

Musway MG6.3A - active three-way system for sound freaks

The perfect ones speaker

► With the MG series, Musway wants to enter the top league of car speakers advance. We are testing the active three-way system MG6.3A.

So far Musway speakers have been mostly be particularly practical or particularly cheap. The vehicle-specific series for BMW and Mercedes are elaborately made plug&play systems for premium sedans, with the standard composition moved below the 200 euro threshold in the volume class.

But now that's changing. Musway clearly has higher ambitions with the MG loudspeakers, they play in a completely different league in terms of construction effort.

There are three chassis, namely a 16 deep oil

ner MG6.2W, a small midrange driver MG3M and a tweeter MG6.2T. To the Be drawings you can already see that woofer and tweeter

can also be combined into a two-way system, and it can also be assumed that at least the two-way combination can also be used passively with frequency two

Only the finest: stable die-cast basket, wide spider and fine pole plates

che will give. Our three speakers have one thing in common at first glance: They are beautiful and made in a posh manner. The 16 builds on a die-cast basket, the tallest





The MG family consists of the 6.5" woofer (midrange) driver, the 3" midrange driver and the 1" tweeter

Combines stability with excellent ventilation. Hindered only by filigree struts, the view falls on the membrane, the back of which consists of a layer of pressed paper. The front and the dust cap, on the other hand, are made of aluminum - a very successful combination in terms of rigidity and internal damping. The drive is neatly manufactured and so pretty that you might think there is a decorative cover on the lower pole plate. But Musway has processed the pole plate itself so finely that its matt gray look is created. Lasered writing, a strö

A well-designed pole core hole and a ring of holes to ventilate the voice coil can certainly impress. The midrange driver is also beautifully made. With a nominal diameter of 3 inches, it is one of the delicate cone midrange speakers and is therefore relatively easy to accommodate. This is also ensured by the neodymium drive, which is significantly less voluminous than a ferrite drive. The membrane of the midrange is made of pure aluminium, a sandwich construction is not required. The aluminum dust cap is glued into the coil carrier and is therefore directly coupled to the voice coil.

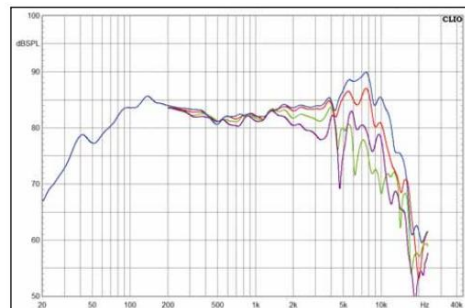
This causes an extra boost in sound pressure upper transmission end of the toner. That leaves the tweeter, which doesn't need to hide in terms of manufacturing quality. With an installation depth of only 18 millimeters, the housing another coupling volume is integrated, which the 25 millimeter fabric membrane can play on. The tweeter is still very compact and can be coupled low.

Measurements and sound Naturally, deep coupling is not necessary with our three-way system. On the contrary, one tries to let the midrange driver run over all important frequencies. Our MG3M has the best prerequisites for this, despite the modest cone area, it already is

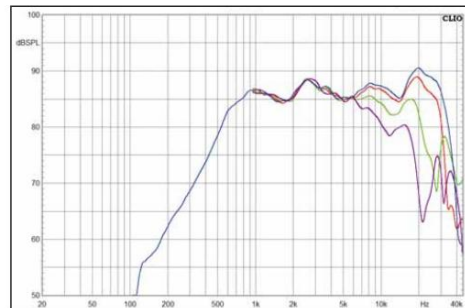
at 150 Hz at the start. There is no upper limit. After taming the resonance at 15 kHz via DSP, the little one passes as a full-range speaker that covers the audio range even without a tweeter. As expected, the 16 is a real mid-bass driver and is also easily suitable for two-way applications. So too

the tweeter, which emits sound with its low resonance frequency of 750 Hz to well below 2 kHz. Due to the dip in the frequency response, however, it makes sense to use it from 2 kHz. When it came to distortion measurements, the Musway drivers managed to really impress us. They are among the cleanest loudspeakers in recent years. The 16-pitch woofer works almost distortion-free up to the highest level (for a loudspeaker). The evil K3 sticks to the zero line and the total distortion remains record-breakingly low above 100 Hz. The mid-range driver almost does it better, but it naturally manages less volume. Nevertheless, it plays impressively down to below 200 Hz; if you protect it from frequencies below 300 Hz, you will get more than respectable levels without distortion. The tweeter has the easiest job as a fabric dome, here it is more the rule than the exception that the drivers work perfectly. So oh the MG6.2T, which does not produce any odd distortion and only makes a little K2 quite harmlessly outside the audible range. For this, there is the rarely awarded grade 1+ in the distortion discipline – congratulations to the development department!

