



# COLOSSUS 12MBN

BASS / MID-RANGE DRIVER

**12" / 304.8 mm**

CHASSIS DIAMETER

**1000 W**

PROGRAM POWER

**40 Hz - 4 kHz**

FREQUENCY RESPONSE

**3" / 76.2 mm**

VOICE COIL

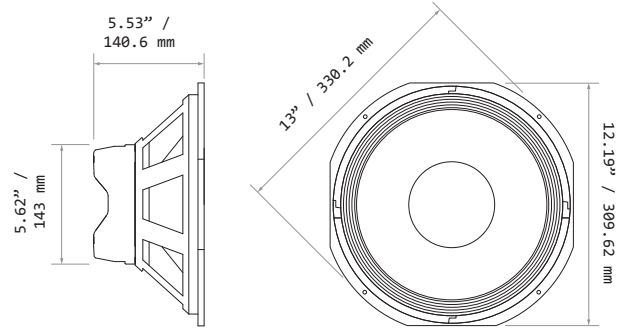
**98.5 dB**

SENSITIVITY (1W/ 1m)

**5.5 mm Xmax**

MAXIMUM LINEAR EXCURSION

- + Weighs only 4.3Kg thanks to a lightweight neodymium magnet motor assembly.
- + Optimised non-inductive motor system efficiently controls magnetic flux and reduces third-harmonic and intermodulation distortion.
- + Excels when deployed in line array applications for fast, dynamic and punchy bass.
- + Extended frequency range working up to 4 kHz.
- + Aluminium demodulation and copper shorting Rings.
- + Intended as a high-output mid-bass driver in two-way ported enclosures of 25-80 Litres.
- + Also performs well as a bass driver in multi-way systems.
- + 3-Inch Inside/ outside windings aluminium voice coil.



## GENERAL SPECIFICATIONS

|                                      |  |
|--------------------------------------|--|
| Nominal Chassis Diameter             | 12" / 304.8 mm                           |
| Nominal Impedance <sup>(1)</sup>     | 8 Ohm                                    |
| Minimum Impedance Zmin               | 7.5 Ω                                    |
| AES Power Handling <sup>(2)</sup>    | 500 W (A.E.S.)                           |
| Program Power                        | 1000 W                                   |
| <b>Peak Power</b> (6dB Crest Factor) | <b>2000 W</b>                            |
| Frequency Range <sup>(3)</sup>       | 40 Hz - 4 kHz                            |
| <b>Sensitivity</b> (1W/ 1m)          | <b>98.5 dB</b>                           |
| <b>Magnet Material</b>               | <b>Neodymium</b>                         |
| Magnet Weight                        | - oz                                     |
| Magnetic Gap Depth                   | 0.39" / 10 mm                            |
| Flux Density                         | 1.1 Tesla                                |
| Former Material                      | Glass Fibre                              |
| Voice Coil Material                  | Aluminium - Inside/ Outside              |
| Coil Winding Height                  | 0.70" / 18 mm                            |
| <b>Voice Coil Diameter</b>           | <b>3" / 76.2 mm</b>                      |
| Cone/ Dust Dome Material             | Curvilinear Paper / Solid Paper          |
| Surround / Edge Termination          | Polyvinyl Damped Multi Roll. Poly Cotton |

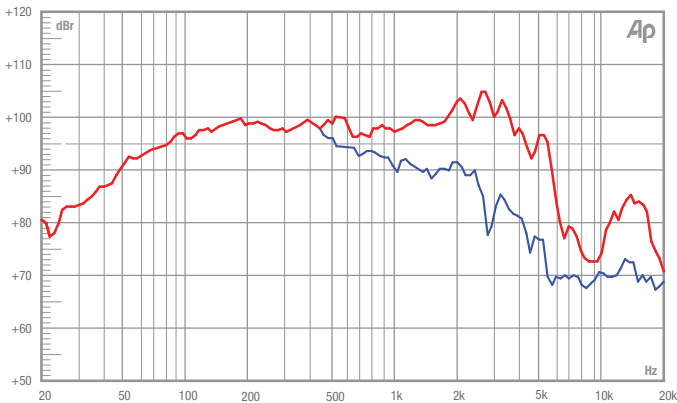
## TECHNICAL & THIELE SMALL PARAMETERS

|                           |  |
|---------------------------|--|
| Fs                        | 55 Hz  |
| Re                        | 5.5 Ω  |
| Qms                       | 4.13   |
| Qes                       | 0.438  |
| Qts                       | 0.396  |
| Vas                       | 56 Litres                                    |
| Vd                        | 0.296 Litres                                 |
| Cms                       | 0.142 mm/N                                   |
| Bl                        | 16.6 T/m                                     |
| Mms                       | 59 g   |
| Xmax                      | 5.5 mm                                       |
| Sd                        | 530 cm <sup>2</sup>                          |
| Efficiency                | 2.3 %  |
| Le (1k Hz)                | 1.39 mH                                      |
| EBP                       | 125.57 Hz                                    |
| Effective Piston Diameter | 10.24" / 260.09 mm                           |
| Rec. Enclosure Volume     | 0.88 - 2.83 ft <sup>3</sup> / 25 - 80 Litres |

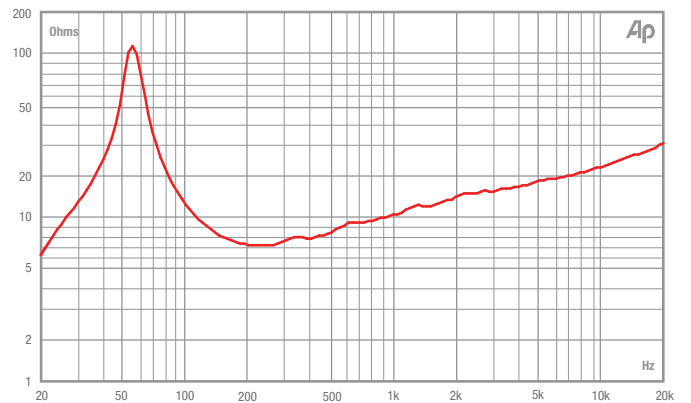
## MOUNTING / SHIPPING INFORMATION

|                                |  |
|--------------------------------|--|
| Overall Diameter               | 13" / 330.2 mm   |
| Width Across Flats             | 12.19" / 309.62 mm                                     |
| Depth                          | 5.53" / 140.6 mm                                       |
| Flange Height                  | 0.305" / 7.8 mm  |
| Baffle Hole Diameter F/M       | 11.03" / 280.16 mm                                     |
| Baffle Hole Diameter R/M       | 10.13" / 257.30 mm                                     |
| <b>Chassis Material</b>        | <b>Die-cast Aluminium</b>                              |
| Gasket Supplied                | Front & Rear   |
| Outer Fixing Holes             | 4x ø 0.218" on 12.5" PCD / 4x ø 5.5 mm on 317.5 mm PCD |
| Inner Fixing Holes             | N/A  |
| Connectors <sup>(4)</sup>      | Push-button Spring Terminals                           |
| <b>Weight</b>                  | <b>9.47 lb / 4.3 Kg</b>                                |
| Shipping Weight                | 11.68 lb / 5.3 Kg                                      |
| Packing Carton Dimensions (mm) | (W) 330 (D) 330 (H) 170                                |

## FREQUENCY RESPONSE DATA<sup>(3)</sup>



## IMPEDANCE



(1) Please enquire about alternative impedances.

(2) A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

(4) Positive voltage at red terminal causes forward motion of cone.