Sonus faber

ADVANCED TECHNICAL SPECIFICATIONS – ARENA S10

·Sf·

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01. INTRODUCTION

Arena is Sonus faber's custom installation speaker collection designed for reference-level private cinema environments.

Combining the brand's signature Natural Sound with powerful dynamics and seamless architectural integration, Arena delivers an immersive listening experience while elegantly blending into the design of the space.

Handcrafted in Italy by the Artisans of Sound, the collection brings together acoustic innovation, refined design and installation flexibility, enabling integrators to create high-performance private cinema systems tailored to each project and environment.

The name Arena evokes a space created for powerful shared experiences. Inspired by the architecture of ancient amphitheaters — where sound and spectacle surrounded the audience — the collection translates this concept into the modern private cinema environment.

02. SPECIFICATIONS

System

Speaker type	1,0 Way
Enclosure type	Balanced Array Subwoofer
Mounting Depth	115,0 mm
Weight	25,0 kg
Depth	130,0 mm
Width	360,0 mm
Height	1486,0 mm

Loudspeakers

Low frequency transducer	8 x	4"
Cone	Paper	
Magnet	Neodymium	
Demodulation	None	
Mid frequency transducer		-
Cone	-	
Magnet	-	
Demodulation	-	
High frequency transducer		-
Dome	-	
Magnet	-	
Demodulation	-	

Frequency response (-3dB on-axis)*	33,0 Hz	100,0 Hz
Frequency Response (-6dB on-axis)*	30,5 Hz	100,0 Hz
Sensitivity @2.83Vrms @1m**	90,6 dB	
Electrical crossover frequencies	-	
Acoustical crossover frequencies	-	
Nominal Impedance	4,0 Ω	
Minimal impedance	4,6 Ω	
Recommended Low-Pass filter	Butterworth 12dB/oct @35Hz	

Electronics

Speaker Connectivity	Mono wiring
Recommended maximum amplifier output power	250,0 W

Cabinet

Shape	Squared
Materials	Wood - Aluminum

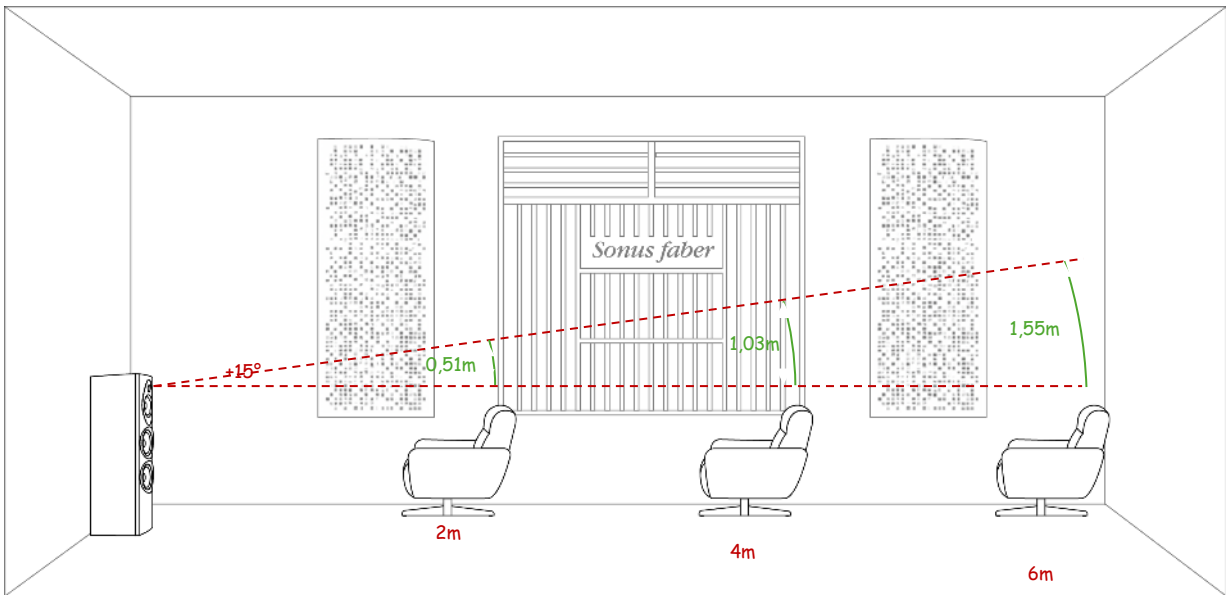
** Note : The f-3dB and f-6dB are computed based on the average sensitivity of the merged filtered speaker on the [28 - 80]Hz bandwidth*

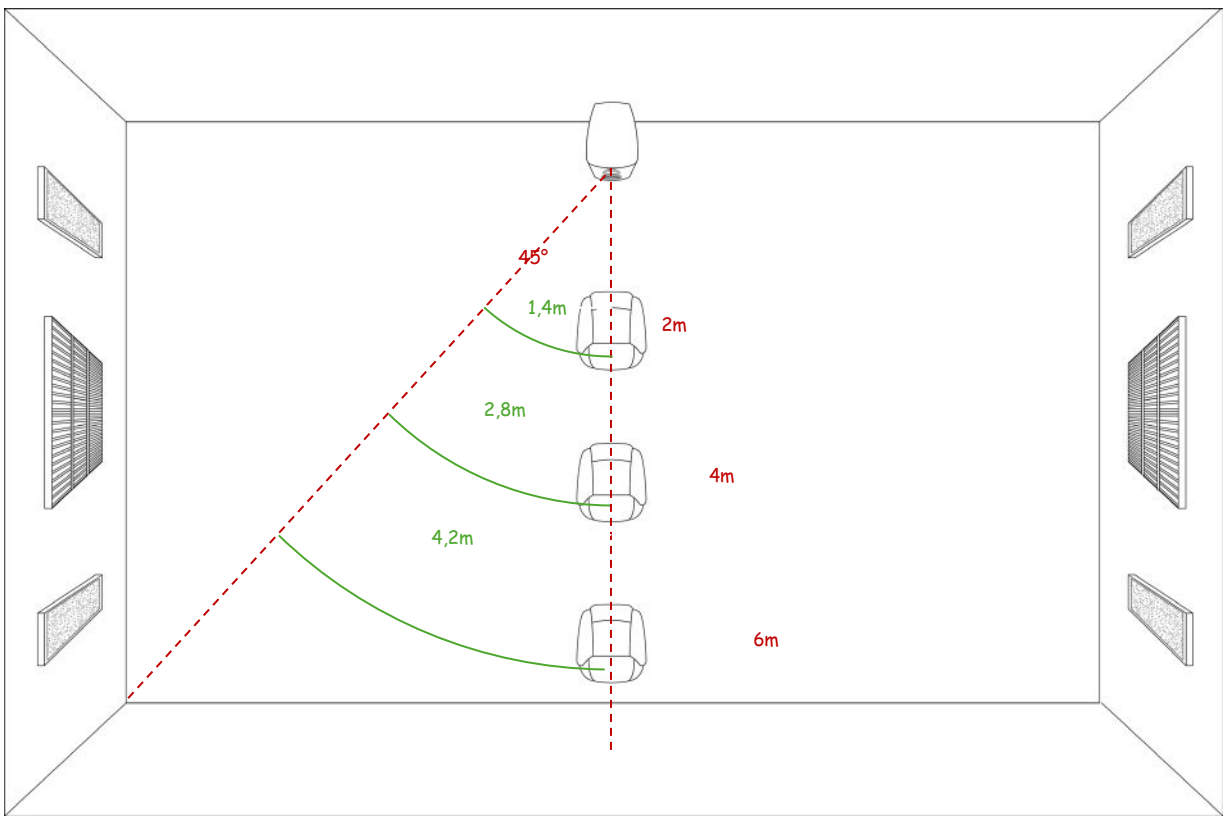
*** Note : The average sensitivity of the speaker is computed on the merged filtered response of the speaker measured on the wall @2,83V and @1m. It is defined as the arithmetic average on 1/3rd octave bands according to the IEC 61260-1, centered on the ISO 266 frequencies, from f-3dB to 80Hz*

