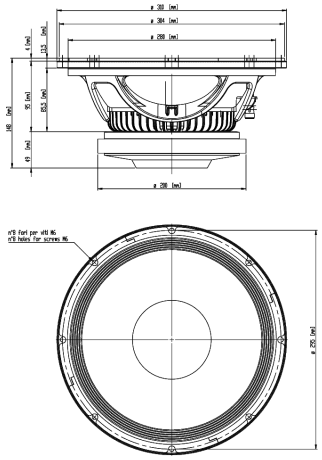
12W750 8Ω

LF drivers - 12.0 Inches



- 97 dB SPL 1W / 1m average sensitivity
- 75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
- 1200 W program power handling
- Long excursion, linear travel suspension design
- Weather protected cone and plates for outdoor use
- Generous low frequency output make it suitable for 2-way systems and subwoofer applications

The 12W750 meets the specific market requirement for a loudspeaker which combines the excellent linearity, good efficiency and high power handling of the 15W750 model but in a 12 inch (300mm) chassis for use in more compact systems. It is primarily intended for application in compact reflex and band-pass enclosures but can also be used for horn loaded configurations. The curvilinear paper cone has been made from a special high strength woodpulp designed to achieve the best possible linearity within its intended frequency range and to control bell-mode resonances around the cone circumference. The cone is carried by an unusually deep profile, triple roll suspension made from a polycotton material which is more resistant to aging and fatigue than traditional cotton-based ones. The 75 mm (3 inch) diameter aluminum 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. This results in an extremely linear motor assembly with a reduced tendency for eccentric behavior when driven hard. The magnetic structure has been optimized using FEACAD resource to maximize the flux density in the voice coil gap. Voice coil cooling has been achieved by incorporating airways between the chassis back plate and the top plate of the magnet, allowing heated air from the voice coil and gap to be channeled away and dissipated by the chassis basket. Due to the increasing use of audio systems at outdoor events, the ability to perform in adverse weather conditions or in high-humidity areas is an essential feature of the 12W750. This has been achieved using an exclusive cone and magnet plate treatment process which increases resistance to corrosion and renders the cone water repellent.

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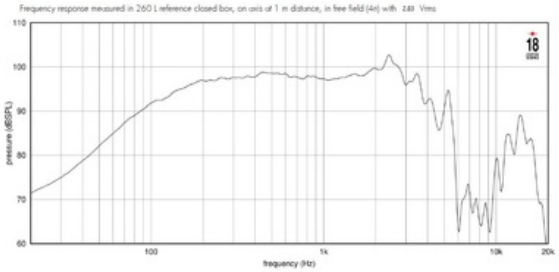

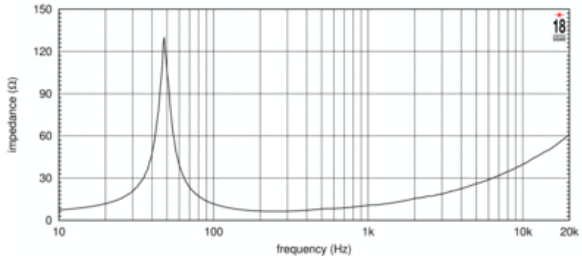

SPECIFICATIONS

Nominal Diameter	300 mm (in)
Nominal Impedance	8 Ω
Minimum Impedance	6.4 Ω
Nominal Power Handling[1]	600 W
Continuous Power Handling[2]	1200 W
Sensitivity[3]	97.0 dB
Frequency Range	50 - 4600 Hz
Voice Coil Diameter	75 mm (3.0 in)
Winding Material	aluminum

DESIGN

Surround Shape	Triple roll
Cone Shape	Curvilinear
Magnet Material	Ferrite
Woofer Cone Treatment	Weather protected
Recommended Enclosure	60.0 dm^3 (2.12 ft^3)
Recommended Tuning	60 Hz

PARAMETERS[4]

Resonance Frequency	49 Hz
Re	5.2 Ω
Qes	0.3
Qms	7.0
Qts	0.28
Vas	73.0 dm^3 (2.58 ft^3)
Sd	531.0 cm^2 (82.31 in^2)
Xmax	8.0 mm
Mms	57.0 g
Bl	18.0 Txm
Le	0.95 mH
EBP	163 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	310 mm (12.2 in)
Bolt Circle Diameter	295 mm (11.61 in)
Baffle Cutout Diameter	280.0 mm (11.02 in)
Depth	148 mm (5.83 in)
Flange and Gasket Thickness	11 mm (0.43 in)
Net Weight	7.5 kg (16.53 lb)
Shipping Weight	8.3 kg (18.3 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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