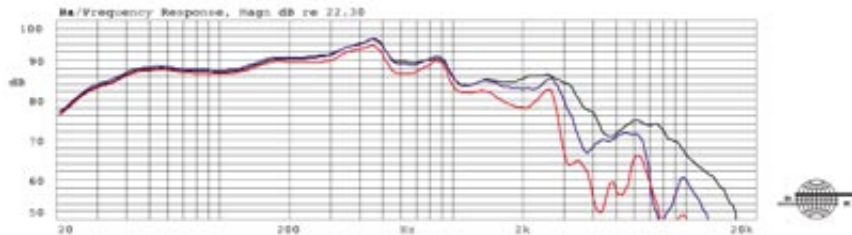


MW 190

Frequency response • on-axis, 30° and 60° off-axis

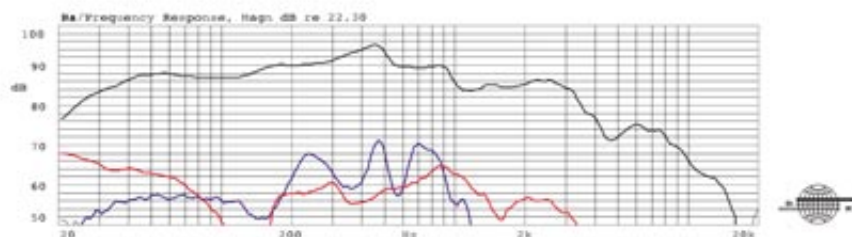


Thick line: on-axis response
 Dashed line: 30° horizontal
 Thin line: 60° horizontal

Measurement conditions

Level: 2.83 V
 Distance: 1 m
 Box volume: 67.6 l

Frequency response • 2nd and 3rd harmonic distortion



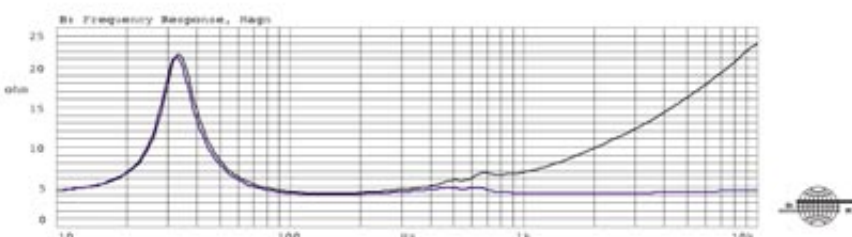
Thick line: on-axis response
 Dashed line: 2nd harmonic
 Thin line: 3rd harmonic

2nd and 3rd harmonic raised 20 dB

Measurement conditions

Level: 2.83 V
 Distance: 1 m
 Box volume: 67.6 l

Impedance • with and without impedance correction circuit



Thick line: impedance, free air
 Thin line: impedance, free air with compensation.

See drawing below.

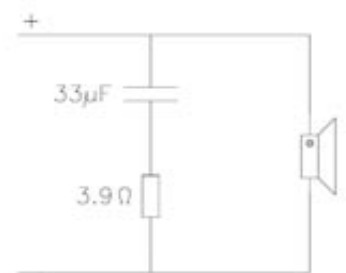
Measurement conditions

Level: 0.2 V
 Driver in free air

The frequency response curves exhibit the MW190 as a dedicated woofer. Although the driver is intended for low frequency applications, it has a fairly smooth frequency response and good dispersion. This makes it easy to integrate the MW190 in a full range installation with either passive or active filtering.

The impedance curves show that the driver is a simple load for the amplifier. The use of an impedance correction circuit will make it even more simple.

The low suspension compliance makes the driver suitable for small enclosures normally used in cars while also allowing for mounting without an enclosure, e.g. in a hat shelf.



Impedance correction circuit

MW 190

Technical Specifications

Thiele Small Parameters:		Magnet and Voice Coil	
Nominal Impedance (Znom):	4 Ohm	Voice coil diameter (dc):	100 mm
DC Resistance (Re):	3.8 Ohm	Voice coil height (hc):	17 mm
Voice Coil Inductance (Le):	0.29 mH	Voice coil layers (nc):	2
Resonance Frequency (fs):	31Hz	Magnetic gap height (hg):	8 mm
Mechanical Q Factor (Qms):	2.97	Linear excursion:	9 mm
Electrical Q Factor (Qes):	0.64	Max. excursion:	28 mm
Total Q Factor (Qts):	0.53	Magnet weight (wm):	0.94 kg
Mechanical Resistance (Rms):	2.70 kg/s	Power Handling	
Moving Mass (incl. air load, Mms):	40.6 g	Nominal long term IEC:	190W (crossover dependent)
Suspension Compliance (Cms):	0.63 mm/N	Transient (10ms):	1000W
Effective Dome Diameter (d):	225.6 mm	Mechanical Properties	
Effective Piston Area (Sd):	400 cm squared	Net Weight:	2.3 kg
Equivalent Volume (Vas):	143.4	Overall dimension:	300.5 mm diameter x 102 mm
Force Factor (Bl):	6.8 Tm		
Recommended Frequency Range:	20-800 Hz		
Recommended closed box volume:	56.5-113 l		