03. MEASUREMENTS

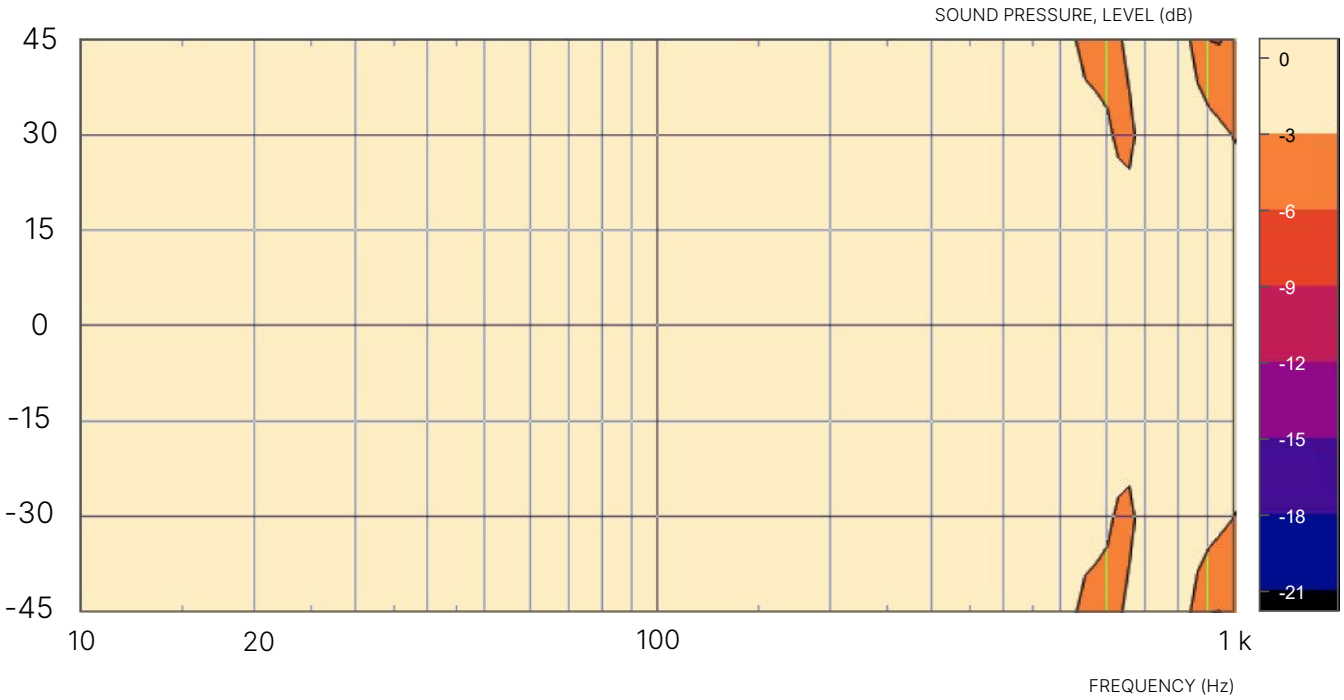
OUT OF AXIS METHOD :

The out of axis measurements are limited to ±15° vertically and ±45° horizontally. A graphic representation is shown below to convert these values in understandable distances compared to the listener's head at different positions.

