

## 15LEX1600Fe

LOW FREQUENCY TRANSDUCER

**LEX Series** 

### KEY FEATURES — maltcross

- High power handling and low distortion 15" subwoofer
- Exclusive Malt Cross<sup>®</sup> Technology Cooling System
- Low power compression losses
- High sensitivity: 96 dB (1W / 1m)
- FEA optimized ceramic magnetic circuit
- · Aluminium demodulating ring
- Ultra low air noise
- Optimized linear behaviour



### **TECHNICAL SPECIFICATIONS**

Nominal diameter	380 mn	n 15 in
Rated impedance		8 Ω
Minimum impedance		6,1 Ω
Power capacity <sup>1</sup>		1.600 W <sub>AES</sub>
Program power <sup>2</sup>		3.200 W
Sensitivity	96 dB 1V	V / 1m @ Z <sub>N</sub>
Frequency range	4	0 - 1.500 Hz
Recom. enclosure		V <sub>b</sub> = 94 I
(Bass-reflex design)		$F_{b} = 40 \text{ Hz}$
Voice coil diameter	101,6 mn	n 4 in
BI factor		25,8 N/A
Moving mass		0,179 kg
Voice coil length		32 mm
Air gap height		15 mm
X <sub>damage</sub> (peak to peak)		60 mm
Notes:		

- Exclusive NCR membrane (Neck Coupling Reinforcement)
- Weatherproof cone with treatment for both sides •
- Double silicone spider
- 4" DUO in/out copper voice coil
- Extended controlled displacement: Xmax ± 13 mm
- 60 mm peak-to-peak excursion before damage
- · Optimized for direct radiation and band-pass subwoofer applications



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

Resonant frequency, f <sub>s</sub>	38 Hz
D.C. Voice coil resistance, R <sub>e</sub>	5,3 Ω
Mechanical Quality Factor, Q <sub>ms</sub>	6,9
Electrical Quality Factor, Q <sub>es</sub>	0,34
Total Quality Factor, Q <sub>ts</sub>	0,33
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	106 I
Mechanical Compliance, C <sub>ms</sub>	97 μm / N
Mechanical Resistance, R <sub>ms</sub>	6,2 kg / s
Efficiency, η <sub>0</sub>	1,7 %
Effective Surface Area, S <sub>d</sub>	0,088 m <sup>2</sup>
Maximum Displacement, X <sub>max</sub> <sup>4</sup>	13 mm
Displacement Volume, V <sub>d</sub>	1144 cm <sup>3</sup>
Voice Coil Inductance, L <sub>e</sub>	1,7 mH

<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.

3 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).

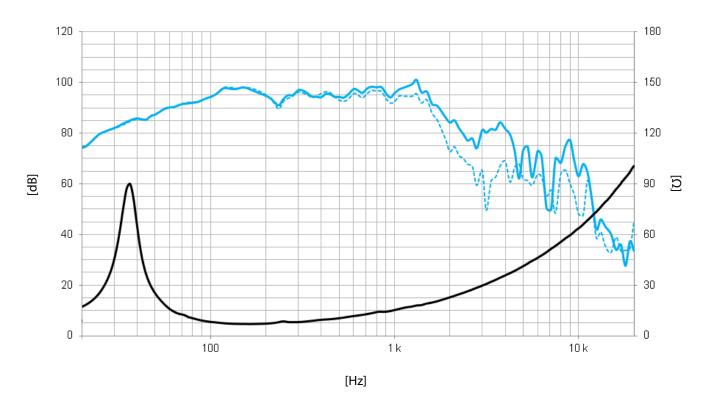
<sup>4</sup> The X<sub>max</sub> is calculated as (L<sub>vc</sub> - H<sub>ag</sub>)/2 + (H<sub>ag</sub>/3,5), where L<sub>vc</sub> is the voice coil length and H<sub>ag</sub> is the air gap height.



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Note: 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	393 mm	15,5 in
Bolt circle diameter	373 mm	14,7 in
Baffle cutout diameter:		
- Front mount	352 mm	13,9 in
Depth	191 mm	7,5 in
Volume displaced by driver	5,5 I	0,19 ft <sup>3</sup>
Net weight	13,9 kg	30,6 lb
Shipping weight	14,9 kg	32,8 lb

#### **DIMENSION DRAWING**

