

## Description

A hand crafted Australian made ferrite magnet electric guitar loudspeaker made to reproduce vintage 70's tonal characteristics. To achieve this where possible materials and processes used in the 70's have been employed to regain the classic vintage sound. This model employs our larger "U" ferrite magnet producing a very efficient loud speaker. The magnet assembly has been FE optimized and the magnet components CNC machined in house to tight tolerances to achieve high efficiency at minimum weight and finished in e-coat for superior corrosion resistance.

The 50W cone is produced in house from ex Rola tooling under our control from a blend of natural renewable Eucalypt and Hemp fibres; this fibre formulation and processing delivers the classic Australian guitar signature and replicated by many rivals. The paper blend and processing is based upon prior art and research developed and refined over 30 years of in-house paper cone production. The optimum blend also optimised from user feedback.

This model employs a copper voice-coil wound onto glass fibre bobbin to emulate the seventies sound, this prior art delivers the 50W power rating. The voice-coil is adhered to the cone body with a selected adhesive to ensure reliable performance but retain the seventies voicing characteristics.

The refined combination of materials and processing emulate the detailed guitar tone typical of the 70's.

This Australian hand crafted model is an excellent choice for serious musicians where high efficiency, classic 70's performance and high reliability are desired.

## Application

Use with amplifiers rated up to 50W per loudspeaker. The "U" model has a tighter bass and more output over the "P" range. This model has been designed to deliver cone breakup at 25W thereby delivering vintage tone with crunch and overdriven character at rated power.

## Options

Model	Impedance
AC304U50-MI-8	8 ohm
AC304U50-MI-16	16 ohm

*This datasheet applies to our AC304U50-MI-8 model.*



**MODEL: AC304U50-MI-8**

**12" Guitar**

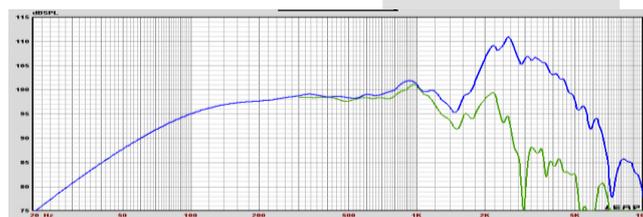
**50W**

**Technical Data**

*Typical measured Thiele/Small parameters*

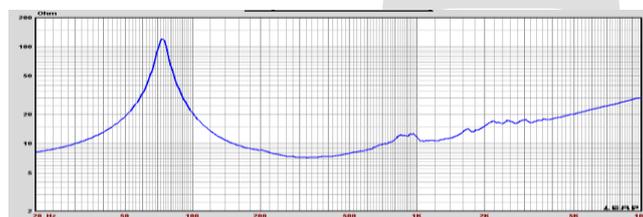
Maximum program power	= 50 watt
Thermal power rating	= 50 watt rms
Rated nominal impedance Z	= 8 ohms
Rated frequency range	= 60 - 6000 Hz
Piston sensitivity level	= 99 dB SPL
Max SPL @ 1w	= 107 dB SPL
Resonance frequency	= 80 Hz
Mechanical Q Qm	= 12.3
Electrical Q Qe	= 0.48
Total spk. Q Qts	= 0.46
Diaphragm mass Mmd	= 23.9 gms
Effective diaphragm diameter D	= 23.8 cm
Effective diaphragm area Sd	= 0.050 sq.m.
Vol. equiv to spk compliance Vas	= 48 litres
Mechanical compliance Cms	= 0.131 mm/N
BL product Bl	= 14.2 T.m
Voicecoil diameter d	= 45 mm
Voicecoil material	= Copper
Bobbin material	= Glass fiber
Voicecoil DC resistance Re	= 6.5 ohms
Voicecoil inductance @ 1kHz Lvc	= 0.97 mH
Voicecoil height	= 10 mm
Height of air-gap Hg	= 8 mm
Peak linear displacement Xpk	= 1.0 mm
Reference efficiency	= 4.9 %
Speaker total mass	= 3800 gms

**Frequency Response**



Infinite baffle sound pressure response recorded at 2.83V at one meter.  
 Blue curve - on axis spl response  
 Green curve - 30 degrees off axis response

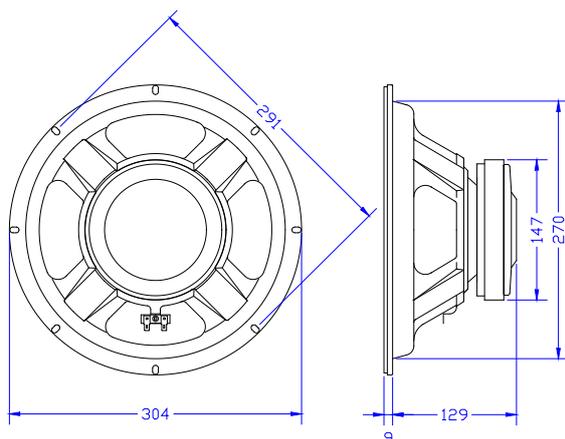
**Impedance plot**



Free-air impedance magnitude plot.

*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