TYMPHANY

Transducer Specification Sheet

Model Number: NE65W-04
Product Line: Peerless Platinum

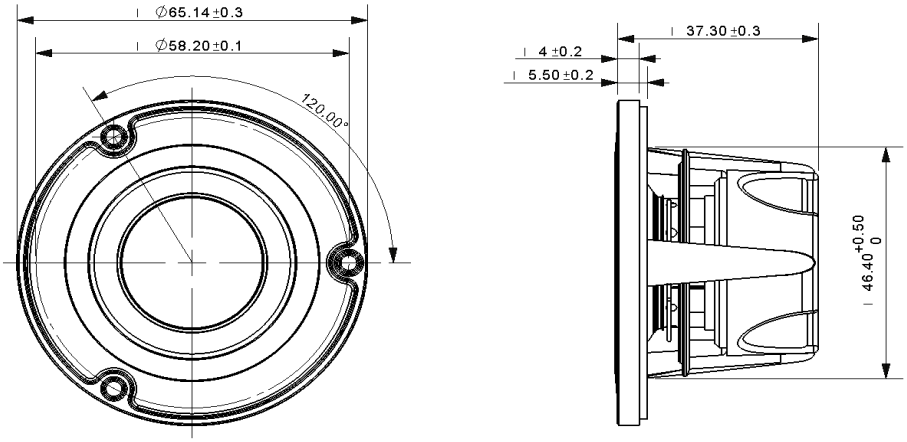
Revision: Rev 2_0
Date: 18-Mar-10

Peerless

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:



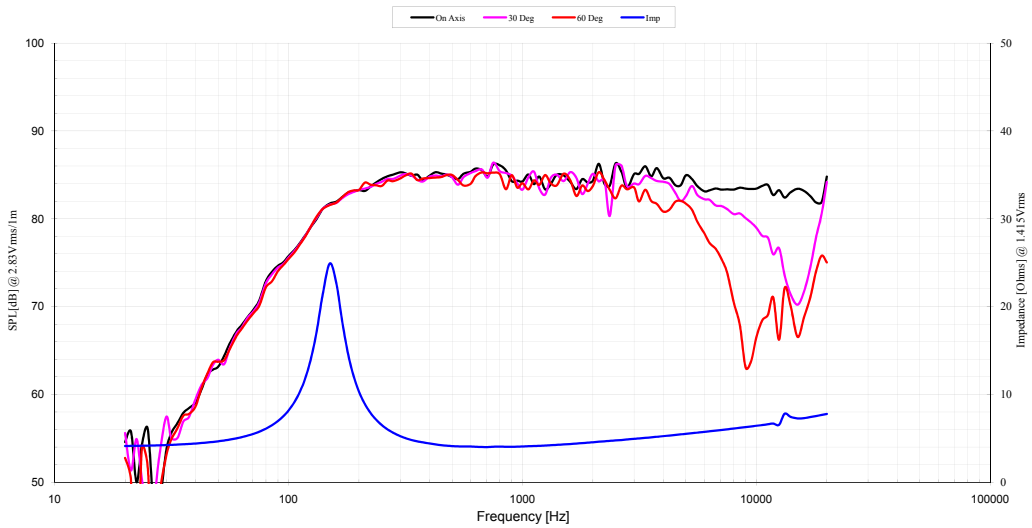
Specifications:

DC Resistance	R_{evc}	Ω	3.7	5.0%
Minimum Impedance	Z_{min}	Ω	4.0	7.5%
Voice Coil Inductance	L_e	mH	0.04	
Resonant Frequency	f_s	Hz	166	15.0%
Mechanical Q Factor	Q_{ms}	-	5.0	
Electrical Q Factor	Q_{es}	-	0.74	
Total Q Factor	Q_{ts}	-	0.65	
Ratio f_s / Q_{ts}	F	f_s / Q_{ts}	257	
Half Space Sensitivity @ 2.83V	dB@2.83V/1m	dB	85.7	+/-1.0 [1]
Sensitivity @ 1W/1m	1W/1m	dB	82.2	+/-1.0 [1]
Rated Noise Power (IEC 2685 18.1)	P	W	20	
Test Spectrum Bandwidth	150Hz - 18kHz		12 dB/Oct	

1 - Piston Band Sensitivity Tolerance

Energy Bandwidth Product	EBP	$(1/Q_{es})\cdot f_s$	224
Moving Mass	M_{ms}	g	1.58
Suspension Compliance	C_{ms}	um/N	583.7
Effective Cone Diameter	D	cm	4.3
Effective Piston Area	S_D	cm^2	14.7
Equivalent Volume	V_{as}	L	0.18
Motor Force Factor	BL	T·m	2.85
Motor Efficiency Factor	β	$(T\cdot m^2)/\Omega$	2.22
Voice Coil Former Material	VC_{fm}	-	TiSV
Voice Coil Inner Diameter	VC_d	mm	25.7
Gap Height	Gh	mm	3.0
Maximum Linear Excursion	X_{max}	mm	1.65
Ferrofluid Type	FF		N/A
Transducer Size	-	inch	2
Transducer Mass	-	kg	0.138

Frequency and Impedance Response:



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