15W500

Low Frequency Ferrite Transducer

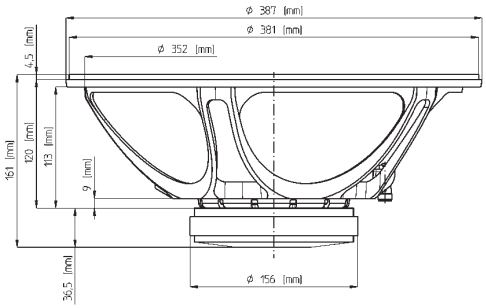
Key Features

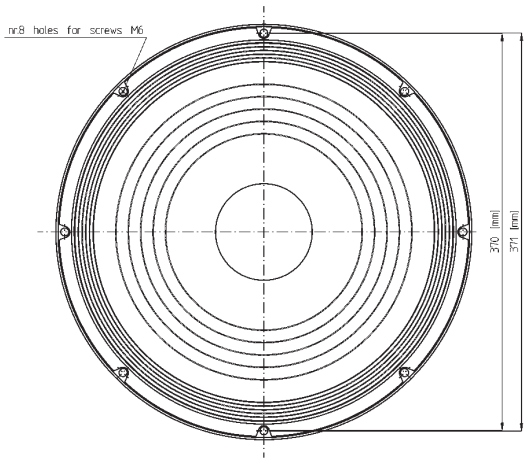
100,5dB SPL 1W / 1m average sensitivity
65 mm (2,5 in) Interleaved Sandwich Voice coil (ISV)
350 W continuous pink noise power handling
Excellent transient response and cone damping
Ideal for compact two way and multiway systems
Improved heat dissipation via unique basket design

General Description

The 15W500 is a fine example of a high quality transducer providing the right balance between performance and engineering costs. This ferrite low frequency driver satisfies the demand for a 15" loudspeaker which combines excellent linearity with good sensitivity and power handling characteristics.
The 15W500 has been designed for two-way or multi-way reflex systems. When used in a two-way system, we recommend a 1.4" or 2" exit HF compression driver match for the best sound quality results.
The high quality paper cone has a smooth, Eighteen Sound specified curvilinear profile design that eliminates bell-mode resonance within the intended frequency range. The cone is carried by a specially treated and dampened double half-roll linen suspension designed to control excursion while maintaining piston action linearity.
The 15W500 also employs our Interleaved Sandwich Voice coil (ISV) technology, in which a high strength fiberglas former carries windings on both the outer and inner surfaces to achieve a mass balanced coil. This results in an extremely linear motor assembly with a reduced tendency for eccentric behavior when driven hard.
Voice coil cooling has been achieved by incorporating airways between the chassis back plate and the magnetic top plate, allowing heated air from the voice coil and gap to be channeled away and dissipated by the chassis basket. This technology is the result of a meticulous 3D CAD design project.

0221584310 8 Ohm





FERRITE LF-MB-MF TRANSDUCERS

info@eighteensound.com
www.eighteensound.com

15W500

Low Frequency Ferrite Transducer

GENERAL SPECIFICATIONS

NOMINAL DIAMETER	380 mm (15 in)
RATED IMPEDANCE	8 Ohm
CONTINUOUS PINK NOISE (1)	350 W
CONTINUOUS POWER (2)	250 W
PROGRAM POWER (3)	500 W
PEAK POWER (4)	1000 W
SENSITIVITY (5)	100,5 dB
FREQUENCY RANGE (6)	50 ÷ 4500 Hz
POWER COMPRESSION @-10DB (7)	(25 W) 0,7 dB
POWER COMPRESSION @-3DB	(125 W) 2,5 dB
POWER COMPRESSION@FULL POWER	(250 W) 4,0 dB
MAX RECOMM. FREQUENCY	3000 Hz
RECOMM. ENCLOSURE VOLUME	80 ÷ 200 lt. (2,47 ÷ 5,3 cuft)
MINIMUM IMPEDANCE	6 Ohm at 25°C
MAX PEAK TO PEAK EXCURSION	23 mm (0,88 in)
VOICE COIL DIAMETER	64 mm (2,52 in)
VOICE COIL WINDING MATERIAL	aluminum
POLARITY	positive voltage on red terminal gives forward cone motion

