

Model Number: NE123W-04  
Product Line: Peerless Platinum

Revision: Rev 2\_0  
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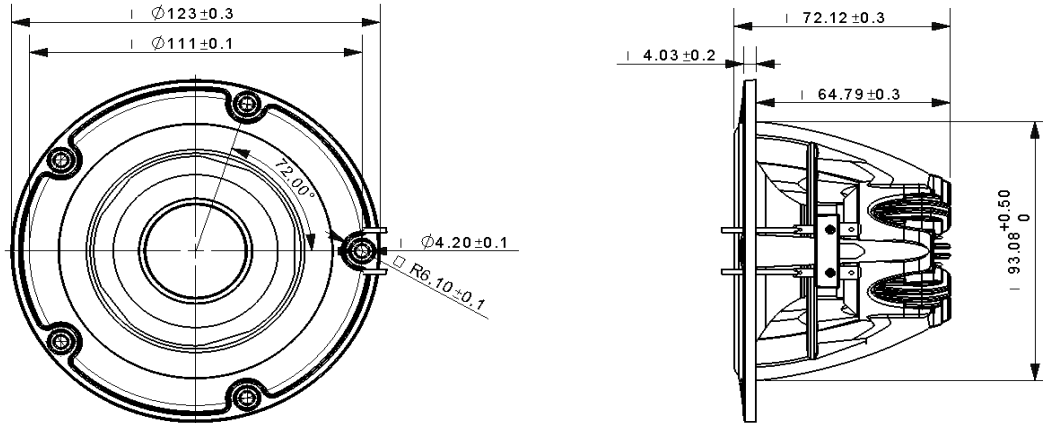


**Product Description:**

This 4 inch 4 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	$R_{evc}$	$\Omega$	3.4	5.0%	Energy Bandwidth Product	EBP	$(1/Q_{es})f_s$	198
Minimum Impedance	$Z_{min}$	$\Omega$	3.8	7.5%	Moving Mass	$M_{ms}$	g	5.82
Voice Coil Inductance	$L_e$	mH	0.05		Suspension Compliance	$C_{ms}$	um/N	518.8
Resonant Frequency	$f_s$	Hz	92	15.0%	Effective Cone Diameter	D	cm	8.3
Mechanical Q Factor	$Q_{ms}$	-	4.8		Effective Piston Area	$S_D$	cm <sup>2</sup>	54.1
Electrical Q Factor	$Q_{es}$	-	0.47		Equivalent Volume	$V_{as}$	L	2.13
Total Q Factor	$Q_{ts}$	-	0.42		Motor Force Factor	BL	T-m	4.95
Ratio $f_s / Q_{ts}$	F	$f_s / Q_{ts}$	217		Motor Efficiency Factor	$\beta$	$(T \cdot m^2) / \Omega$	7.20
Half Space Sensitivity @ 2.83V	dB@2.83V/1m	dB	90.1	$\pm 1.0^1$	Voice Coil Former Material	VC <sub>m</sub>	-	TiS
Sensitivity @ 1W/1m	1W/1m	dB	87.3	$\pm 1.0^1$	Voice Coil Inner Diameter	VC <sub>d</sub>	mm	32.4
					Gap Height	Gh	mm	4.0
Rated Noise Power (IEC 2685 18.1)	P	W	35		Maximum Linear Excursion	$X_{max}$	mm	3.00
Test Spectrum Bandwidth	60Hz - 8kHz	12 dB/Oct			Ferrofluid Type	FF	-	N/A
					Transducer Size	-	inch	4
					Transducer Mass	-	kg	0.404

1 - Piston Band Sensitivity Tolerance

**Frequency and Impedance Response:**

