TYMPHANY

XXLS
10″ Subwoofer

Peerless

Type Number: 830843

Features:

This new series of state-of-the-art subwoofers continue to enhance Peerless' reputation for delivering the highest quality components for bass in the world. Called the XXLS - for "Xpanded Extra Long Stroke" - these new audio transducers add even more excursion to the Peerless XLS line, and completely eliminate distortion.

Driver Highlights: Thick Nomex cone, 51 mm voice coil, ALP

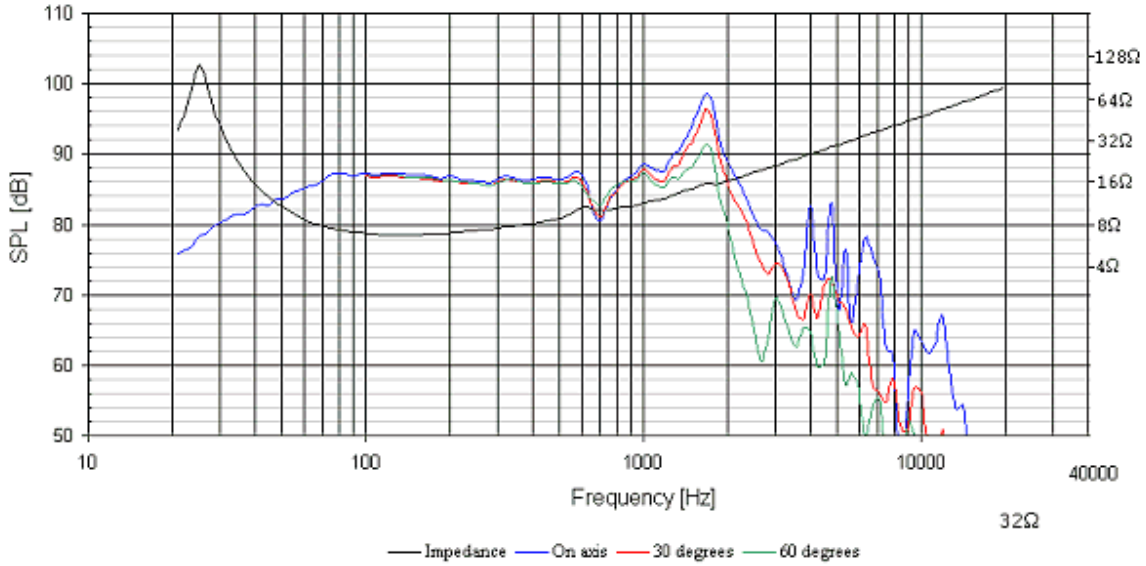
Go to Application Notes.

Specs:

