

Model Number: NE65W-04  
Product Line: Peerless Platinum

Revision: Rev 2\_0  
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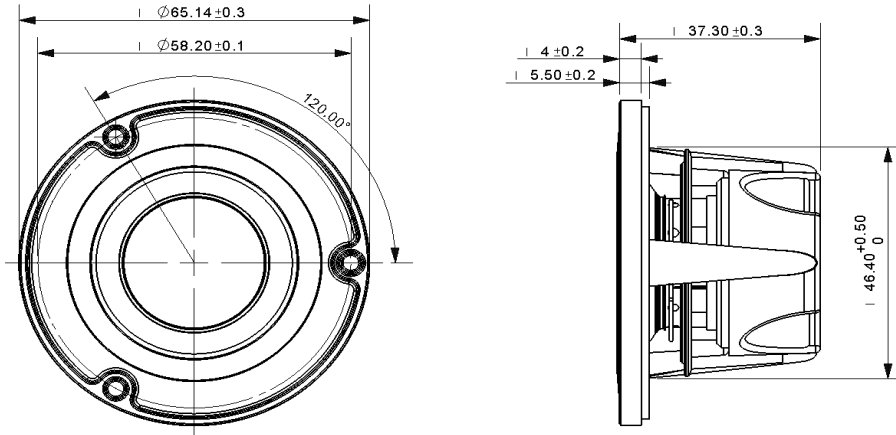


**Product Description:**

This 2 inch 4 ohm member of the NE family has leading-edge transducer technology packaged in a cutting edge, stylistic design. The full-range drivers 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. 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.



**Mechanical 2D Drawing:**



**Specifications:**

DC Resistance	$R_{evc}$	$\Omega$	3.7	5.0%	Energy Bandwidth Product	EBP	$(1/Q_{es})f_s$	224
Minimum Impedance	$Z_{min}$	$\Omega$	4.0	7.5%	Moving Mass	$M_{ms}$	g	1.58
Voice Coil Inductance	$L_e$	mH	0.04		Suspension Compliance	$C_{ms}$	um/N	583.7
Resonant Frequency	$f_s$	Hz	166	15.0%	Effective Cone Diameter	D	cm	4.3
Mechanical Q Factor	$Q_{ms}$	-	5.0		Effective Piston Area	$S_D$	cm <sup>2</sup>	14.7
Electrical Q Factor	$Q_{es}$	-	0.74		Equivalent Volume	$V_{as}$	L	0.18
Total Q Factor	$Q_{ts}$	-	0.65		Motor Force Factor	BL	T·m	2.85
Ratio $f_s / Q_{ts}$	F	$f_s / Q_{ts}$	257		Motor Efficiency Factor	$\beta$	$(T \cdot m^2) / \Omega$	2.22
Half Space Sensitivity @ 2.83V	$dB @ 2.83V/1m$	dB	85.7	$\pm 1.0^1$	Voice Coil Former Material	$VC_{fm}$	-	TiSV
Sensitivity @ 1W/1m	$1W/1m$	dB	82.2	$\pm 1.0^1$	Voice Coil Inner Diameter	$VC_{di}$	mm	25.7
					Gap Height	Gh	mm	3.0
Rated Noise Power (IEC 2685 18.1)	P	W	20		Maximum Linear Excursion	$X_{max}$	mm	1.65
Test Spectrum Bandwidth	150Hz - 18kHz		12 dB/Oct		Ferrofluid Type	FF		N/A
					Transducer Size		inch	2
					Transducer Mass		kg	0.138

1 - Piston Band Sensitivity Tolerance

**Frequency and Impedance Response:**