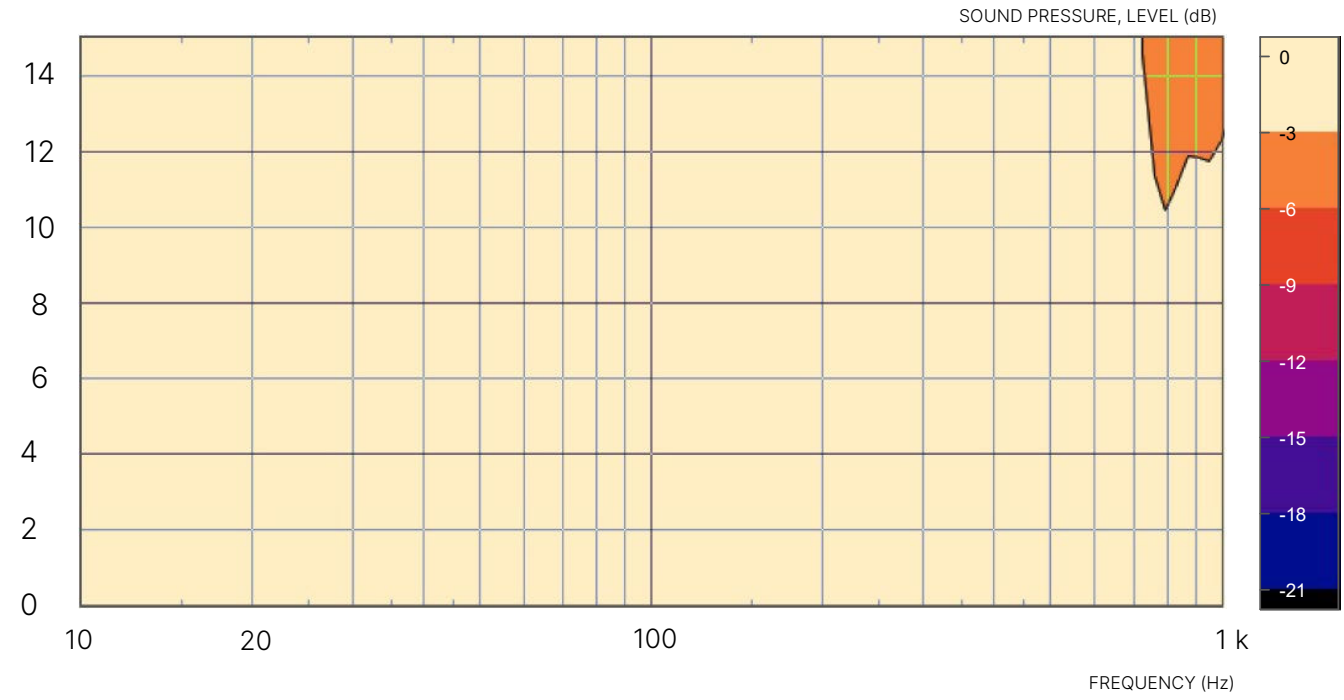




HORIZONTAL POLAR MAP NORMALIZED TO 00°

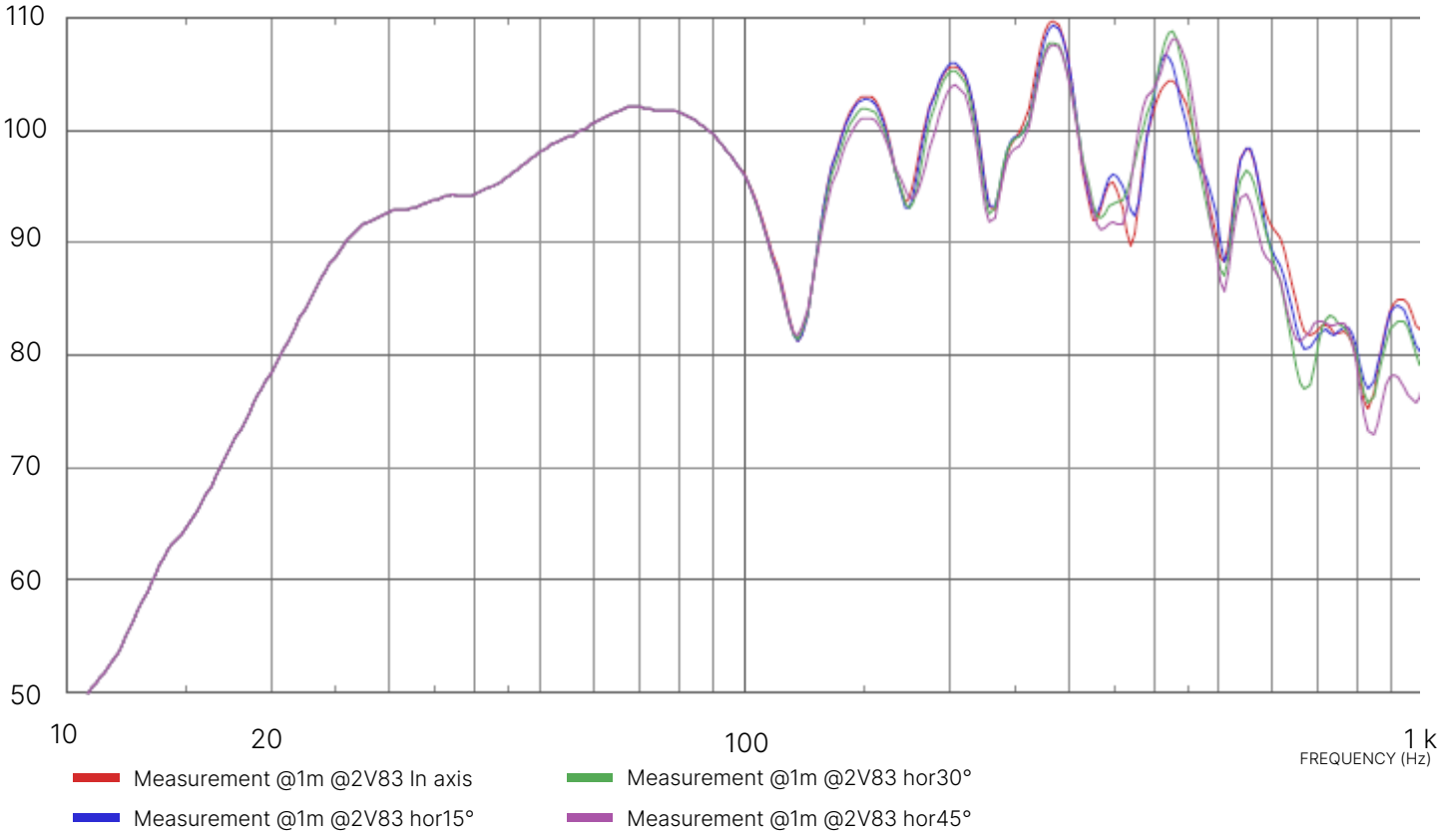


VERTICAL POLAR MAP NORMALIZED TO 00°



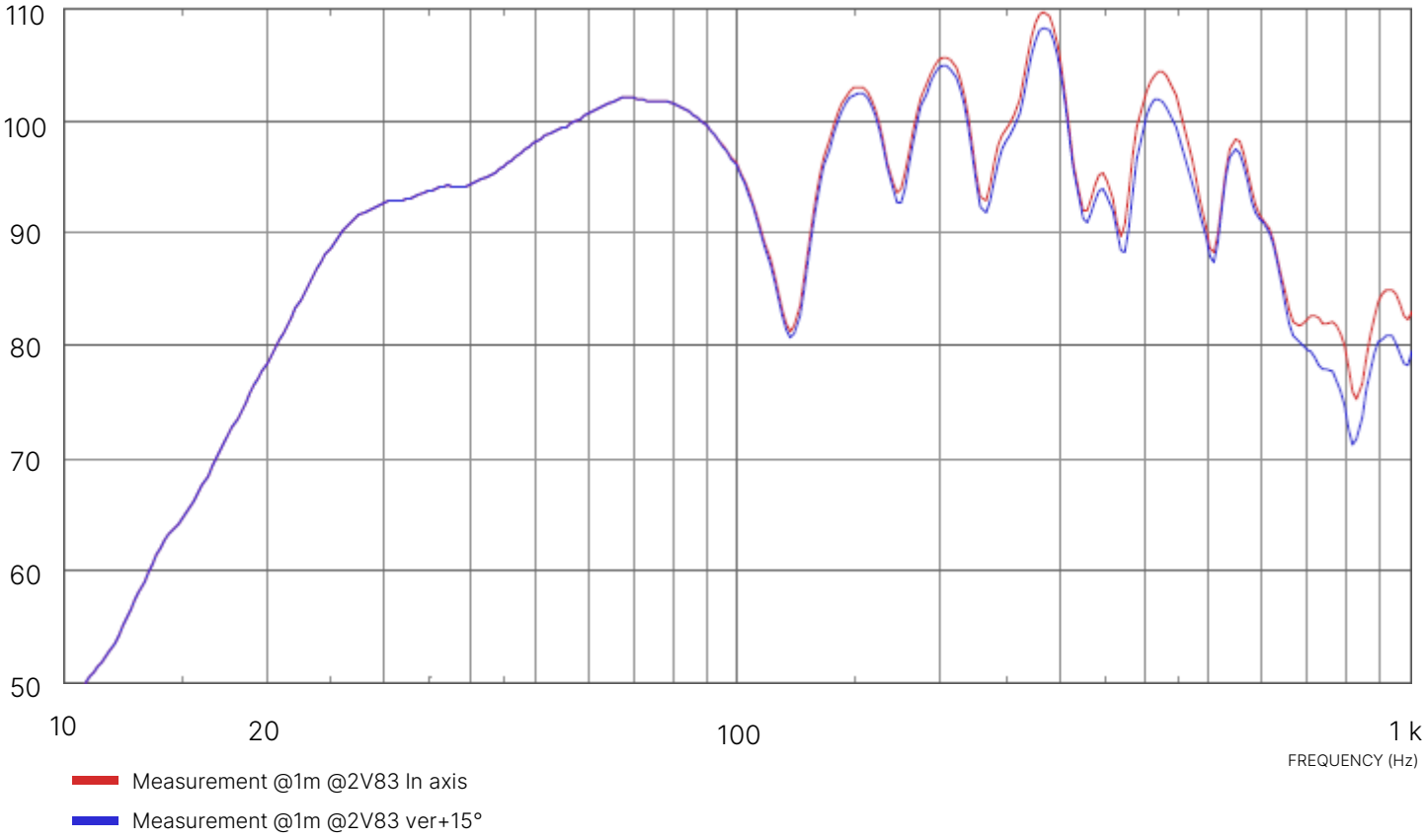
HORIZONTAL - FREQUENCY RESPONSE