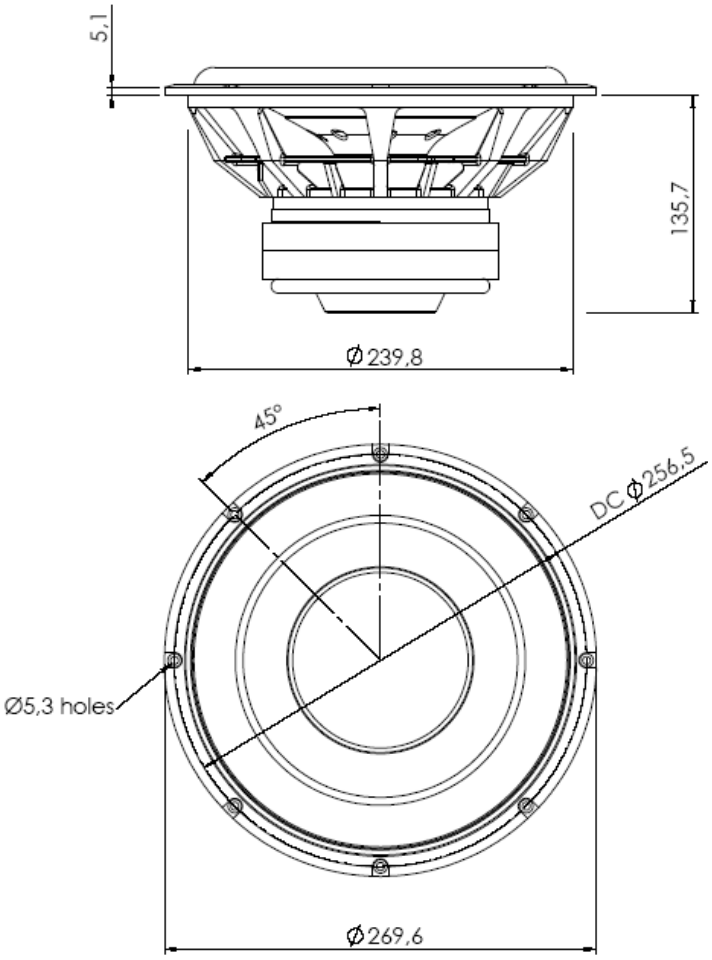
Electrical Data			
Nominal impedance	Zn	8	ohm
Minimum impedance	Zmin	6.7	ohm
Maximum impedance	Zo	118	ohm
DC resistance	Re	5.8	ohm
Voice coil inductance	Le	2.8	mH
Capacitor in series with x ohm	Cc	--	uF
T-S Parameters			
Resonance Frequency	fs	25	Hz
Mechanical Q factor	Qms	9.03	
Electrical Q factor	Qes	0.47	
Total Q factor	Qts	0.44	
Ratio fs/Qts	F	56	
Force factor	Bl	12.5	Tm
Mechanical resistance	Rms	1.39	Kg/s
Moving mass	Mms	79.9	g
Suspension compliance	Cms	0.51	mm/N
Effective cone diameter	D	21.2	cm
Effective piston area	Sd	352	cm^2
Equivalent volume	Vas	86.7	ltrs
Sensitivity		87.2	dB
Ratio BL/√(Re)		5.2	

Power handling		
100h RMS noise test (IEC)	175	W
Long-term Max System Power (IEC)	350	W
Max linear SPL (rms) @ power	--	dB/W
Short Term Max power	--	W
Voice Coil and Magnet Parameters		
Voice coil diameter	51	mm
Voice coil height	33	mm
Voice coil layers	4	
Height of the gap	8	mm
Linear excursion +/-	12.5	mm
Max mech. excursion +/-	--	mm
Flux density of gap	--	mWb
Total useful flux	2.3	mWb
Diameter of magnet	147	mm
Height of magnet	35	mm
Weight of magnet	2.4	Kg

Frequency:



Mechanical Dimensions:



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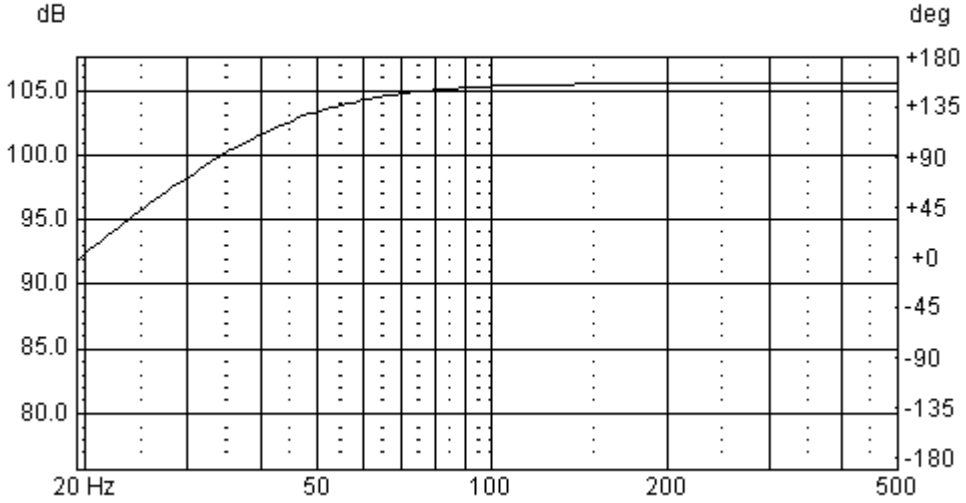
Go to Data Sheet

