



MODEL: AC213U-B3A-8

8" BASS-MID

400W

Description

The AC213U-B3 is an Australian made professional 8" bass-mid loudspeaker with a useful upper limit of 4kHz. This model offers superb bass performance, high power handling, high efficiency and large linear cone excursion.

Computer optimized design, leading Australian technology, and advanced materials produce superior performance.

The AC213U range features FEM optimized ferrite magnet assembly with vented t-yoke. The magnet components are engineered to achieve maximum efficiency.

This model features our curvilinear air dried OFF paper cone body with Kevlar reinforcing fibres and specially treated to produce smooth mids and wide frequency range. The cone body is terminated with a treated accordion cloth-surround which ensures smooth mid band performance and provides the necessary cone excursion at high power. A selected paper dust-cap controls the upper frequency response.

The driver parameters have been carefully selected to produce full rich -bass in either a small vented or band-pass enclosure.

Reliable performance and 250W AES rating is achieved with a 50mm voice coil and state of art high temperature adhesives.

The AC213U model is engineered and hand crafted to the highest and strictest tolerances to meet the demanding requirements of professional sound monitoring applications.

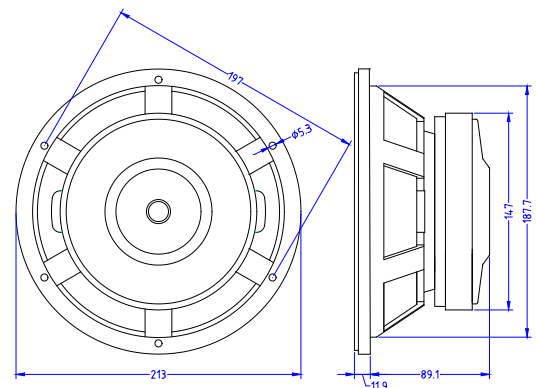
Application

Professional high-quality monitor for live music, music play back systems and sound reinforcement applications in the frequency range 65Hz to 4kHz where high power handling high spl and high quality are required. In the correct enclosure and under controlled conditions we recommend each AC213U-B3 be driven by a power amplifier capable of delivering 50 to 400 watts into 8 ohms. The bass signal must be processed to avoid excessive excursion beyond the rated safe rating.

Refer: -C213U-B3A application notes for enclosure details.

Model	Impedance
AC213U-B3A-4	4 ohm
AC213U-B3A-8	8 ohm
AC213U-B3A-16	16 ohm

This datasheet applies to our AC213U-B3A-8 model.



Mounting Details

- Baffle opening diameter front mounting 188 mm
- Mounting pattern: Four 6 x 5.3mm holes equi`-spaced on a 197 mm PCD.
- Flange thickness 12 mm



Technical Data

Typical measured Thiele/Small parameters:

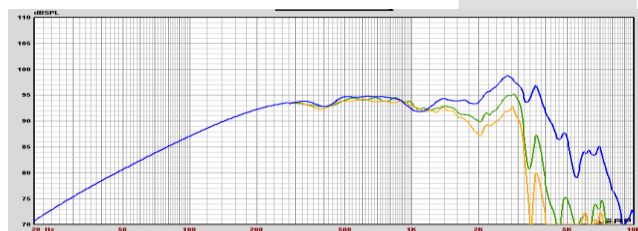
Maximum program power	500 W
AES Power Rating	250 W
#Rated nominal impedance	8 ohms
Rated frequency range	65 – 4000 Hz
Reference sensitivity level	95.9 dB SPL
Resonance frequency	70 Hz
Mechanical Q	Qm 5.8
Electrical Q	Qe 0.23
Total spk. Q	Qts 0.223
Diaphragm mass	Mmd 20.9 gms
Effective diaphragm diameter	17.0 cm
Effective diaphragm area	Sd 227 sq.cm.
Compliance	Vas 16.4 litres
BL product	Bl 16.5 T.m
Voicecoil diameter	d 50 mm
Voicecoil material	copper
Voicecoil DC resistance	Re 6.2ohms
Voicecoil inductance	Lvc 1.3 mH
Voicecoil height	Hvc 14 mm
Height of air-gap	Hg 8mm
Peak linear displacement	Xpk 4.2 mm
X damage (peak to peak)	Xp-p 25mm
Reference efficiency	2.36 %
Speaker total mass	3800 gms

Also available in 4 or 6 ohm impedance.
Specifications subject to change without notice.

Notes

- (1) AES power is determined according to AES2-1984 standard in free-air..
- (2) Maximum recommended program power is twice AES power providing the safe excursion limits are not exceeded.
- (3) Reference sensitivity is SPL at 1W at 1m derived from Thiele/Small parameters.
- (4) Frequency range is the useful frequency range for this transducer when mounted in its recommended enclosure.
- (5) Thiele/Small parameters are derived after the speaker has been preconditioned and is a better representation of the drivers long term parameters in use.
- (6) Peak linear displacement Xpk derived from Klippel XBL measurement.

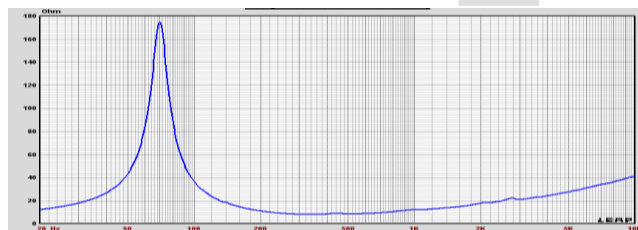
Frequency Response



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

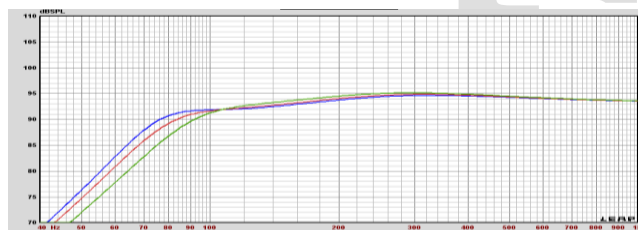
- Blue curve is on axis spl response
- Green curve is SPL response at 30 degrees off axis.
- Orange curve is SPL response at 40 degrees off axis.

Impedance plot



Free-air impedance magnitude plot.

Typical System SPL Response



LEAP5 predicted vented enclosure bass spl response.

- Blue curve 7.2 liter cab tuned to 80Hz.
- Red curve 6.0 Liter cab tuned to 85Hz.
- Green curve 5.0 Liter cab tuned to 95Hz.