

8WRS300

LOW FREQUENCY TRANSDUCER

**WRS Series** 

## **KEY FEATURES**

- High power handling: 600 W program power
- 2" copper wire voice coil
- High sensitivity: 95 dB (1W / 1m)
- FEA optimized ceramic magnetic circuit
- Low harmonic distortion and linear response

- Waterproof cone with treatment on both sides of the cone
- Optimized pressed steel frame
- Extended controlled displacement: Xmax ± 6 mm
- 32 mm peak-to-peak excursion before damage
- Wide range of applications of low and mid-low frequencies



# TECHNICAL SPECIFICATIONS

Nominal diameter	200 mm	8 in
Rated impedance		8 Ω
Minimum impedance		7,6 Ω
Power capacity <sup>1</sup>	300 W <sub>AES</sub>	
Program power <sup>2</sup>	(	600 W
Sensitivity	95 dB 1W / 1m	@ Z <sub>N</sub>
Frequency range	65 - 4.000 Hz	
Recom. enclosure	V <sub>b</sub> = 12 I	
(Bass-reflex design)	F <sub>b</sub> =	70 Hz
Voice coil diameter	50,8 mm	2 in
BI factor	15	,2 N/A
Moving mass	0,0	)28 kg
Voice coil length	1	l5 mm
Air gap height		8 mm
X <sub>damage</sub> (peak to peak)	3	32 mm



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

Resonant frequency, f <sub>s</sub>	65 Hz
D.C. Voice coil resistance, R <sub>e</sub>	6 Ω
Mechanical Quality Factor, Q <sub>ms</sub>	5,4
Electrical Quality Factor, Q <sub>es</sub>	0,30
Total Quality Factor, Q <sub>ts</sub>	0,28
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	15 I
Mechanical Compliance, C <sub>ms</sub>	214 μm / N
Mechanical Resistance, R <sub>ms</sub>	2,1 kg / s
Efficiency, η <sub>0</sub>	1,3 %
Effective Surface Area, S <sub>d</sub>	0,022 m <sup>2</sup>
Maximum Displacement, X <sub>max</sub> <sup>4</sup>	6 mm
Displacement Volume, V <sub>d</sub>	132 cm <sup>3</sup>
Voice Coil Inductance, L <sub>e</sub> @ 1 kHz	0,9 mH

Notes:

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

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

<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>ag</sub>)/2 + (H<sub>ag</sub>/3,5), where L<sub>vc</sub> is the voice coil length and H<sub>ag</sub> is the air gap height.

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#### LOW FREQUENCY TRANSDUCER

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120 180 160 100 140 80 120 100 [dB] G 60 80 40 60 40 20 20 0 0 100 10 k 1 k [Hz]

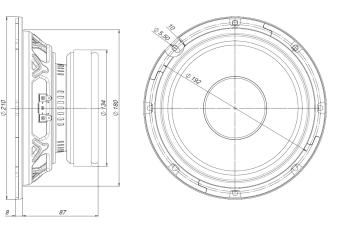
Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m  $\,$ 

Frequency response on axis Frequency response 45° off axis

## **MOUNTING INFORMATION**

Overall diameter	210 mm	8,27 in
Bolt circle diameter	192 mm	7,56 in
Baffle cutout diameter:		
- Front mount	180 mm	7,08 in
Depth	95 mm	3,74 in
Net weight	3,25 kg	7,2 lb
Shipping weight	3,55 kg	7,8 lb

### **DIMENSION DRAWING**



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