

Description

The AC386T-PA is an Australian made light-weight economical pressed steel frame ferrite 15" driver for use in medium power musical instrument cabinets requiring a useful upper limit of 4.0kHz. This model has a high efficiency and wide frequency range and offers exceptional performance in an economical light weight design.

Wide frequency range, high efficiency and excellent vocal voicing qualities are achieved with OFP technology and Kevlar® reinforced paper cone manufactured and treated under our control.

The light mass voice coil diameter and ribbed Kevlar® reinforced curvilinear cone produce excellent extended top range for a 15" loudspeaker; this permits an addition of a modest horn to achieve full coverage at minimal cost.

State of art voice coil technology and materials result in a high 250W AES rating and reliable performance. This model features a large 156mm ferrite magnet (50-oz).

The low resonant frequency produces excellent low frequency and the efficient upper mids add punch and clarity to enhance reproduction.

This driver features driver parameters that produce a full rich punchy bass in both sealed and vented enclosures.

The AC386T-PA is an economical driver with bright bass sound quality making it an excellent choice for vocal PA applications.

Application

General purpose vocal and musical instrument loudspeaker, excelling in the frequency range 40Hz to 4kHz where high sound pressure levels are required, i.e. live music clubs, music playback systems public address systems general applications. We recommend vented enclosures of 90 to 350 litre capacity and sealed enclosures for 60 to 90 litres. In the correct enclosure and under controlled conditions we recommend each AC386T-PA be driven by a power amplifier capable of delivering up to 500W into 8 ohms providing the average RMS program power does not exceed 250W and the incoming signal processed to avoid excursion damage. However due to the limited linear excursion and high efficiency this model is the best choice for low power musical applications.

Refer: -AC386T-PA application notes for enclosure details



Options

Model	Impedance
AC386T-PA-4	4 ohm
AC386T-PA-8	8 ohm
AC386T-PA16	16 ohm

Note: This data sheet applies to our AC386T-PA-8 model.

Technical Data

Typical measured Thiele/Small parameters

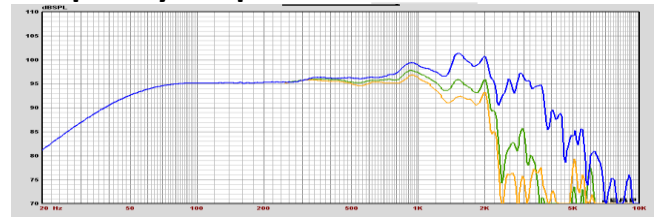
Rated AES power		250 W
Program power rating		500 W
Rated nominal impedance	Z	8 ohms
Rated frequency range		40 – 3.8kHz
Piston sensitivity level	SPLo	95.5 dB SPL
Resonance frequency	Fo	44 Hz
Mechanical Q	Qm	5.3
Electrical Q	Qe	0.62
Total spk. Q	Qts	0.55
Mechanical mass	Mmd	60.0 gms
Effective diaphragm diameter	D	33.7 cm
Effective diaphragm area	Sd	0.089 sq.m.
Vol. equiv to spk compliance	Vas	196 litres
Mechanical compliance	Cms	173 mm/N
BL product	Bl	15.4 T.m.
Voicecoil diameter	d	63.5 mm
Voicecoil material		copper
Voicecoil DC resistance	Re	6.0 ohms
Voicecoil inductance	Lvc	1.25 mH
Voicecoil height	Hvc	14.0 mm
Height of air-gap	Hg	8.0 mm
Peak linear displacement	Xpk	4.2 mm
X Damage peak to peak	Xpk-pk	29.0 mm
Reference efficiency		2.24 %
Speaker total mass		5000 gms

Specifications subject to change without notice.

Notes

- (1) AES power is determined according to AES2-1984 standard in free-air 60Hz-600Hz. Power calculated on minimum impedance.
- (2) Sensitivity is SPL at 1W at 1m derived from Thiele/Small parameters.
- (3) Frequency range is the useful frequency range for this transducer when mounted in its recommended enclosure.
- (4) Thiele/Small parameters are derived after the speaker has been preconditioned and are a better representation of the long term parameters in use.
- (5) Peak linear displacement Xpk derived from Klippel XBL measurement at 82%.

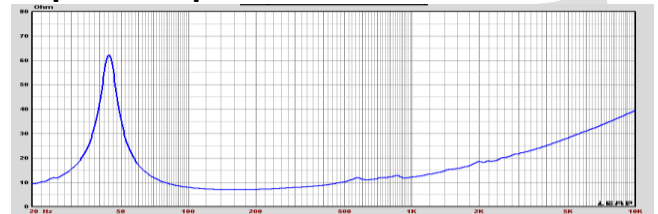
Frequency Response



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

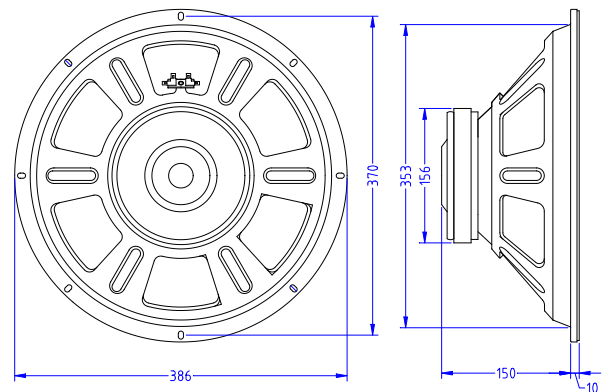
- Blue curve is on axis spl response
- Green curve is SPL at 30 degrees off axis.
- Orange curve is SPL at 40 degrees off axis

Impedance plot



Free-air impedance magnitude plot.

Mounting Details



- Baffle opening diameter
 - front mounting 353 mm
 - rear mounting 353 mm

Mounting pattern:
eight 9 x 6 mm slots equi-spaced on a 370 mm PCD.
Flange thickness 10 mm