

MODEL: AC400X-B4s-8A

15" BASS DRIVER-1400W

Description

The AC400X-B4s is a ferrite 15" bass-mid loudspeaker with a useful upper limit of 3.5KHz. This model offers large linear diaphragm excursion Xpk 6.5mm delivering superb bass performance, high program power handling, high efficiency, and therefore capable of producing extreme levels. This model features a curvilinear cone which extends the high frequency response, very suitable for electric bass.

The AC400X features die-cast aluminum frame, CNC precision components. The 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 heat dissipation from the voice-coil. Wind noise is reduced with an undercut and flared vented pole-piece.

The stiff curvilinear paper 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 cone surround assures extreme levels with excellent linearity.

Reliable operation in demanding applications is achieved with a high temperature 4" voice coil and high temperature adhesives. High thermal rating is achieved with through magnet cooling and thermal coupling to a massive die-cast aluminum chassis. These features provide minimum thermal compression in demanding applications.

Efficient driver parameters have been selected to produce a full rich punchy bass in a vented, band-pass and horn enclosure

The AC400XT model has been engineered and hand crafted to the highest and strictest tolerances to meet the demanding requirements of professional sound reinforcement applications.

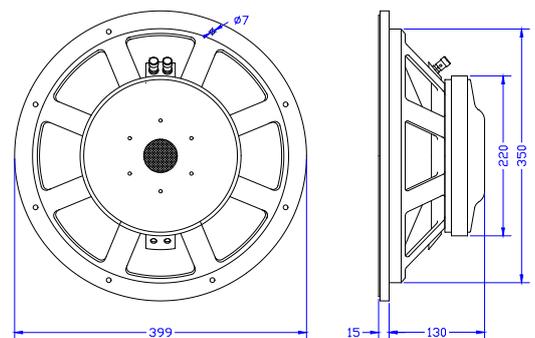
Application

Professional high-quality bass sound reinforcement speaker for horn-loaded, band-pass and vented box applications in the frequency range 30Hz to 3.5KHz where high sound pressure levels are required i.e. live music clubs, music playback systems for discos, electric bass guitar, high power indoor/outdoor PA systems and other general applications. In the correct enclosure and under controlled conditions we recommend each AC400XT/B4 be driven by a power amplifier capable of delivering between 100 and 1400 watts into 8 ohms providing the average program power does not exceed 700 watt and the incoming signal processed to control maximum diaphragm excursion.



Model	Impedance
AC400XT-B4s-4	4 ohm
AC400XT-B4s-8	8 ohm
AC400XT-B4s-16	16 ohm

This datasheet applies to our AC400XT-B4s-4 model.



Mounting Details

Baffle opening diameter	
front mounting	352 mm
rear mounting	352 mm
Mounting pattern:	
	Eight 6.5 mm holes equi-spaced on a 370mm PCD.
Flange thickness	15 mm.

Technical Data

Typical measured Thiele/Small parameters:

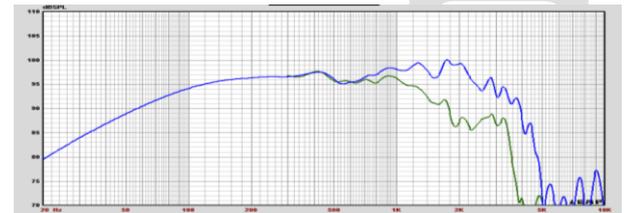
Maximum program power	=	1400 watt
AES power rating	=	700 watt rms
Rated nominal impedance	Z	= 8 ohms
Rated frequency range	=	30 - 3500 Hz
Reference sensitivity	=	98 dB SPL
Resonance frequency	=	41 Hz
Mechanical Q	Qm	= 4.1
Electrical Q	Qe	= 0.27
Total spk. Q	Qts	= 0.26
Diaphragm mass	Mmd	= 93.1 gms
Effective diaphragm diameter	D	= 33.5 cm
Effective diaphragm area	Sd	= 886 sq.cm.
Vol. equiv to spk compliance	Vas	= 155 litres
Mechanical compliance	Cms	= 0.138 mm/N
BL product	Bl	= 24.7 T.m.
Voicecoil diameter	d	= 100 mm
Voicecoil material	=	copper
Voicecoil DC resistance	Re	= 5.93 ohms
Voicecoil inductance @1Kz	Lvc	= 1.37 mH
Voicecoil height	=	21.0 mm
Height of air-gap	Hg	= 9 mm
Peak linear displacement	Xpk	= 6.5 mm
X Damage peak to peak	Xpk-pk	= 42 mm
Reference efficiency	=	3.8 %
Speaker total mass	=	11.5 Kg

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) Recommended program power is twice AES power
- (3) Reference sensitivity is SPL at 1W at 1m derived from Thiele/Small parameters for the speaker mounted in an infinite baffle.
- (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 test speaker has been preconditioned and is better representation of the long term parameters in use.
- (5) Peak linear displacement Xpk derived from Klippel XBL measurement at 82%.

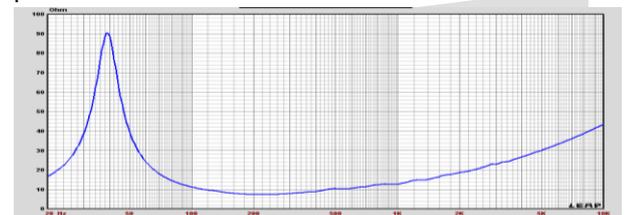
Frequency Response



Infinite baffle sound pressure response recorded at one watt at one meter.

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

Impedance plot



Free-air impedance magnitude plot.