(dB) Level, Sound pressure



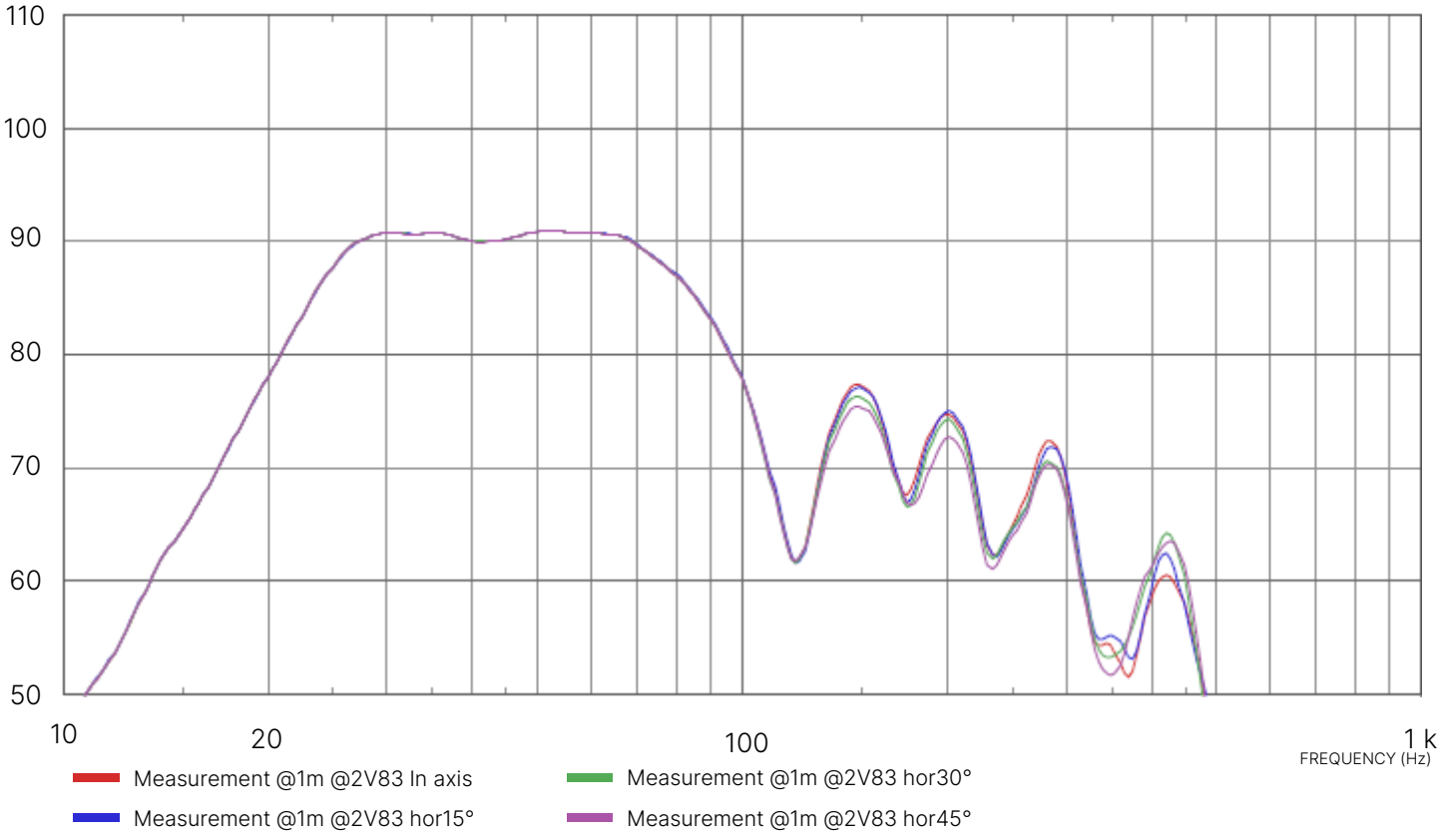
VERTICAL - FREQUENCY RESPONSE

(dB) Level, Sound pressure



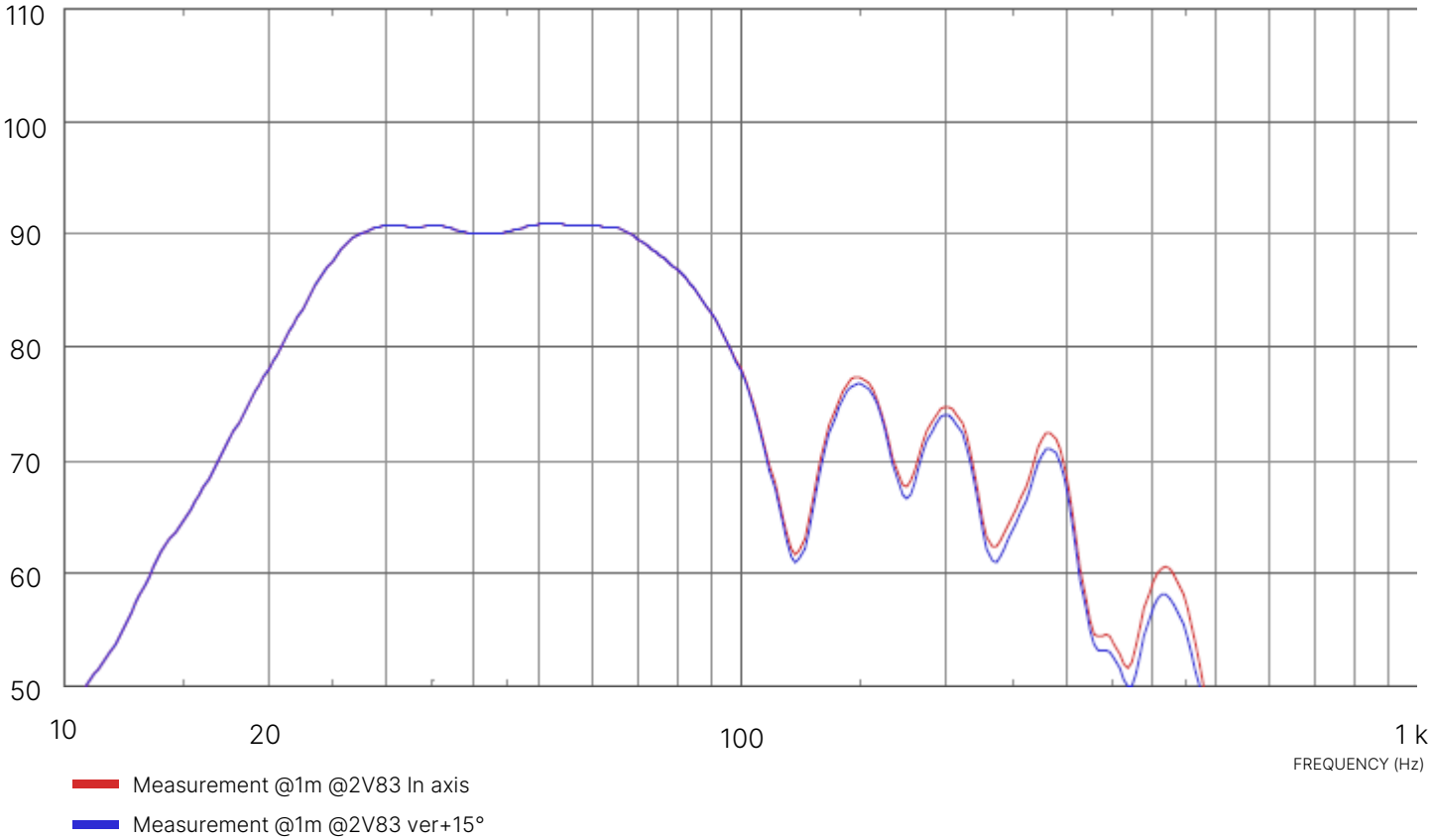
HORIZONTAL - FREQUENCY RESPONSE FILTERED BUT12 @35Hz

