



XXLS 12" Subwoofer



Type Number: 830844

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

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Specs:

Electrical Data

Nominal impedance	Zn	4	ohm
Minimum impedance	Zmin	3.8	ohm
Maximum impedance	Zo	119.4	ohm
DC resistance	Re	2.8	ohm
Voice coil inductance	Le	4.2	mH
Capacitor in series with x ohm	Cc	--	uF

T-S Parameters

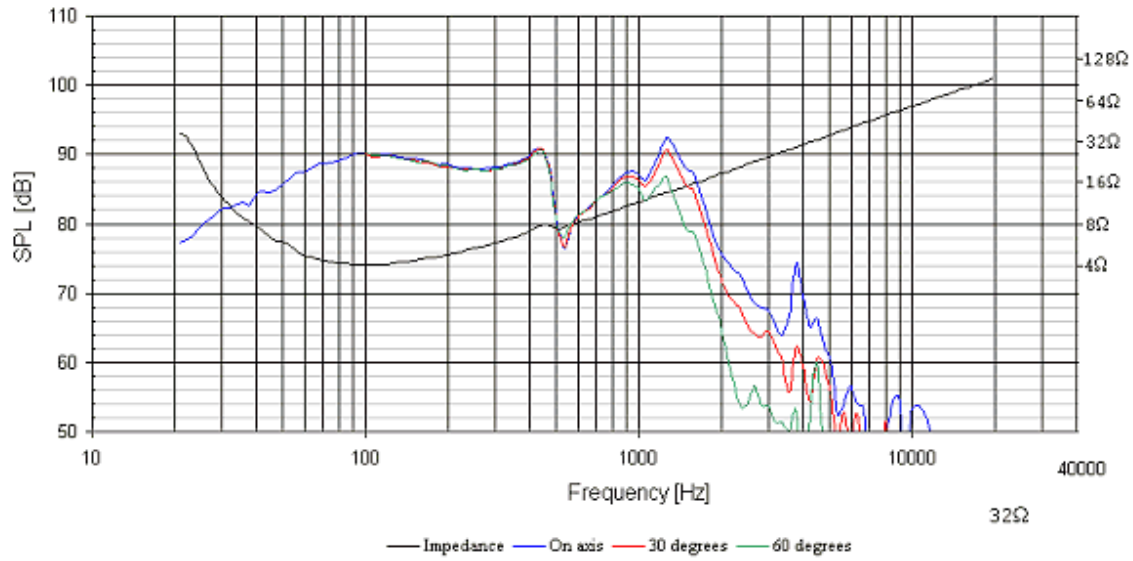
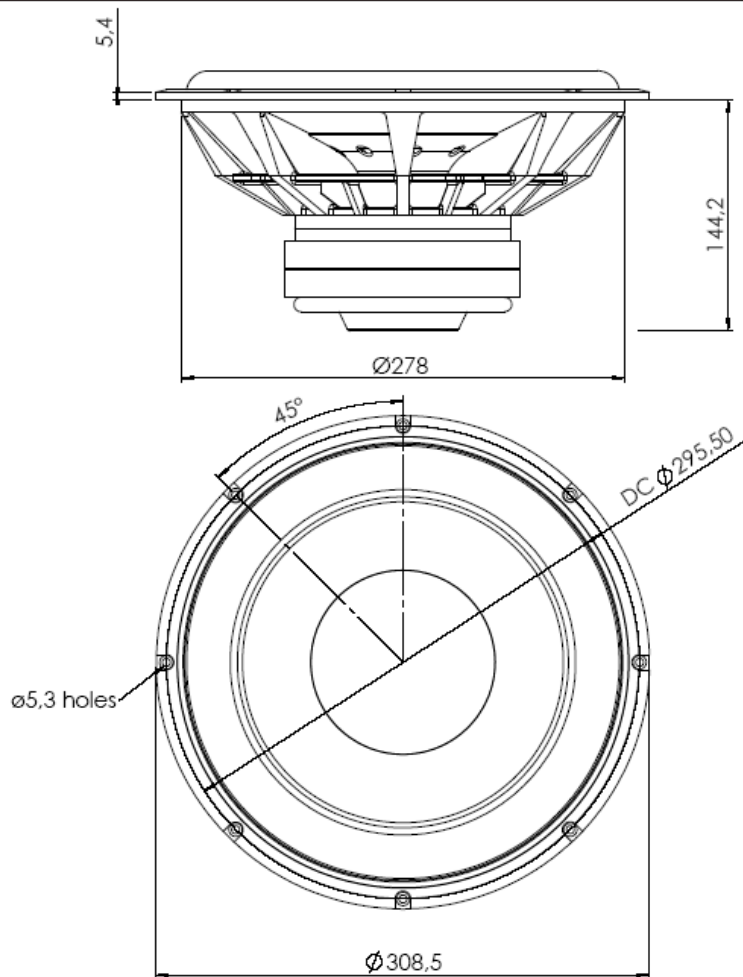
Resonance Frequency	fs	17.7	Hz
Mechanical Q factor	Qms	8.21	
Electrical Q factor	Qes	0.2	
Total Q factor	Qts	0.2	
Ratio fs/Qts	F	90	
Force factor	Bl	15.7	Tm
Mechanical resistance	Rms	2.11	Kg/s
Moving mass	Mms	155.9	g
Suspension compliance	Cms	0.52	mm/N
Effective cone diameter	D	24.4	cm
Effective piston area	Sd	466	cm ²
Equivalent volume	Vas	156.5	ltrs
Sensitivity		90.3	dB
Ratio BL/√(Re)		9.3	

