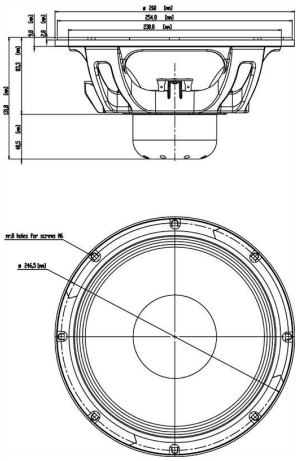
10NW650 8Ω

LF drivers - 10.0 Inches



- 96 dB SPL 1W / 1m average sensitivity
- 65 mm (2.5 in) aluminum edgewound voice coil
- 600 W program power handling
- High excursion design for low frequency clarity and punch
- Weather protected cone and coated plates for outdoor usage
- Ultra lightweight design
- Suitable for line array applications and multiway systems

The 10NW650 is a neodymium 10 inch size woofer. The transducer has been developed in response to a specific market requirement for a light weight design that combines excellent linearity with high power handling capabilities. The 10NW650 is primarily intended for use as a low frequency driver for 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 high grade neodymium magnet assembly assures high flux concentration and low power compression. 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, edgewound aluminum wire voice coil is wound on a high strength fiberglas former. The voice coil is cooled through airways placed between the chassis back plate and the magnet faceplate and carefully designed ventilation ducts made into the metal back plate. The curvilinear paper cone is formed using a special high strength wood pulp, designed to achieve the best possible rigidity and stiffness. Due to the increasing use during outdoor audio events, the ability to perform in humid environments is an extra key feature of the 10NW650. This is achieved trough an exclusively developed cone treatment which renders the cone humidity repellent while does not increasing the total moving speaker mass. In addition, a special epoxy treatment is applied to the top and back plates making the transducer far more resistant to the corrosive effects of salts and oxidization.

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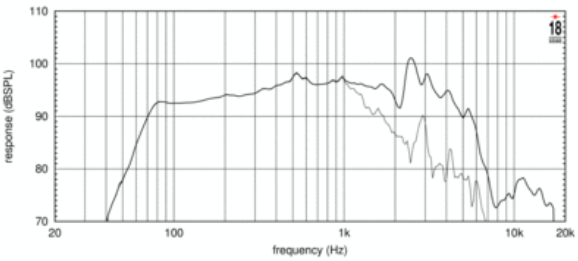

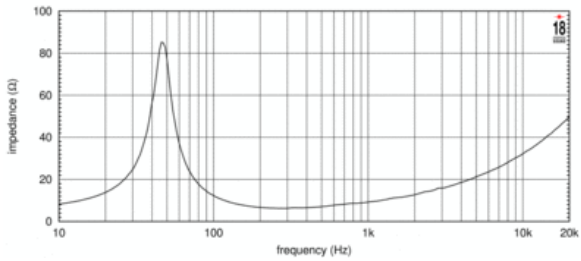

SPECIFICATIONS

Nominal Diameter	260 mm (in)
Nominal Impedance	8 Ω
Minimum Impedance	6.0 Ω
Nominal Power Handling[1]	300 W
Continuous Power Handling[2]	600 W
Sensitivity[3]	96.0 dB
Frequency Range	60 - 6000 Hz
Voice Coil Diameter	65 mm (2.5 in)
Winding Material	aluminum

DESIGN

Surround Shape	Double roll
Cone Shape	Curvilinear
Magnet Material	Neo
Woofer Cone Treatment	Weather protected
Recommended Enclosure	30.0 dm^3 (1.06 ft^3)
Recommended Tuning	55 Hz

PARAMETERS[4]

Resonance Frequency	51 Hz
Re	5.0 Ω
Qes	0.29
Qms	8.0
Qts	0.28
Vas	48.0 dm^3 (ft^3)
Sd	346.0 cm^2 (53.63 in^2)
Xmax	7.0 mm
Mms	34.0 g
Bl	14.0 Txm
Le	0.7 mH
EBP	175 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	260 mm (10.24 in)
Bolt Circle Diameter	243 mm (9.57 in)
Baffle Cutout Diameter	230.0 mm (9.06 in)
Depth	131 mm (5.16 in)
Flange and Gasket Thickness	9 mm (0.35 in)
Net Weight	2.7 kg (5.95 lb)
Shipping Weight	3.15 kg (6.94 lb)
Shipping Box	275 x 275 x 170 mm (10.83x10.83x6.69 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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