

MODEL: AC400X-B27s-8

15" BASS DRIVER 1400W

Features

- 97.2 dB SPL sensitivity
- 100mm/4 inch voice-coil
- Employs aluminum shorting ring to improve linearity and stability
- 700W AES rating

Description

The AC400X-B27s is An Australian made professional low frequency 15" bass-mid loudspeaker with a useful upper limit of 2.5 kHz. Superb bass performance is achieved with a Klippel XBL peak excursion of 8.0mm. The AC400X range features die-cast aluminum frame, CNC precision components. The large ferrite magnet-assembly is FE optimized, the bumped rear-plate permit large linear voice coil excursion. Shaped pole improves BL linearity. The aluminum shorting ring lowers distortion, improves stability and enhances voice-coil heat dissipation. Wind noise is reduced with an undercut and flared vented pole-piece.

The smooth response, wide frequency range, wide dynamics is attributed to features not often found in one model. The stiff ribbed cone is product of our OFP technology and is molded in-house from a blend of premium air dried wood pulp and Kevlar fibres resulting in smooth controlled mid response. The spider is made of aramid material chosen for its high rigidity and long term stability in demanding applications. The treated accordion cloth surround assures extreme levels with minimal distortion.

High program power handling and reliable operation in demanding applications is achieved with a high temperature rated 100mm/4" voice coil and high temperature adhesives. The high thermal rating is achieved with through magnet cooling and thermal coupling to a massive die-cast aluminum chassis. The internal aluminum shorting ring also acts as a heat-sink and conducts heat away from the voice-coil. These features provide minimum thermal compression in demanding applications.

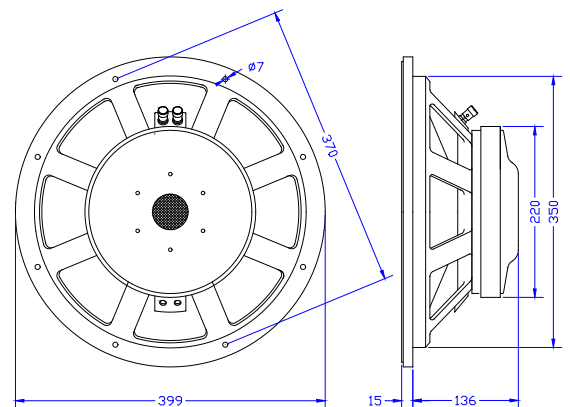
Efficient driver parameters have been selected to deliver high spl punchy bass in a vented, band-pass and horn enclosures. The AC400X-B27s model has been engineered and hand crafted to the highest and strictest tolerances to meet the demanding requirements of professional sound reinforcement applications.

Options

Model	Impedance
AC400XT-B27s-4	4 ohm
AC400XT-B27s-8	8 ohm
AC400XT-B27s-16	16 ohm

Note

This datasheet applies to our model AC400X-B27s-8



Mounting Details

- Baffle opening diameter
 - front mounting 352 mm
 - rear mounting 352 mm
- Mounting pattern:
 - eight 7.0mm holes equi-spaced on a 370mm PCD.
- Flange thickness 15 mm.

MODEL: AC400X/B27s/8

15" BASS - DRIVER-1400W

Technical Data

Typical measured Thiele/Small parameters:

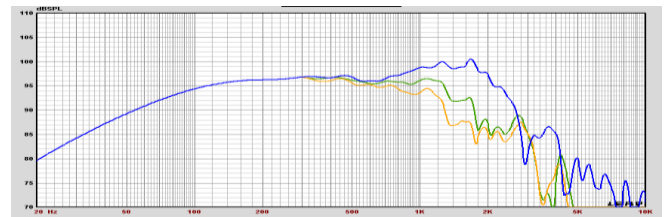
Maximum program power	=	1400 watt
AES power rating	=	700 watt rms
Rated nominal impedance	Z	= 8 ohms
Rated frequency range	=	30 - 2500 Hz
Sensitivity	=	97.2 dBSPL
Resonance frequency	=	40 Hz
Mechanical Q	Qm	= 3.4
Electrical Q	Qe	= 0.29
Total spk. Q	Qts	= 0.27
Diaphragm mass	Mmd	= 97.5 gms
Effective diaphragm diameter	D	= 33.5 cm
Effective diaphragm area	Sd	= .088 sq.m.
Vol. equiv to spk compliance	Vas	= 155 litres
Mechanical compliance	Cms	= 0.140 mm/N
BL product	Bl	= 22.9 T.M.
Voicecoil diameter	d	= 100 mm
Voicecoil material	=	copper
Voicecoil DC resistance	Re	= 5.36 ohms
Voicecoil inductance @1Kz	Lvc	= 1.25 mH
Voicecoil height	=	27 mm
Height of air-gap	Hg	= 12 mm
Peak linear displacement	Xpk	= 8.0 mm
X Damage peak to peak	Xpk-pk	= 44 mm
Reference efficiency	=	3.3 %
Speaker total mass	=	12.2kg

Specifications subject to change without notice.

Notes

- (1) AES power is determined according to AES2-1984 standard in free-air 60Hz-600Hz. Power is calculated on minimum impedance.
- (2) Maximum recommended program power is twice AES power providing the safe excursion limits are not exceeded.
- (3) 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 are a better representation of the long term parameters in use.
- (6) Peak linear displacement Xpk derived from Klippel XBL measurement at 82%.

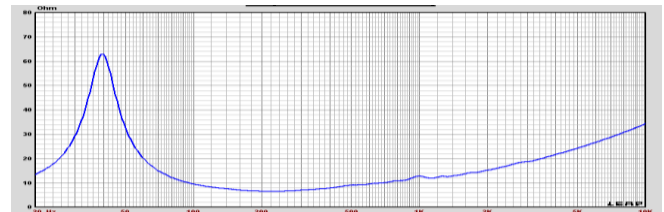
Frequency Response



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

- (a) Blue curve on axis response
- (b) Green curve 30 degrees off axis
- (c) Orange curve 40 degrees off axis

Impedance



Free-air impedance magnitude plot.