10NMB420 8Ω

LF drivers - 10.0 Inches

- 99 dB SPL 1W / 1m average sensitivity
- 65 mm (2.5 in) Interleaved Sandwich Voice coil (ISV)
- 350 W AES power handling
- External neodymium magnet assembly
- Single Demodulating Ring (SDR) for lower distortion
- Weather protected cone and plates for outdoor usage
- Suitable for line arrays and compact two way systems

The 10NMB420 neodymium transducer has been developed in response to a specific market requirement for a 10" midbass driver that combines excellent linearity with good efficiency and high power handling capabilities. The 10NMB420 is primarily intended for use as a midbass driver in line-arrays as well as high quality 2-way or multiway reflex enclosures. The low pass filter might be positioned as high as 2000Hz. The extremely powerful external neodymium magnet assembly assures high flux concentration, low power compression and excellent heat exchange. The levels of force factor and power handling are, as a consequence, at the upper professional level with best power to weight ratio. The 65mm Ø state-of-the-art, aluminum wire voice coil employs Interleaved Sandwich Voice coil (ISV) technology. It is composed by a high strength fiberglas former used to carry windings on both the outer and inner surfaces, in order to achieve a mass balanced coil. This results in an extremely linear motor assembly which, in conjunction with the highly advanced design of the magnetic structure, provides a high BL force factor. The voice coil is cooled through airways placed between the chassis back plate and the magnet faceplate. In this way heated air is channeled away from the voice coil and the gap. Another technology present into the 10NMB420 is the SDR (Single Demodulating Ring), used to reproduce instantaneous peak on mid frequencies, reducing intermodulation distortion. Thanks to the increasing use during outdoor audio events, the ability to perform in humid environments is an extra key feature of the 10NMB420. This is achieved trough an exclusively developed cone treatment which renders the cone humidity repellent while does not increasing the total moving speaker mass.

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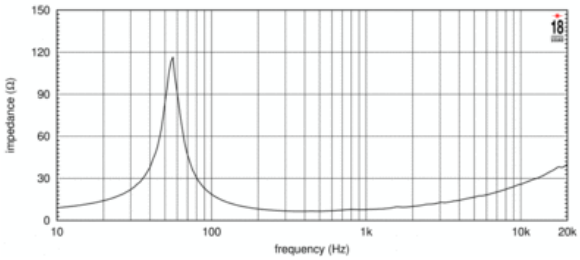

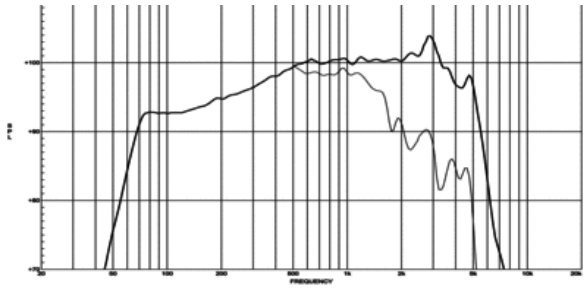

SPECIFICATIONS

Nominal Diameter	260 mm (in)
Nominal Impedance	8 Ω
Minimum Impedance	7.0 Ω
Nominal Power Handling[1]	350 W
Continuous Power Handling[2]	500 W
Sensitivity[3]	99.0 dB
Frequency Range	65 - 5000 Hz
Voice Coil Diameter	65 mm (2.56 in)
Winding Material	aluminum

DESIGN

Magnet Material	Neo
Recommended Enclosure	25.0 dm^3 (0.88 ft^3)
Recommended Tuning	70 Hz

PARAMETERS[4]

Resonance Frequency	56 Hz
Re	5.0 Ω
Qes	0.26
Qms	5.0
Qts	0.25
Vas	40.0 dm^3 (1.41 ft^3)
Sd	346.0 cm^2 (53.63 in^2)
Xmax	4.0 mm
Mms	29.5 g
Bl	14.5 Txm
Le	0.37 mH
EBP	215 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	260 mm (10.24 in)
Bolt Circle Diameter	244 mm (9.61 in)
Baffle Cutout Diameter	232.0 mm (9.13 in)
Depth	122 mm (4.8 in)
Flange and Gasket Thickness	11 mm (0.43 in)
Net Weight	3.0 kg (6.61 lb)
Shipping Weight	3.4 kg (7.5 lb)
Shipping Box	275 x 275 x 164 mm (10.83x10.83x6.46 in)

1. 2 hours test made with continuous pink noise signal within the range Fs-10Fs. Power calculated on rated minimum impedance. Loudspeaker in free air.
2. Power on Continuous Program is defined as 3 dB greater than the Nominal rating.
3. Applied RMS Voltage is set to 2.83 V for 8 ohms Nominal Impedance.
4. Thiele-Small parameters are measured after a high level 20 Hz sine wave preconditioning test.

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