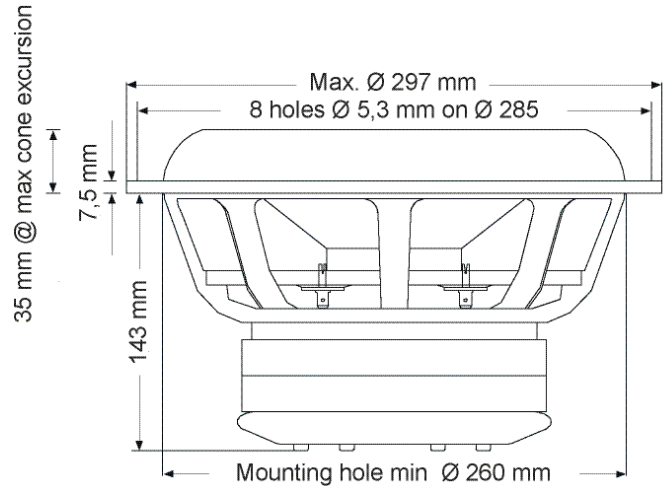


Subwoofer Esotar² 1200

The Esotar² 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 Esotar² 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



Thiele Small Parameters		
Nominal impedance	Znom	4 Ω
DC resistance	Re	3.3 Ω
Voice coil inductance	Le	1,1 mH
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 ²
Equivalent volume	Vas	162 l
Force factor	Bl	11,1 Tm
Recommended frequency range		18-300 Hz
Recommended closed box volume		30-66 l

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

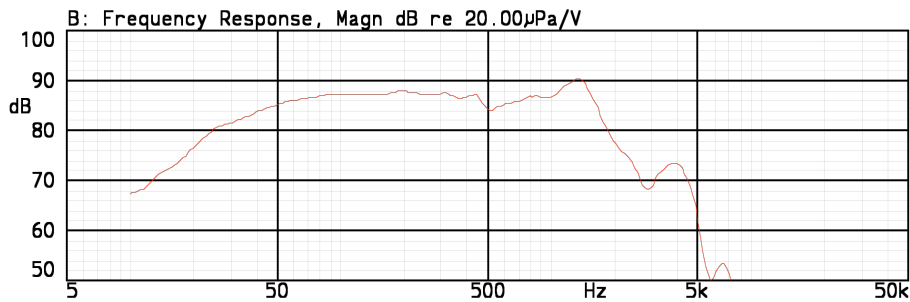
Power Handling	
Nominal long term IEC	400 W
Transient (10 ms)	1500 W

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

All specifications subject to change without notice

Subwoofer Esotar² 1200

Frequency response • on-axis



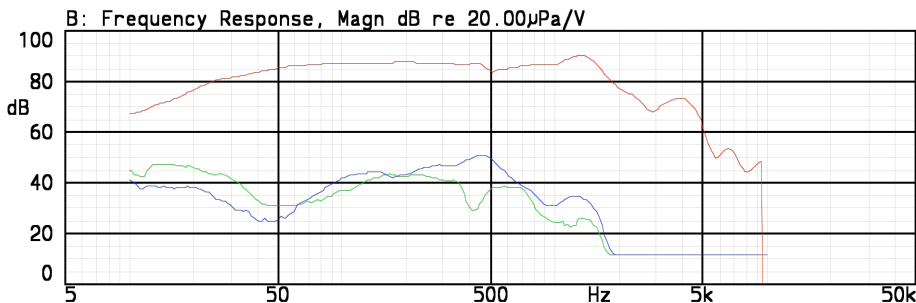
Red line: on-axis response

Measurement conditions

Level: 2.83 V
Distance: 1 m
Box volume: 71 l



Frequency response • 2nd and 3rd harmonic distortion



Red line: on-axis response

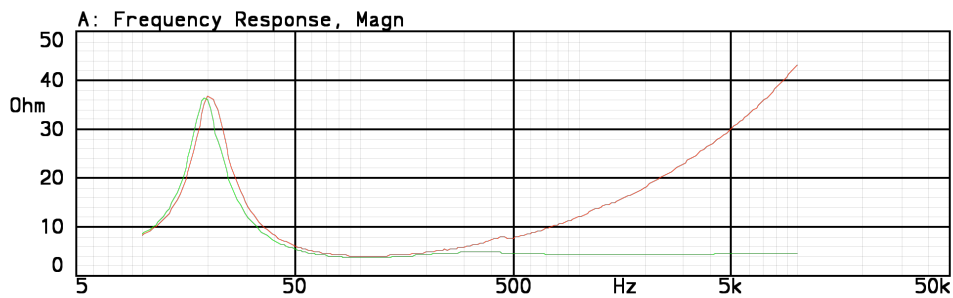
Green line: 2nd harmonic
Blue line: 3rd harmonic

Measurement conditions

Level: 2.83 V
Distance: 1 m
Box volume: 71 l



Impedance • with and without impedance correction circuit



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

Measurement conditions

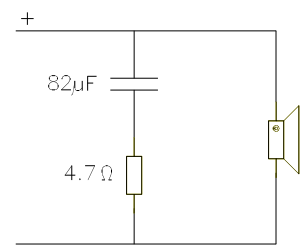
Level: 3,16 V, 50 ohm
Driver in free air



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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