

H.A.R.D. 212 SP

TECHNICAL SPECIFICATIONS

Frequency Response □	(-10 dB)□	64Hz ÷ 15.5kHz □□□□
	(±3 dB)□	76Hz ÷ 14.5kHz
Average Dispersion □□		
500Hz ÷ 10kHz□		50° x 75° (HxV)□□
>5 kHz□		35° x 80° (HxV)□□
500Hz ÷ 4kHz□		55° x 85° (HxV)
Impedance (ohms) □□		
Low (min)□		4□ (3.9 @ 75Hz) - passive version□□
Hi (min)□		16□ (11 @ 7 kHz) - passive version
Max Sensitivity (dB SPL 1W 1m) □□		
Low□		103□ (passive version)□□□□
		106□ (passive version)□□□□
Hi□		111□ (passive version)
Built-in PWM amp power (WRMS) □□		
LF□		2000 @ 4 ohms□□□□
HF□		500 @ 4 ohms
Power handling - Watts AES (loudspeakers) □□□□		
LF □		700□□□□
HF □		150
Max dB SPL (peak @1m) □		140□□
Loudspeakers and Loading □□		
LF□		2x12" NdFeB Hi-pass vented box.□□
HF□		1x1,4" Exit (3" diaphragm) NdFeB.□□□□ Folded Wave Guide loaded.

ALSO AVAILABLE
IN PASSIVE VERSION
See Outline.it



PHYSICAL PROPERTIES

Product type □	Wide-range self-powered □□□□ loudspeaker system.□□ Two-ways/three-speakers,□□ high power, short throw.
Enclosure Material and Finish □	Asymmetric design with dual floor □□ or flying installation angle; 15 mm. □□ Plywood with internal bracing, □□□□ rounded corners and integral□□ handles. Scratchproof paint.
Standard accessories □	Highly resistant vibration-free □□□□ protective perforated iron grill; □□□□ ready to be fitted with wheels or □□ male eye-bolt; 2 handles
Optional accessories □	Transport wheels, male M10 eye-bolt
Connectors □	XLR-M-F; Powercon-M-F
Weight (Kg)□□□□□	
Net (gross)□	26.5 (32.5)□
Passive version□	25.5 (31.5)
Dimensions (cm)□□□□□	
Height (with packing)□	33 (40)□
Width (with packing) □	68 (76)□
Depth (with packing)□	48.5 (57)

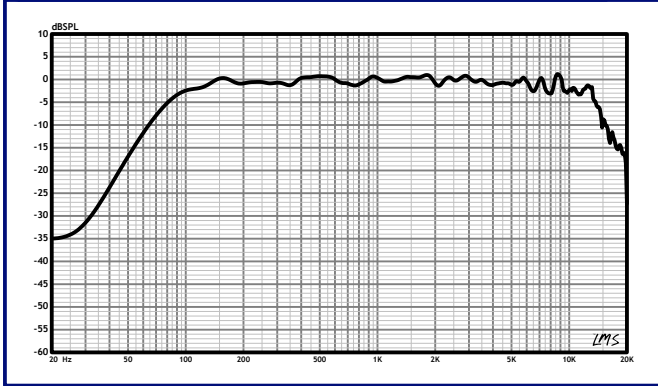
FEATURES

- Very low-profile (33 cm.), high output (140dB peak SPL@ 1 m) self-powered monitor with two 12" woofers (LF) Neodymium magnet and a (HF) compression driver with reflective folded wave guide loaded ferrofluid cooled 3" titanium diaphragm.
- Built-in DSP and two PWM digital amplifiers with the highest performance at present on the market.
- Patent pending both on construction design and on the reflective folded wave guide
- Very light weight (26.5 kg.) to facilitate handling
- Very low feedback reaction
- Extremely linear frequency response and phase response of just ± 45° from 500Hz to 16kHz
- Asymmetric design with dual floor or flying installation angle
- Balanced sound emission with listening distance varying between 0 and 3 metres
- Cabinet reinforced internally for maximum sturdiness and resonance elimination and fitted with 4 multi-purpose mounting points, which can be used to fit 4 flying rings or 4 wheels.
- Also available in passive version

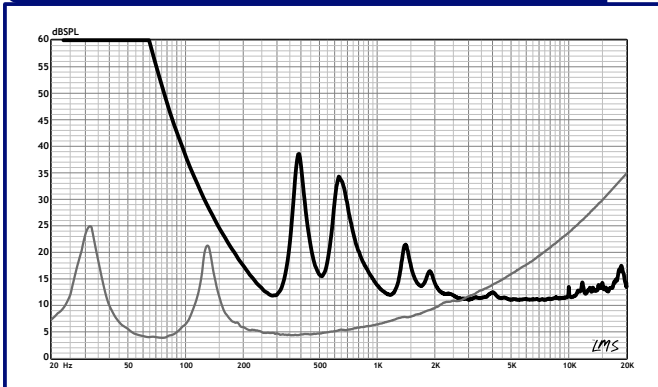
APPLICATIONS

- No-nonsense use with live bands.
- TV studios and theatres, thanks to the "ultra-low" profile compatible with camera sightlines and set requirements.
- Near-field stage monitor.

