

## Subwoofer Esotar<sup>2</sup> 1200

The Esotar<sup>2</sup> 1200 is a powerful reference grade subwoofer intended for the most ambitious, state-of-the-art mobile audio systems.

The frequency response curves confirm that the Esotar<sup>2</sup> 1200 is a well controlled driver with a smooth frequency response up to 500 Hz and an extended low frequency range down to 18 Hz. The subwoofer is ideally suited for low frequency applications. The very low bass response is possible due to the exceptionally high power handling capabilities and extremely long excursion of the woofer.

- Large 75 mm voice coil ensures high power handling and increased dynamic range
- High excursion (58 mm peak-to-peak) design
- High power handling, 400 W long term IEC
- Excellent transient response
- Incredibly low distortion
- Rigid die-cast frame with aerodynamically shaped ribs to reduce back-wave reflections
- Materials and parameters are optimized for the harsh environmental conditions in a car

e Sone e	8 holes Ø 5,3 mm on Ø 285
35 mm @ max cone	143 mm
	← Mounting hole min Ø 260 mm →

Max. Ø 297 mm

xcursion

Thiele Small Parameters					
Nominal impedance	Znom	4	Ω		
DC resistance	Re	3.3	Ω		
Voice coil inductance	Le	1,1	mΗ		
Resonance frequency	fs	18,7	Hz		
Mechanical Q factor	Qms	3			
Electrical Q factor	Qes	0,4			
Total Q factor	Qts	0,34			
Mechanical resistance	Rms	4,4	kg/s		
Moving mass	Mms	114	g		
Suspension compliance	Cms	0.64	mm/N		
Effective cone diameter	d	233	mm		
Effective piston area	Sd	425	cm <sup>2</sup>		
Equivalent volume	Vas	162			
Force factor	BI	11,1	Tm		
Recommended frequency range		18-300	Hz		
Recommended closed box volume		30-66			

Magnet and Voice Coil Properties					
Voice coil diameter	dc	75 mm			
Voice coil height	hc	30 mm			
Voice coil layers	nc	2			
Magnetic gap height	hg	9,5 mm			
Linear Excursion, peak to peak		20,5 mm			
Max. Excursion, peak to peak		58 mm			
Magnet weight	wm	3,2 kg			

Power Handling			
Nominal long term IEC	400	W	
Transient (10 ms)	1500	W	

Mechanical Properties				
Net weight	8,8	kg		
Overall dimension	ø297x162	mm		

All specifications subject to change without notice

Dynaudio A/S, 8660 Skanderborg, Denmark

## Subwoofer Esotar<sup>2</sup> 1200

Frequency response • on-axis



Red line: on-axis response

Measurement conditions Level: 2.83 V Distance: 1 m Box volume: 71 I





Red line: on-axis response Green line: 2nd harmonic Blue line: 3rd harmonic

Measurement conditions Level: 2.83 V Distance: 1 m Box volume: 71 I

Impedance • with and without impedance correction circuit



Red line: impedance, free air Green line: impedance, free air with compensation. See drawing below.

Measurement conditions Level: 3,16 V, 50 ohm Driver in free air

The impedance curves verify that the woofer is a simple load for any amplifier. The use of an impedance correction circuit will make it even easier to drive.

The low suspension compliance makes the driver suitable for the small enclosures typical of automotive installations, while also allowing for free air installation, e.g. in a rear deck. System integration is quite easy due to the woofer's tremendous sonic integrity and extremely low distortion.

## Impedance correction circuit



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