

MULIDINE Harmonie v3

Harmonie V2 was created in 2007, two years after Marc Fontaine and his company Crista Technologies took over the Mulidine brand. There is not a Mulidine speaker that has not escaped our journalistic obstinacy. All have been tested and highly appreciated, except the latest, the Harmonie V3, now at the top of the Mulidine catalogue. It is currently the only three-way column proposed by the Parisian manufacturer, who has accustomed us to two ways of very high musical quality. On closer inspection, the Harmonie V3 inherits the brand's technologies and speakers, to which a bass section has been added.

TECHNICAL SHEET

PRICE

8.400 € (veneer, walnut, cherry, maple, mahogany),

9.840 € (lacquer, black, white, RAL colour chart),

10.500 € (carbon touch

DIMENSIONS

250 x 1100 x 400 mm

POIDS

45 kg

FREQUENCY RESPONSE

30 Hz - 40000 Hz @ +/-2 dB

POWER HANDLING

200 W

SENSITIVITY

93 dB/W/m

RATED IMPEDANCE

4 ohms (minimum at 2.5 ohms)

It finally took Marc Fontaine a long time to finally unveil his Harmonie V3 column. The man doesn't like the more or less, the half, so we had to wait a little longer than we imagined from the conversations we had had with him. But the expectation has been largely rewarded because the model that appeared in the second half of 2017 has already been crowned with the best awards from our colleagues.

THREE CHANNELS AND FOUR SPEAKERS

The Harmonie V3 takes up as it should be the original Mulidine principle of the double quarter-wave load associated with a mechanical-acoustic filter, a principle protected by a patent registered in 1981 by Marcel Rochet, the brand's creator.

The idea was to combine the advantages of the open panel or dipole, i. e. to limit the direct effects of the return of the back wave to the membrane, and those of the acoustic line in quarter wave to obtain a well articulated bass. In practice, a plasterboard with many holes drilled and inclined, the inclination acting as a polarization of the holes, is placed behind the loudspeaker in such a way as to allow air to pass towards the rear of the volume without the possibility for it to return to the membrane.

As for the load volume, it ends at the bottom with a baffle that creates a line leading to a rectangular vent on the front panel. The associated electrical filter

guarantees frequency linearity and phase maintenance. In the case of the Harmonie V3, two 17 cm bass speakers from Norway SEAS are mounted in this load.

Their cellulose pulp membrane has the necessary lightness to match from 240 Hz to the 165 cm medium made to specifications in Italy by Ciare. The very light paper membrane receives a foam core cover that prohibits megaphone sound effects. This loudspeaker is mounted in closed load with plaster mechanical-acoustic filter. The treble above 3500 Hz is reproduced by an aluminium ribbon tweeter from Bulgaria, specially manufactured for Mulidine.

Protected by a thin grid, it is loaded by a front waveguide formed by two medium pieces framing the ribbon, its directivity regulating effect is optimal when the fabric cover is positioned on the speaker. Complex passive filtering is precisely calculated and developed, it implements multiple slopes at each frequency intersection with a final steep edge and ends with a single terminal block.

Multi-amplification is not planned because adding resistance, inductance and cable capacity between filter sections would modify its behaviour and therefore the sound result. The cabinetwork is finished in many ways, some at an extra charge.

THE SET UP

As usual with a Mulidine, it doesn't take much power to make the Harmonie V3 sing, which has a very good sensitivity.

That being said, the impedance trough in the low-midrange requires, however, that the amplifier be solid if you listen above a certain level and that the quality of the watts be maintained so as not to waste the merchandise that deserves it.

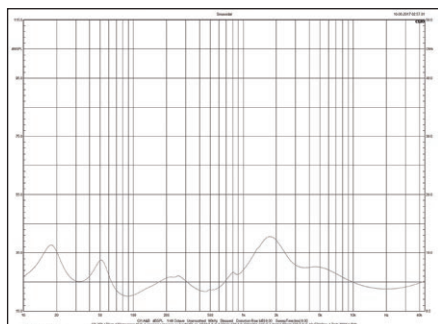
The installation on points seemed imperative to us given the remarkable energy that speakers can provide in this frequency zone. Alert and neutral wiring will be a plus. Finally, do not forget to leave the speaker cover in place because it is a kind of acoustic lens that linearizes the horizontal dispersion at the tweeter.

