# WOOFER
# LF12N401

Professional Low Frequency Transducer

The LF12N401 is designed to provide an excellent frequency response linearity with very low distortion. A very strong neodymium magnetic structure as LF18N401 guarantee dynamic and precision , the standard 4" voice coil design provides a very high power handling. The unique Dual-forced air venting system guarantee a very efficient voice coil ventilation to minimize the power compression and provide a good power handling.

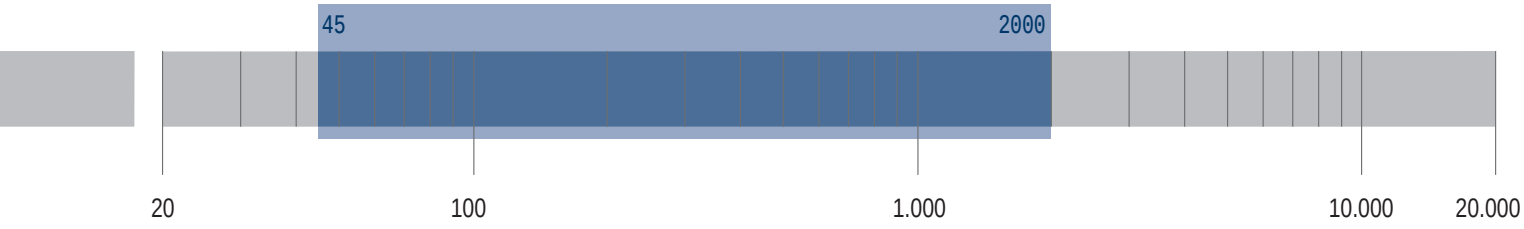
PART NUMBER **11100031**

## Features

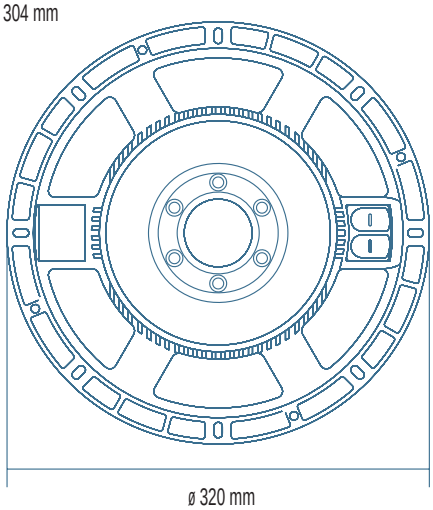
- 4-inch, fibreglass inside-outside copper voice coil
- 1600 Watt continuous program power handling
- 96 dB Sensitivity
- 45 Hz - 2 kHz Frequency range
- Dual-forced air ventilation for minimum power compression
- Single spider designed

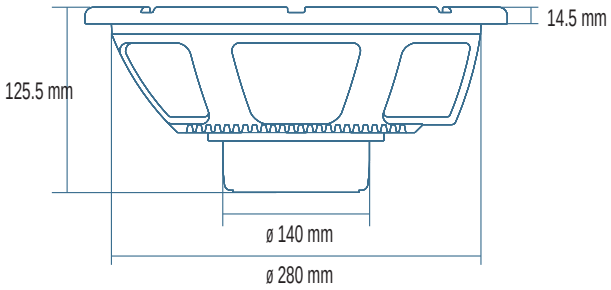
## Applications

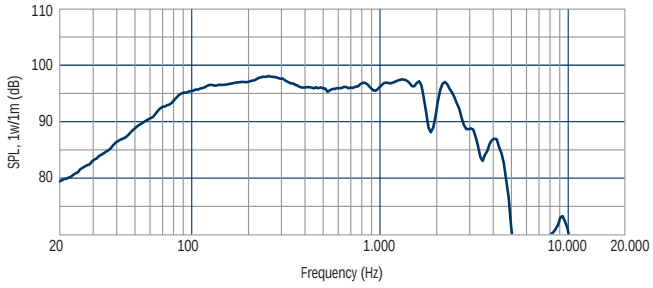
The LF12N401 is ideal for use in applications where is required a low frequency in very small cabinet volume. Specially designed for touring, perfect for high professional bass reflex and horn loaded system.



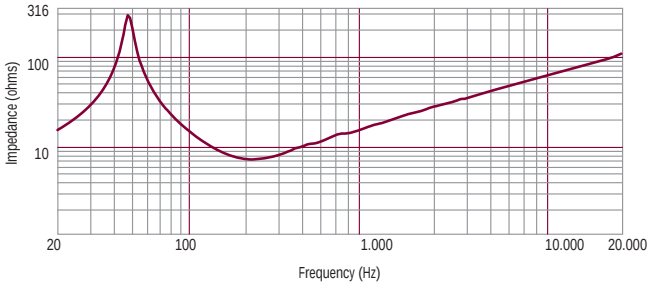
8 x ø 6.5 mm holes to 45°
on 293.5 and on Ø 304 mm




Frequency response curve of the loudspeaker taken in a hemispherical, free field environment and mounted in a closed box with an internal volume of 600 litres (21,2 cu.ft) enclosing the rear of the driver.




Impedance magnitude curve measured in free air.

## General Specifications

| | | |
|---|---|---|
| Nominal Diameter | 300/12 | mm/inch |
| Rated Impedance | 8 | ohm |
| Program Power [1] | 1600 | Watts |
| Power handling capacity [2] | 800 | Watts |
| Sensitivity [3] | 96 | dB |
| Frequency Range | 45 - 2000 | Hz |
| Effective Piston Diameter | 260/10.2 | mm/inch |
| Max Excursion Before Damage (peak to peak) | 50/1.96 | mm/inch |
| Minimum Impedance | 7.2 | ohm |
| Voice Coil Diameter | 100/4 | mm/inch |
| Voice Coil Material | Copper | |
| Voice Coil Winding Depth | 21/0.82 | mm/inch |
| Number of layers | 2 | |
| Kind of layer | inside/outside | |
| Top Plate Thickness | 15/0.6 | mm/inch |
| Cone Material | No pressed pulp | |
| Cone Design | Curved | |
| