

KEY FEATURES:
$98 \mathrm{db} 1 \mathrm{~W} / 1 \mathrm{~m}$ average sensitivity
77 mm high temperature voice coil
900 W AES program power
Vented neodymium magnet assembly with massive heatsink
Triple aluminium demodulating rings for lower distortion and improved heat dissipation
Silicone spider

## Application : High Power Midbass

12NB400 loudspeaker combining good linearity and efficiency with high power handling capabilities, with use of 77 mm aluminium voice coil and silicone spider. It features aluminium die cast frame with integrated triple demodulating rings and vented neodymium magnet structure. The massive heatsink improve the cooling of the magnet structure, which reduce power compression. 12 NB400 is suitable for application as LF driver in compact 2-way boxes, and small stage monitors.

## SPECIFICATIONS

| Nominal Diameter | 12 "/315 inch/mm |
| :--- | :--- |
| Impedance | 80 hm |
| Minimum Impedance | 6.96 Ohm |
| Power Capacity AES 1 | 450 W |
| Program Power 2 | 900 W |
| Sensitivity | $(200-2000 \mathrm{~Hz}) 98 \mathrm{~dB} / \mathrm{W} / \mathrm{m}$ |
| Frequency Range | $50-2000 \mathrm{~Hz}$ |
| Voice Coil Diameter | 77 mm |
| Voice Coil Material | Aluminium |
| Voice Coil Former | Kapton ${ }^{\text {m }}$ |
| Voice Coil Winding Depth | 15 mm |
| Magnet Gap Depth | 9 mm |
| Cone Material | Paper with glassfiber |
| Basket | Die Cast Aluminium |
| Magnet | Neodymium |
| Flux Density | 1.45 T |

1. AES standard. Power is calculated on rated minimum impedance.

Measurement is in 65 L box enclosure tuned 63 Hz using a $40-400 \mathrm{~Hz}$ band limited pink noise test signal applied continuously for 2 hours.
2. Program power is defined as 3 db greater than AES Power Capacity.

* Linear Mathematical Xmax is calculated as: $(\mathrm{Hvc}-\mathrm{Hg}) / 2+\mathrm{Hg} / 4$ where Hvc is the voice coil depth and Hg is the gap depth.


## THIELE-SMALL PARAMETERS

| Resonance Frequency | 43.58 Hz |
| :--- | :--- |
| Mechanical Efficiency Factor (Qms) | 10.39 |
| Electrical Efficiency Factor (Qes) | 0.183 |
| Total Q (Qts) | 0.180 |
| Equivalent Air Volume (Vas ) | 70.45 litres |
| Diaphragm mass ind. airload (Mms) | 59.82 grams |
| Voice Coil Resistance Re | 5.00 Ohms |
| Effective Diagram Area (Sd) | $514.7 \mathrm{~cm}^{2}$ |
| Peak Linear Displacement of Diaphragm (Xmax)* | $\pm 5.25 \mathrm{~mm}$ |
| Mechanical Compliance of Suspension (Cms) | $0.196 \mathrm{~mm} / \mathrm{N}$ |
| BL Product (BL) | $20.34 \mathrm{T.m}$ |
| V.C. Inductance at 1 kHz (Le) | 0.83 mH |

## MOUNTING INFORMATION

| Overall Diameter | 315 mm |
| :--- | :--- |
| Baffle Hole Diameter | 280 mm |
| Number of Mounting Holes | 8 eliptic $7 \times 8 \mathrm{~mm}$ |
| Bolt Circle Diameter | $296 / 298 \mathrm{~mm}$ |
| Overall Depth | 180.3 mm |
| Net Weight | 5.00 kg |

## OBERTON <br> Professional Loudspeakers



Frequency Responce


