

## 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
- Designed with MMSS technology for high control, linearity and low harmonic distortion
- Waterproof cone treatment on both sides of the cone
- Extended controlled displacement: X<sub>max</sub> ± 6,3 mm
- X<sub>damage</sub> ± 30 mm
- Low harmonic distortion and linear response
- Wide range of applications of low and mid-low frequencies



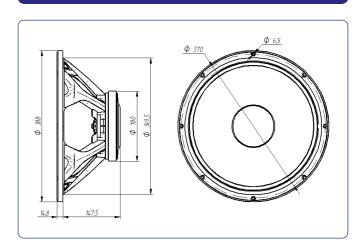
## TECHNICAL SPECIFICATIONS

Nominal diameter		380 mm	15 in
Rated impedance			8 Ω
Minimum impedance			6,4 Ω
Power capacity*		400	WAES
Program power			800 W
Sensitivity	99 dB	1W / 1m	@ Z <sub>N</sub>
Frequency range		35 - 4.0	000 Hz
Recom. enclosure vol.	70 / 150 I	2,45 / 5	5,25 ft <sup>3</sup>
Voice coil diameter		77 mm	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\*\*

Resonant frequency, f <sub>s</sub>	36 Hz
D.C. Voice coil resistance, R <sub>e</sub>	5,5 Ω
Mechanical Quality Factor, Q <sub>ms</sub>	8,2
Electrical Quality Factor, Qes	0,32
Total Quality Factor, Q <sub>ts</sub>	0,30
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	224 I
Mechanical Compliance, C <sub>ms</sub>	205 μm / 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> ***	6,3 mm
Displacement Volume, V <sub>d</sub>	555 cm <sup>3</sup>
Voice Coil Inductance, L <sub>e</sub> @ 1 kHz	1 mH

## **DIMENSION DRAWINGS**



## **MOUNTING INFORMATION**

Overall diameter	388 mm	15,28 in
Bolt circle diameter	370 mm	14,57 in
Baffle cutout diameter:		
- Front mount	349,5 mm	13,76 in
Depth	160 mm	6,30 in
Net weight	6,1 kg	13,4 lb
Shipping weight	7,1 kg	15,6 lb

#### Notes

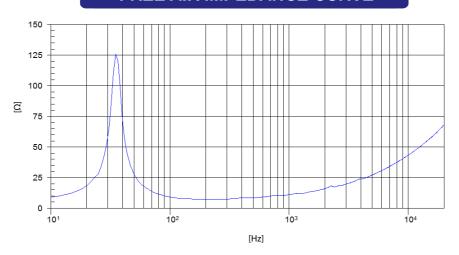
- \* The power capacity is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer's ability to handle normal music program material.
- \*\* T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out 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).
- \*\*\* 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.



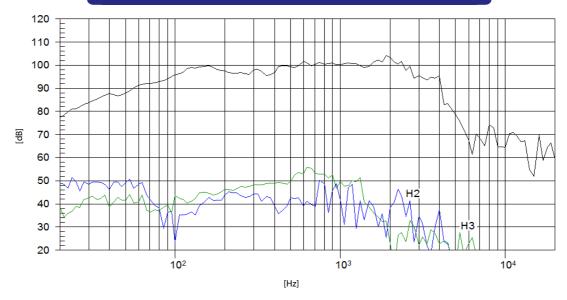
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## FREE AIR IMPEDANCE CURVE



## FREQUENCY RESPONSE AND DISTORTION



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

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