

SPECIFICATIONS

WF138WA01 / WF138WA03, 5½" neodymium mid/woofers

WF138WA01 (4 ohm version) and WF138WA03 (8 ohm version) are mid/woofers designed for demanding bass and midrange applications. They function equally well for high-end hi-fi, high quality home theater systems, and top multimedia setups.

Powering is by a dual neodymium magnet structure that ensures good efficiency and optimal T/S parameters, and at the same times offers extremely good magnetical (video) shielding. Using neodymium magnets further reduce the voice coil inductance and the voice coil inductance variation resulting in extremely "clean" and detailed sound.

The large 32mm voice coil and the special heat sink ensure high power handling - thermally and mechanically.

The optimized paper cone ensures large bandwidth and low distortion. Distortion is further reduced by efficient venting of chassis and voice coil.

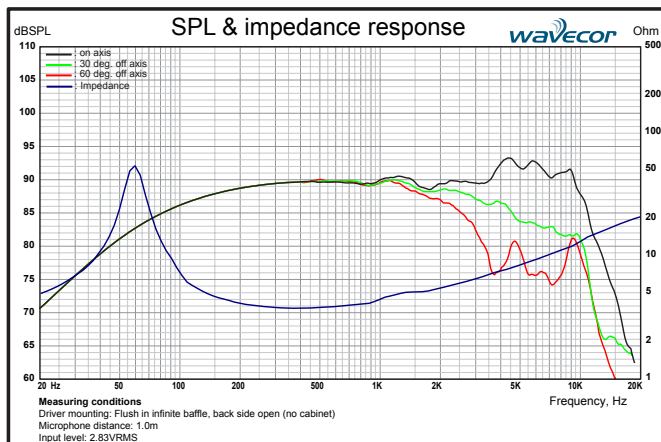
Minimal mechanical losses ensure unusual detail and dynamics. WF138WA01/03 is the obvious choice for compact high-end 2-way speaker systems.



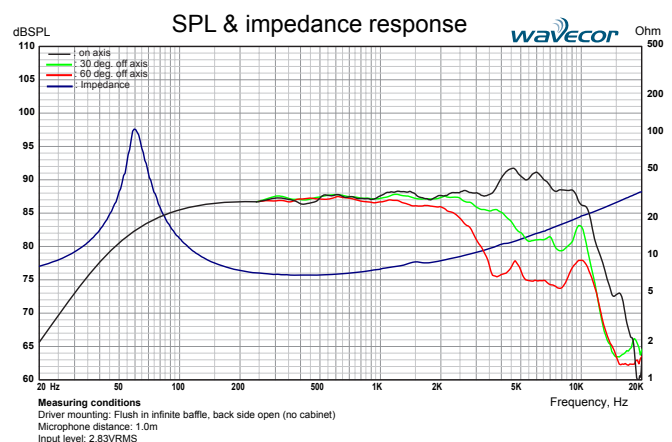
FEATURES

- Very powerful dual neodymium motor for optimal control and dynamic performance
- Heat sink for increased heat transfer obtaining high long-term power handling
- Vented voice coil former for reduced distortion and compression
- Vented chassis for lower air flow speed reducing audible distortion
- Heavy-duty black fiber glass voice coil bobbin to increase power handling and reduce mechanical losses resulting in better dynamic performance and low-level details
- Large motor system with 1¼" voice coil diameter and dual neodymium magnet for better control and efficiency
- Dual neodymium magnet structure for almost ideal magnetical shielding
- Long linear stroke motor for reduced distortion at high levels
- Linear suspension with specially designed CONEX damper (spider) for long durability under extreme operating conditions
- Gold plated terminals to prevent oxidation for long-term reliable connection

Parameter	Value, WF138WA01/WF138WA03	Unit
Nominal size	5½	[inch.]
Nominal impedance	4 / 8	[ohm]
Recommended upper frequency limit	3,500	[Hz]
Sensitivity, 2.83V/1m, (average 200-3,000Hz)	89.5 / 87.5	[dB]
Voice coil diameter	32.5	[mm]
Voice coil height	11	[mm]
Air gap height	4.0	[mm]
Voice coil resistance, RDC	3.2 / 6.3	[ohm]
Voice coil inductance	0.15 / 0.23	[mH]
Magnet weight (dual neodymium)	102	[g]
Effective radiating area, Sd	95	[sq.cm]
Power handling, continuous, IEC 268-5	60	[W]
Resonance freq., Fs	59 / 64	[Hz]
Moving mass, incl. air	9.75 / 9.0	[g]
Force factor, Bxl	5.2 / 6.25	[Tm]
Mechanical Q, Qm	7.2 / 9.4	-
Electrical Q, Qe	0.43 / 0.56	-
Total Q, Qt	0.39 / 0.53	-
Suspension compliance, Cms	0.74 / 0.70	[mm/N]
Equiv. air volume, Vas	9.6 / 9.5	[lit.]
Total unit net weight	0.65	[kg]



