

# ND3ST

HF high output Neodymium Driver

## KeyFeatures

- 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 / 1mt 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.

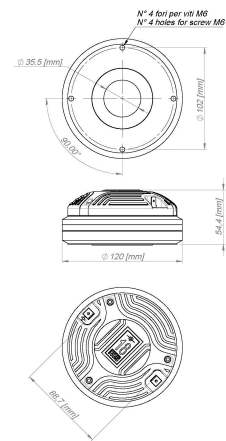
The ND3ST neodymium magnet assembly has been designed to obtain 21KGauss in the gap for major benefits in transient response. The motor structure, throughout the precisely coherent proprietary designed metal alloy phase plug with 4 circumferential slots and copper ring on the pole piece, reduces inductance 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 |
|--------------|------------|------|
| ND3ST 8 OHM  | 0423T8N400 |      |
| ND3ST 16 OHM | 0423T6N400 |      |



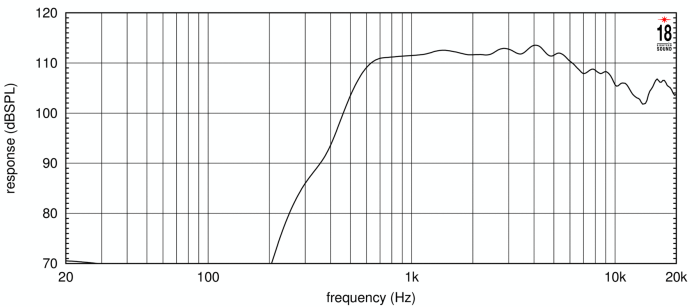
Mounting information

|                               |                                  |
|-------------------------------|----------------------------------|
| 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)                 |

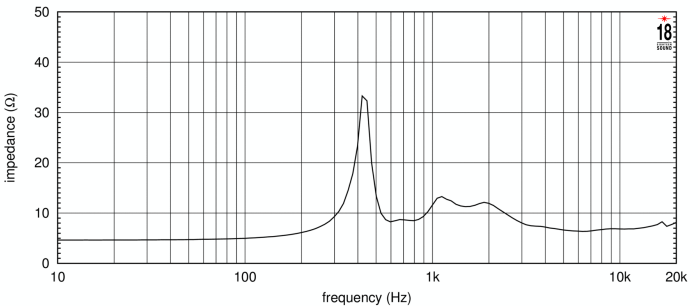
General Specifications HF

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| 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            | 120 W                                                                  |
| Program power (8)           | 240 W                                                                  |
| Sensitivity (9)             | 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. FREE AIR IMPEDANCE MAGNITUDE CURVE



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. 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