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:**



Peerless

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[Go to Data Sheet](#)

Tuning with Passive radiators

Peerless offers specially designed 10" XLS passive radiators for this alignment.
Type: 830548.

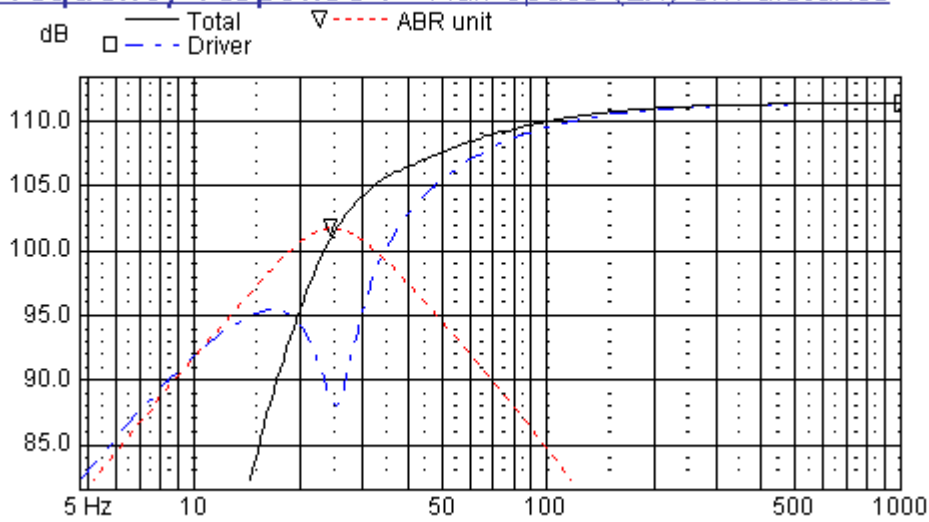
Specifications for XLS passive radiator: 830548

Resonance Frequency	f_s	(Hz)	10.4
Mechanical Q factor	Q_{ms}		15.2
Equivalent volume	VAS	(ltrs)	169.6
Mechanical resistance	R_{ms}	(Kg/s)	1.8
Moving mass	M_{ms}	(g)	425
Suspension compliance	C_{ms}	(mm/N)	0.55
Effective piston area	S_d	(cm ²)	466
Xmax Peak		mm	24

