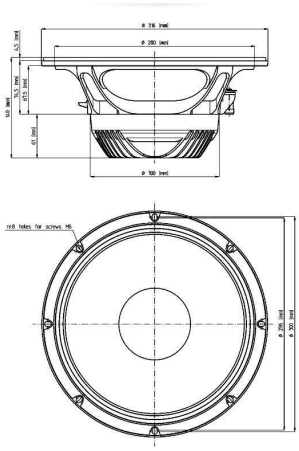
12ND830 8Ω

LF drivers - 12.0 Inches



- 99 dB SPL 1W / 1m average sensitivity
- 75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
- 450 W AES power handling
- Neodymium magnet assembly
- Ideal for compact reflex enclosures and two-way systems

The 12ND830 is a 300mm (12 in) neodymium Mid-bass transducer, and differs from the 12ND930 in the wire conception, offering a lighter speaker with a lower force factor. The 12ND830 finds its ideal application in compact reflex enclosures where a considerable amount of low frequencies and low distortion are required. Its optimum low weight makes it suitable for fixed installations or portable professional loudspeaker systems. The neodymium magnet assembly developed by Eighteen Sound engineers assures a high flux concentration, low power compression and excellent heat exchange since the external magnet configuration is considerably more efficient than traditional under-pole magnet topology. The direct contact between the large heat sink and the specially designed basket, together with the magnetic structure, represents a fundamental improvement in thermal connection and heat dissipation. The result is increased power handling capabilities and lower power compression. The deep profile curvilinear cone, made from a special high strength wood pulp, has been designed to achieve the best possible linearity within its frequency range. The cone surround, made from linen material is highly resistant to aging and fatigue. The in-house developed cone treatment is fully water repellent and also gives a significant degree of rigidity to the cone. The 75 mm Interleaved Sandwich Voice coil (ISV) assembly is wound on a strong fiberglas former which improves force transmission and thermal power handling. A special coating applied to both the top and back plates makes the 12ND830 far more resistant to the corrosive effects of salts and oxidization.

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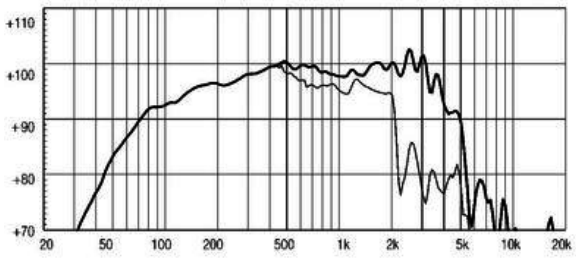

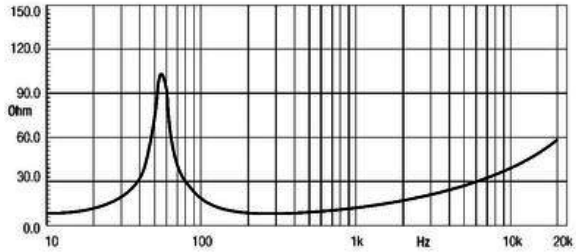

SPECIFICATIONS

Nominal Diameter	300 mm (in)
Nominal Impedance	8 Ω
Minimum Impedance	7.0 Ω
Nominal Power Handling[1]	450 W
Continuous Power Handling[2]	700 W
Sensitivity[3]	99.0 dB
Frequency Range	53 - 5000 Hz
Voice Coil Diameter	75 mm (3.0 in)
Winding Material	aluminum

DESIGN

Surround Shape	M-roll
Cone Shape	Curvilinear
Magnet Material	Neo
Woofer Cone Treatment	Weather protected
Recommended Enclosure	75.0 dm^3 (2.65 ft^3)
Recommended Tuning	55 Hz

PARAMETERS[4]

Resonance Frequency	55 Hz
Re	5.7 Ω
Qes	0.3
Qms	5.15
Qts	0.28
Vas	72.0 dm^3 (2.54 ft^3)
Sd	531.0 cm^2 (82.31 in^2)
Xmax	6.5 mm
Mms	46.0 g
Bl	17.6 Txm
Le	1.5 mH
EBP	183 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	315 mm (12.4 in)
Bolt Circle Diameter	296 mm (11.65 in)
Baffle Cutout Diameter	282.0 mm (11.1 in)
Depth	140 mm (5.51 in)
Flange and Gasket Thickness	9 mm (0.35 in)
Net Weight	4.3 kg (9.48 lb)
Shipping Weight	5.0 kg (lb)
Shipping Box	332 x 332 x 184 mm (13.07x13.07x7.24 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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