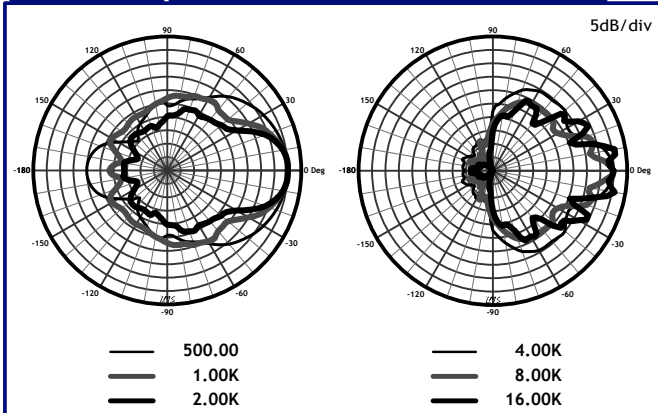
frequency response



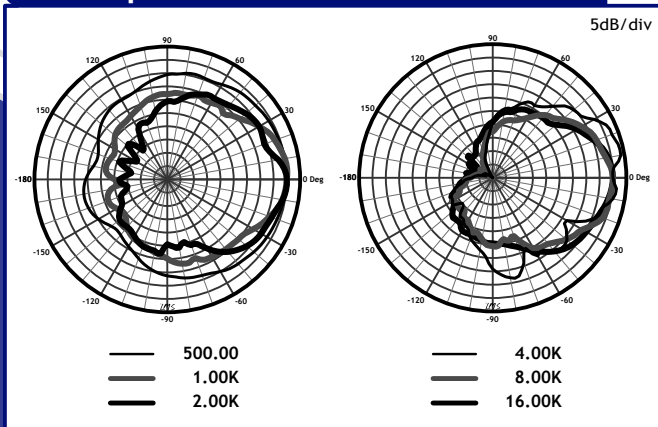
impedance



horizontal polars



vertical polars



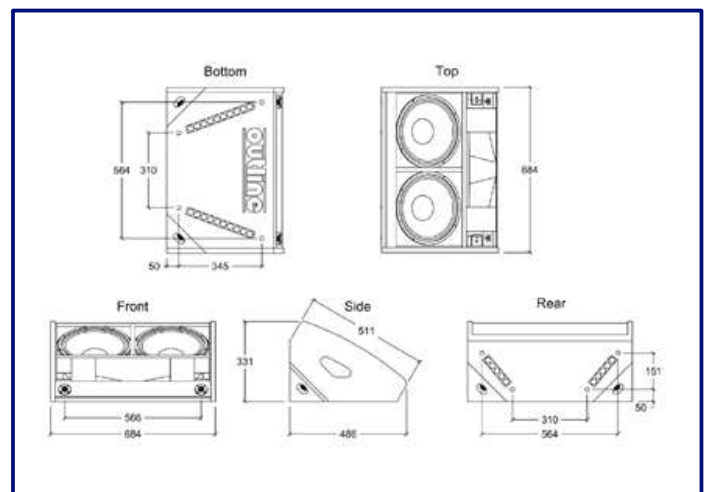
DESCRIPTION

Wide-range, two-way self-powered loudspeaker system for biamping and optimised for floor or ceiling installation as a stage monitor, made up of a low frequency section using two 12" woofers with NdFeB (Neodymium) circuit in "reflex" configuration and a high frequency section fitted in series with a protection against miswiring, using a compression driver, with an NdFeB magnetic circuit, 1.41" throat and 3" titanium diaphragm, loaded by a folded wave guide which applies the principles of diffraction, reflection and absorption.

This enables the control, over the entire spectrum reproduced, of the acoustic emission in a clearly defined angle on the horizontal and vertical plane, with very compact dimensions compared to its acoustic performance and a form which greatly favours the low profile of the cabinet its used in. This wave guide is an integral part of the cabinet itself, so also contributes to its great structural rigidity. Its position and that of the two woofers for the mid/low frequencies, as well as the cabinet's trapezoidal design, mean that the monitor can be set at two different angles to the surface its laid on or flown from, to optimise the sound according to whether a person is seated or standing and maintaining very even frequency response for distances of up to 3 metres. This innovative original idea (patent pending) allows to obtain a useable bandwidth reproduced right from the low frequencies to the very high frequencies, 64Hz÷15.5kHz at -10 dB, with a linearity within +/-3dB from 76Hz to 14.5kHz and a gradually falling low frequency response curve, necessary for stage monitors. H.A.R.D. 212 SP has a built-in DSP and two digital amplifiers with the highest performance at present on the market: 2000W on 4 Ohms to the LF section and 150W on 8 Ohms to the HF section (continuous power values).

The enclosure has an asymmetric design with dual floor or flying installation angle. Built in high quality 15mm Baltic birch plywood, braced by the complex internal structure forming the wave guide necessary for the high frequencies and by suitably fitted bracing, which also eliminates resonance from cabinet sides. The external dimensions are extremely compact, particularly the height from the floor (just 33cm.), considerably reducing the visual impact when the enclosure is positioned on stage ready for use. The black outer finish is in high quality scratch-resistant paint. Connectors are four Neutrik Speakon NL4 with their contacts linked to facilitate driving two enclosures in parallel (passive version). Fitted on the four corners of the cabinet, these enable a cable to be connected no matter from which direction it arrives on stage. Contacts 1+ and 1- are for the low/mid section and 2+ and 2- are for the mid/highs (passive version).

The cabinet has 8 mounting points, 4 on each of the sides on which the cabinet can be stood, which can be used to mount simple hanging rings and facilitate low-cost flying at two different angles, or four small optional swivelling wheels, to facilitate rapid movement on stage. Two practical integral recessed handles on the cabinet's side panels ensure a positive grip during handling. The front grille which protects the speakers is vibration-free painted steel mesh, covered inside (on request) with special acoustic transparent fabric which is flameproof (Class 0). The market name of the enclosure is H.A.R.D. 212 SP (the name of the passive version is H.A.R.D. 212).



loudspeakers

H.A.R.D. 212 SP

outline

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