

Description

A hand crafted Australian made ferrite magnet electric guitar loudspeaker made to reproduce clean tone with high acoustic output. This model employs our larger "U" ferrite magnet producing a very efficient loud speaker with tighter bass. 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.

This 75W model employs a thicker cone produced in house from ex Rola tooling under our control from a blend of natural renewable Eucalypt and Hemp fibres. Many of the original paper making processes have been retained. 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 longer stroke copper voice-coil wound onto Kapton bobbin to deliver cleaner production with more bass and achieve the 75W power rating. The voice-coil is adhered to the cone body with a selected adhesive to ensure reliable performance but retain the desired voicing characteristics. The refined combination of materials and processing delivers a detailed Australian guitar tone.

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 75W per loudspeaker. The "U" model has a tighter bass and more output over the "P" range. This model has been designed to deliver clean reproduction below 35W. Crunch and overdriven character occurs at higher power.

Options

Model	Impedance
AC304U75-MI-8	8 ohm
AC304U75-MI-16	16 ohm

This datasheet applies to our AC304U75-MI-8 model.



MODEL: AC304U75-MI-8

12" Guitar

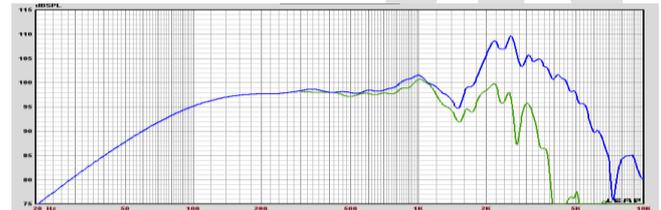
75W

Technical Data

Typical measured Thiele/Small parameters

Maximum program power	=	75 watt
Thermal power rating	=	75 watt rms
Rated nominal impedance Z	=	8 ohms
Rated frequency range	=	60 - 6000 Hz
Piston sensitivity level	=	98.8 dB SPL
Max SPL @ 1w	=	107 dB SPL
Resonance frequency	=	80 Hz
Mechanical Q Qm	=	11.3
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	=	Kapton
Voicecoil DC resistance Re	=	6.4 ohms
Voicecoil inductance @ 1kHz Lvc	=	1.03 mH
Voicecoil height	=	12 mm
Height of air-gap Hg	=	8 mm
Peak linear displacement Xpk	=	2.0 mm
Reference efficiency	=	4.8 %
Speaker total mass	=	3800 gms

Frequency Response

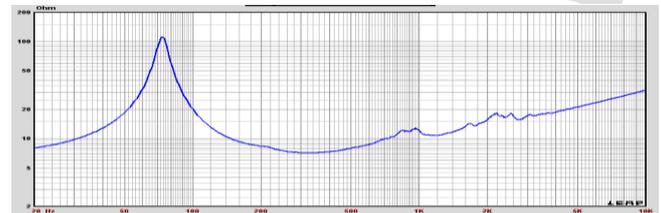


Infinite baffle sound pressure response recorded at 2.83V at one meter.

Blue curve - on axis spl response

Green curve - 30 degrees off axis response

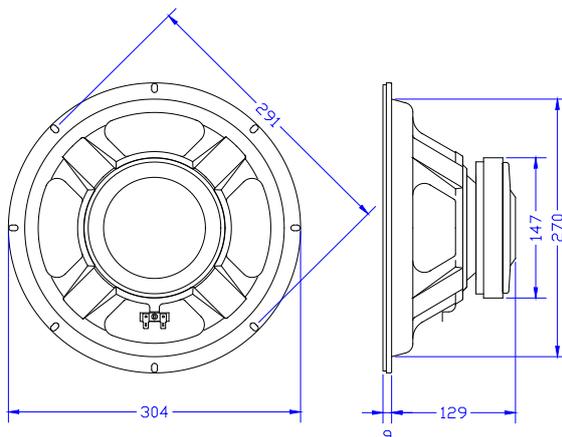
Impedance plot



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