

## 15WR400

LOW FREQUENCY TRANSDUCER
WR Series

## **KEY FEATURES**

- High power handling: 800 W program power
- 3" copper wire voice coil
- High sensitivity: 99 dB (1W / 1m)
- FEA optimized ceramic magnetic circuit
- Waterproof cone treatment for both sides of the cone
- $\bullet$  Extended controlled displacement:  $X_{max} \pm 6.3 \text{ mm}$
- 30 mm peak-to-peak excursion before damage
- Low harmonic distortion and linear response
- Wide range of applications of low and mid-low frequencies





### TECHNICAL SPECIFICATIONS

Nominal diameter	380 mi	m 15 in
Rated impedance		8 Ω
Minimum impedance		6,4 Ω
Power capacity <sup>1</sup>		400 W <sub>AES</sub>
Program power <sup>2</sup>		800 W
Sensitivity	99 dB 1	W / 1m @ Z <sub>N</sub>
Frequency range		40 - 4.000 Hz
Recom. enclosure vol.	70 / 150 I	2,45 / 5,25 ft <sup>3</sup>
Voice coil diameter	76,2 m	m 3 in
BI factor		19,2 N/A
Moving mass		0,091 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>	36 Hz
D.C. Voice coil resistance, R <sub>e</sub>	5,6 Ω
Mechanical Quality Factor, Q <sub>ms</sub>	8,2
Electrical Quality Factor, Qes	0,31
Total Quality Factor, Qts	0,30
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	236 I
Mechanical Compliance, C <sub>ms</sub>	215 $\mu$ m / N
Mechanical Resistance, R <sub>ms</sub>	2,5 kg / s
Efficiency, η <sub>0</sub>	3,4 %
Effective Surface Area, S <sub>d</sub>	0,088 m <sup>2</sup>
Maximum Displacement, X <sub>max</sub> <sup>4</sup>	6,3 mm
Displacement Volume, V <sub>d</sub>	555 cm <sup>3</sup>
Voice Coil Inductance, Le	1 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.

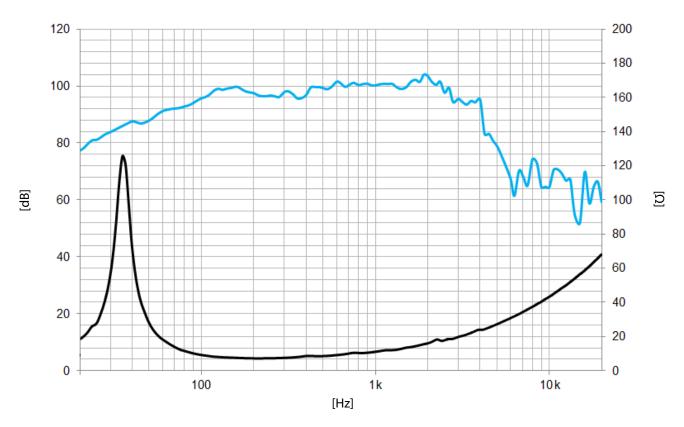
<sup>&</sup>lt;sup>3</sup> T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $<sup>^4</sup>$  The X<sub>max</sub> is calculated as (L<sub>vc</sub> - H<sub>aq</sub>)/2 + (H<sub>aq</sub>/3,5), where L<sub>vc</sub> is the voice coil length and H<sub>aq</sub> 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	388 mm	15,3 in
Bolt circle diameter	370 mm	14,6 in
Baffle cutout diameter:		
- Front mount	349,5 mm	13,8 in
Depth	162 mm	6,4 in
Net weight	6,1 kg	13,4 lb
Shipping weight	7,1 kg	15,6 lb

## **DIMENSION DRAWING**

