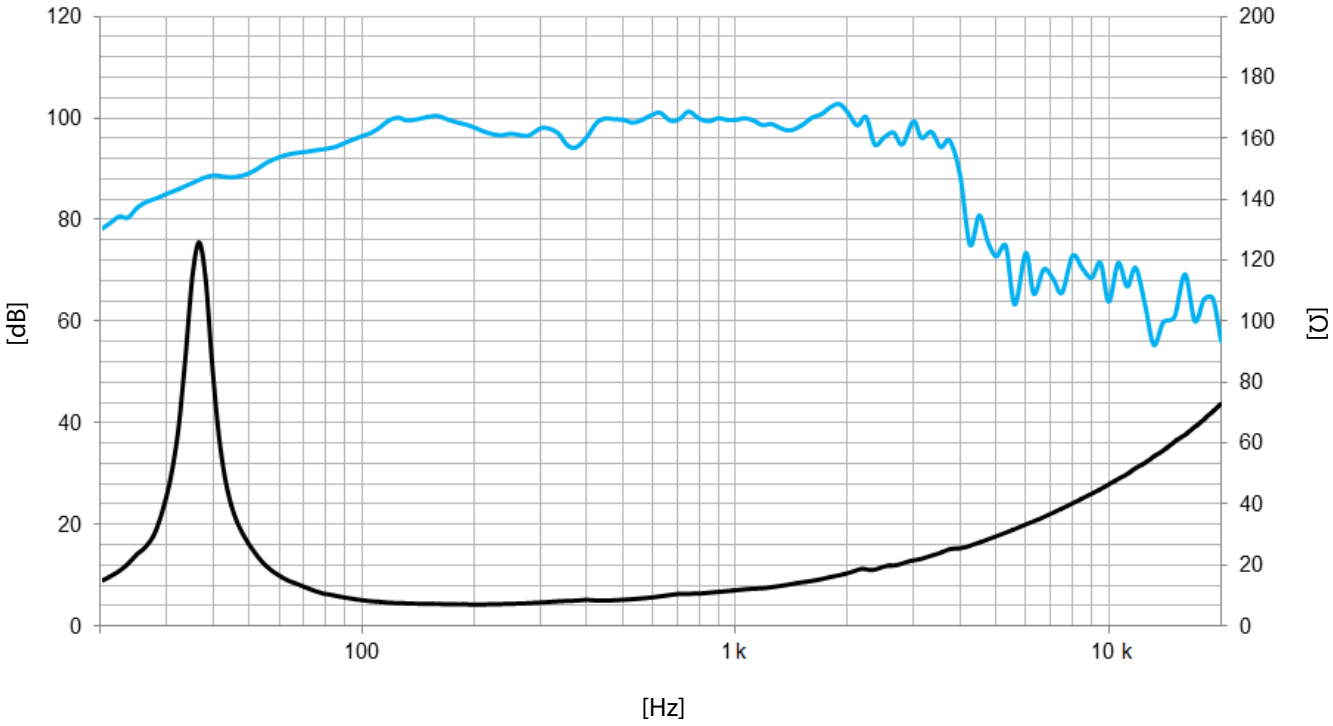
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**Note:** On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

## MOUNTING INFORMATION

| | | |
|---|---|---|
| **Overall diameter** | 385 mm | 15,2 in |
| **Bolt circle diameter** | 367 mm | 14,4 in |
| **Baffle cutout diameter:** | | |
| **- Front mount** | 353 mm | 13,9 in |
| **Depth** | 165 mm | 6,5 in |
| **Net weight** | 6,2 kg | 13,7 lb |
| **Shipping weight** | 7,2 kg | 15,9 lb |

## DIMENSION DRAWING