At the final stage, the Musway then gives a gala performance. It spoils the ears with an incredible amount of detail over the entire frequency range, but without "tearing up" the music. The sound likes to bubble out of the speakers just as casually as he does



The woofer runs up to 4 kHz without interference and is therefore fully two-way suitable. At 84 dB, like many good loudspeakers, it is not too loud at 1 W, but the power amplifier takes care of that

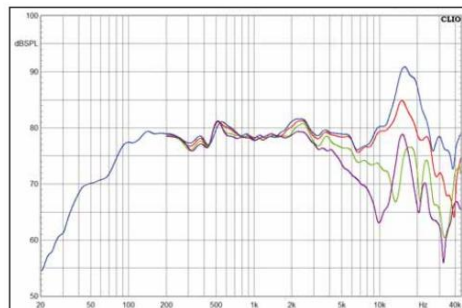


The tweeter can be coupled very low, from 2 kHz it is in the race without any problems. With an upper limit frequency of 30 kHz, it is also very broadband

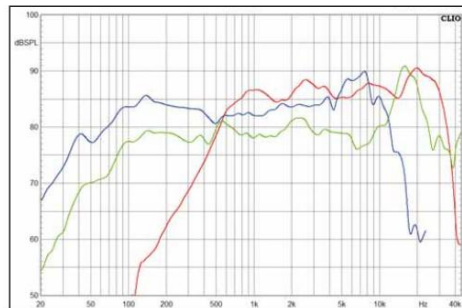
can break out surprisingly. Even huge dynamic jumps, such as drum solos, do not disturb the system. The woofer delivers bone-hard bass

knocks off, the snare vehemently smashes out of the midrange and the tweeter adds rich harmonic spectrum. That comes cool on the twelve, just as it should be for a three-way system. But that would only do the Musway system an injustice, because it reveals a lot of other qualities. So it plays absolutely balanced even at a low listening volume. The dose of high-frequency information is always sufficient to be clear about the entire recording, but the higher frequencies do not crowd out and act gently enough to be suitable for long distances. Natural instruments such as the double bass or saxophone shine in the finest colors and, if required, with a good dash of enamel. The spatial imaging is tonally stable and precise. Once "pinned down" the musical actors don't move anymore, no matter what happens. This allows you to enjoy the most diverse styles of music programs at the highest level. From jazz trio to orchestral is right the sound just like hearty rock music or techno.

Conclusion With the MG6.3A triple combo, Musway has a real hit in its range. Everything at its best



The midrange driver is fully involved from 150 Hz and runs upwards out of our measuring range. Only around 15 kHz does a pronounced membrane resonance become widespread, which has to be filtered with DSP help



Even woofers and tweeters show a broad common frequency range. The midrange can be decoupled from 150 Hz with any crossover frequency

with excellent readings and sound. Something like that sometimes costs several times as much Musway called course.

Elmar Michels

BEST PRODUCT
top class
CAR & HiFi 6/2021

Musway MG6.3A

Price	for EUR 450
distribution	Audio Design, Kronau
hotline	07253 9465-0
Internet	www.musway.de

Evaluation

sound 55 %	1.1	1.0	1.5	1.0	1.0
Bass foundation 11 %	1.0	1.0	1.0	1.0	1.0
neutrality 11 %	1.0	1.0	1.0	1.0	1.0
transparency 11 %	yyy				
spatiality 11 %					
dynamics 11 %					
laboratory 30 %	1.0	1.0	1.5	1.5	0.5
frequency response 10 %	0.5				
maximum level 10 %					
distortions 10 %					
processing 15 %	1.0	yyyyyy			

Technical specifications

basket diameter	165mm
installation diameter	143mm
installation	67mm
depth magnet diameter	90mm
basket	90mm
MT installation	41mm
depth MT	25mm
membrane	44mm
HT housing HT highest	3.5k/7kHz
separation freq. TT/MT lowest	150/2kHz
separation freq.	500/3kHz
MT/HT	-

Separation Freq. in the test EQ in the test grid Offer

Nominal impedance DC resistance	4 ohms
Rdc Voice coil inductance	3.66ohm
Le Voice coil diameter	0.15mH
Diaphragm area	32mm
Sd Resonance	129cm ²
frequency fs	48Hz
Mechanical quality	3.32
Qms Electrical	0.73
quality Qes Total	0.60
quality Qts	15.2L
	16.6g
	1.55kg/s
	0.66mm/N
	5.00 Tm
Equivalent volume	84dB
Vas Moving mass	50-200W

Mms Rms Cms B*I Sound pressure 2 V, 1 m Power

top class 1.1
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Price/performance:

excellent "Noble loudspeakers with perfect engineering."