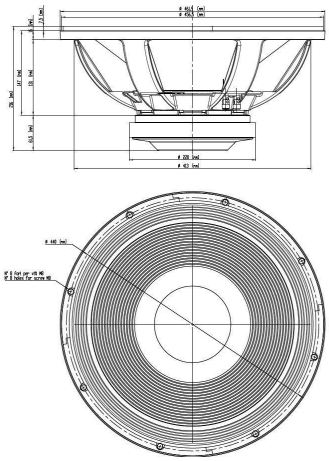
18LW2420 8Ω

LF drivers - 18.0 Inches



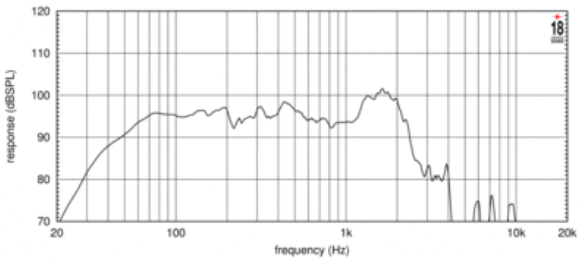
- 100mm (4in) Interleaved Sandwich Voice coil (ISV)
- Improved heat dissipation
- Improved suspension system
- Weather protected cone and plates
- Ideal for horn loaded and high spl subwoofer designs

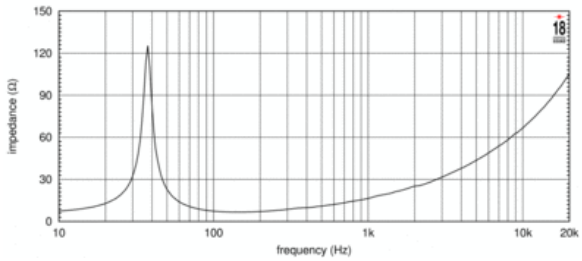
The 18LW2420 is an 18 inch extended low frequency loudspeaker designed for high SPL subwoofer applications in either a reflex, bandpass or horn loaded configuration. Compared to our industry standard 18LW2400, the 18LW2420 provides higher maximum SPL, increased program power handling and lower power compression. For optimum results we recommend amplifiers able to deliver 2600 Watt program power without clipping. Transducer design features include a large displacement suspension system which, in conjunction with a fiberglass reinforced, straight ribbed cone, allows an ultra-linear piston action and provides full mechanical control across the entire working range. The 100 mm (4 in) inside-outside copper voice coil based on Interleaved Sandwich Voice coil (ISV) technology provides high levels of thermal stability and durability. In order to furtherly increase power handling and reduce power compression figure, 18LW2420 uses the same voice coil ventilation technology developed for our flagship 9000 neodymium transducer series. A special low density material air diffractor has been placed into the backplate acting as a cooling system, increasing power handling capability and lowering the power compression figure. The low distortion and unmatched sound quality of the 18LW2420 has been significantly improved by Single Demodulating Ring (SDR) embedded in the pole piece of the magnetic structure. These have been designed to reduce the intermodulation and harmonic distortion while improving the transient response. 10% reduction in weight have been obtained optimizing the magnetic structure through advanced FEA CAD simulation tools. 18LW2420 is able to perform properly under inclement weather conditions: the exclusive cone treatment improves pulp strength and gives water repellent properties to both sides of the cone. In addition, the special treatment applied to top and back plates of the magnetic structure is far more resistant to the corrosive effects of salts and oxidization.

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

18LW2420 8Ω

LF drivers - 18.0 Inches





SPECIFICATIONS

Nominal Impedance	8 Ω
Nominal Power Handling[1]	1300 W
Continuous Power Handling[2]	2600 W
Sensitivity[3]	97.0 dB
Frequency Range	33 - 2500 Hz
Voice Coil Diameter	100 mm (3.94 in)

DESIGN

Recommended Enclosure	220.0 dm^3 (7.77 ft^3)
Recommended Tuning	36 Hz

PARAMETERS[4]

Resonance Frequency	33 Hz
Re	5.0 Ω
Qes	0.33
Qms	7.0
Qts	0.31
Vas	255.0 dm^3 (9.01 ft^3)
Sd	1225.0 cm^2 (189.88 in^2)
η_0	2.7 %
Xmax	10.0 mm
Mms	192.0 g
Bl	24.6 Txm
Le	1.8 mH
EBP	100 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	462 mm (18.19 in)
Bolt Circle Diameter	440 mm (17.32 in)
Baffle Cutout Diameter	422.0 mm (16.61 in)
Depth	215 mm (8.46 in)
Flange and Gasket Thickness	24 mm (0.94 in)
Net Weight	14.0 kg (30.86 lb)
Shipping Weight	15.0 kg (33.07 lb)
Shipping Box	482 x 482 x 257 mm (18.98x18.98x10.12 in)

1. 2 hours test made with continuous pink noise signal within the range Fs-10Fs. Power calculated on rated nominal 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