



- 104 dB SPL 1W / 1m average sensitivity (free air)
- 75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
- 400 WAES power handling
- High force neodymium motor assembly
- Copper ring to linearize impedance curve
- Extremely low distortion design
- Sealed basket design
- Humidity resistant cone
- Ideal for high quality, very high SPL midrange applications

The 8NM610 is a 8 inch neodymium high output midrange frequency transducer designed around a cast aluminum sealed basket.

The design goal for this unit is to achieve an extremely high sound output and quality for direct and mainly horn loaded applications such as line array configurations. The back cavity volume has been optimized with attention to horn applications and also on the heat extraction because it is a true powerful heatsink for all the encapsulated magnet structure.

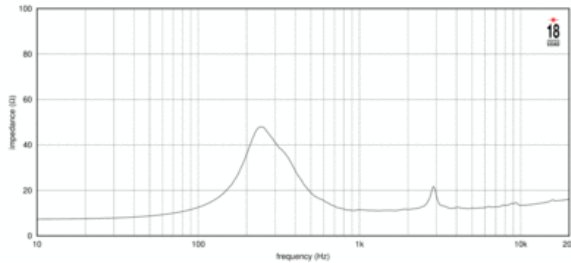
An oversized external configuration neodymium magnet, considerably more efficient than traditional under-pole magnet topology, have been used in order to provide high flux density and excellent distortion control.

A flux stabilizing copper ring minimizes the overall harmonic and intermodulation distortion figure.

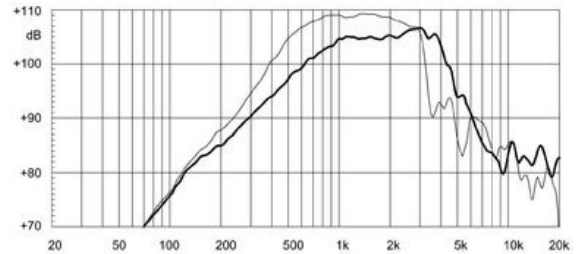
The curvilinear cone, made with a high damping wood pulp, has been developed to achieve the best possible linearity within its frequency range.

The 75mm (3 in) aluminum inside outside voice coil employs our Interleaved Sandwich Voice coil (ISV) technology, in which a high strength fiberglass former carries windings on both the outer and inner surfaces to achieve a balanced coil with a uniform distribution of mass and motive energy. This results in an extremely linear motor assembly.

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 8NM610 far more resistant to the corrosive effects of salts and oxidization.



FREQUENCY RESPONSE CURVE OF 8NM610 IN FREE FIELD (4PI) ENVIRONMENT. THE THIN LINE REPRESENTS ON AXIS FREQUENCY RESPONSE LOADED ON A 80° X 60° HORN.



### SPECIFICATIONS

|  |                |
|--|----------------|
| Nominal Impedance                      | 8 Ω            |
| Minimum Impedance                      | 11.0 Ω         |
| Nominal Power Handling <sup>1</sup>    | 400 W          |
| Continuous Power Handling <sup>2</sup> | 600 W          |
| Sensitivity <sup>3</sup>               | 104.0 dB       |
| Frequency Range                        | 400 - 5000 Hz  |
| Voice Coil Diameter                    | 75 mm (3.0 in) |

### PARAMETERS<sup>4</sup>

|                     |   |
|---------------------|---|
| Resonance Frequency | 260 Hz  |
| Re                  | 6.5 Ω   |
| Qes                 | 0.24  |
| Qms                 | 1.52  |
| Qts                 | 0.21  |
| Vas                 | 1.5 dm <sup>3</sup> (0.05 ft <sup>3</sup> )   |
| Sd                  | 220.0 cm <sup>2</sup> (34.1 in <sup>2</sup> ) |
| Xmax                | 3.0 mm  |
| Mms                 | 18.0 g  |
| Bl                  | 28.3 T·xm                                     |
| Le                  | 0.4 mH  |
| EBP                 | 1083 Hz                                       |

### MOUNTING AND SHIPPING INFO

|                             |                    |
|-----------------------------|--------------------|
| Overall Diameter            | 240 mm (9.45 in)   |
| Bolt Circle Diameter        | 220 mm (8.66 in)   |
| Baffle Cutout Diameter      | 192.0 mm (7.56 in) |
| Depth                       | 113 mm (4.45 in)   |
| Flange and Gasket Thickness | 14 mm (0.55 in)    |
| Net Weight                  | 4.5 kg (9.92 lb)   |
| Shipping Weight             | 4.8 kg (10.58 lb)  |

1. 2 hours test made with continuous pink noise signal within the range  $F_s$ -10 $F_s$ . 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.