The Vifa NE product line has leading-edge transducer technology packaged in a cutting edge, stylish design. The full-range drivers in this product line feature an innovative cast aluminium basket design which minimizes acoustic reflections inside the driver, through large basket windows and sculpted basket spokes. The basket also is designed to act as a highly coupled heat sink to the Neodymium-Iron-Boron magnet (NdFeB) motor, so as to improve power handling capacity. The cone is aluminium, with a butyl rubber surround designed through finite element analysis for linearity of performance. The voice coil bobbin is titanium, for improved performance. The FEA-designed motor features copper caps to minimize inductance and extend performance to high frequencies. Rounding out the design is a 4-way terminal block connector, for ease of electrical connection.

Specifications:

- **DC Resistance**: $R_{dc} = 3.7 \, \Omega$
- **Minimum Impedance**: $Z_{min} = 4.0 \, \Omega$
- **Voice Coil Inductance**: $L_v = 0.04 \, mH$
- **Resonant Frequency**: $f_r = 96 \, Hz$
- **Mechanical Q Factor**: $Q_m = 9.1$
- **Electrical Q Factor**: $Q_e = 0.68$
- **Total Q Factor**: $Q_t = 0.63$
- **Effective Cone Diameter**: $D = 5.3 \, cm$
- **Mechanical Q Factor**: $Q_{ms} = -9.1$
- **Effective Piston Area**: $A_{ps} = 1175.4 \, \mu m/N$
- **Resonant Frequency**: $f_s = 98 \, Hz$
- **Effective Piston Velocity**: $V_{ps} = 0.81 \, \mu m/s$
- **Motor Force Factor**: $B_L = 2.74 \, T/m$ (100 Hz)
- **Effective Piston Velocity**: $V_{ps} = 2.03 \, T/m$ (1000 Hz)

**Half Space Sensitivity** @ 2.83V:
- **SPL [dB]**: 85.1

**Test Spectrum Bandwidth**:
- **P**: 20 dB
- **Impedance**: 100Hz - 20000Hz

**Total Q Factor**: $Q_t = 0.63$

**Motor Force Factor**: $B_L = 2.74 \, T/m$

**Effective Piston Velocity**: $V_{ps} = 0.81 \, \mu m/s$

**Motor Efficiency Factor**: $\beta = 2.03 \, T/m^2/\Omega$

**Voice Coil Inner Diameter**: $VC_{d} = 25.7 \, mm$

**Maximum Linear Excursion**: $X_{max} = 1.75 \, mm$

**Transducer Mass**: $0.238 \, kg$

**Voice Coil Former Material**: TiSV

**Rated Noise Power** (IEC 268-5 18.1):
- **P**: 20 dB
- **VC_{d}**: 25.7 mm
- **VC_{i}**: 22.1 mm
- **VC_{f}**: 1175.4 μm/N
- **VC_{m}**: 2.23 g

**Frequency and Impedance Response**:

![Graph](image-url)