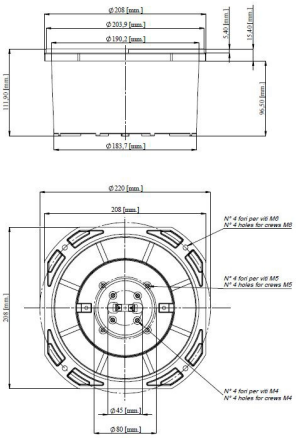
8NM610 16Ω

LF drivers - 8.0 Inches



- 104 dB SPL 1W / 1m average sensitivity (free air)
- 75 mm (3 in) Interleaved Sandwich Voice coil (ISV
- 400 W AES 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 fiberglas 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.

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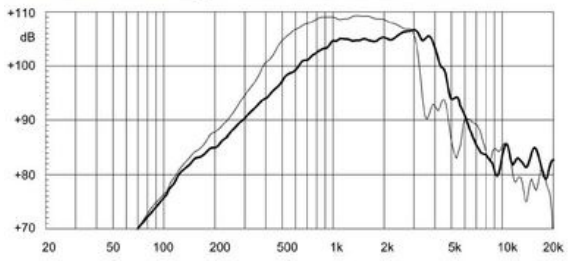
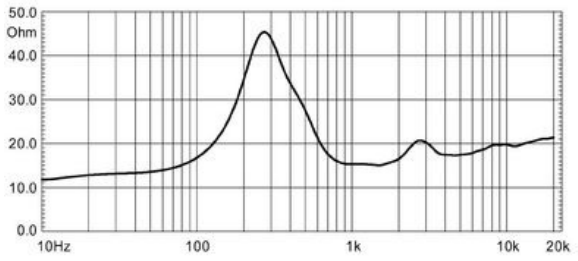
FREQUENCY RESPONSE CURVE OF 8NM610 IN FREE FIELD (4PI) ENVIRONMENT. THE THIN LINE REPRESENTS ON AXIS FREQUENCY RESPONSE LOADED ON A 80° X 60° HORN.



FREE AIR IMPEDANCE MAGNITUDE CURVE



SPECIFICATIONS

Nominal Impedance	16 Ω
Minimum Impedance	15.0 Ω
Nominal Power Handling[1]	400 W
Continuous Power Handling[2]	600 W
Sensitivity[3]	104.0 dB
Frequency Range	400 - 5000 Hz
Voice Coil Diameter	75 mm (3.0 in)

DESIGN

Surround Shape	M-roll
Cone Shape	Curvilinear
Magnet Material	Neo
Woofer Cone Treatment	Weather protected

PARAMETERS[4]

Resonance Frequency	260 Hz
Re	10.0 Ω
Qes	0.28
Qms	1.2
Qts	0.23
Vas	1.6 dm^3 (0.06 ft^3)
Sd	220.0 cm^2 (34.1 in^2)
Xmax	3.0 mm
Mms	17.0 g
Bl	31.0 Txm
Le	0.5 mH
EBP	928 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 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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