(dB) Level, Sound pressure



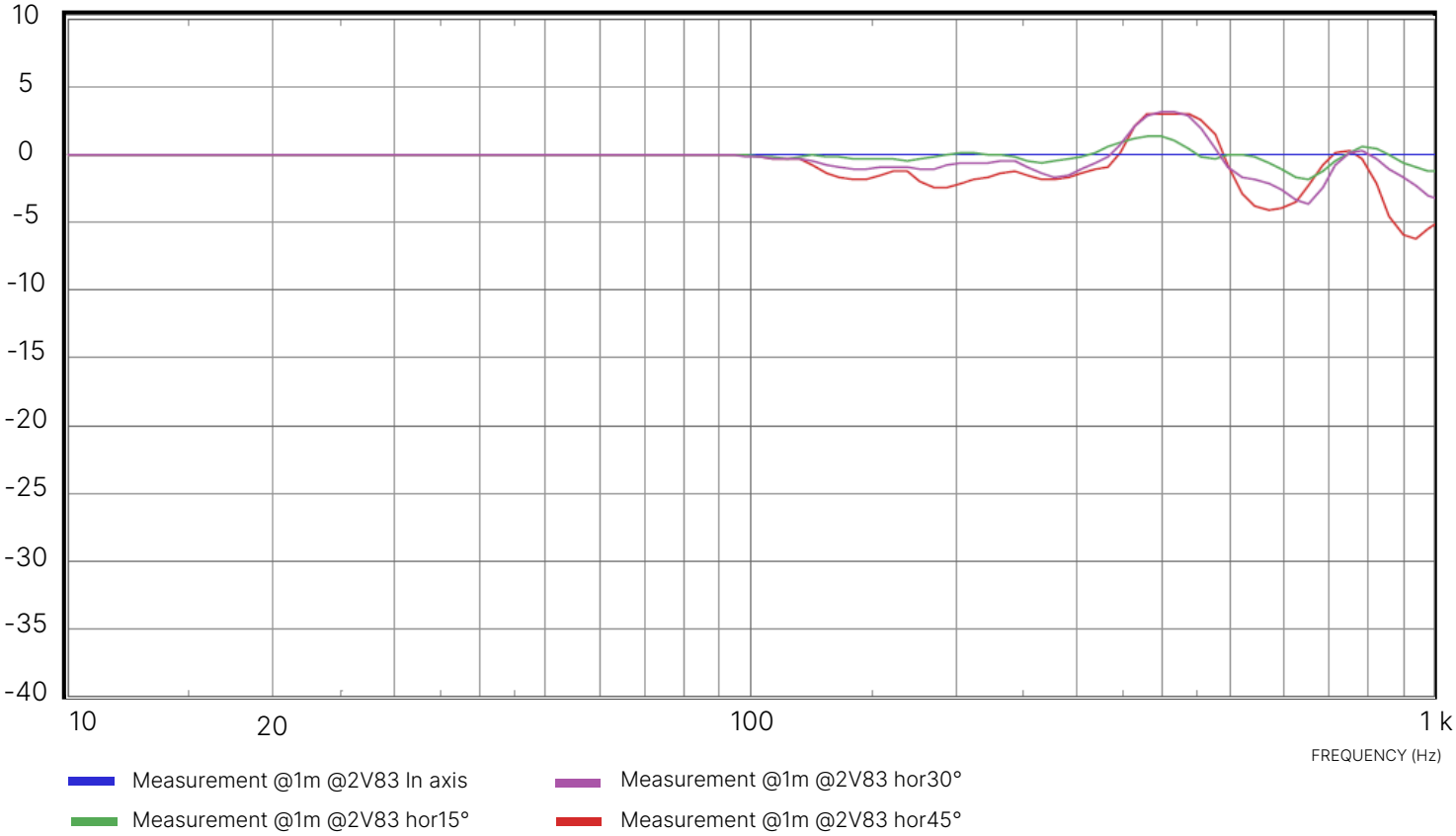
VERTICAL - FREQUENCY RESPONSE FILTERED BUT12 @35Hz

