TYMPHANY

Transducer Specification Sheet

Model Number: HDS-P830869
Product Line: Peerless Gold

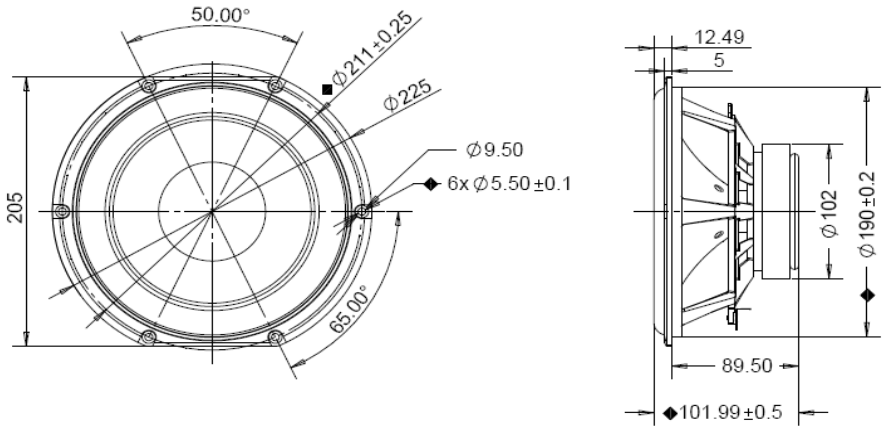
Revision: Rev 1_0
Date: 8-Sep-09

Peerless

Product Description:

This 8 inch 8 ohm driver is a member of the high performance HDS family. A powerful ferrite magnet system is coupled to a finite element analysis designed suspension system, containing both a linear spider design and a rubber surround. The motor contains an aluminium shorting ring, which reduces coil inductance, thus providing both extended frequency response performance and reduced distortion. The long-throw voice coil ensures linear high excursion performance, needed for signal clarity. The cone necks are vented so as to reduce air compression effects under high excursion conditions. The cast aluminium basket offers structural rigidity, heat sinking capacity for the motor, and additional air venting under the spider so as to again reduce air compression effects. The cone in this model is nomex based, offering a unique visual and acoustic experience.

Mechanical 2D Drawing:



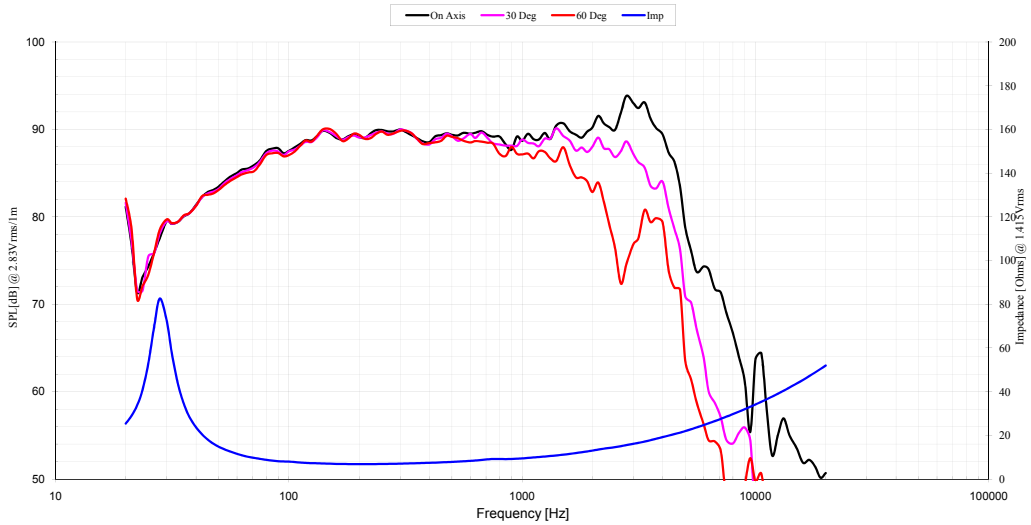
Specifications:

DC Resistance	R_{evc}	Ω	5.9	5.0%
Minimum Impedance	Z_{min}	Ω	6.8	7.5%
Voice Coil Inductance	L_e	mH	0.63	
Resonant Frequency	f_s	Hz	30	15.0%
Mechanical Q Factor	Q_{ms}	-	4.4	
Electrical Q Factor	Q_{es}	-	0.33	
Total Q Factor	Q_{ts}	-	0.31	
Ratio f_s / Q_{ts}	F	f_s / Q_{ts}	98	
Half Space Sensitivity @ 2.83V	dB@2.83V/1m	dB	89.6	+/-1.0 [1]
Sensitivity @ 1W/1m	1W/1m	dB	90.2	+/-1.0 [1]
Rated Noise Power (IEC 2685 18.1)	P	W	60	
Test Spectrum Bandwidth	30Hz - 2kHz		12 dB/Oct	

Energy Bandwidth Product	EBP	$(1/Q_{es})\cdot f_s$	91
Moving Mass	M_{ms}	g	23.99
Suspension Compliance	C_{ms}	um/N	1207.9
Effective Cone Diameter	D	cm	17.0
Effective Piston Area	S_D	cm^2	227.0
Equivalent Volume	V_{as}	L	87.41
Motor Force Factor	BL	T·m	8.92
Motor Efficiency Factor	β	$(T\cdot m^2)/\Omega$	13.53
Voice Coil Former Material	VC_{fm}	-	Alu
Voice Coil Inner Diameter	VC_d	mm	32.4
Gap Height	Gh	mm	6.0
Maximum Linear Excursion	X_{max}	mm	5.50
Ferrofluid Type	FF		N/A
Transducer Size	-	inch	8
Transducer Mass	-	kg	1.74

1 - Piston Band Sensitivity Tolerance

Frequency and Impedance Response:



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