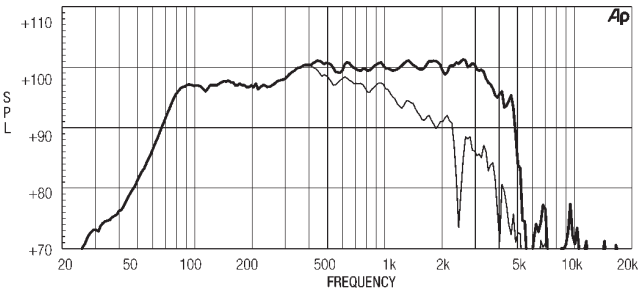
THIELE SMALL PARAMETERS

Fs	50 Hz
Re	5,2 Ohm
Sd	0,085 sq.mt. (131,75 sq.in.)
Qms	9,64
Qes	0,55
Qts	0,52
Vas	189 lt. (6,68 cuft)
Mms	55 gr. (0,12 lb)
BL	12,6 Tm
Linear Mathematical Xmax (8)	± 4 mm (±0,16 in)
Le (1kHz)	1,04 mH
Ref# Efficiency 1W@1m (half space)	98,2 dB

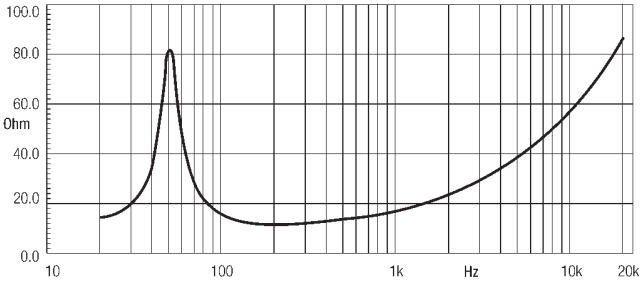
MOUNTING INFORMATIONS

Overall diameter	387 mm (15,23 in)
N# of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	370 - 371 mm (14,55 - 14,6 in)
Front mount baffle cutout ø	353 mm (13,90 in)
Rear mount baffle cutout ø	357 mm (14,06 in)
Total depth	161 mm (6,33 in)
Flange and gasket thickness	11,5 mm (0,45 in)
Net weight	4,3 kg (18,54 lb)
Shipping weight	5,1 kg (20,97 lb)
CardBoard Packaging dimensions	405 x 405 x 214 mm (15,94 x 15,94 x 8,43 in)

FREQUENCY RESPONSE CURVE OF 15W500 MADE ON 125 LIT. ENCLOSURE TUNED 50HZ INFREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THETHIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



NOTES

(1) AES standard

(2) Continuous power rating is measured in 125 lit enclosure tuned 50Hz using a 40 - 400Hzband limited pink noise test signal applied continuously for 2 hours.

(3) Program power rating is measured as for 2 above but 50% duty cycle.

(4) The peak power rating is based on a 6dB crest factor above the continuous power ratingand represents the maximum permitted instantaneous peak power level over a maximumperiod of 10ms which will be withstood by the loudspeaker without damage.

(5) Sensitivity represents the averaged value of acoustic output as measured on the forwardcentral axis of cone, at distance 1m from the baffle panel, when connected to 2,83 V sinewave test signal swept between 100Hz and 500Hz with the test specimen mounted in thesame enclosure as given for 2 above.

(6) Frequency range is given as the band of frequencies delineated by the lower and upperlimits where the output level drops by 10 dB below the rated sensitivity in half spaceenvironment.

(7) Power compression represents the loss of sensitivity for the specified power, measuredfrom 50-500 Hz, after a 5 min pink noise preconditioning test at the specified power.

(8) Linear Mat. Xmax is calculated as; (Hvc-Hg)/2 Hg/4 where Hvc is the coil depth and Hgis the gap depth.