

# **14MLEX1000Nd**

**LOW & MID FREQUENCY TRANSDUCER Preliminary Data Sheet** 



- High power handling and low distortion 14" woofer/ mid-bass
- Exclusive Malt Cross® Technology Cooling System
- · Low power compression losses
- High sensitivity: 99 dB (1W / 1m)
- FEA optimized neodymium magnetic circuit
- Ultra low air noise
- Optimized linear behaviour

- Weatherproof cone with reatment for borth sides
- Conex spider
- 4" DUO double layer in/out copper voice coil
- Aluminium demodulating ring
- Extended controlled displacement: Xmax ± 11 mm
- 60 mm peak-to-peak excursion before damage
- Optimized for high performance bass or mid-bass applications



# TECHNICAL SPECIFICATIONS

| Nominal diameter            | 350   | mm     | 14 in              |
|-----------------------------|-------|--------|--------------------|
| Rated impedance             |       |        | 8 Ω                |
| Minimum impedance           |       |        | 7,1 Ω              |
| Power capacity <sup>1</sup> |       | 1.00   | 0 W <sub>AES</sub> |
| Program power <sup>2</sup>  |       | 2      | 2.000 W            |
| Sensitivity                 | 99 dB | 1W / 1 | m @ Z <sub>N</sub> |
| Frequency range             |       | 50 - 4 | .500 Hz            |

| Voice coil diameter                | 101,6 mm | 4 in     |
|------------------------------------|----------|----------|
| BI factor                          |          | 26,5 N/A |
| Moving mass                        |          | 107 g    |
| Voice coil length                  |          | 28 mm    |
| Air gap height                     |          | 14 mm    |
| X <sub>damage</sub> (peak to peak) |          | 60 mm    |

# THIELE-SMALL PARAMETERS 3

| Resonant frequency, f <sub>s</sub>                         | 47 Hz               |
|--|---------------------|
| D.C. Voice coil resistance, R <sub>e</sub>                 | 5,1 Ω               |
| Mechanical Quality Factor, Q <sub>ms</sub>                 | 4                   |
| Electrical Quality Factor, Qes                             | 0,23                |
| Total Quality Factor, Qts                                  | 0,22                |
| Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub> | 75 I                |
| Mechanical Compliance, C <sub>ms</sub>                     | 0,106 mm/N          |
| Mechanical Resistance, R <sub>ms</sub>                     | 8 kg/s              |
| Efficiency, η <sub>0</sub>                                 | 3,3 %               |
| Effective Surface Area, S <sub>d</sub>                     | 707 cm <sup>2</sup> |
| Maximum Displacement, X <sub>max</sub> <sup>4</sup>        | 11 mm               |
| Displacement Volume, V <sub>d</sub>                        | 0,78 I              |
| Voice Coil Inductance, Le                                  | 1,22 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).

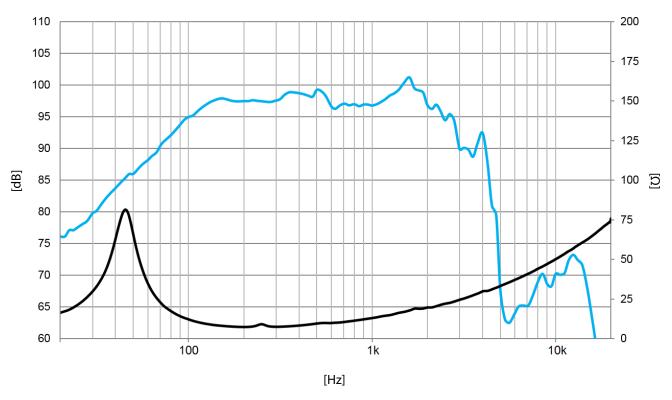
 $<sup>^4</sup>$  The  $X_{max}$  is calculated as  $(L_{vc} - H_{aq})/2 + (H_{aq}/3,5)$ , where  $L_{vc}$  is the voice coil length and  $H_{aq}$  is the air gap height.



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Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

# **MOUNTING INFORMATION**

| Overall diameter        | 359 mm | 14,1 in |
|-------------------------|--------|---------|
| Bolt circle diameter    | 340 mm | 13,4 in |
| Baffle cutout diameter: |        |         |
| - Front mount           | 323 mm | 12,7 in |
| Depth                   | 191 mm | 7,52 in |
| Net weight              | 9,2 kg | 20,3 lb |
| Shipping weight         | 9,5 kg | 20,9 lb |

# **DIMENSION DRAWING**

