

## Electro Mechanical Specifications

|  |                           |
|--|---------------------------|
| Nominal Chassis Diameter                     | 12 inch/305 mm            |
| Impedance                                    | 8 Ω <sup>1</sup>          |
| Power Handling                               | 450 (A.E.S.) <sup>2</sup> |
| Maximum Output Continuous/Peak               | 121/127 dB                |
| Power Compression at Rated Power             | 4 dB                      |
| Usable Frequency Range (-6 dB)               | 40 Hz-3.5 kHz             |
| Average Sensitivity (in above range) 1 W/1 m | 98 dB                     |
| Resonance                                    | 55 Hz                     |
| Moving Mass inc. Air Load                    | 59 grams                  |
| BL Product (Newtons/amp)                     | 18.3                      |
| Minimum Impedance (Zmin)                     | 7 Ω                       |
| Effective Piston Diameter                    | 10.24 inch/260 mm         |
| Flux Density                                 | 1.16 Tesla                |
| Magnetic Gap Depth                           | 0.35 inch/9 mm            |
| Coil Winding Height                          | 0.70 inch/18 mm           |
| Voice Coil Length                            | 72 feet/21.8 m            |
| Magnet Weight                                | 93 oz/2.65 kg             |
| Maximum Cone Displacement                    | 0.70 inch/18 mm           |
| Peak Displacement Volume of Cone, Vd         | 0.58 litres               |
| Voice Coil Diameter                          | 3.0 inch/77 mm            |

## Thiele & Small Parameters

|                          |                      |
|--------------------------|----------------------|
| Resonant Frequency fs    | 55 Hz                |
| D.C Resistance Re        | 5.5 Ω                |
| Qts                      | 0.286                |
| Qes                      | 0.333                |
| Qms                      | 2.05                 |
| Mms (grams)              | 59                   |
| Cms (microns per Newton) | 142                  |
| BL Product               | 18.3 Tesla metres    |
| Vas                      | 56 litres            |
| Reference Efficiency no  | 2.71 %               |
| Piston Area Sd           | 0.053 m <sup>2</sup> |
| Xmax                     | 5.5 mm               |

## Mounting Information

|                                   |   |
|-----------------------------------|---|
| Overall Diameter                  | 13"/330.2 mm  |
| Width Across Flats                | 12.19"/309.5 mm   |
| Flange Thickness                  | 0.305"/7.8 mm   |
| Baffle Hole Diameter, Front Mount | 11.03"/281 mm   |
| Baffle Hole Diameter, Rear Mount  | 10.13"/257 mm   |
| Gasket Supplied                   | Front & Rear  |
| Fixing Holes                      | 4 x 0.218" diam on 12.5 PCD<br>4 x 5.5 mm diam on 317.5 PCD |
| Depth                             | 5.39"/137 mm  |
| Weight                            | 17.1 lb/7.8 kg  |
| Recommended Enclosure Volume      | 0.88-2.83 cu ft/25-80 litres                                |
| Volume Displaced by Driver        | 0.10 cu ft/2.8 litres                                       |
| Shipping Weight                   | 20.2 lb/9.2 kg  |
| Packing Carton Dimensions         | 340 x 340 x 222 mm  |

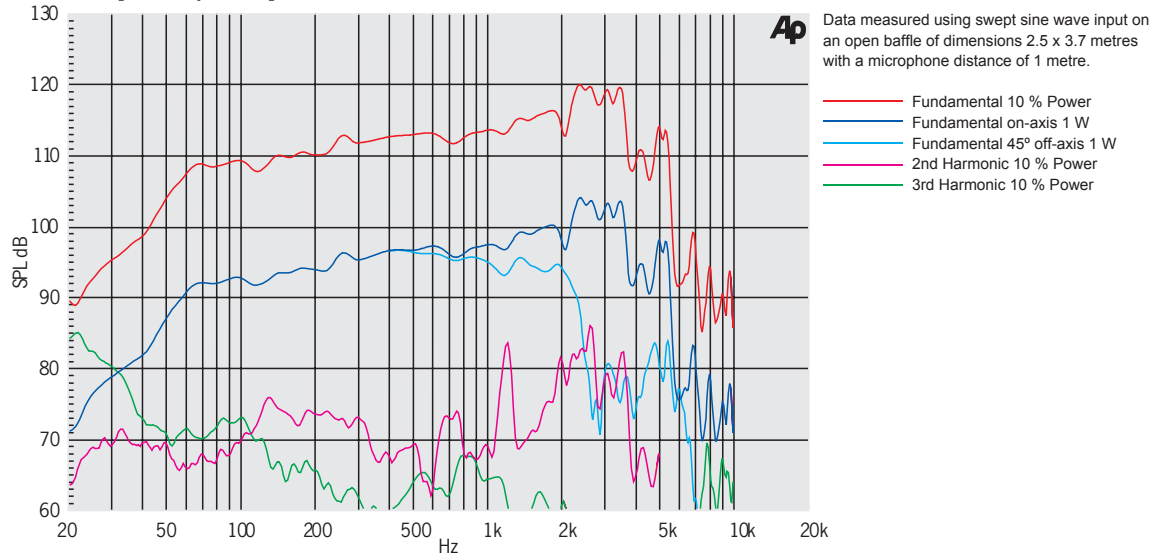
# Colossus 12MB

The Colossus 12MB is intended for use as a very high-output bass mid driver in two-way ported enclosures and also as a bass driver in multiway systems. The unit features a 3-inch voice coil driven by a noninductive motor system which dramatically reduces third-harmonic and intermodulation distortion. The cone membrane, manufactured from Polycellulose, is much stronger and more durable than conventional paper pulp alternatives. This allows the driver to combine high-sensitivity with the structural integrity required to produce undistorted low frequencies at high output levels. The mechanical and electrical properties of the unit have been carefully optimised to allow extended low-frequency output up to its rated power handling of 450 Watts (A.E.S continuous). Heat is dissipated from the ultra-light aluminium voice coil by a composite glass fibre and black anodised aluminium former. This assists in yielding outstanding power handling from a 3-inch coil, with peak power handling in excess of 1800 Watts. The driver exhibits an average sensitivity of 98 dB and is best used in ported enclosures of 25 to 80 litres.



