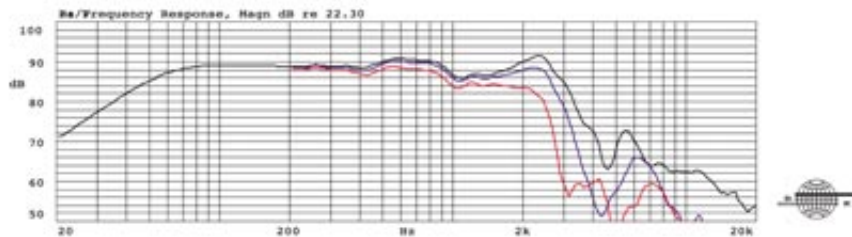


# MW 180

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

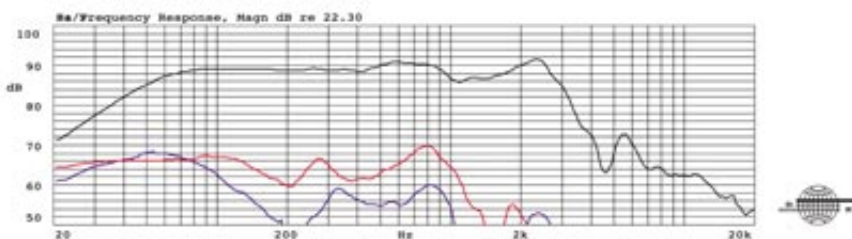


Thick line: on-axis response  
 Dashed line: 30° horizontal  
 Thin line: 60° horizontal

### Measurement conditions

Level: 2.83 V  
 Distance: 1 m  
 Box volume: 25.1 l

## Frequency response • 2nd and 3rd harmonic distortion



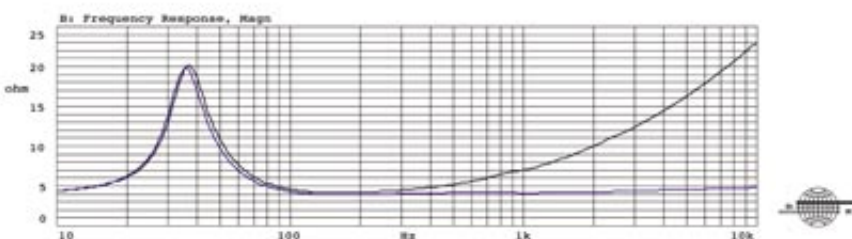
Thick line: on-axis response  
 Dashed line: 2nd harmonic  
 Thin line: 3rd harmonic

2nd and 3rd harmonic raised 20 dB

### Measurement conditions

Level: 2.83 V  
 Distance: 1 m  
 Box volume: 25.1 l

## Impedance • with and without impedance correction circuit



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

See drawing below.

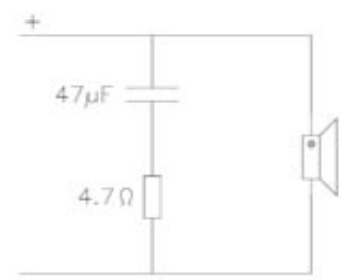
### Measurement conditions

Level: 0.2 V  
 Driver in free air

The frequency response curves show the MW180 as a well behaved driver with a smooth high frequency response and extended low frequency range. In spite of the fact that the driver is intended for low frequency applications, the dispersion is good up to 2 kHz, which simplifies crossover design, be it passive or active.

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 180

## Technical Specifications

<b>Thiele Small Parameters:</b>		<b>Magnet and Voice Coil</b>	
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):	0.31 mH	Voice coil layers (nc):	2
Resonance Frequency (fs):	33 Hz	Magnetic gap height (hg):	8 mm
Mechanical Q Factor (Qms):	2.80	Linear excursion:	9 mm
Electrical Q Factor (Qes):	0.62	Max. excursion:	26 mm
Total Q Factor (Qts):	0.51	Magnet weight (wm):	0.7 kg
Mechanical Resistance (Rms):	2.3 kg/s	<b>Power Handling</b>	
Moving Mass (incl. air load, Mms):	31 g	Nominal long term IEC:	180W (crossover dependent)
Suspension Compliance (Cms):	0.77 mm/N	Transient (10ms):	1000W
Effective Dome Diameter (d):	173 mm	<b>Mechanical Properties</b>	
Effective Piston Area (Sd):	235 cm squared	Net Weight:	1.85 kg
Equivalent Volume (Vas):	61 l	Overall dimension:	239 mm diameter x 86 mm
Force Factor (Bl):	6.2 Tm		
Recommended Frequency Range:	30-2000 Hz		
Recommended closed box volume:	21.2 - 56.6 l		