



# **COLOSSUS 12XB**

**BASS DRIVER** 

12" / 304.8 mm CHASSIS DIAMETER

500 w (A.E.S.)
POWER HANDLING

THE PROFESSIONAL SERIES

97 dB SENSITIVITY (1w/1m)

45 Hz - 1 kHz FREQUENCY RESPONSE 3.0" / 76.2 mm

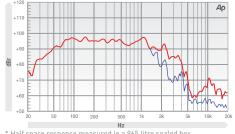
10.5 mm Xmax



### **Product Features:**

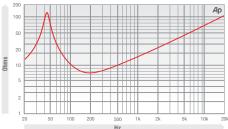
- . Suitable for horn loaded / Bandpass applications producing hard hitting, punchy bass
- Exceptional efficiency, power handling and frequency coverage from compact design.
- Rugged die cast chassis
- UK manufactured cone offers increased strength, durability and performance.
- · Extended usable frequency

### FREQUENCY RESPONSE DATA

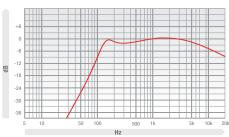


\* Half space response measured in a 965 litre sealed box Blue Line = fundamental 45° off-axis

# **IMPEDANCE**



## PREDICTED BASS RESPONSE



\*\* Normalised bass reponse in 65 litre tuned to 55 Hz

| 5.71° / 145.00 mm |
|-------------------|
|                   |

| ELECTRO ACOUSTIC SPECIFICATIO       | INS                |
|-------------------------------------|--------------------|
| Nominal Chassis Diameter            | 12" / 304.8 mm     |
| Impedance                           | 4/ 8/ 16 Ω         |
| Power Handling                      | 500 w (A.E.S.)     |
| Peak Power (6dB Crest Factor)       | 2000 w (A.E.S.)    |
| Usable Frequency Range -6dB         | 45 Hz - 1 kHz      |
| Sensitivity (1 w - 1 m)             | 97 dB              |
| Moving Mass inc. Air Load           | 70.8 grams         |
| Minimum Impedance Zmin              | 6.24 Ω             |
| Effective Piston Diameter           | 10.24" / 260.00 mm |
| Peak Displacement Volume of Cone Vd | 0.56 litres        |
| Magnet Weight                       | 105.82 oz          |
| Magnetic Gap Depth                  | 0.32" / 8.00 mm    |
| Flux Density                        | 1.1 Tesla          |
| Coil Winding Height                 | 0.98" / 25.00 mm   |
| Voice Coil Diameter                 | 3.0" / 76.2 mm     |
|                                     |                    |

| MOUNTING / SHIPPING INFORMATION |  |
|---------------------------------|--|
| Overall Diameter                | 8.9" / 226 mm  |
| Width Across Flats              | 8.25" / 209.5 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                                     |
| Gasket Supplied                 | Front & Rear   |
| Fixing Holes                    | 4x 5.5 mm $\circ$ on 317.5 mm<br>PCD<br>Not Applicable |
| Depth                           | 5.71" / 145.00 mm                                      |
| Weight                          | 17.00 lb / 7.71 kg                                     |
| Recommended Enclosure Volume    | 25-65 litres   |
| Shipping Weight                 | 19.00 lb / 8.62 kg                                     |
| Packing Carton Dimensions       | 340 x 340 x 222 mm                                     |

| THIELE SMALL PARAMETERS |                       |
|-------------------------|-----------------------|
| FS Hz                   | 43 Hz                 |
| RE Ohms                 | 5.2 Ω                 |
| Qms                     | 5.81                  |
| Qes                     | 0.254                 |
| Qts                     | 0.244                 |
| Vas Ltr                 | 78 litres             |
| Vd litres               | 0.56 litres           |
| CMS (mm/N)              | 0.196 mm/N            |
| BL T/m                  | 20 T/m                |
| Mms (grms)              | 70.8 grams            |
| Xmax (mm)               | 10.5 mm               |
| Sd (cm²)                | 531.6 cm <sup>2</sup> |
| Efficiency %            | 2.316%                |
| le (1k Hz)              | 2 49 mH               |

| MATERIALS OF CONSTRUCTION   |  |
|-----------------------------|--|
| Former Material             | Glass Fibre  |
| Voice Coil                  | Copper   |
| Magnet Material             | Ferrite  |
| Chassis                     | Die-cast Aluminium   |
| Cone                        | Paper  |
| Surround / Edge Termination | Polyvinyl Damped Multi Roll. Poly<br>Cotton                    |
| Dust Dome                   | Paper  |
| Connectors                  | Push-button Spring Terminals                                   |
| Polarity                    | Positive voltage at red terminal causes forward motion of cone |

- Please enquire about alternative impedances
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   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.
   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.