

- 99 dB SPL 1W/ 1m average sensitivity
- 75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
- 450 WAES power handling
- External neodymium magnet assembly
- Single Demodulating Rings (SDR) for lower distortion
- Weather protected cone and plates for outdoor usage
- Specially designed for compact two way systems

The 15NMB420 is a 380 mm (15 in) neodymium mid-bass transducer designed for professional monitoring and sound reinforcement.

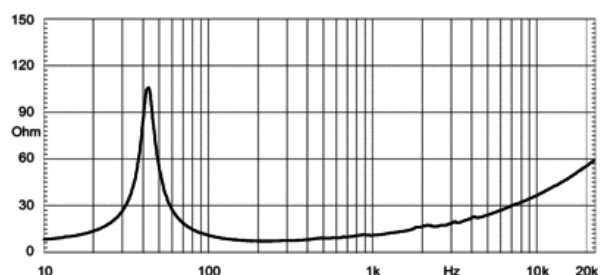
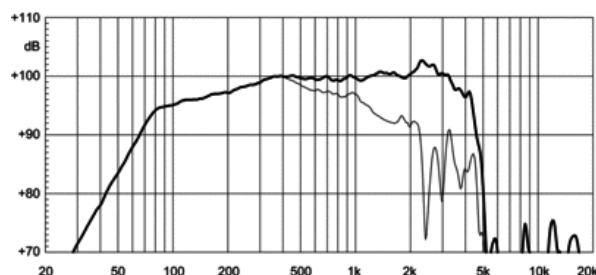
The most extended bass, lowest distortion and best control is usually realized in properly designed vented enclosures. Typical enclosure sizes range from 80lit. up with tunings from 40 to 50Hz. Low-frequency equalization is suggested in order to improve the bass output. A conservative idea of amplifier size ranges from 400-800W, allowing maximum output with no risk of speaker damage when properly used.

The neodymium magnet assembly assures high flux concentration, low power compression and excellent heat exchange, since the external magnet configuration is considerably more efficient than the traditional under-pole magnet topology. This allows to obtain high levels of force factor and power handling with a power to weight ratio at the upper level of the category.

SDR (Single Demodulating Ring) technology has been used to reproduce instantaneous peaks on mid frequencies, reducing intermodulation distortion.

The high quality paper cone has a smooth, curvilinear profile design that eliminates bell-mode resonances within the intended frequency range. This is carried by a specially treated and damped multiple roll linen suspension designed to control excursion maintaining the piston action linearity. The 15NMB420 employs a 75mm aluminum Interleaved Sandwich Voice coil (ISV), in which a high strength fiberglass former carries windings on both the outer and inner surfaces to achieve a mass balanced coil, resulting in an extremely linear motor assembly.

A proprietary humidity-block cone treatment has been implemented in order to perform in outdoor environments under adverse weather conditions. In addition, special treatment of both the face and back plates results in a product which is far more resistant to the corrosive effects of salts and oxidization than any other treatment in use.



SPECIFICATIONS

Nominal Diameter	380 mm (in)
Nominal Impedance	8 Ω
Nominal Power Handling ¹	450 W
Continuous Power Handling ²	700 W
Sensitivity ³	99.0 dB
Frequency Range	40 - 5000 Hz
Voice Coil Diameter	75 mm (3.0 in)
Winding Material	aluminum

DESIGN

Surround Shape	M-roll
Cone Shape	Curvilinear
Magnet Material	Neo
Woofers Cone Treatment	Weather protected
Recommended Enclosure	60.0 dm ³ (2.12 ft ³)
Recommended Tuning	55 Hz

PARAMETERS⁴

Resonance Frequency	42 Hz
Re	5.6 Ω
Qes	0.3
Qms	6.0
Qts	0.29
Vas	225.0 dm ³ (7.95 ft ³)
Sd	900.0 cm ² (139.5 in ²)
Xmax	6.5 mm
Mms	73.0 g
Bl	19.0 Txm
Le	0.8 mH
EBP	140 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	387 mm (15.24 in)
Bolt Circle Diameter	370 mm (14.57 in)
Baffle Cutout Diameter	353.0 mm (13.9 in)
Depth	169 mm (6.65 in)
Flange and Gasket Thickness	11 mm (0.43 in)
Net Weight	3.9 kg (8.6 lb)
Shipping Weight	4.8 kg (10.58 lb)
Shipping Box	405 x 405 x 214 mm (15.94x15.94x8.43 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.