

## 18WRS600

**LOW FREQUENCY TRANSDUCER Preliminary Data Sheet** 

- **KEY FEATURES** maltcross
- Low distortion 18" subwoofer
- Power handling 1.200 W program power
- Exclusive Malt Cross® Technology Cooling System
- High sensitivity: 98 dB (1W / 1m)
- FEA optimized ferrite magnetic circuit
- Ultra low air noise
- Designed with MMSS technology

- · Optimized non-linear behaviour
- Weather resistant cone with treatment on both sides
- 3" copper voice coil
- Optimized pressed steel frame
- Extended controlled displacement: X<sub>max</sub> ± 8,5 mm
- 53 mm peak-to-peak excursion before damage
- Optimized for direct radiation subwoofer applications





## **TECHNICAL SPECIFICATIONS**

Nominal diameter	460 mm	18 in
Rated impedance		8 Ω
Minimum impedance		6,4 Ω
Power capacity <sup>1</sup>	6	000 W <sub>AES</sub>
Program power <sup>2</sup>		1.200 W
Sensitivity	98 dB 1W /	1m @ Z <sub>N</sub>
Frequency range	35 -	1.000 Hz
Voice coil diameter	76,2 mn	n 3 in
BI factor		19 N/A
Moving mass		0,147 kg
Voice coil length		21,5 mm
Air gap height		9,5 mm
X <sub>damage</sub> (peak to peak)		53 mm

## THIELE-SMALL PARAMETERS 3

Resonant frequency, f <sub>s</sub>	32 Hz
D.C. Voice coil resistance, Re	5,4 Ω
Mechanical Quality Factor, Q <sub>ms</sub>	4,8
Electrical Quality Factor, Q <sub>es</sub>	0,44
Total Quality Factor, Qts	0,40
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	372 I
Mechanical Compliance, C <sub>ms</sub>	167 μm / N
Mechanical Resistance, R <sub>ms</sub>	6,1 kg/s
Efficiency, η <sub>0</sub>	2,7 %
Effective Surface Area, S <sub>d</sub>	0,1255 m <sup>2</sup>
Maximum Displacement, X <sub>max</sub> <sup>4</sup>	8,5 mm
Displacement Volume, V <sub>d</sub>	1130 cm <sup>3</sup>
Voice Coil Inductance, L <sub>e</sub> @ 1 kHz	1,5 mH

<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.

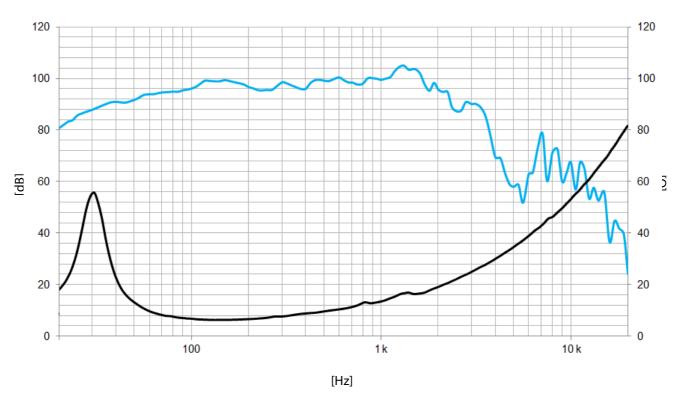
<sup>3</sup> T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $<sup>^4</sup>$  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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Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

## **MOUNTING INFORMATION**

Overall diameter	457 mm	17,99 in
Bolt circle diameter	437,5 mm	17,22 in
Baffle cutout diameter:		
- Front mount	425 mm	16,73 in
Depth	218 mm	8,58 in
Net weight	8,7 kg	19,2 lb
Shipping weight	10 kg	22 lb

### **DIMENSION DRAWING**

