MODEL: AA304U75-MI-8 12” Alnico Guitar 75W

Description

A hand crafted Australian made Alnico magnet electric guitar loudspeaker made to deliver better bass and clean tops whilst maintaining a classic guitar tone.
This 75W model employs a thicker cone body produced in house. The 75W cone is produced in house under our control from a blend of natural renewable Eucalypt and Hemp fibres; this fibre formulation and processing delivers the classic Australian tone. This Australian tonal voice, musicians choice, is based upon research and prior art, developed and refined in-house over 30 years of paper cone production.
This model employs a longer PESV copper voice-coil wound onto modern high temperature Kapton bobbin to deliver reliable performance at 75W power rating thus delivering cleaner bass tones. The voice-coil is adhered to the cone body with a selected adhesive to ensure reliable performance but retain the classic guitar tone.
The voice-coil, cone materials, and magnet properties have been selected to emulate high efficiency, crisp clean guitar tone. The magnet assembly has been FE optimized and the machined components are finished zinc for corrosion resistance.
This Australian hand crafted model is an excellent choice for serious musicians where high efficiency, classic Alnico tone, clean reproduction, combined with high reliability are desired.

Application

Best choice for valve and solid state amplifiers up to 75W. This model delivers clean tones and responds well to electronic enhancement. Great choice for vintage amplifiers where clean output is required and production enhanced electronically. This model experiences cone breakup at a moderate 35W. The thicker cone body employed in this model requires more power for crunch and overdriven character.

Options

Model	Impedance
AA304U75-MI-8	8 ohm
AA304U75-MI-16	16 ohm

This datasheet applies to our AA304U75-MI-8 model.

MODEL: AA304U75-MI-8 12” Alnico Guitar 75W

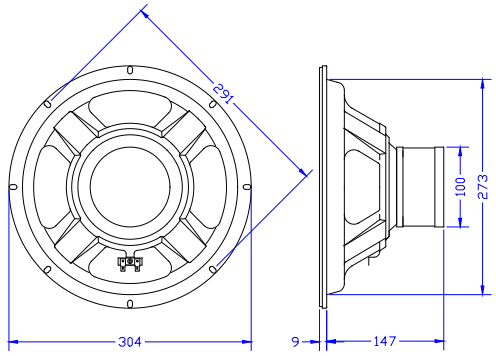
Technical Data

Typical measured Thiele/Small parameters

Maximum program power		= 75 watt
Rated nominal impedance	Z	= 8 ohms
Rated frequency range		= 50 - 6000 Hz
Piston sensitivity level		= 98 dBSPL
Max SPL @ 1w		= 108 dBSPL
Resonance frequency		= 80 Hz
Mechanical Q	Qm	= 30
Electrical Q	Qe	= 0.62
Total spk. Q	Qts	= 0.60
Moving mass	Mmd	= 22.5 gms
Effective diaphragm diameter	D	= 25.3 cm
Effective diaphragm area	Sd	= 0.050 sq.m.
Vol. equiv to spk compliance	Vas	= 45.0 litres
Mechanical compliance	Cms	= 0.123 mm/N
BL product	Bl	= 12.6 T.m
Voicecoil diameter	d	= 45 mm
Voicecoil material		= Copper
Voicecoil DC resistance	Re	= 6.3 ohms
Voicecoil inductance @ 1kHz	Lvc	= 1.2 mH
Voicecoil height	Hv	= 11.6 mm
Height of air-gap	Hg	= 8 mm
Peak linear displacement	Xpk	= 1.8 mm
Reference efficiency	η_o	= 4.2 %
Speaker total mass		= 3.07 K gm

Specifications subject to change without notice.

Mounting Details

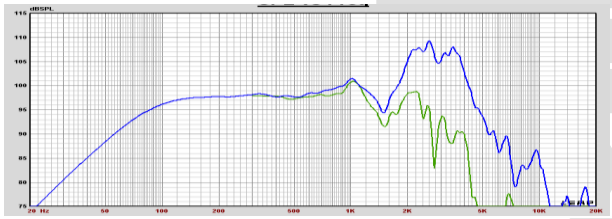


Baffle opening diameter
- front mounting 273 mm
- rear mounting 273 mm

Mounting pattern:
- eight 6 x 9 mm slots equi-spaced on 291 mm PCD.

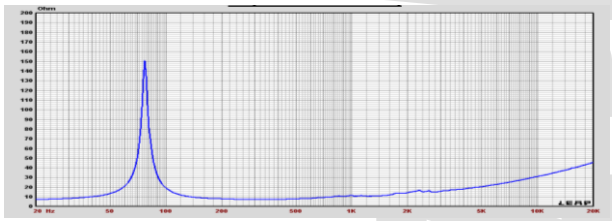
Flange thickness 9 mm

Frequency Response



Typical infinite baffle SPL response recorded at 2.83V at one meter on axis.

Impedance plot



Free-air impedance magnitude plot.

29-8-2018