(dB) Level, Sound pressure



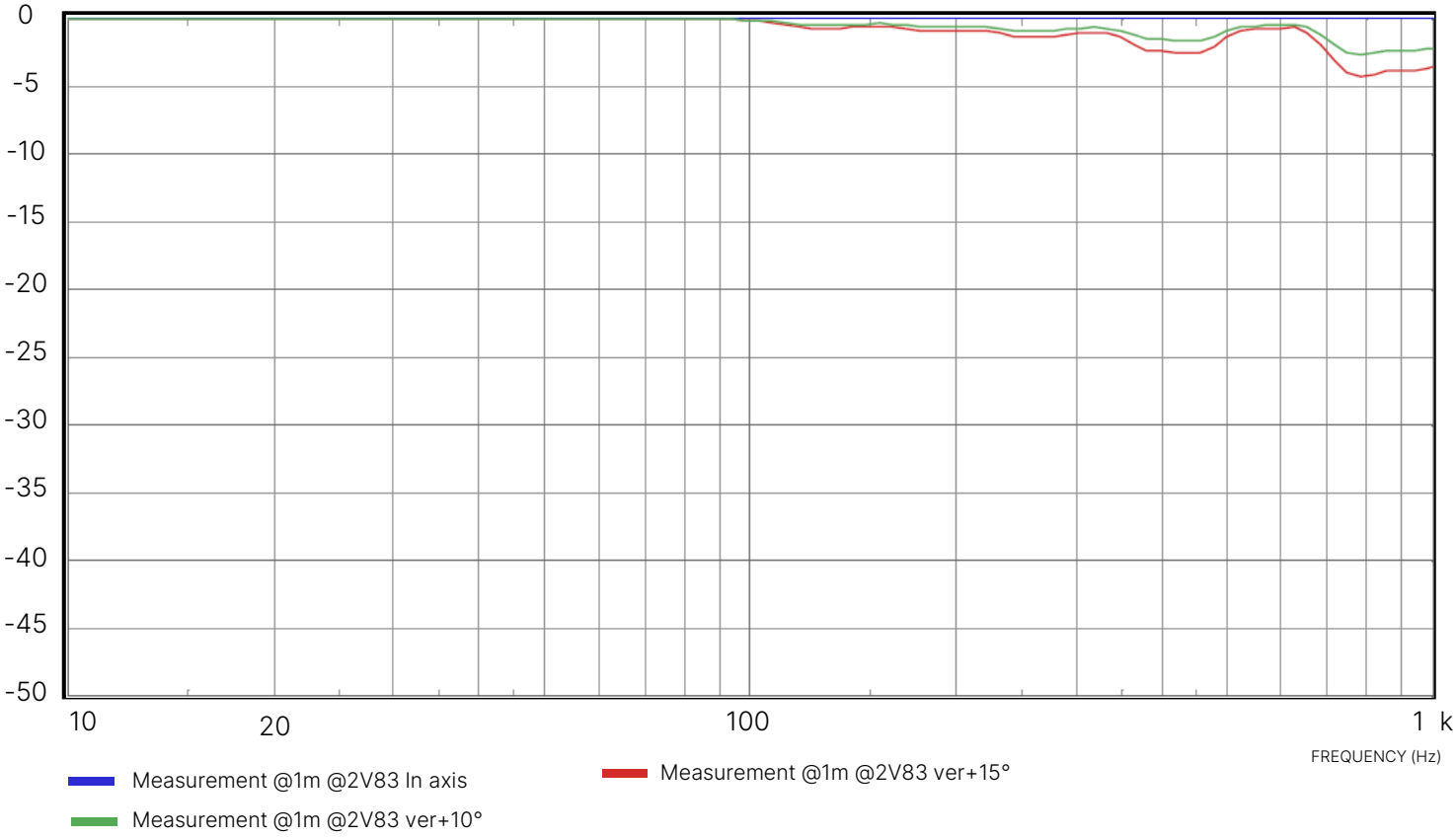
HORIZONTAL OUT OF AXIS FREQUENCY RESPONSE NORMALIZED TO 00°

(dB) Level, Sound pressure



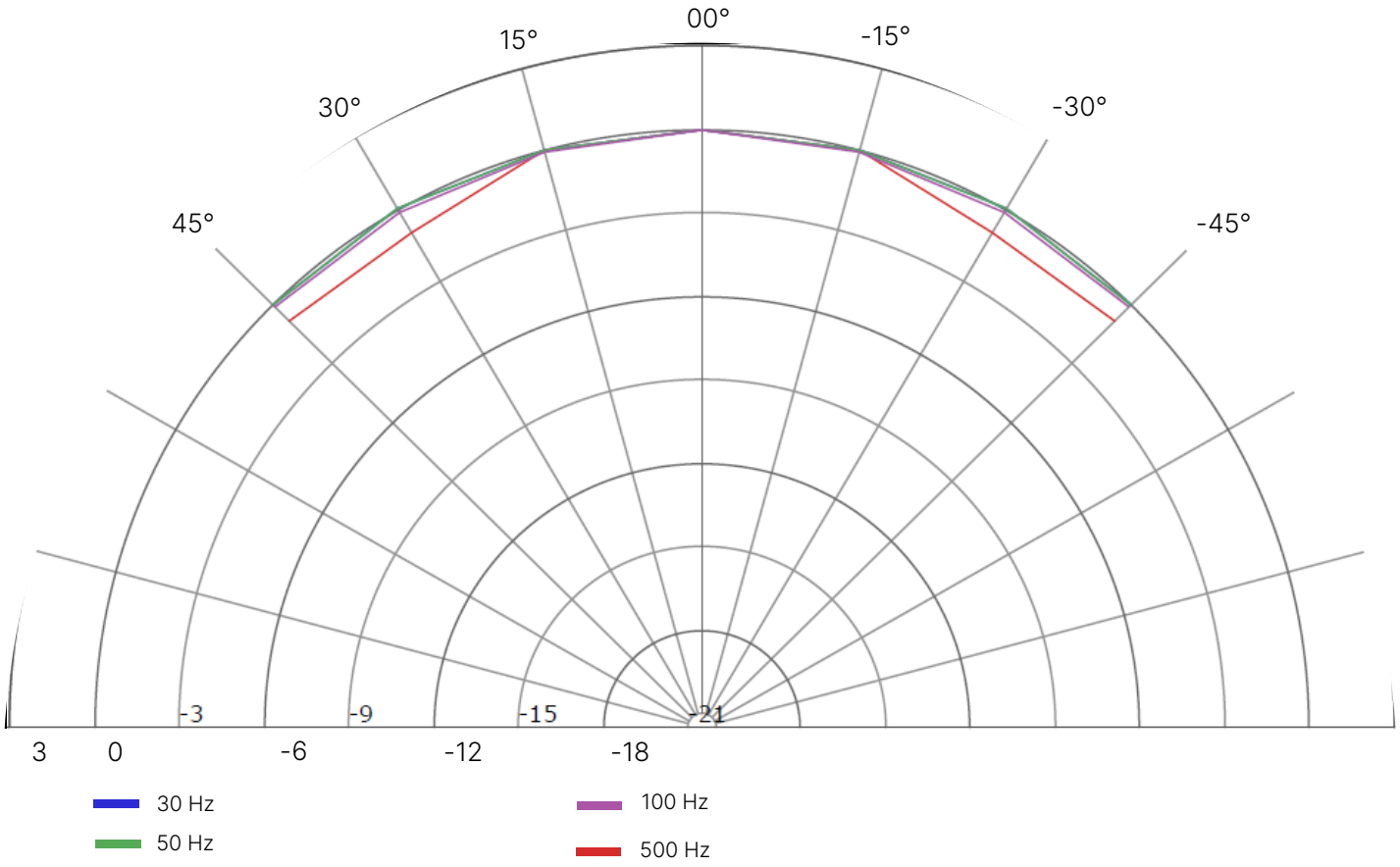
VERTICAL OUT OF AXIS FREQUENCY RESPONSE NORMALIZED TO 00°

