

MODEL: AC317V-MRs-8

12" MIDRANGE - 600W

Description

The AC317V-MRs is a professional dedicated 12" midrange ferrite magnet loudspeaker suitable for sealed, vented or horn loaded cabinets. This model features high peak program power, high efficiency, smooth response, wide frequency range and low distortion in a small optimum vented enclosure.

The ferrite magnet-assembly is FE optimized, 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.

This model features our low-mass Kevlar® reinforced, ribbed paper cone made in-house from a blend of premium air dried wood pulp and Kevlar fibres and treatments which produce crisp clear highs, smooth mids and also features an integral treated paper cone surround to control breakup.

The spider is made of Aramid material chosen for its high rigidity and long term stability in demanding applications.

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 or horn loaded enclosures.

Computer aided design, advanced Australian technology and materials result in superior performance. The AC317V loudspeaker is engineered and hand crafted in Australia to the highest tolerances to meet the demanding requirements of professional sound reinforcement



Options

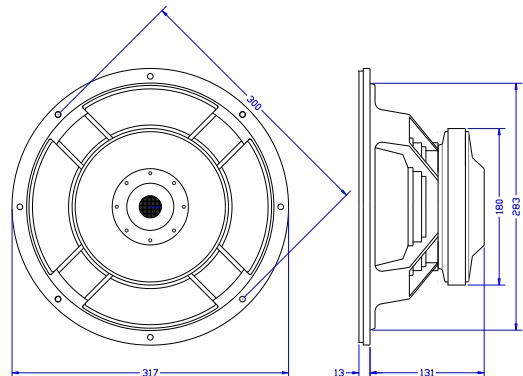
Model	Impedance
AC317V-MRs-4	4 ohm
AC317V-MRs-8	8 ohm
AC317V-MRs-16	16 ohm

Note

This datasheet applies to our model AC317V-MRs-8

Mounting Details

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



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Technical Data

Typical measured Thiele/Small parameters:

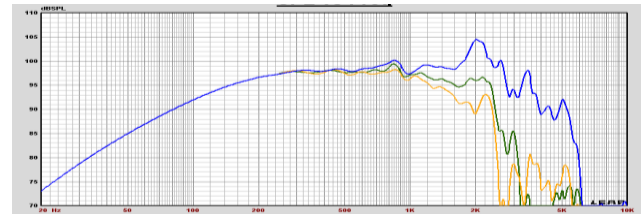
AES Power	P	=	300 W
Program power rating		=	600 W
Rated nominal impedance	Z	=	8 ohms
Rated frequency range		=	70 - 4kHz
Sensitivity		=	99.0 dB/1W/1M
Resonance frequency	Fo	=	86 Hz
Mechanical Q	Qm	=	5.0
Electrical Q	Qe	=	0.354
Total spk. Q	Qt	=	0.33
Moving mass	Mmd	=	37.9 gms
Effective diaphragm diameter	D	=	25.5 cm
Effective diaphragm area	Sd	=	0.0531 sq.m
Vol. equiv spk compliance	Vas	=	27.8 litre
Mechanical compliance	Cms	=	0.078 mm/N
BL product	BL	=	20.0 T.m
Voicecoil diameter	d	=	70 mm
Voicecoil material		=	copper
Voicecoil dc resistance	Re	=	5.9 ohms
Voicecoil inductance @ 1KHz	Lvc	=	1.2 mHenry
Voicecoil height		=	15 mm
Height of air-gap		=	8 mm
Peak linear displacement	Xpk	=	3.5 mm
X Damage peak to peak	Xpk-pk	=	34 mm
Reference efficiency		=	4.77 %
Speaker total mass		=	6300 gm

Specifications subject to change without notice.

Notes

- (1) AES power is determined according to AES2-1984 standard in free-air. Power calculated at 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 measurement at XBL 82%.

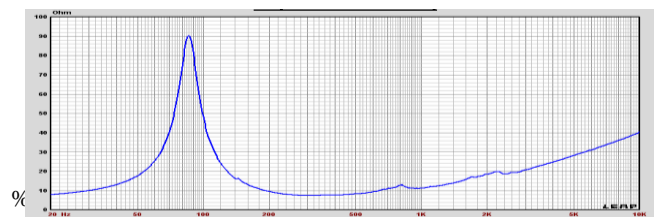
Frequency Response



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

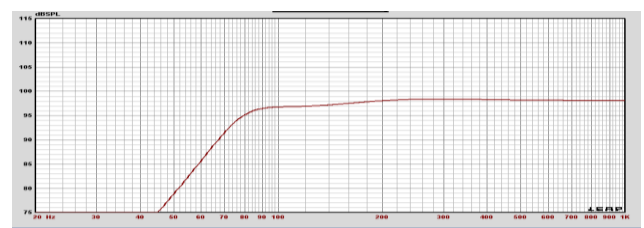
- (a) Blue curve on axis
- (b) Green curve 30 degrees off axis
- (c) Orange curve 40 degrees off axis

Impedance



Free-air impedance magnitude plot.

Typical Bass Response



Computer predicted bass performance at 2.83V at one meter including box losses for:

An 18 litre net capacity vented at 86 Hz.