

Model Number: NE149W-08
Product Line: Peerless Platinum

Revision: Rev 1_0
Date: 30-Jul-10

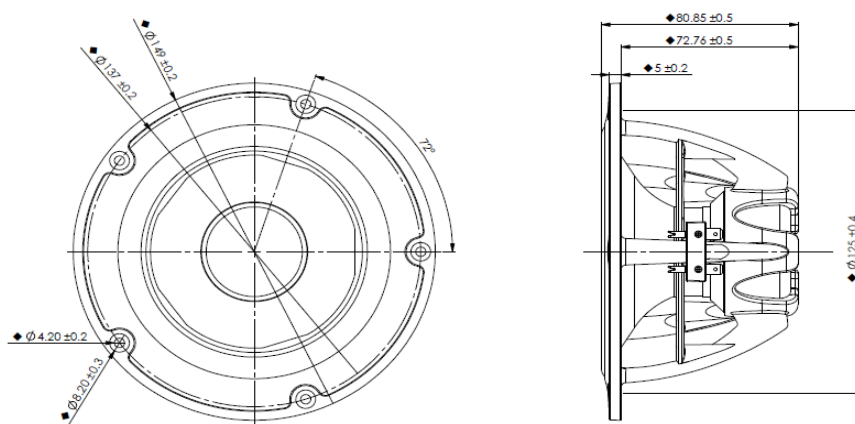


Product Description:

This 5.25 inch 8 ohm member of the NE family has leading-edge transducer technology packaged in a cutting edge, stylistic design. The woofers in this family 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. An additional heat sink is available to provide extra thermal protection if needed. The cone and dust cap are constructed of natural wood fiber material with proprietary coating formulas & processes, so as to yield high clarity products. The cone designs also utilize pentacone technology for improved frequency response. 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.



Mechanical 2D Drawing:

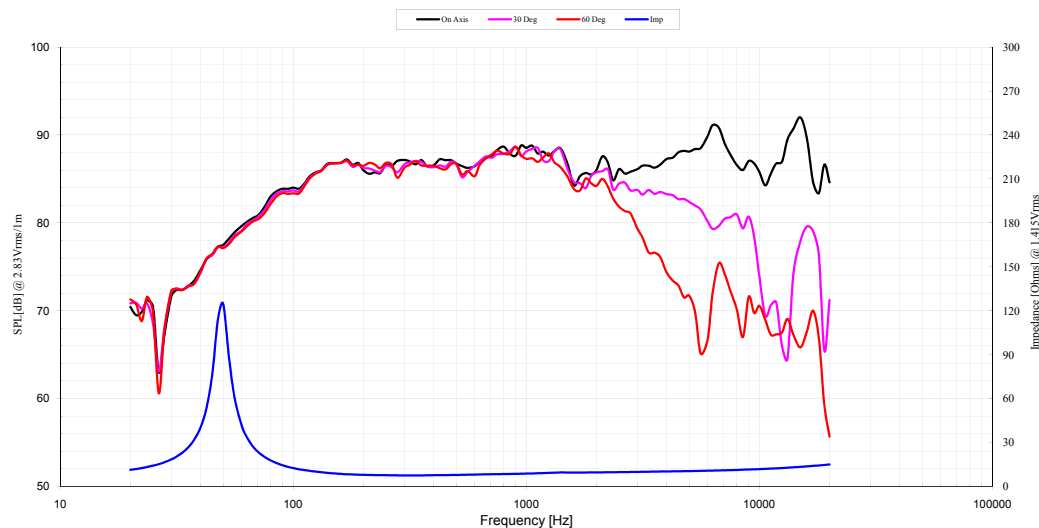


Specifications:

DC Resistance	R_{evc}	Ω	6.3	5.0%
Minimum Impedance	Z_{min}	Ω	7.41	7.5%
Voice Coil Inductance	L_e	mH	0.08	
Resonant Frequency	f_s	Hz	54	15.0%
Mechanical Q Factor	Q_{ms}	-	8.19	
Electrical Q Factor	Q_{es}	-	0.40	
Total Q Factor	Q_{ts}	-	0.38	
Ratio f_s / Q_{ts}	F	f_s / Q_{ts}	141	
Half Space Sensitivity @ 2.83V	dB@2.83V/1m	dB	87.0	+/-1.0 ¹
Sensitivity @ 1W/1m	1W/1m	dB	86.0	+/-1.0 ¹
Rated Noise Power (IEC 2685 18.1)	P	W	60	
Test Spectrum Bandwidth	50Hz - 5kHz	12 dB/Oct		
Energy Bandwidth Product	EBP	$(1/Q_{\text{es}}) \cdot f_s$	134	
Moving Mass	M_{ms}	g	10.3	
Suspension Compliance	C_{ms}	um/N	843	
Effective Cone Diameter	D	cm	10.40	
Effective Piston Area	S_D	cm ²	85.0	
Equivalent Volume	V_{as}	L	8.539	
Motor Force Factor	BL	T·m	7.42	
Motor Efficiency Factor	β	$(T \cdot m^2) / \Omega$	8.70	
Voice Coil Former Material	VC _{fm}	-	TiSV	
Voice Coil Inner Diameter	VC _d	mm	38.44	
Gap Height	Gh	mm	6.00	
Maximum Linear Excursion	X_{max}	mm	5.00	
Ferrofluid Type	FF	-	N/A	
Transducer Size	-	inch	5.25	
Transducer Mass	-	kg	0.68	

1 - Piston Band Sensitivity Tolerance

Frequency and Impedance Response:



F088-0713A