(dB) Level, Sound pressure



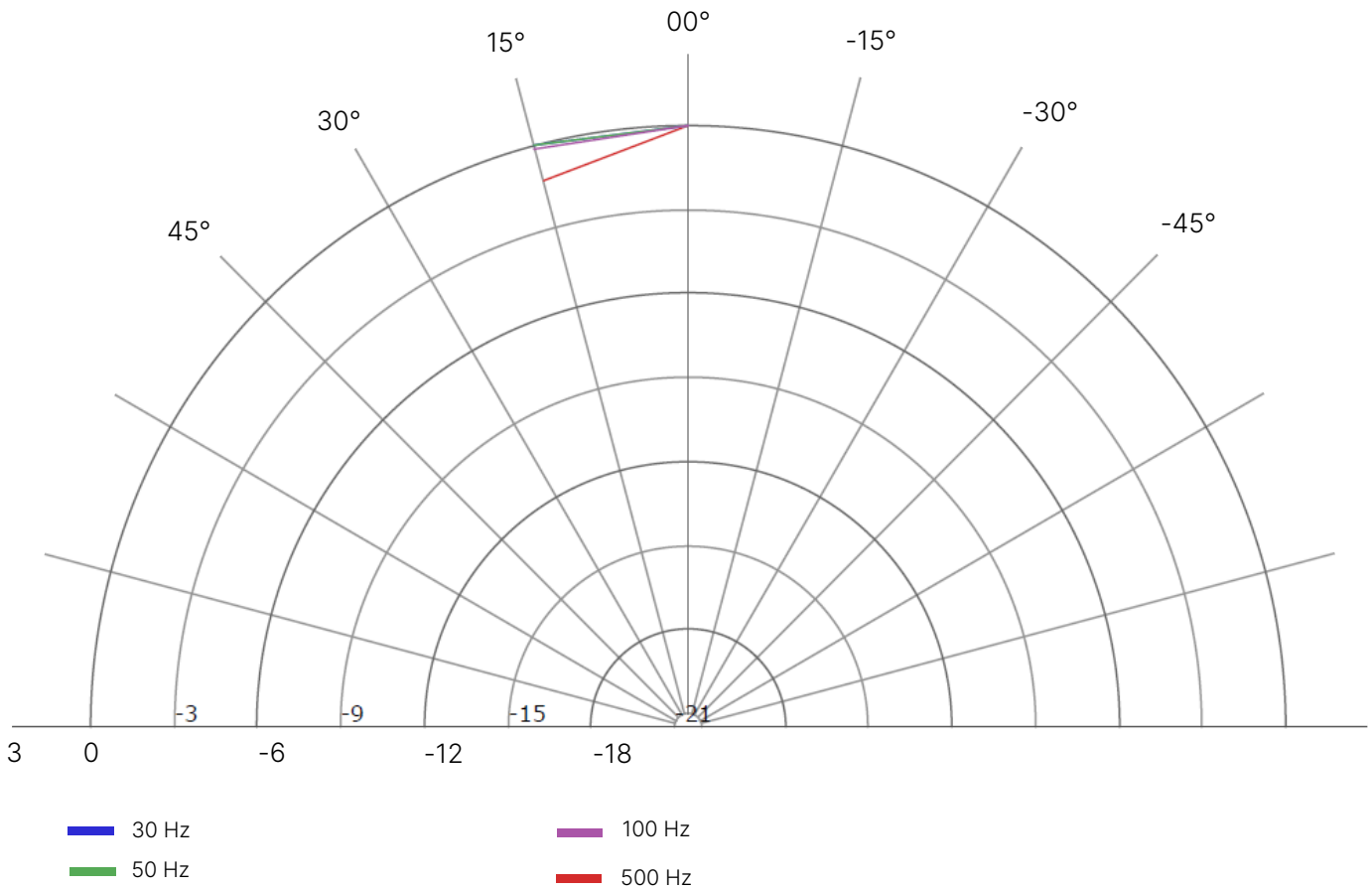
HORIZONTAL POLAR PLOT FOR DIFFERENT FREQUENCIES

Level (dB)



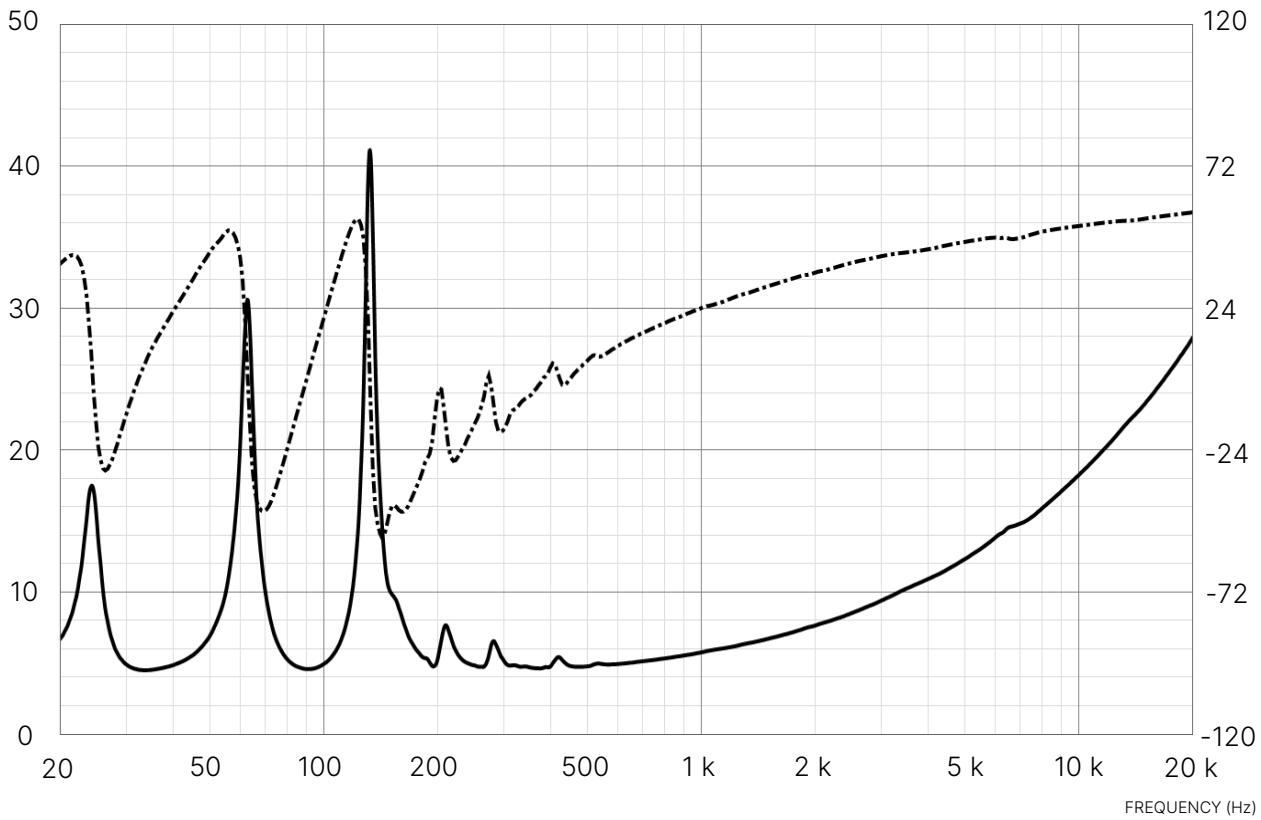
VERTICAL POLAR PLOT FOR DIFFERENT FREQUENCIES

Level (dB)

