

Model Number: PLS-50F25AL03-04
Product Line: Peerless Gold

Revision: Rev 2_0
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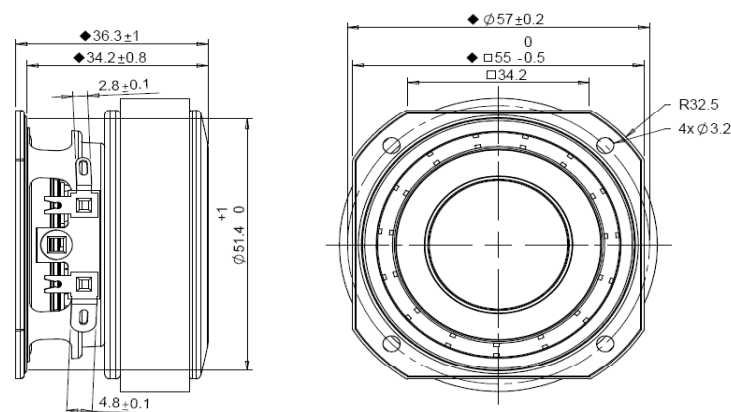


Product Description:

This 2 inch 4 ohm member of the PLS family sets a high standard, for compact full range drivers intended for applications such as television soundbars and compact music systems. Design features in this family include a stiff steel basket with venting under the spider to aid cooling of the motor, a ferrite magnet motor with copper cap to lower coil inductance, providing low distortion at low frequencies and extended high frequency response. A black anodized aluminium cone is employed on the driver, along with a black anodized aluminium dust cap coupled directly to the voice coil. Additionally, the cones come equipped with special-designed large roll rubber surrounds, which allow for a dynamic linear response to high excursion input signals.



Mechanical 2D Drawing:



Specifications:

DC Resistance	R_{evc}	Ω	3.4	$\pm 7.5\%$	Energy Bandwidth Product	EBP	$(1/Q_{\text{es}}) \cdot f_s$	194
Minimum Impedance	Z_{min}	Ω	4.5	$\pm 7.5\%$	Moving Mass	M_{ms}	g	1.43
Voice Coil Inductance	L_e	mH	0.03		Suspension Compliance	C_{ms}	um/N	485.4
Resonant Frequency	f_s	Hz	191	$\pm 15\%$	Effective Cone Diameter	D	cm	4.4
Mechanical Q Factor	Q_{ms}	-	3.7		Effective Piston Area	S_D	cm ²	15.2
Electrical Q Factor	Q_{es}	-	0.99		Equivalent Volume	V_{as}	L	0.158
Total Q Factor	Q_{ts}	-	0.78		Motor Force Factor	BL	T-m	2.44
Ratio f_s / Q_{ts}	F	f_s / Q_{ts}	245		Motor Efficiency Factor	β	$(T \cdot m^2) / \Omega$	1.74
Half Space Sensitivity @ 2.83V	dB@2.83V/1m	dB	85.6	$\pm 1.0^1$	Voice Coil Former Material	VC _m	-	ASV
Sensitivity @ 1W/1m	1W/1m	dB	81.9	$\pm 1.0^1$	Voice Coil Inner Diameter	VC _d	mm	25.73
					Gap Height	Gh	mm	3.00
Rated Noise Power (IEC 2685 18.1)	P	W	7		Maximum Linear Excursion	X_{max}	mm	1.65
Test Spectrum Bandwidth	150Hz-20KHz		12 dB/Oct		Ferrofluid Type	FF	-	N/A
					Transducer Size	-	-	2 inch
					Transducer Mass	-	Kg	0.32

1 - Piston Band Sensitivity Tolerance

Frequency and Impedance Response:



F088-0713A