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## Frequency Response Data

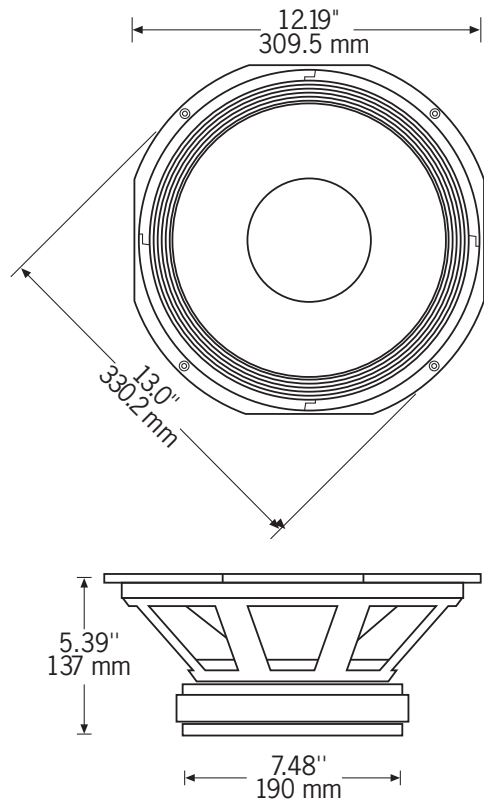


1 Please inquire about alternative impedances.

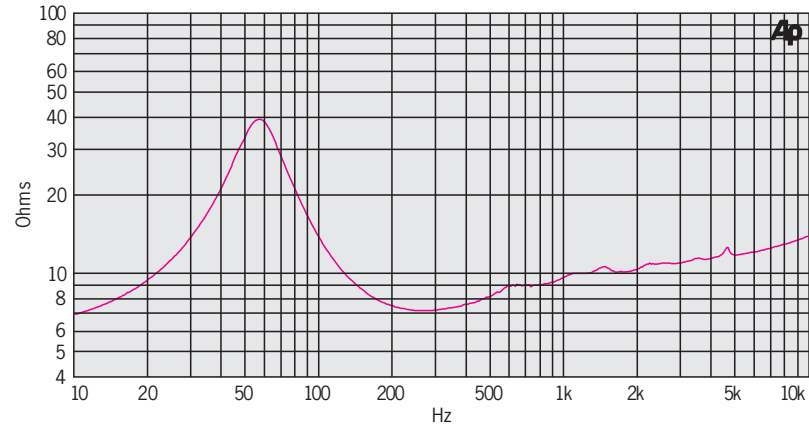
2 A.E.S. power handling test. Pink noise bandpass filtered at 12 db per octave with cutoff frequencies of 30 Hz and 300 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

# Materials of Construction

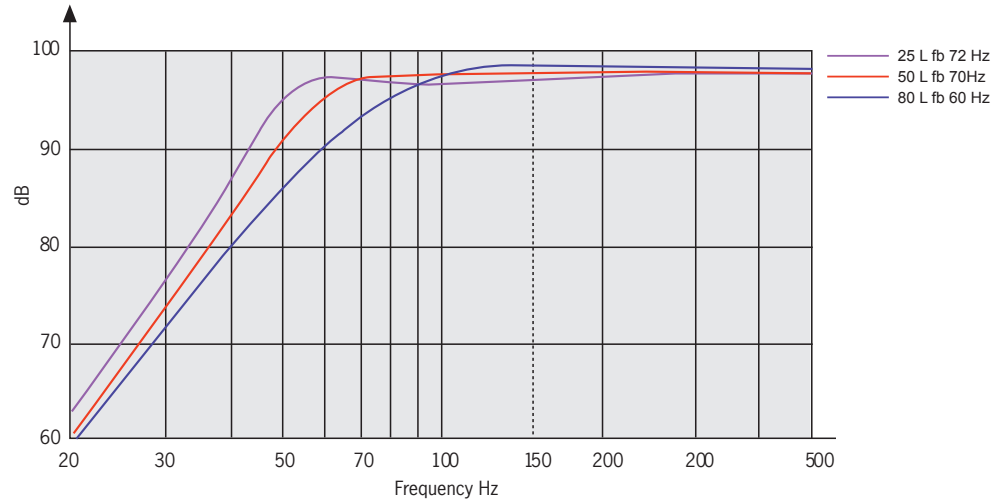
|                           |  |
|---------------------------|--|
| Coil Former               | Fibreglass and Black Anodised Aluminium                        |
| Voice Coil                | Aluminium  |
| Magnet Material           | Ferrite  |
| Chassis                   | Aluminium  |
| Cone                      | Curvilinear Polycellulose                                      |
| Surround/Edge Termination | Polyvinyl Damped Multiroll Linen                               |
| Dust Dome                 | Solid Paper  |
| Connectors                | Push-button Spring Terminals                                   |
| Polarity                  | Positive Voltage at Red Terminal Causes Forward Motion of Cone |



## Impedance



## Computer Predicted Bass Response



# Colossus 12MB

Fane International Ltd. operates a policy of continuous product development and reserves the right to change specifications without notice.

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