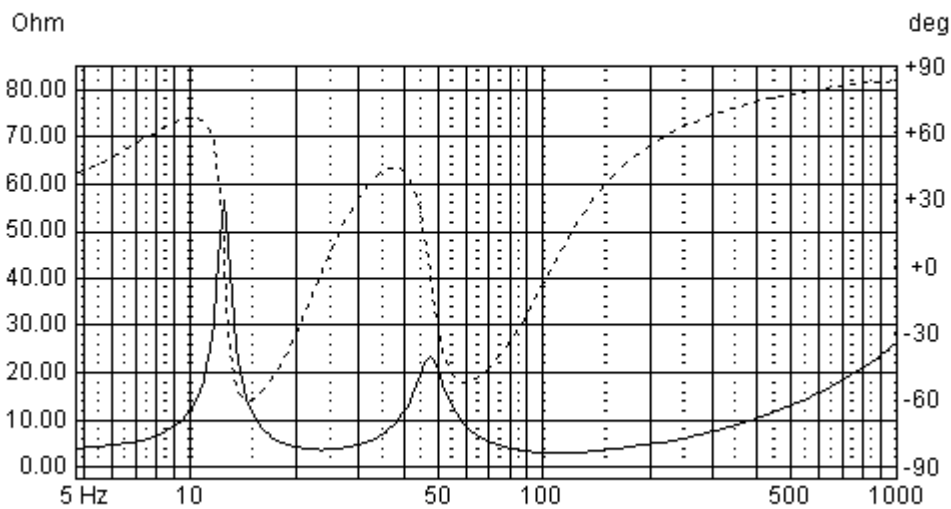
SYSTEM PROPERTIES

Alignment	Passive Radiator	
DRIVE UNIT	830844	
Passive radiator	830548	
Box Volume	33	Ltr.
Number of passive rad.	1	Pcs.
f_{bass}	10.4	Hz
Fill	3	%
F_B	24.6	Hz

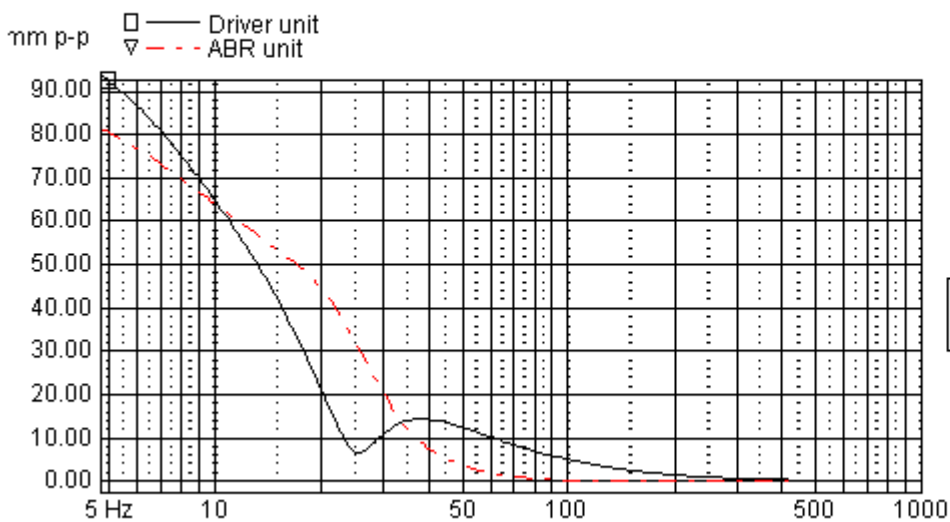
Frequency response : Half Space (2 π) 1m distance



Impedance

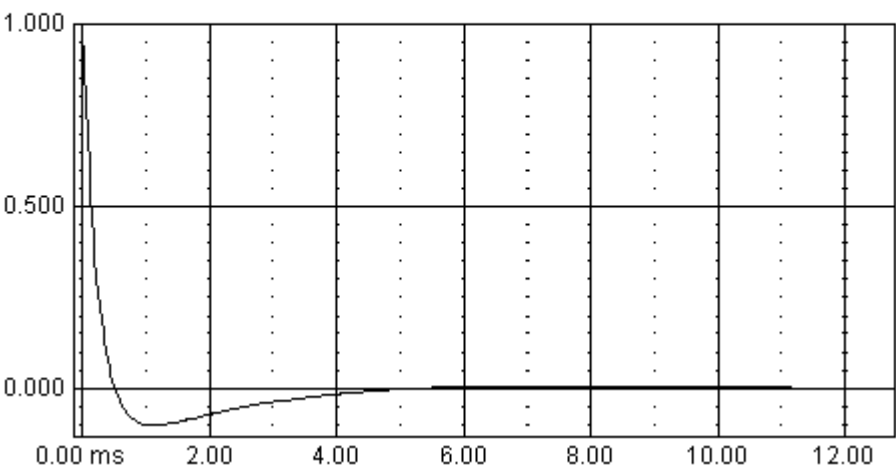


Excursion



Source level: 24.0 V_{rms}

Transient Response: Impulse



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