WF138WA01 frequency response

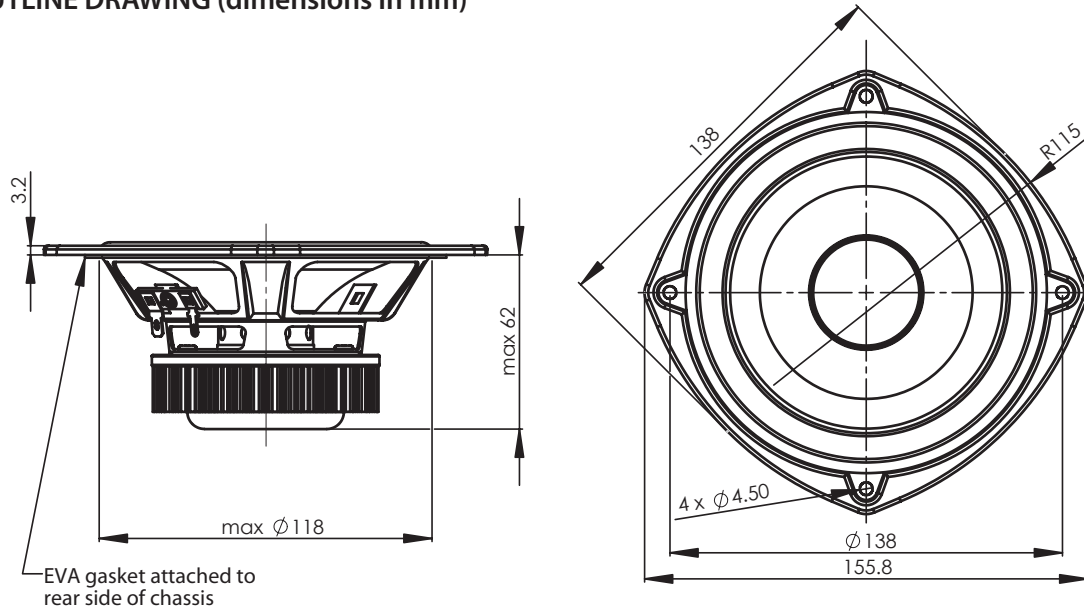


WF138WA03 frequency response

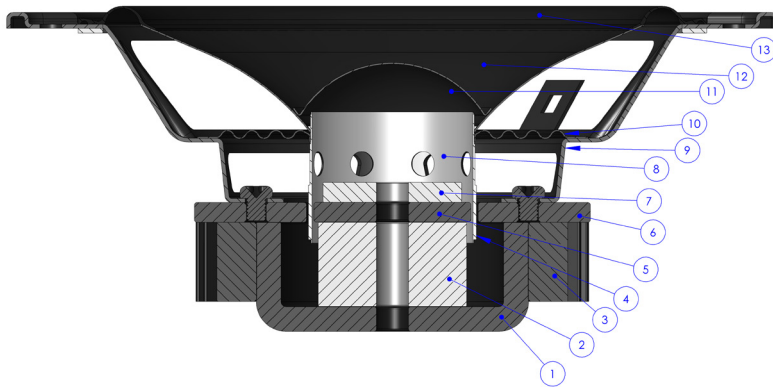
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OUTLINE DRAWING (dimensions in mm)



CROSS SECTION



1. Black anodized flux return path
2. Primary neodymium magnet
3. Black anodized heat sink
4. 1¼" voice coil
5. Black anodized pole plate
6. Black anodized top plate
7. Secondary neodymium magnet
8. Black glass fiber bobbin
9. Ventilated chassis
10. Linear lower suspension (spider), Conex
11. Paper dust cover
12. Optimized paper cone
13. Linear low-loss rubber suspension

June 9, 2014