

## 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	4	00 W <sub>AES</sub>
Program power <sup>2</sup>		800 W
Sensitivity	97 dB 1W /	1m @ Z <sub>N</sub>
Frequency range	45 -	5.000 Hz
Recom. enclosure vol.	30 / 100 I 1,06	6 / 3,53 ft <sup>3</sup>
Voice coil diameter	76,2 mm	3 in
BI factor		17,4 N/A
Moving mass		0,063 kg
Voice coil length		16 mm
Air gap height		8 mm
X <sub>damage</sub> (peak to peak)		30 mm

## THIELE-SMALL PARAMETERS<sup>3</sup>

Resonant frequency, f <sub>s</sub>	42 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>	0,31
Total Quality Factor, Q <sub>ts</sub>	0,29
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	91 I
Mechanical Compliance, C <sub>ms</sub>	228 μm / N
Mechanical Resistance, R <sub>ms</sub>	2,2 kg / s
Efficiency, η <sub>0</sub>	2,1 %
Effective Surface Area, S <sub>d</sub>	$0,053 \text{ m}^2$
Maximum Displacement, X <sub>max</sub> <sup>4</sup>	6,3 mm
Displacement Volume, V <sub>d</sub>	334 cm <sup>3</sup>
Voice Coil Inductance, Le	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.

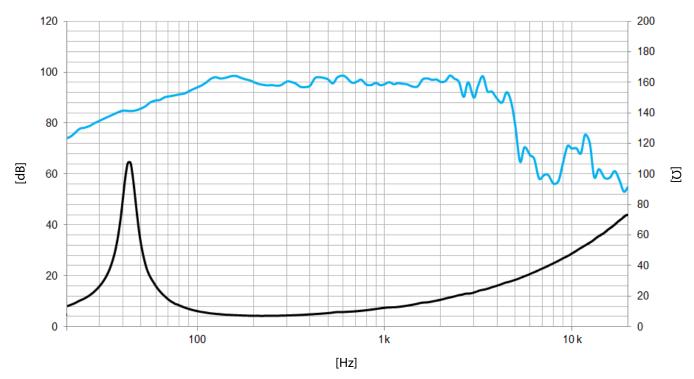
<sup>&</sup>lt;sup>3</sup> T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

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



# 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**

