

10NMB520

Key Features

- 99 dB SPL 1W/1m average sensitivity
- 65 mm (2,5 in) Interleaved Sandwich Voice coil (ISV)
- 600 W program power handling
- High grade external neodymium motor assembly
- Flux stabilizer ring to linearize impedance curve
- Humidity resistant cone

High Output Midbass Neo Transducer



General Description

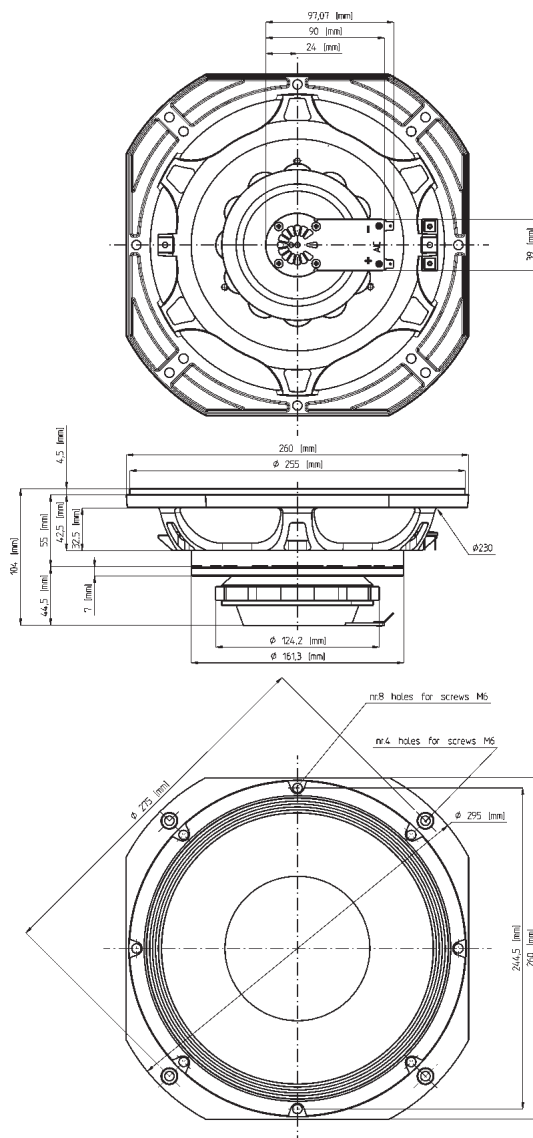
The 10NMB520 is a 10" mid-bass transducer created for compact reflex 2-way enclosures. It can be coupled with 1" compression drivers and it can also be used in mid-low sections on modern line-array systems.

Its features and design characteristics make it extremely defined in mid-range frequencies, offering a significant and consistent bottom-end. This also makes it suitable for monitoring applications. The extremely powerful external neodymium magnet assembly assures high flux concentration, low power compression and excellent heat exchange. The overall result is the best power to weight ratio available on the market today.

The curvilinear cone, specified with a high damping wood pulp has been designed to achieve the best possible linearity within its frequency range. The in-house developed cone treatment is a humidity repellent and significantly dampens bell-mode resonances. The 65mm edge-wound voice coil assembly is wound on a strong fiberglass former in order to improve force transmission and power handling.

A proprietary humidity-block cone treatment makes the transducer suitable for outdoor use in adverse weather conditions. In addition, a special coating applied to both the top and back plates makes the 10NMB520B far more resistant to the corrosive effects of salts and oxidization.

022106N52B 8 ohm



NEODYMIUM LF-MB-MF TRANSDUCERS

10NMB520

High Output Midbass Neo Transducer

GENERAL SPECIFICATIONS

NOMINAL DIAMETER	260mm (10 in)
RATED IMPEDANCE	16 Ohm
AES POWER (1)	300W
PROGRAM POWER (2)	600W
PEAK POWER (3)	900W
SENSITIVITY (4)	100 dB
FREQUENCY RANGE (5)	60 - 5000 Hz
POWER COMPRESSION @-10DB (6)	0,7 dB
POWER COMPRESSION @-3DB	2,5 dB
POWER COMPRESSION @0DB	3,9 dB
MAX RECOMM. FREQUENCY	2000 Hz
RECOMM. ENCLOSURE VOLUME	10 ÷ 40 lt. (0,90 ÷ 1,41 cuft)
MINIMUM IMPEDANCE	13,8 Ohm at 25°C
MAX PEAK TO PEAK EXCURSION	24 mm (0,94 in)
VOICE COIL DIAMETER	65 mm (2,5 in)
VOICE COIL WINDING MATERIAL	aluminum
SUSPENSION	Double roll, Polycotton
CONE	Curvilinear ribbed, treated paper

