

# 18LEX1200Fe

**LOW FREQUENCY TRANSDUCER LEX Series** 



- 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	1.200 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	.000 Hz	
Recom. enclosure	$V_{b}$	= 172 I	
(Bass/reflex design)	F <sub>b</sub>	= 42 Hz	
Voice coil diameter	101,6 mm	4 in	
BI factor	2	23,2 N/A	
Moving mass		200 g	
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, Q <sub>es</sub>	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>	0,124 mm / 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>	1255 cm <sup>2</sup>
Maximum Displacement, X <sub>max</sub> <sup>4</sup>	11 mm
Displacement Volume, V <sub>d</sub>	1,3 I
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.

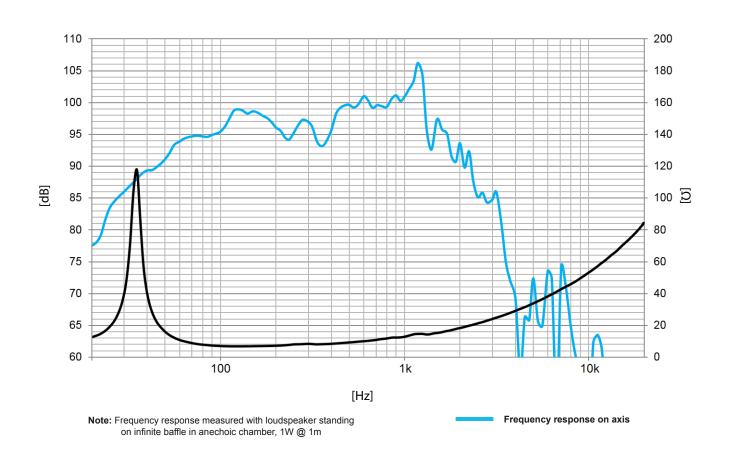
<sup>&</sup>lt;sup>3</sup> T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $<sup>^4</sup>$  The X<sub>max</sub> is calculated as (L<sub>vc</sub> - H<sub>aq</sub>)/2 + (H<sub>aq</sub>/3,5), where L<sub>vc</sub> is the voice coil length and H<sub>aq</sub> is the air gap height.



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LEX Series



# **MOUNTING INFORMATION**

462 mm	18,18 in
440 mm	17,32 in
415 mm	16,33 in
225 mm	8,85 in
14 kg	30,8 lb
15,2 kg	33,5 lb
	440 mm  415 mm  225 mm  14 kg

# **DIMENSION DRAWING**

