

Oberton 12 NB 450



KEY FEATURES:

- 100 db 1W / 1m average sensitivity
- 77 mm high temperature voice coil
- 1000 W AES program power
- Vented neodymium magnet assembly with massive heatsink
- Triple aluminium demodulating rings for lower distortion and improved heat dissipation
- Silicone spider
- Water protected cone (front)

Application : High power woofer

12NB450 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. 12NB450 is suitable for application as LF driver in compact 2- way boxes, and small stage monitors.

SPECIFICATIONS

Nominal Diameter	12"/315 inch/mm
Impedance	8 Ohm
Minimum Impedance	6.54 Ohm
Power Capacity AES ¹	500 W
Program Power ²	1000 W
Sensitivity	(200 -2000 Hz) 100 dB/W/m
Frequency Range	50 - 2000 Hz
Voice Coil Diameter	77 mm
Voice Coil Material	Aluminium
Voice Coil Former	Kapton™
Voice Coil Winding Depth	21 mm
Magnet Gap Depth	11 mm
Cone Material	Paper with glassfiber
Basket	Die Cast Aluminium
Magnet	Neodymium
Flux Density	1.30 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 Hz band limited pink noise test signal applied continuously for 2 hours.

2. Program power is defined as 3db greater than AES Power Capacity.

* Linear Mathematical Xmax is calculated as: $(H_{vc} - H_g)/2 + H_g/4$ where H_{vc} is the voice coil depth and H_g is the gap depth.

THIELE-SMALL PARAMETERS

Resonance Frequency	46.46 Hz
Mechanical Efficiency Factor (Qms)	10.53
Electrical Efficiency Factor (Qes)	0.208
Total Q (Qts)	0.204
Equivalent Air Volume (Vas)	72.57 litres
Diaphragm mass ind. airload (Mms)	59.82 grams
Voice Coil Resistance Re	5.00 Ohms
Effective Diagram Area (Sd)	514.7 cm ²
Peak Linear Displacement of Diaphragm (Xmax)*	±7.75 mm
Mechanical Compliance of Suspension (Cms)	0.196 mm/N
BL Product (BL)	20.34 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 elliptic 7x8 mm
Bolt Circle Diameter	296 / 298 mm
Overall Depth	181.3 mm
Net Weight	5.25kg

Frequency Responce