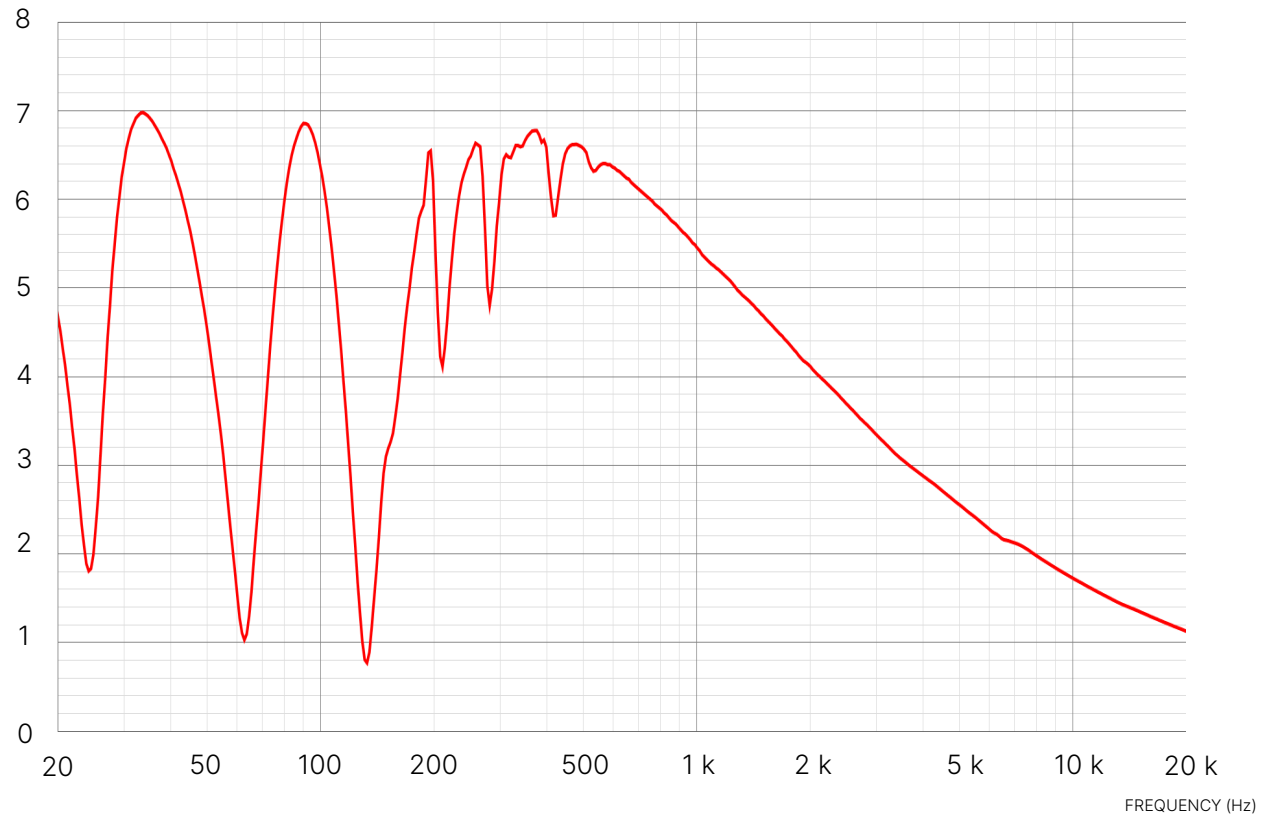


ELECTRIC MEASUREMENTS

Impedance modulus (Ω), Phase (°)

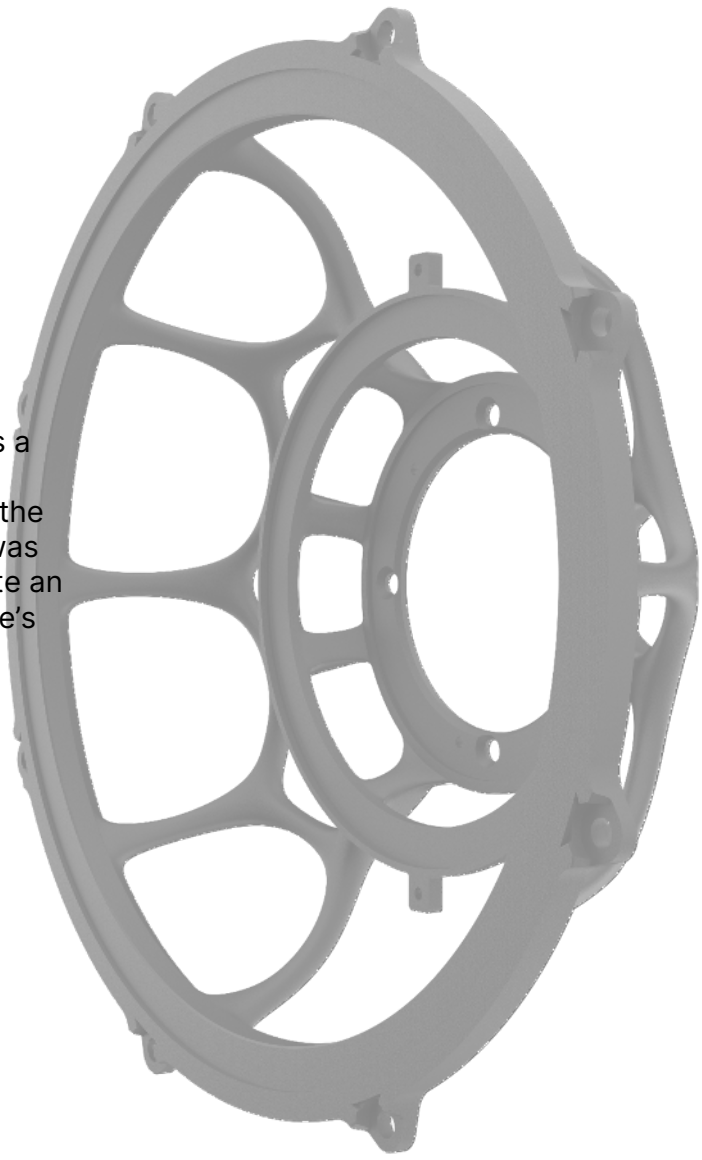


Apparent Current (A) at Maximum Power Rating



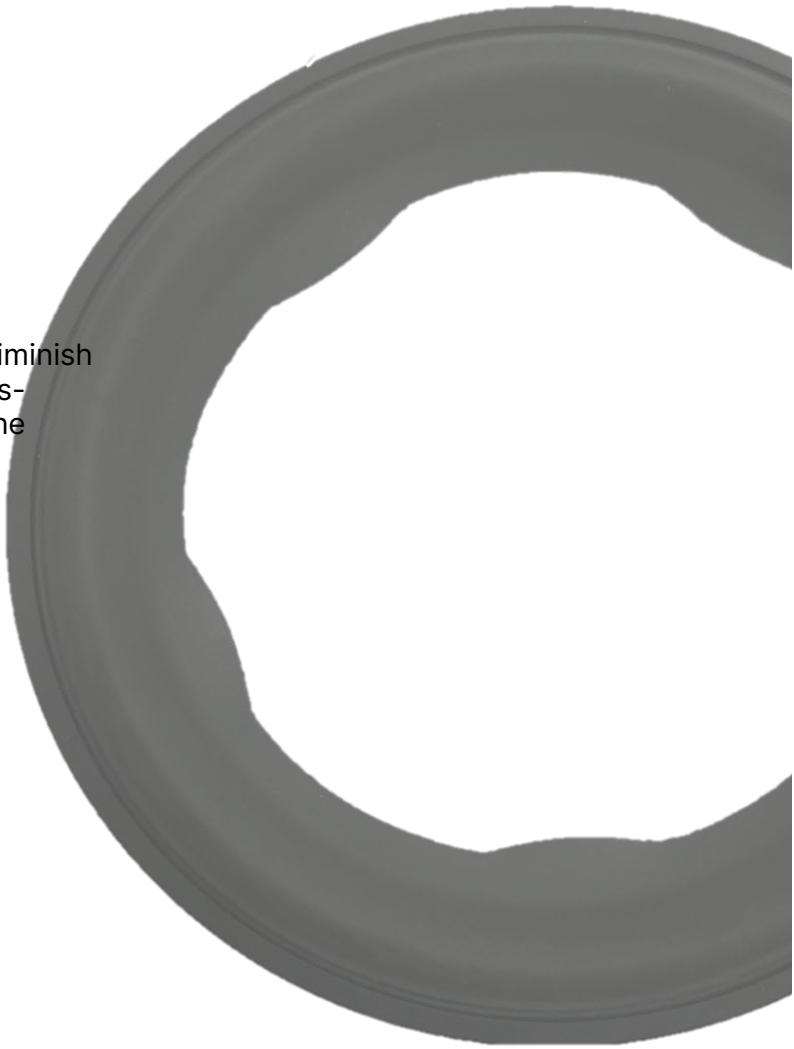
04. TECHNOLOGIES
Organic Basket

The organic basket fully designed in Italy, follows a non symmetric pattern that gives more structural stiffness to the basket and at the same time lets the cone free to move as it should be. If the basket was too closed at the rear of the driver, it would create an additional air stiffness and would disturb the cone's movement. This issue is solved with the pattern created on the organic basket.



04. TECHNOLOGIES
Camelia Surround pattern

The non-circular surround pattern allows to diminish the radial vibrations modes caused by the axis-symmetric coupling of the surround to the cone



Thank you