

# HD120

## High Frequency Driver

### Key Features

- 108 dB SPL 1W / 1m average sensitivity
- 1 inch exit throat
- 25,4 mm (1 in) edgewound aluminum voice coil
- 50W program power handling
- Low weight, easy mounting and handling structure
- Usable in two way or multiway systems



### General Description

The HD120 has been designed for 2-way or 3-way systems. It delivers an unmatched combination of extended linear frequency response and very high efficiency. With a 1-inch exit throat, the HD120 has been developed to match the XT120 and XT1086 constant directivity horns.

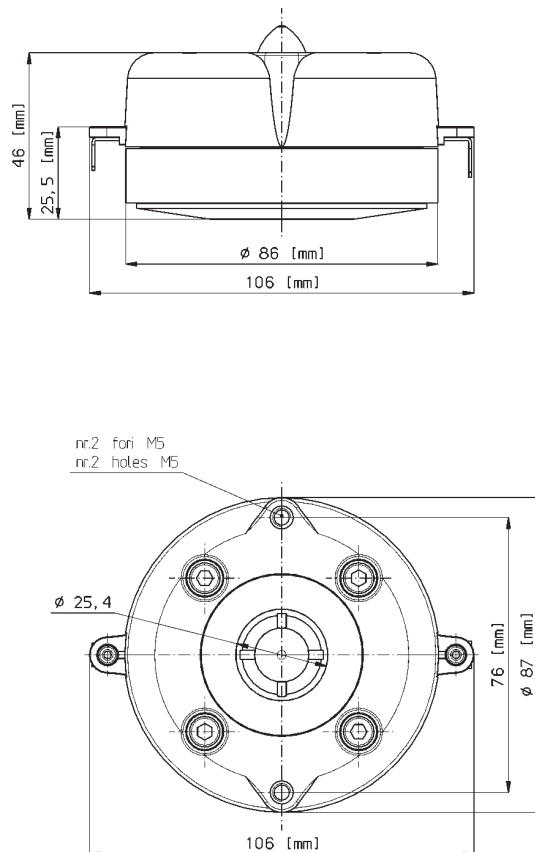
The design of diaphragm and its surround in polyester material allows optimum movement and stress control; the special radial ribs increase stiffness avoiding uncontrolled vibration modes in the usable frequency range.

An edge-wound aluminum voice coil, wound on proprietary treated Nomex, completes diaphragm assembly. Thanks to its physical properties, the proprietary treated Nomex former shows a 30% higher value of tensile elongation at a working operative temperature (200°C) when compared to Kapton. This feature enables proper energy transfer control from the voice coil to the dome in real working conditions. Moreover, this proprietary former material is also suitable for use in higher moisture content environments.

The polypropylene phase plug is the result of a meticulous design project. Its shape assures the correct acoustic impedance of the radiating dome, reducing distortion levels across a very wide frequency range. The result is a smooth coherent wave front at the horn entrance, high thermal stability and manufacturing consistency.

The HD120's compact size and lightweight ceramic magnet assembly has been designed to obtain 16KGauss in the gap.

0421080210 8ohm



FERRITE HF DRIVERS

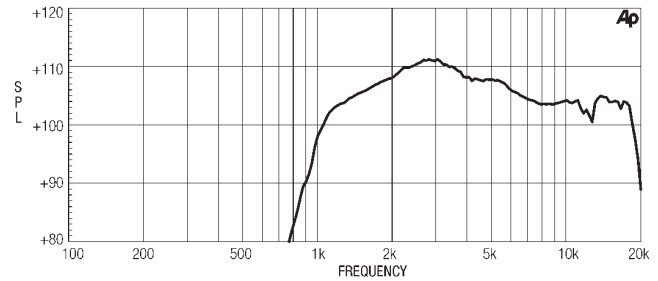
### GENERAL SPECIFICATIONS

THROAT DIAMETER	25,4 mm (1 in)
RATED IMPEDANCE	8 ohm
DC RESISTANCE	5,7 Ohm
MINIMUM IMPEDANCE	6,6 ohms at 6500 Hz
AES POWER (1)	25 W above 2,5 kHz
CONTINUOUS PROGRAM (2)	50 W above 2,5 kHz
SENSITIVITY(1W@1M) (3)	108 dB
FREQUENCY RANGE	2 kHz ÷ 18 kHz
RECOMM. XOVER FREQUENCY	3000 Hz (12dB/oct slope)
DIAPHRAGM MATERIAL	Polyester
VOICE COIL DIAMETER	25,4 mm (1 in)
VOICE COIL WINDING MATERIAL	Edge-wound aluminum
MAGNET MATERIAL	Ferrite
FLUX DENSITY	1,65 T
BL FACTOR	3,5 N/A
POLARITY	Positive voltage on red terminal gives positive pressure in the throat

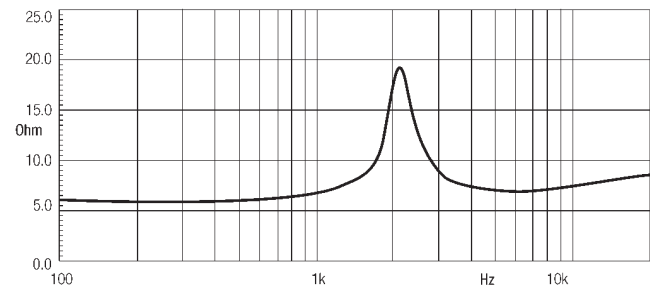
### MOUNTING INFORMATIONS

Overall diameter	87 mm (3,4 in)
Mounting holes diameter	2 M5 at 180 degrees
Bolt circle diameter	76 mm (3 in)
Total depth	46 mm (1,8 in)
Net weight	0,8 Kg (1,77 lb)
Shipping weight	0,9 Kg (1,99 lb)
CardBoard Packaging dimensions	90x90x70 mm (3,5x3,5x2,8 in)

HD 120 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1 M DISTANCE ON AXIS FROM THE MOUTH OF HORN XT120



FREE AIR IMPEDANCE MAGNITUDE CURVE



#### NOTES

- (1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.
- (2) Continuous program power is defined as 3 dB greater than AES power and is a conservative expression of the transducer ability to handle music program material
- (3) Sensitivity is measured on 1 W input on rated impedance at 1 m on axis from the mouth of XT 120 horn averaged in the 3 kHz octave band

Eighteen Sound engages in research and product improvement. New materials and design refinements can be introduced into existing products without notice.