TYMPHANY

Transducer Specification Sheet

Model Number: SDS-P830855
Product Line: Peerless Silver

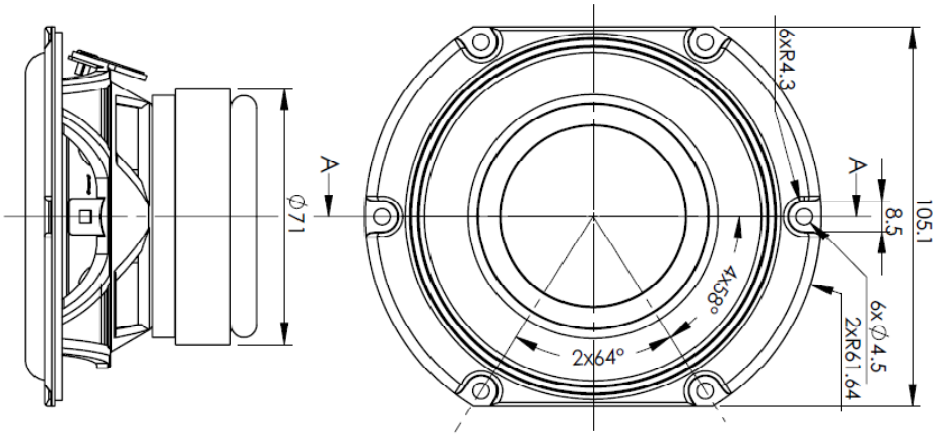
Revision: Rev 1_0
Date: 18-Nov-10

Peerless

Product Description:

The SDS compact subwoofer family offers low resonant frequency performance, ideally suited for compact sealed enclosures. This 4 inch 8 ohm member of the SDS family offer a coated paper cone with rubber surround, a high power voice coil suspended in a ferrite magnet motor, and a narrow-profile steel cabinet, shaped to fit into narrow cabinets.

Mechanical 2D Drawing:



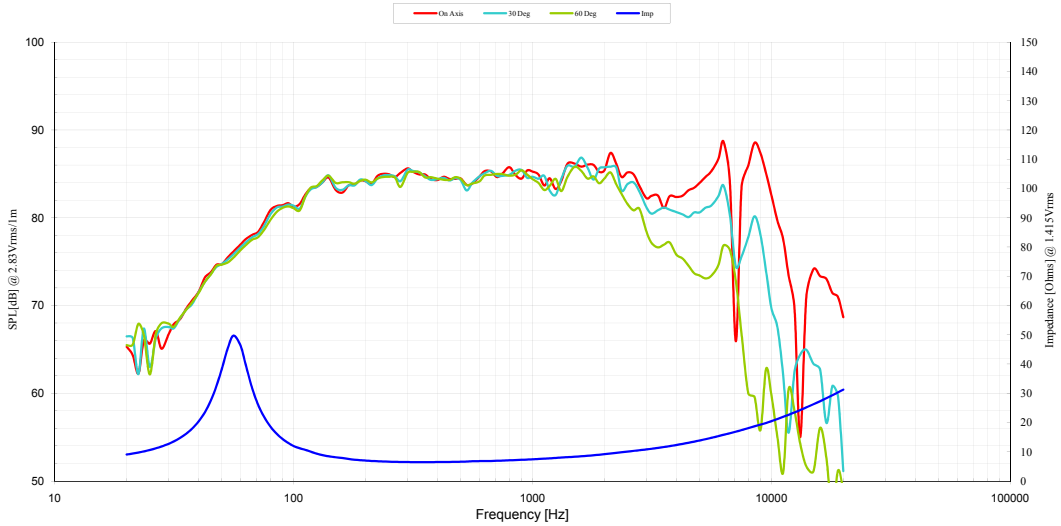
Specifications:

DC Resistance	R_{evc}	Ω	5.6	5.0%
Minimum Impedance	Z_{min}	Ω	6.5	10.0%
Voice Coil Inductance	L_e	mH	0.24	
Resonant Frequency	f_s	Hz	63	15.0%
Mechanical Q Factor	Q_{ms}	-	5.1	
Electrical Q Factor	Q_{es}	-	0.50	
Total Q Factor	Q_{ts}	-	0.46	
Ratio f_s / Q_{ts}	F	f_s / Q_{ts}	138	
Half Space Sensitivity @ 2.83V	dB@2.83V/1m	dB	84.8	+/-1.0 [1]
Sensitivity @ 1W/1m	1W/1m	dB	81.8	+/-1.0 [1]
Rated Noise Power (IEC 2685 18.1)	P	W	30	
Test Spectrum Bandwidth	60Hz - 5kHz		12 dB/Oct	

1 - Piston Band Sensitivity Tolerance

Energy Bandwidth Product	EBP	$(1/Q_{es})\cdot f_s$	126
Moving Mass	M_{ms}	g	6.55
Suspension Compliance	C_{ms}	um/N	981.0
Effective Cone Diameter	D	cm	8.0
Effective Piston Area	S_D	cm^2	50.3
Equivalent Volume	V_{as}	L	3.48
Motor Force Factor	BL	T·m	5.39
Motor Efficiency Factor	β	$(T\cdot m^2)/\Omega$	5.17
Voice Coil Former Material	VC_{fm}	-	GSV
Voice Coil Inner Diameter	VC_d	mm	25.7
Gap Height	Gh	mm	6.0
Maximum Linear Excursion	X_{max}	mm	3.0
Ferrofluid Type	FF		N/A
Transducer Size	-	inch	4.0
Transducer Mass	-	Kg	0.7

Frequency and Impedance Response:



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