

# 18LEX1200Fe

**LOW FREQUENCY TRANSDUCER Preliminary Data Sheet** 



- High power handling and low distortion 18" subwoofer
- Exclusive Malt Cross® Technology Cooling System
- Low power compression losses
- High sensitivity: 97 dB (1W / 1m)
- · FEA optimized ceraminc magnetic circuit
- Ultra low air noise
- · Optimized linear behaviour

- Weatherproof cone with treatment for both sides
- Double silicone spider
- 4" DUO double layer in/out copper voice coil
- Aluminium demodulating ring
- Extended controlled displacement: X<sub>max</sub> ± 11 mm
- 48 mm peak-to-peak excursion before damage
- · Optimized for direct radiation and band-pass subwoofer applications





# TECHNICAL SPECIFICATIONS

Nominal diameter	460 mm	18 in
Rated impedance		8 Ω
Minimum impedance		5,8 Ω
Power capacity <sup>1</sup>	1.20	00 W <sub>AES</sub>
Program power <sup>2</sup>		2.400 W
Sensitivity	97 dB 1W / 1	m @ Z <sub>N</sub>
Frequency range	40 - 1	1.000 Hz

Voice coil diameter	101,6 mm	4 in
BI factor		23,2 N/A
Moving mass		0,2 kg
Voice coil length		27 mm
Air gap height		12 mm
X <sub>damage</sub> (peak to peak)		48 mm

## THIELE-SMALL PARAMETERS 3

Resonant frequency, f <sub>s</sub>	32 Hz
D.C. Voice coil resistance, R <sub>e</sub>	5,3 Ω
Mechanical Quality Factor, Q <sub>ms</sub>	12,2
Electrical Quality Factor, Qes	0,39
Total Quality Factor, Qts	0,38
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	277 I
Mechanical Compliance, C <sub>ms</sub>	124 μm / N
Mechanical Resistance, R <sub>ms</sub>	3,2 kg / s
Efficiency, η <sub>0</sub>	2,2 %
Effective Surface Area, S <sub>d</sub>	0,1255 m <sup>2</sup>
Maximum Displacement, X <sub>max</sub> <sup>4</sup>	11 mm
Displacement Volume, V <sub>d</sub>	1372 cm <sup>3</sup>
Voice Coil Inductance, Le	1,21 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.

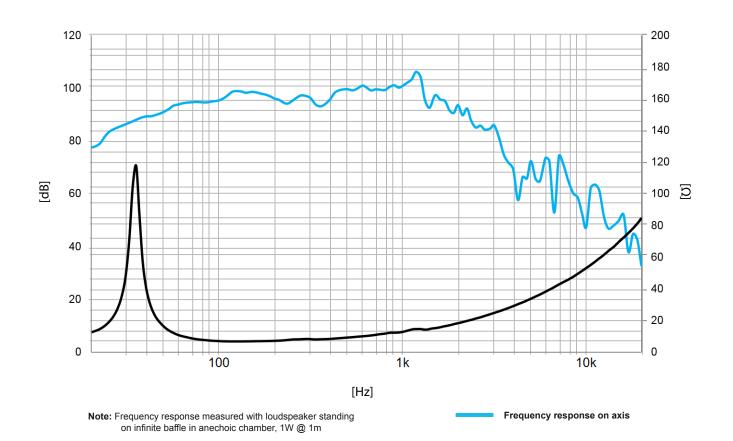
<sup>&</sup>lt;sup>3</sup> T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $<sup>^4</sup>$  The  $X_{max}$  is calculated as  $(L_{VC} - H_{aq})/2 + (H_{aq}/3.5)$ , where  $L_{VC}$  is the voice coil length and  $H_{aq}$  is the air gap height.



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## **MOUNTING INFORMATION**

Overall diameter	462 mm	18,18 in
Bolt circle diameter	440 mm	17,32 in
Baffle cutout diameter:		
- Front mount	415 mm	16,33 in
Depth	225 mm	8,85 in
Net weight	14 kg	30,8 lb
Shipping weight	15,2 kg	33,5 lb

# **DIMENSION DRAWING**

