

# **8WR300**

### **LOW FREQUENCY TRANSDUCER**

## **KEY FEATURES**

- High power handling: 600 W program power
- 2" copper wire voice coil
- High sensitivity: 94 dB (1W / 1m)
- FEA optimized ceramic magnetic circuit
- Low harmonic distortion and linear response

- Waterproof cone with treatment on both sides of the cone
- Aluminium frame
- Extended controlled displacement: X<sub>max</sub> ± 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		7,8 Ω
Power capacity <sup>1</sup>	300	W <sub>AES</sub>
Program power <sup>2</sup>	6	00 W
Sensitivity	94 dB 1W / 1m	@ Z <sub>N</sub>
Frequency range	65 - 4.00	00 Hz
Recom. enclosure	$V_{b}$	= 12 I
(Bass-reflex design)	F <sub>b</sub> = .	70 Hz
Voice coil diameter	50,8 mm	2 in
BI factor	1	5 N/A
Moving mass	0,0	29 kg
Voice coil length	1	5 mm
Air gap height		8 mm
X <sub>damage</sub> (peak to peak)	3	2 mm

## THIELE-SMALL PARAMETERS3

$\begin{array}{llllllllllllllllllllllllllllllllllll$	Resonant frequency, f <sub>s</sub>	62 Hz
	D.C. Voice coil resistance, R <sub>e</sub>	6 Ω
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	Mechanical Quality Factor, Q <sub>ms</sub>	5,4
	Electrical Quality Factor, Q <sub>es</sub>	0,30
$\begin{array}{llll} \mbox{Mechanical Compliance, $C_{ms}$} & 226 \ \mu\mbox{m} \ / \ N \\ \mbox{Mechanical Resistance, $R_{ms}$} & 2,1 \ kg \ / \ s \\ \mbox{Efficiency, $\eta_0$} & 1,2 \ \% \\ \mbox{Effective Surface Area, $S_d$} & 0,022 \ m^2 \\ \mbox{Maximum Displacement, $X_{max}$}^4 & 6 \ m\mbox{m} \\ \mbox{Displacement Volume, $V_d$} & 132 \ cm^3 \\ \end{array}$	Total Quality Factor, Q <sub>ts</sub>	0,29
$\begin{array}{lll} \text{Mechanical Resistance, R}_{ms} & 2,1 \text{ kg/s} \\ \text{Efficiency, } \eta_0 & 1,2 \% \\ \text{Effective Surface Area, S}_d & 0,022 \text{ m}^2 \\ \text{Maximum Displacement, X}_{max}^4 & 6 \text{ mm} \\ \text{Displacement Volume, V}_d & 132 \text{ cm}^3 \\ \end{array}$	Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	15,5 I
$\begin{array}{lll} \textbf{Efficiency,} \ \eta_0 & 1,2 \% \\ \textbf{Effective Surface Area, S}_d & 0,022 \ m^2 \\ \textbf{Maximum Displacement, X}_{max}{}^4 & 6 \ mm \\ \textbf{Displacement Volume, V}_d & 132 \ cm^3 \\ \end{array}$	Mechanical Compliance, C <sub>ms</sub>	226 μm / N
	Mechanical Resistance, R <sub>ms</sub>	2,1 kg / s
	Efficiency, η <sub>0</sub>	1,2 %
<b>Displacement Volume, V<sub>d</sub></b> 132 cm <sup>3</sup>	Effective Surface Area, S <sub>d</sub>	$0,022 \text{ m}^2$
	Maximum Displacement, X <sub>max</sub> <sup>4</sup>	6 mm
$\begin{tabular}{lll} \begin{tabular}{lll} $	Displacement Volume, V <sub>d</sub>	132 cm <sup>3</sup>
	Voice Coil Inductance, L <sub>e</sub> @ 1 kHz	0,9 mH

#### Notes:

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.

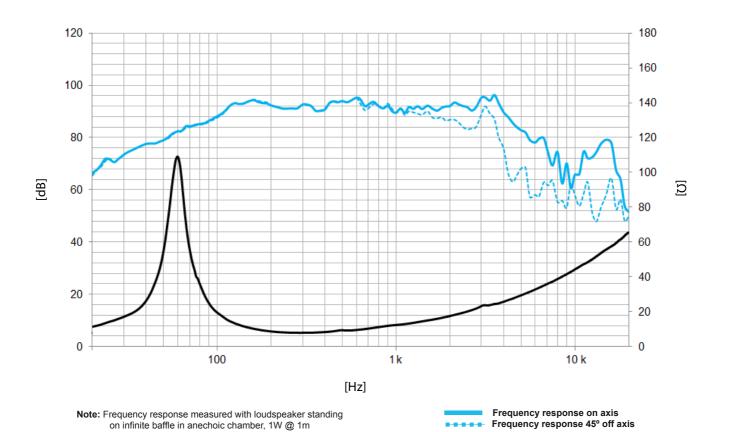
<sup>&</sup>lt;sup>3</sup> T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

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



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## **MOUNTING INFORMATION**

Overall diameter	212 mm	8,3 in
Bolt circle diameter	195 mm	7,7 in
Baffle cutout diameter:		
- Front mount	182 mm	7,2 in
Depth	95 mm	3,7 in
Net weight	3,3 kg	7,3 lb
Shipping weight	3,6 kg	7,9 lb

## **DIMENSION DRAWING**

