Technical Information

Boston

BostonAcoustics.com

ProSeries Subwoofers

Specifications and Driver Parameters

Specification:	12.5LF	10.5LF	8.5LF
Nominal Size	12" (30cm)	10" (25cm)	8" (20cm)
Mounting Cutout Diameter	11" (280mm)	9-1/8" (232mm)	7-3/16" (183mm)
Mounting Depth—Front Mounted	5-5/8" (143mm)	4-3/4" (121mm)	4-1/16" (104mm)
Mounting Depth—Rear Mounted	6-3/8" (162mm)	5" (127mm)	4-11/16" (119mm)
Recommended Amplifier Power	50–1200 watts	50–1100 watts	50–750 watts
Nominal Impedance	2Ω/4Ω	2Ω/4Ω	2Ω/4Ω
Recommended Enclosure Sizes:			
Gross Internal Volume	1.0ft^3 (28 liters)	0.5ft^3 (14 liters)	0.3ft^3 (8.5 liters)
-3dB Down Point (In-car)	20Hz	20Hz	20Hz
System "Q" (2Ω/4Ω)	0.9/1.1	0.8/0.95	0.6/0.7
Recommended Enclosure Dimensions:			
Height (Internal)	10.5" (27cm)	7.5" (19cm)	6.5" (16cm)
Width (Internal)	13.0" (33cm)	11.0" (28cm)	9.0" (23cm)
Depth (Internal)	13.0" (33cm)	11.0" (28cm)	9.0" (23cm)

We provide Theile/Small Parameters for those interested in studying subwoofers further. We do not recommend you use computer software to determine enclosure size or type. While high-end enclosure design software may be useful for preliminary engineering purposes, it cannot completely predict performance in a given vehicle and should not replace a real enclosure that has been tested and listened to in a car. The best a computer screen can do is give you a visual representation of what something sounds like. Please use our recommended enclosures for optimum performance.

Theile/Small Parameters:	12.5LF(2Ω)	12.5LF(4Ω)	10.5LF(2Ω)	10.5LF(4Ω)	8.5LF(2Ω)	8.5LF(4Ω)
Resonant Frequency (F_s)	30Hz	31Hz	33Hz	34Hz	35Hz	36Hz
Equivalent Volume (V_{as})	84 liters 2.97ft^3	84 liters 2.97ft^3	35 liters 1.24ft^3	35 liters 1.24ft^3	21 liters 0.74ft^3	21 liters 0.74ft^3
Total Q (Q_{ts})	0.45	0.57	0.44	0.53	0.33	0.40
Electrical Q (Q_{es})	0.47	0.61	0.47	0.57	0.35	0.42
Mechanical Q (Q_{ms})	9.8	9.6	8.0	7.8	9.0	9.0
Compliance (C_{ms})	230µm/N	230µm/N	255µm/N	255µm/N	330µm/N	330µm/N
Moving Mass (M_{ms})	121g	117g	90g	86g	63g	60g
Cone Area (S_d)	510cm^2	510cm^2	315cm^2	315cm^2	215cm^2	215cm^2
Voice Coil Diameter	51mm	51mm	51mm	51mm	51mm	51mm
Voice Coil DCR (R_e)	1.6Ω	3.1Ω	1.6Ω	3.1Ω	1.6Ω	3.1Ω
Voice Coil Inductance @ 1kHz (L_e)	0.40mH	0.55mH	0.40mH	0.55mH	0.40mH	0.55mH
Linear Excursion—One Way (X_{max})	8.5mm	8.5mm	8.5mm	8.5mm	8.5mm	8.5mm
Peak-to-Peak Max. Excursion	40mm	40mm	35mm	35mm	35mm	35mm
Reference Efficiency (η_o)	0.46	0.39	0.26	0.25	0.25	0.22

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