THE SOUND

The sound reproduction of the Harmonie V3 is similar to a real breath of fresh air that has not failed to seduce us.

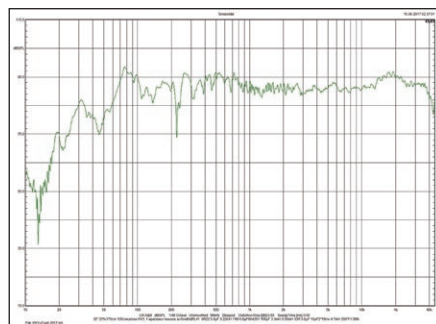
The tonal balance is resolutely balanced and extremely coherent, it seems to reveal all the wisdom that inhabits Marc Fontaine, the brilliant designer. As if the progress made since 2005 had been achieved, a consecration with this model. Of course, we find all the expressive flavours and spontaneity of a Cadence, two major paths of the manufacturer, to which is added a solidity, a seat, a base that magifies and raises the message even higher.

There is no musical style that escapes the vocal virtuosity of the Harmonie V3. One of the great attractions of these columns is their excellent behaviour in the area of maximum sensitivity of the ear, between the lower and upper midrange, where the essential musical information is concentrated. Naturalness is essential with



IMPEDANCE VERSUS FREQUENCY CURVE.

Profile of a three-way loudspeaker with four drivers, loaded by a double quarter-wave acoustic line tuned to 35 Hz associated with a mechanical-acoustic filter. Closed midrange driver also equipped with a mechanical-acoustic crossover patented by Mulidine. Connection frequency at 240 Hz and 3.8 KHz with multiple filter slopes. Nominal impedance of 4 Ω and a minimum of 2.3 Ω at 90 Hz, the impedance variations are fairly condensed offering good operating conditions for the electronics.



AXIS RESPONSE CURVE.

The sinusoidal response curve (unsmoothed in 1/3 octave as usual), reveals a wide coverage of the spectrum from 30 Hz to 40 KHz. The low part of the spectrum is not overplayed and remains fast and natural, not obscuring the high midrange, and thus offering a perfect coherence in the intelligibility of the message. The slight accentuation at the approach of 20 kHz gives it a beautiful clarity without aggressiveness.

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a total absence of colouring and a very aerial vivacity, two fundamental qualities of a perfectly controlled paper membrane. The bandwidth rises high thanks to the aluminium ribbon tweeter that has become a Mulidine tradition. The acute is very fine, chiselled, very defined but never repetitive. The fusion between this ribbon and the cellulose cone is virtuoso, a formidable sleight of hand between fundamental and harmonics that is absolutely undetectable. The tonal evidence of the medium and the superb harmonic readability of the tweeter permeates the message with a true harmonie (sic), a true link between the notes.

Absent from the brand's other productions, the extreme bass now finds its place in the musical context with the Harmonie V3. The speed of action of the two boomers combined with their generous total emissive surface area creates dense, wide and well articulated basements. The sound scene progresses towards more realism, more space, more ventilation on a particularly wide dynamic scale. The perfectly controlled bass does not suffer any artificial effect from the magnifying glass thanks to an inert cabinetry naturally reinforced by its internal structure.

The readability is quite amazing from the extreme bass to the extreme treble thanks to the mechanically sound and musically responsive behaviour of the four loudspeakers, the double quarter-wave load with mechanical-acoustic filter and the specific filter.



Ribbon tweeter



One of the two 17 cm SEAS woofers.



The excellent paper membrane medium.

We are not dealing with a three-way speaker, but with a speaker designed with a high level of sound perfection that will be appreciated by both music lovers and sound professionals alike.

OUR CONCLUSION

We had a real crush on these Harmonie V3. Resolutely on the sidelines of the products of the major manufacturers, these Mulidines are true listening instruments patiently and brilliantly made according to the rules of the art of acoustic reproduction.

The result is anything but spectacular, but it impresses by the intense neutrality and deep transparency that are constantly emerging. Tonal balance is a model of its kind with a major contribution of the lower section in terms of thickness and texture.

The various classical and contemporary finishes are a call to all music lovers and lovers of live music who want to combine visual usefulness with pleasant sound. Without any hesitation, the Harmonie V3 is the best Mulidine developed to date. ■■■■