TYMPHANY

Transducer Specification Sheet

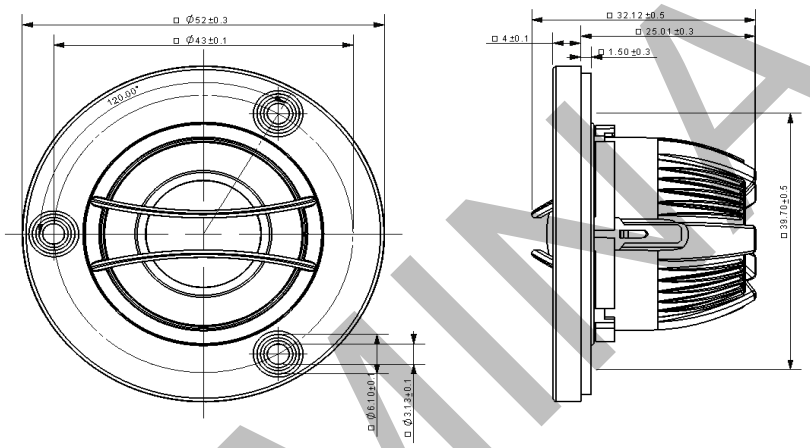
Model Number: NE19VTC-04
Description: Vifa RM 19mm tweeter "Deep-Anodized Aluminum"

Revision: rev 1_1
Date: 31-Aug-09

vifa

The Vifa NE product line has leading-edge transducer technology packaged in a cutting edge, stylistic design. The tweeters in this product line finite element analysis designed Neodymium-Iron-Boron magnet (NdFeB) motors, with copper caps for extended frequency response and reduced distortion. The aluminium rear chambers offer extended low frequency performance, while doubling as heat sinking. The butterfly supporting the tweeter diaphragm is made of a high temperature plastic, consistent with the product's high temperature performance rating, and features supporting terminals. The dome material in this design is deep-anodized aluminum, and the design has been optimized for sound quality and clarity. Rounding out the design is an aluminium face plate and plastic grille, which offers protection for the tweeter diaphragm.

Mechanical 2D Drawing:

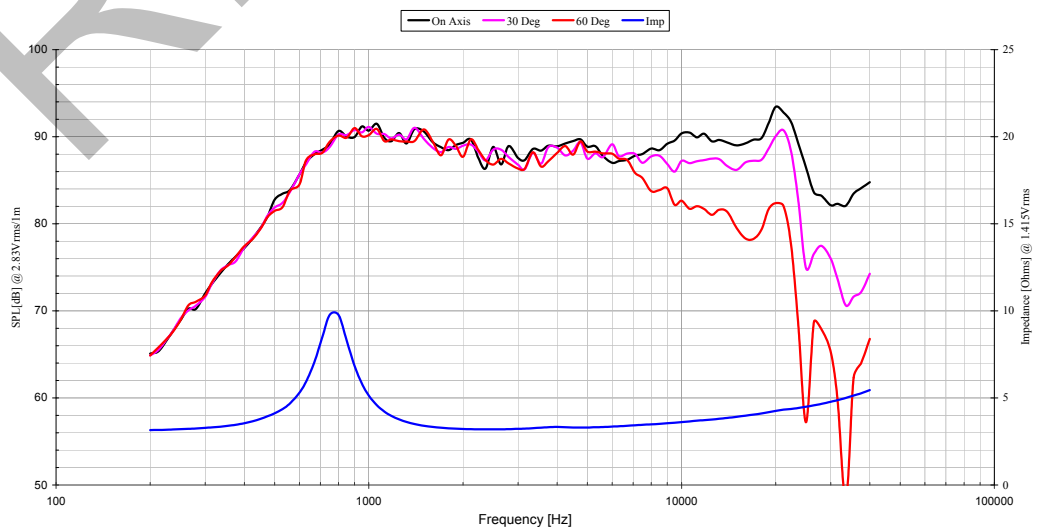


Specifications:

DC Resistance	R_{evc}	Ω	2.8
Minimum Impedance	Z_{min}	Ω	3.1
Voice Coil Inductance	L_e	mH	0.01
Resonant Frequency	f_s	Hz	837
Mechanical Q Factor	Q_{ms}	-	3.9
Electrical Q Factor	Q_{es}	-	1.49
Total Q Factor	Q_{ts}	-	1.08
Ratio f_s / Q_{ts}	F	f_s / Q_{ts}	778
Half Space Sensitivity @ 2.83V	dB@2.83V/1m	dB	87.9
Rated Noise Power (IEC 2685 18.1)	P	W	100
Test Spectrum Bandwidth	2500Hz - 20000Hz		12 dB/Oct

Energy Bandwidth Product	EBP	$(1/Q_{es})\cdot f_s$	564
Moving Mass	M_{ms}	g	0.21
Suspension Compliance	C_{ms}	um/N	175.3
Effective Cone Diameter	D	cm	2.5
Effective Piston Area	S_D	cm^2	4.9
Equivalent Volume	V_{as}	L	0.01
Motor Force Factor	BL	T·m	1.42
Motor Efficiency Factor	β	$(T\cdot m^2)/\Omega$	0.73
Voice Coil Former Material	VC_{fm}	-	ASV
Voice Coil Inner Diameter	VC_d	mm	19.3
Maximum Linear Excursion	X_{max}	mm	0.10
Transducer Mass	-	kg	0.06

Frequency and Impedance Response:



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PRELIMINARY

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