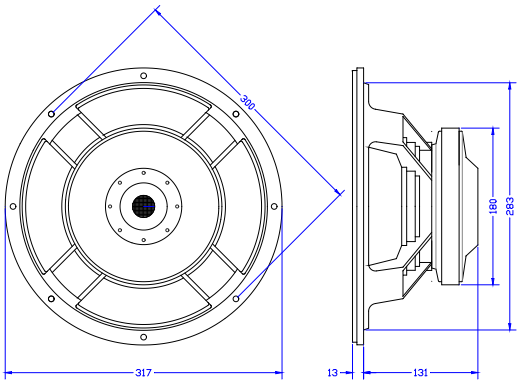
MODEL: AC317V-B2s-8 12” BASS DRIVER - 800W

Features

95.7dB SPL/1W/1m sensitivity
75mm (3inch) voice-coil, 400W AES, 800W program
Shorting ring for reduced flux modulation and improved stability.

Description

The AC317V/B2 is an Australian made large excursion 12" bass loudspeaker engineered for use in professional sub-woofer sound reinforcement systems and musical instrument applications.
This model designed for sub-woofer applications, the large linear excursion of +/- 9.0mm permits the reproduction of extreme levels with clean fundamental bass notes.
The AC317V range features die-cast aluminum frame, CNC precision components. The ferrite magnet-assembly is FE optimized, the bumped rear-plate permits large voice coil excursion without damage. Shaped pole improves BL linearity, lowers distortion and improves stability. Shorting ring reduces flux modulation, improves stability and enhances heat dissipation. Wind noise is reduced with an undercut and flared vented pole-piece. The steel components are E-coat finished for superior corrosion resistance. The stiff damped 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 mid response. The spider is made of Aramid material chosen for its high rigidity and long term stability in demanding applications. The spider and accordion cloth surround have been designed to not compromise the peak linear excursion thus ensuring peak excursion levels are delivered with minimal distortion.
Reliable performance and the high thermal rating is achieved with a 3" voice-coil and state of the art voice-coil materials and adhesives. High thermal rating is achieved with through magnet cooling and thermal coupling to a massive die-cast aluminum chassis for optimum heat dissipation.
Efficient driver parameters have been selected to produce a full rich punchy bass in a vented, band-pass or horn loaded enclosures.
Computer aided design, advanced Australian technology and materials result in superior performance. The C317V loudspeaker is engineered and hand crafted in Australia to the highest tolerances to meet the demanding requirements of professional sound reinforcement and music instrument applications.



Options

Model	Impedance
AC317VT-B2s-4	4 ohm
AC317VT-B2s-8	8 ohm
AC317VT-B2s-16	16 ohm

Note

This datasheet applies to our model AC317VT-B2s-8

Mounting Details

Baffle opening diameter:
front mounting 283 mm
rear mounting 280 mm
Mounting pattern:
four 6.5mm holes eqi-spaced on a 300mm P.C.D.
Flange thickness 13 mm

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Technical Data

Typical measured Thiele/Small parameters:

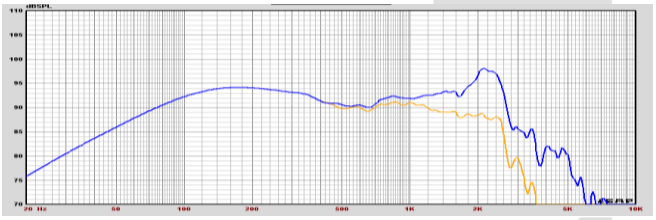
AES Power	P	=	400 W
Program power rating		=	800 W
Rated nominal impedance	Z	=	8 ohms
Rated frequency range		=	35 - 3KHz
Sensitivity		=	95.7 dB/1W/1M
Resonance frequency	Fo	=	50 Hz
Mechanical Q	Qm	=	3.8
Electrical Q	Qe	=	0.315
Total spk. Q	Qt	=	0.29
Moving mass	Mmd	=	60.1 gms
Effective diaphragm diameter	D	=	26.0 cm
Effective diaphragm area	Sd	=	0.0531 sq.m
Vol. equiv spk compliance	Vas	=	58 litre
Mechanical compliance	Cms	=	0.144 mm/N
BL product	BL	=	20.6 T.m
Voicecoil diameter	d	=	75 mm
Voicecoil material		=	copper
Voicecoil dc resistance	Re	=	6.2 ohms
Voicecoil inductance @ 1KHz	Lvc	=	0.82 mHenry
Voicecoil height		=	21 mm
Height of air-gap		=	8 mm
Peak linear displacement	Xpk	=	9.0 mm
X Damage peak to peak	Xpk-pk	=	34 mm
Reference efficiency		=	2.37 %
Speaker total mass		=	6.8 kg

Specifications subject to change without notice.

Notes

(1) AES power is determined according to AES2-1984 standard in free-air. 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 is a better representation of the long term parameters in use.
(6) Peak linear displacement Xpk derived from Klippel XBL 82% measurement.

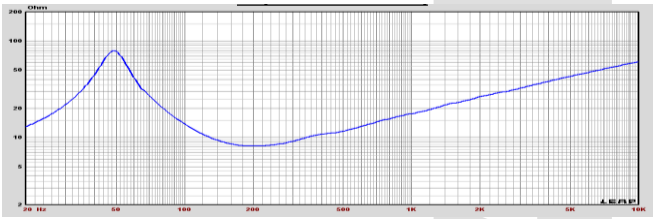
Frequency Response



Infinite baffle response recorded at 2.83v or nominal one watt at one meter.

(a) Blue curve on axis
(b) Orange curve 30 degrees off axis

Impedance



Free-air impedance magnitude plot.

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