

ND3ST

Natural Sound Neodymium Compression Driver

Key Features

- 1.4 inch exit Neodymium compression driver
- Very fast impulse response for excellent transient reproduction
- Natural Sound frequency response extended up to 20 kHz
- 240 W program power handling
- 112 dB 1W / 1m sensitivity
- 75 mm (3 in) Edgewound CCAW voice coil
- Titanium diaphragm with proprietary suspension geometry
- Next gen 4-slot metal alloy phase plug design
- Copper sleeve for reduced distortion and increased high end output

Description

The ND3ST 1.4 inch exit Natural Sound neodymium high frequency compression driver has been designed to fulfill state of the art performances needed for present and future very high quality sound reinforcement applications.

The next-gen titanium diaphragm is produced in house and has been developed to assure unmatched transient response. The diaphragm assembly is made by joining the former directly to the titanium dome on its upper bend edge. In comparison with a usual straight former joint, the driver's design assures extended frequency energy transfer for improved response linearity and unparallel reliability. This feature facilitates proper motion control of the dome in real working conditions. A proprietary treated Nomex former is used as Nomex shows a 30% higher value of tensile elongation at a working operative temperature (200°C) when compared to Kapton. Moreover, this proprietary former material is also suitable for use in higher moisture content environments.

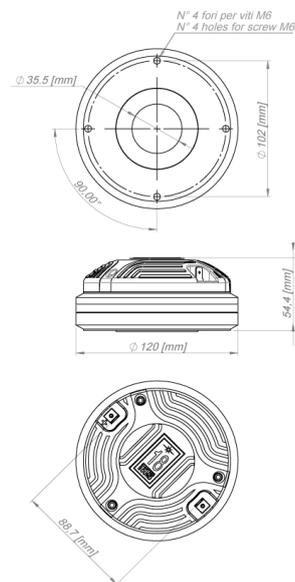
The ND3ST neodymium magnet assembly has been designed to obtain 21KGauss in the gap for major benefits in transient response. The motor structure, throughout the precisely coherent proprietary designed metal alloy phase plug with 4 circumferential slots and copper ring on the pole piece, reduces inductance effect and distortion.

The diaphragm kit self-centering design allows high precision mounting and at the same time makes very easy the servicing procedure.

The ability to perform properly under inclement weather conditions is a key point of the Eighteen Sound philosophy. Hence, a special treatment is applied to the magnet and the top and back plates of the magnetic structure in order to make the driver more resistant to the corrosive effects of salts and oxidization. This treatment is more effective than any other coating commonly used.

Models

Model	Code	Info
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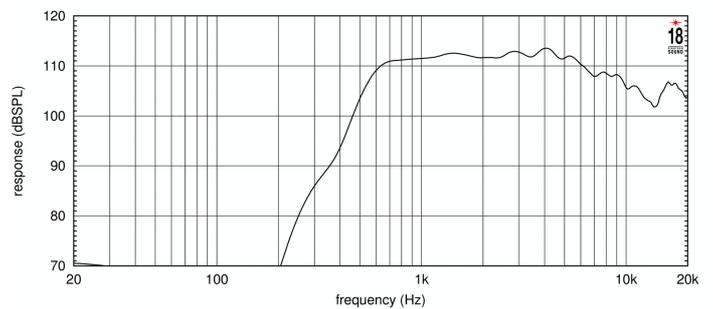
Mounting information

Overall diameter	120 mm (4.7 in)
N. of mounting holes and bolt	4 M6 holes 90° at Ø102 mm (4 in)
Mounting holes diameter	102 mm (4 in)
Bolt circle diameter	102 mm (4 in)
Total depth	53 mm (2.1 In)
Net weight	2.3 Kg (5.07 lb)
Packaging Dimensions	165x150x65mm (6.5x5.91x2.56 in)

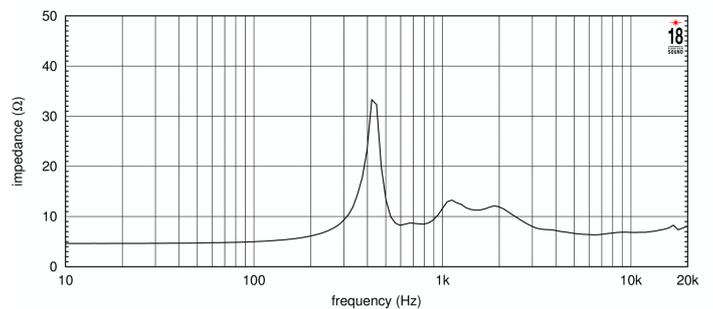
General Specifications HF

Throat Diameter	36 mm (1.4in)
Rated Impedance	8 Ohm
D.C. Resistance	4.5 Ohm
Minimum Impedance	6.4 Ohm @ 6500 Hz
Continuous Power (1)	120 W
Program power (2)	240 W
Sensitivity (3)	112 dB
Frequency Range	800 ÷ 20000 Hz
Min. Xover Frequency	1000 Hz
Recomm. Xover Frequency	1200 Hz (24 dB/Oct High-Pass Filter)
Diaphragm material	Pure Titanium
Voice Coil Diameter	75 mm (3 In)
Voice Coil winding material	Edgewound CCAW
Magnet material	Neodymium
Flux Density	2.1 T
Polarity	Positive voltage on red terminal gives positive pressure in the throat

FREQUENCY RESPONSE CURVE



FREQUENCY RESPONSE MEASURED WITH 2,83 V INPUT ON AXIS AT 1 METER DISTANCE FROM THROAT OF XR1464 HORN.



IMPEDANCE MEASURED WITH 0,5 V. DRIVER MOUNTED ON XR1464 HORN.

Notes

- 1) Continuous Power is defined as 3 dB greater than the one measured with the new AES2-2012 standard, using continuous pink noise having 12 dB crest factor for 2 hours, mounted on 1.4" horn, from 1.2 kHz to 12 kHz.
- 2) Max. program power rating is defined as 3 dB greater than continuous power rating and is a conservative expression of the transducer ability to handle music program material.
- 3) Sensitivity represent the averaged value of acoustic output as measured at 1mt distance on axis from the mouth of 1.4" throat horn, when connected to 2,83V sine wave swept between 1000 and 4000 Hz.