

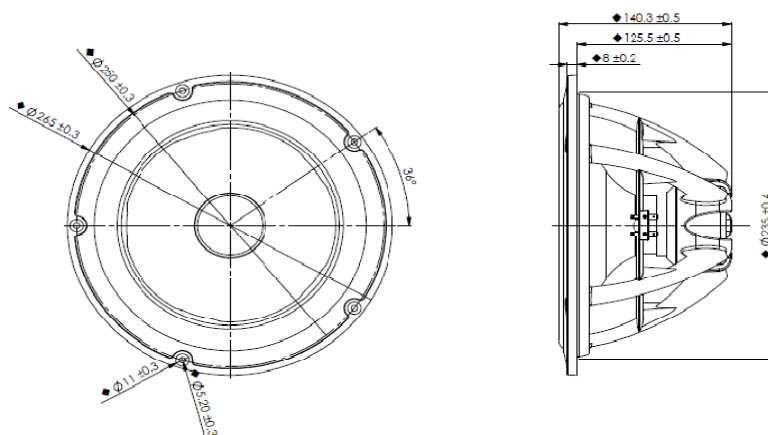


Product Description:

This 10 inch 8 mm member of the NE family has leading-edge transducer technology packaged in a cutting edge, stylistic design. The subwoofers in this family feature an innovative cast aluminum 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 NDeFB 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 _{exc}	Ω	6.2	5.0%	Energy Bandwidth Product	EBP	(1/Q _{es})·f _s	74
Minimum Impedance	Z _{min}	Ω	8.0	7.5%	Moving Mass	M _{ms}	g	74.1
Voice Coil Inductance	L _e	mH	0.53		Suspension Compliance	C _{ms}	um/N	648
Resonant Frequency	f _s	Hz	23	15.0%	Effective Cone Diameter	D	cm	20.40
Mechanical Q Factor	Q _{ms}	-	10.33		Effective Piston Area	S _D	cm ²	326.9
Electrical Q Factor	Q _{es}	-	0.31		Equivalent Volume	V _{as}	L	97.214
Total Q Factor	Q _{ts}	-	0.30		Motor Force Factor	BL	T·m	14.70
Ratio f _s / Q _{ts}	F	f _s / Q _{ts}	77		Motor Efficiency Factor	β	(T·m ²)/Ω	34.61
Half Space Sensitivity @ 2.83V	dB@2.83V/1m	dB	85.1	+/-1.0 ¹	Voice Coil Former Material	VC _{fm}	-	TISV
Sensitivity @ 1W/1m	1W/1m	dB	84.0	+/-1.0 ¹	Voice Coil Inner Diameter	VC _{id}	mm	51.32
					Gap Height	Gh	mm	8.00
Rated Noise Power (IEC 2685 18.1)	P	W	190		Maximum Linear Excursion	X _{max}	mm	9.35
Test Spectrum Bandwidth	20Hz - 2kHz		12 dB/Oct		Ferrofluid Type	FF		N/A
					Transducer Size	-	inch	10
ton Band Sensitivity Tolerance					Transducer Mass	-	Kg	2.27

1 - Piston Band Sensitivity Tolerance

Frequency and Impedance Response:

