

# 12WRS400

LOW FREQUENCY TRANSDUCER
WRS Series

# **KEY FEATURES**

- High power handling: 800 W program power
- 3" copper wire voice coil
- High sensitivity: 96,5 dB (1W / 1m)
- · Optimized pressed steel frame

- FEA optimized ceramic magnetic circuit
- Waterproof 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 <sup>1</sup>		4	100 W <sub>AES</sub>
Program power <sup>2</sup>			800 W
Sensitivity	96,5 dB	1W /	1m @ Z <sub>N</sub>
Frequency range		45 -	5.000 Hz
Recom. enclosure vol.	30 / 100 I	1,06	5 / 3,53 ft <sup>3</sup>
Voice coil diameter	76,2	mm	3 in
BI factor			17,8 N/A
Moving mass			0,065 kg
Voice coil length			16 mm
Air gap height			8 mm
X <sub>damage</sub> (peak to peak)			30 mm

# THIELE-SMALL PARAMETERS 3

Resonant frequency, f <sub>s</sub>	44 Hz
D.C. Voice coil resistance, R <sub>e</sub>	5,6 Ω
Mechanical Quality Factor, Q <sub>ms</sub>	7,7
Electrical Quality Factor, Q <sub>es</sub>	0,32
Total Quality Factor, Qts	0,31
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	77,9 I
Mechanical Compliance, C <sub>ms</sub>	196 μm / N
Mechanical Resistance, R <sub>ms</sub>	2,4 kg / s
Efficiency, η <sub>0</sub>	2 %
Effective Surface Area, S <sub>d</sub>	$0,053 \text{ m}^2$
Maximum Displacement, X <sub>max</sub> ⁴	6,3 mm
Displacement Volume, V <sub>d</sub>	334 cm <sup>3</sup>
Voice Coil Inductance, L <sub>e</sub>	1,3 mH

#### Notes

<sup>&</sup>lt;sup>1</sup> The power capaticty is determined according to AES2-1984 (r2003) standard.

<sup>&</sup>lt;sup>2</sup> Program power is defined as power capacity + 3 dB.

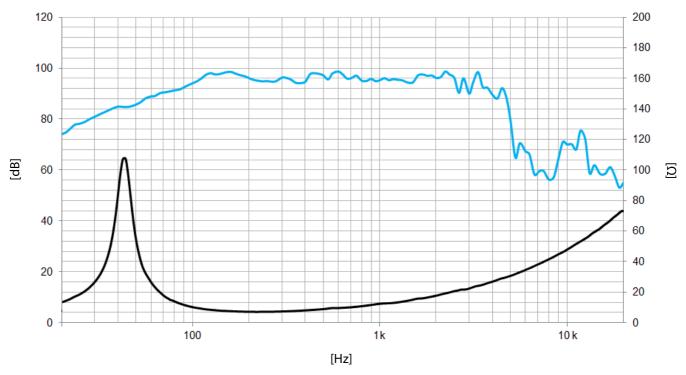
<sup>&</sup>lt;sup>3</sup> T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $<sup>^4</sup>$  The  $\rm X_{max}$  is calculated as ( $\rm L_{vc}$  -  $\rm H_{aq}$ )/2 + ( $\rm H_{aq}$ /3,5), where  $\rm L_{vc}$  is the voice coil length and  $\rm H_{aq}$  is the air gap height.



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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	310 mm	12,2 in
Bolt circle diameter	292 mm	11,5 in
Baffle cutout diameter:		
- Front mount	280 mm	11,0 in
Depth	132 mm	5,2 in
Net weight	5,5 kg	12,1 lb
Shipping weight	6 kg	13,2 lb

## **DIMENSION DRAWING**