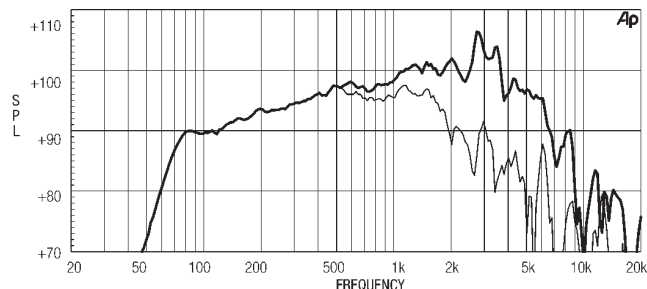
THIELE SMALL PARAMETERS (7)

Fs	64 Hz
Re	11,7 Ohm
Sd	0,034 sq.mt. (52,70 sq.in.)
Qms	4,0
Qes	0,36
Qts	0,33
Vas	43 lt. (1,52 cu ft)
Mms	23 gr. (0,05 lb)
BL	17,5 Tm
Linear Mathematical Xmax (8)	±4 mm (±0,16 in)
Le (1kHz)	0,33 mH
Ref. Efficiency 1W@1m (half space)	97,1 dB

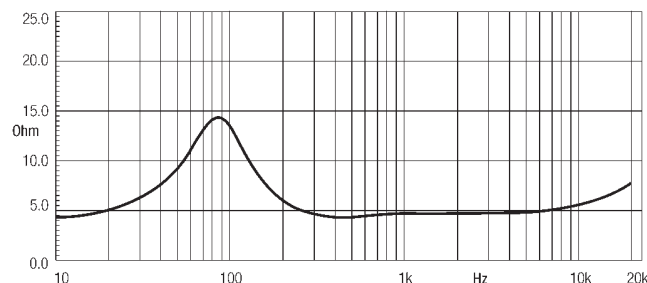
MOUNTING INFORMATION

Overall diameter	260 mm (10,24 in)
N. of mounting holes and bolt	4 on diam. 275 mm (4 on 10,83 in) 8 on diam. 244,5 mm (4 on 9,63 in)
Mounting holes diameter	7,15 mm (0,28 in)
Front mount baffle cutout ø	232 mm (9,13 in)
Rear mount baffle cutout ø	232 mm (9,13 in)
Total depth	104 mm (4,09 in)
Flange and gasket thickness	14,5 mm (0,57 in)
Net weight	3 kg (6,67 lb)
Shipping weight	3,57 kg (7,88 lb)
CardBoard Packaging dimensions	275 x 275 x 164mm (10,83 x 10,83 x 6,46 in)

FREQUENCY RESPONSE CURVE MADE ON 30 LIT. ENCLOSURE TUNED AT 55 HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE



NOTES

- (1) AES power is determined according to AES2-1984 (r2003) standard
- (2) Program power rating is measured in 30 lit enclosure tuned at 55 Hz using a 100-3000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.
- (3) The peak power rating represents the maximum permitted instantaneous peak power level over a maximum period of 10ms which will be withstood by the loudspeaker without damage.
- (4) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.
- (5) Frequency range is given as the band of frequencies delineated by the lower and upper limits where the output level drops by 10 dB below the rated sensitivity in half space environment.
- (6) Power compression represents the loss of sensitivity for the specified power, measured from 100-1000 Hz, after a 5 min pink noise preconditioning test at the specified power.
- (7) Thiele - Small parameters are measured after the test specimen has been conditioned by AES power and represent the expected long term parameters after a short period of use.
- (8) Linear Math. Xmax is calculated as $(Hvc-Hg)/2 + Hg/4$ where Hvc is the coil depth and Hg is the gap depth.

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