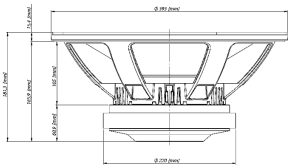
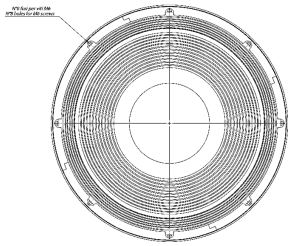
15LW2400 8Ω

LF drivers - 15.0 Inches



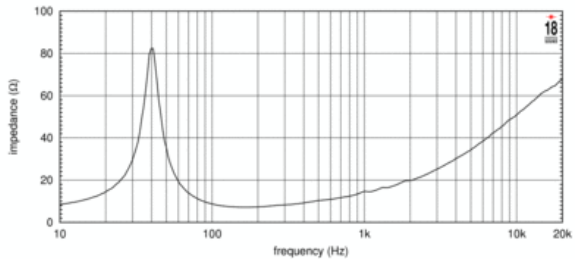


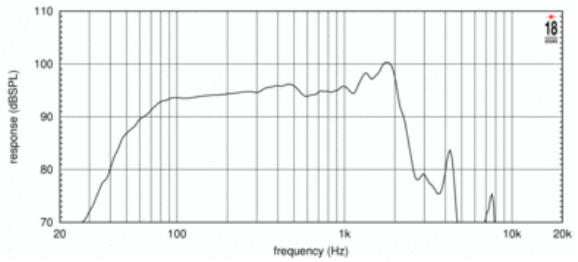
- 97 dB SPL 1W / 1m average sensitivity
- 100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
- 2400 W program power handling
- Weather protected fiberglass reinforced cellulose cone
- Double Silicon Spider (DSS) for improved excursion control and linearity
- Double Demodulating Rings (DDR) for lower distortion
- Unlimited life lead wire construction
- Improved heat dissipation via multi-cell air diffractor and multiple backplate vents
- Suitable for 60 to 130 liters low bass or subwoofer applications

15LW2400 8Ω

LF drivers - 15.0 Inches

The 15LW2400 has been developed as an evolution of the 15LW1401 low frequency transducer, setting a new industry standard in 15" (380 mm) ferrite high performance transducers. The speaker has been designed for use as a low bass or sub-woofer component in a compact cabinet (60 - 130 lt) reflex configuration, providing clean, linear, undistorted low frequency reproduction at very high power levels. The high excursion capabilities of the Double Silicon Spider (DSS) enable the 15LW2400 to achieve high levels of linear travel and maintain full control of the moving mass. The fiberglass fiber reinforced, straight-sided ribbed cone assures smooth response with high internal damping. The 100 mm Ø copper voice coil employs the 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 mass balanced coil. The weight of the windings are evenly distributed, providing a uniform motive drive. The already low distortion and sound quality of 15LW2400 has been further improved by the Double Demodulation Rings (DDR) designed to dramatically reduce the intermodulation and harmonic distortion whilst improving the transient response. Excellent heat dissipation has been achieved by incorporating air channels between the basket and the top plate of the magnet. Further ventilation is provided using air vents in the back plate that direct air into the lower part of the voice coil gap. In order to furtherly increase power handling and reduce power compression figure, 15LW2400 uses the same voice coil ventilation technology developed for our flagship 9000 neodymium transducer series. A low density material air diffractor is placed into the backplate acting as a cooling system, increasing power handling capability and lowering the power compression figure. As a final result the transducer shows 1 dB reduction in full power power compression value if compared to 15LW1401, and a program power handling value of 2400 Watt. 10% reduction in weight have been obtained optimizing the magnetic structure through advanced FEA CAD simulation tools. The 15LW2400 ability to perform properly under inclement weather conditions has been achieved using an exclusive cellulose treatment which gives water repellent properties to both sides of the cone. In addition, an epoxy coating is applied to metal plates in order to resist against the corrosive effects of salts and oxidization.





15LW2400 8Ω

LF drivers - 15.0 Inches

SPECIFICATIONS

Nominal Diameter	380 mm (in)
Nominal Impedance	8 Ω
Minimum Impedance	6.7 Ω
Nominal Power Handling[1]	1200 W
Continuous Power Handling[2]	2400 W
Sensitivity[3]	97.0 dB
Frequency Range	40 - 2200 Hz
Voice Coil Diameter	100 mm (4.0 in)
Winding Material	copper

DESIGN

Surround Shape	Triple roll
Cone Shape	Straight
Magnet Material	Ferrite
Woofer Cone Treatment	Weather protected
Recommended Enclosure	110.0 dm^3 (3.88 ft^3)
Recommended Tuning	42 Hz

PARAMETERS[4]

Resonance Frequency	40 Hz
Re	5.3 Ω
Qes	0.32
Qms	4.75
Qts	0.3
Vas	131.0 dm^3 (ft^3)
Sd	850.0 cm^2 (131.75 in^2)
Xmax	10.0 mm
Mms	138.0 g
Bl	24.0 Txm
Le	1.25 mH
EBP	125 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	393 mm (15.47 in)
Bolt Circle Diameter	371 mm (14.61 in)
Baffle Cutout Diameter	354.0 mm (13.94 in)
Depth	181 mm (7.13 in)
Flange and Gasket Thickness	12 mm (0.47 in)
Net Weight	11.2 kg (24.69 lb)
Shipping Weight	12.2 kg (26.9 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.

Eighteen Sound Srl
Via Botticelli 8 - 42124 Mancasale (RE) - ITALY - Ph. +39 0522 1861800 - Fax +39 0522 1861801 - info@eighteensound.it