Woofer Esotec MW 172 Esotec MW 172

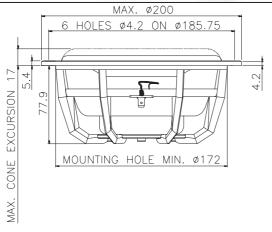
The new Esotec MW 172 is a 20 cm (8 inch) diameter mid/woofer designed for high performance two-and three way systems.

The MW 172 will perform extremely well in a wide range of enclosures, either sealed, vented, or free-air. The MW 172 exhibits a unique combination of smooth frequency response, low distortion, and extremely powerful bass to deliver an outstanding sonic performance in any high performance two- or three-way system.

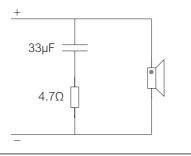
The MW 172 utilizes an oversized 75 mm (3 inch) diameter voice coil to drive the MSP one-piece cone diaphragm. The new 15, 17 and 20 cm Esotec car series woofers all utilize new ultra compressed dual ferrite magnets positioned inside the coil to produce maximum utilization of the magnetic energy. The powerful double magnet system utilizes a vented pole piece for additional cooling. Positioning the magnet structure inside the voice coil enables the use of a very large voice coil, which in turn produces increased power and efficiency and yields a linear movement of the cone without cone breakup. Phase response is smooth and uniform. The large diameter of the voice coils provides optimum drive of the diaphragm and guarantees enough headroom with regard to power rating, while assuring perfect control of even the most minute membrane displacement. The use of a large diameter voice coil also allows for the flat Dynaudio MSP cone membrane geometry, which results in minimal phase lag at crossover to midrange driver.

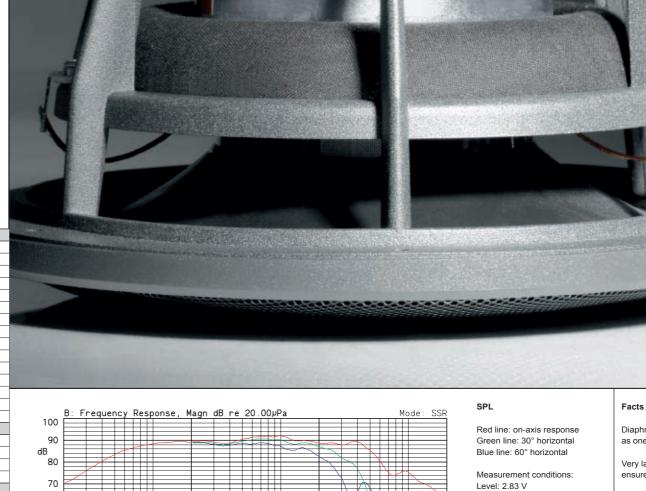
The MW 172 is a perfectly balanced driver with excellent dispersion, a linear frequency response and an extraordinary absence of resonance, rendering it ideal for anchoring even a high quality two-way system even with its relatively large cone diameter.

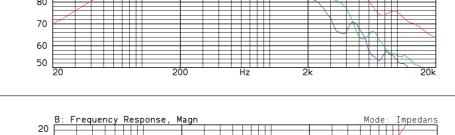




| Thiele Small Parameters | | |
|----------------------------------|------|---------------------|
| Nominal impedance | Znom | 4 Ω |
| DC resistance | Re | 3.2 Ω |
| Voice coil inductance | Le | 0.27 mH |
| Resonance frequency | fs | 45 Hz |
| Mechanical Q factor | Qms | 2.3 |
| Electrical Q factor | Qes | 0.65 |
| Total Q factor | Qts | 0.51 |
| Mechanical resistance | Rms | 2.6 kg/s |
| Moving mass (incl. air load) | Mms | 21.4 g |
| Suspension compliance | Cms | 0.58 mm/N |
| Effective dome diameter | d | 151 mm |
| Effective piston area | Sd | 180 cm ² |
| Equivalent volume | Vas | 27 I |
| Force factor | BL | 5.4 Tm |
| Recommended frequency range | | 35–3500 Hz |
| Magnet and Voice Coil Properties | | |
| Voice coil diameter | dc | 75 mm |
| Voice coil height | hc | 14 mm |
| Linear excursion, peak to peak | | 9 mm |
| Max. excursion, peak to peak | | 15 mm |
| Power Handling | | |
| Nominal long term IEC | | 150 W |
| Transient (10 ms) | | 1000 W |
| Mechanical Properties | | |
| Net weight | | 1.6 kg |
| Overall dimension | | ø 200 x 88 mm |
| Impedance compensation circuit | | |







15

Impedance (with and without impedance correction circuit)

Distance: 1 m

Box volume: 18 I

Red line: impedance, free air Green line: impedance, free air with compensation.

Measurement conditions: Level: 2 V. 10 ohm Driver in free air

Diaphragm and dust cap moulded as one piece

Very large 75 mm voice coil ensures high power handling

Internal double magnet system with vented pole piece

Aluminium voice coil wire provides for a low moving mass

Rigid die-cast chassis with aerodynamically shaped ribs

Materials and parameters are optimized for the harsh environmental conditions in a car

Natural midrange reproduction

Smooth high-frequency roll-off