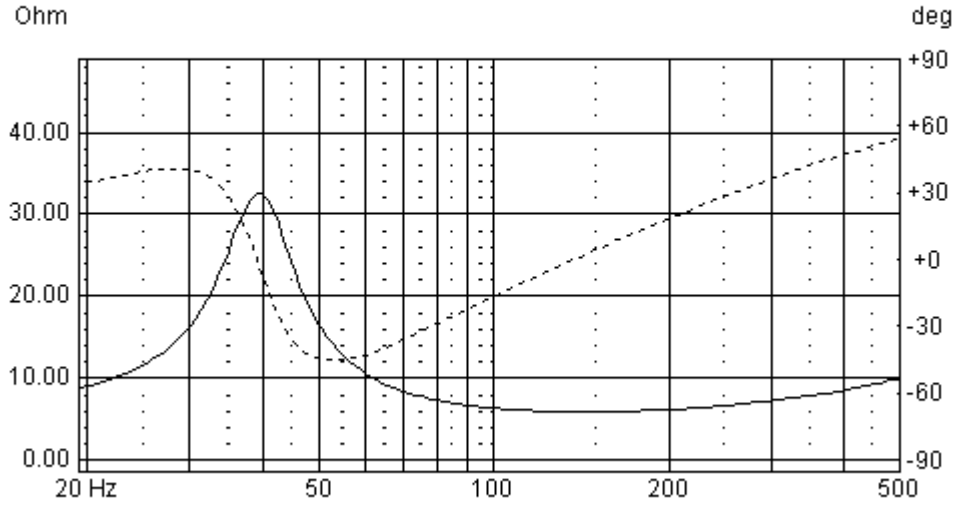
Tuning a Sealed Box

BOX PROPERTIES		
Alignment	Sealed box	
DRIVE UNIT	830843	
Box Volume	62	Ltr.
Fill	65	%
f_{-3dB}	44.8	Hz

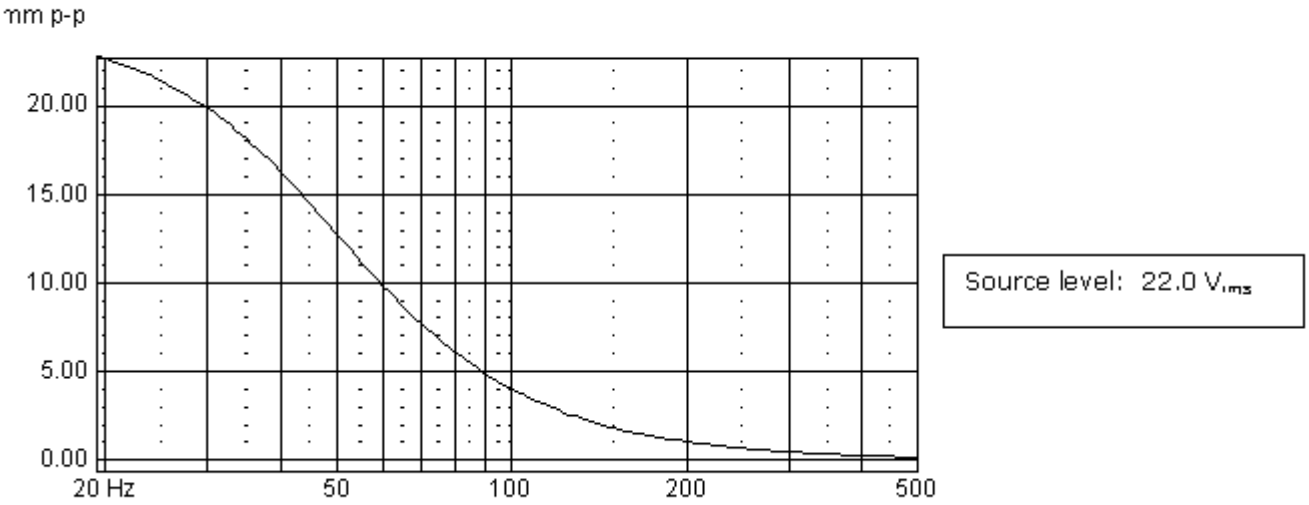
Frequency response : Half Space (2π) 1m distance



Impedance



Excursion



Transient Response: Impulse