

Model Number: XXLS-P835017
Product Line: Peerless Platinum

Revision: Rev 1_0
Date: 12-Apr-10

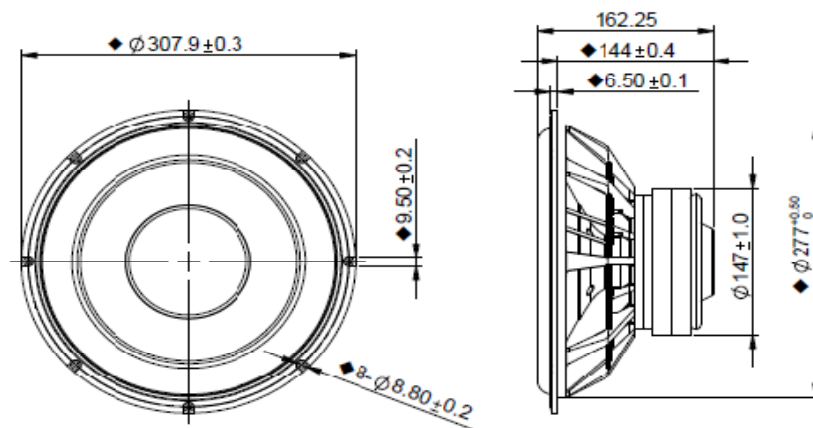


Product Description:

This 12 inch 4 ohm member of the XXLS product family has all the design features suitable for a high performance, high excursion subwoofer driver. The motor features a double ferrite magnet motor, supporting high excursion, and aluminium shorting rings and pole extenders, lowering and linearizing the inductance of the overhung voice coil. The PP cone is vented under the dust cap, to reduce air compression. The suspension system features a low-creep rubber surround, and a nomex spider, ensuring long-term reliability under high power conditions. The product also features a rigid cast aluminium basket.



Mechanical 2D Drawing:



Specifications:

DC Resistance	R_{evc}	Ω	2.5	5.0%	Energy Bandwidth Product	EBP	$(1/Q_{\text{es}}) \cdot f_s$	55
Minimum Impedance	Z_{min}	Ω	3.4	7.5%	Moving Mass	M_{ms}	g	131.4
Voice Coil Inductance	L_e	mH	0.53		Suspension Compliance	C_{ms}	um/N	415
Resonant Frequency	f_s	Hz	22	15.0%	Effective Cone Diameter	D	cm	24.80
Mechanical Q Factor	Q_{ms}	-	10.83		Effective Piston Area	S_D	cm ²	483.1
Electrical Q Factor	Q_{es}	-	0.40		Equivalent Volume	V_{as}	L	136.042
Total Q Factor	Q_{ts}	-	0.39		Motor Force Factor	BL	T·m	10.58
Ratio f_s / Q_{ts}	F	f_s / Q_{ts}	57		Motor Efficiency Factor	β	$(T \cdot m^2) / \Omega$	44.54
Half Space Sensitivity @ 2.83V	dB@2.83V/1m	dB	88.6	+/-1.0 ¹	Voice Coil Former Material	VC _{fm}	-	GSV
Sensitivity @ 1W/1m	1W/1m	dB	83.5	+/-1.0 ¹	Voice Coil Inner Diameter	VC _d	mm	51.00
					Gap Height	Gh	mm	8.00
Rated Noise Power (IEC 2685 18.1)	P	W	120		Maximum Linear Excursion	X_{max}	mm	12.30
Test Spectrum Bandwidth	20Hz - 4kHz		12 dB/Oct		Ferrofluid Type	FF		N/A
					Transducer Size	-	inch	12
					Transducer Mass	-	Kg	6.4

1 - Piston Band Sensitivity Tolerance

Frequency and Impedance Response:

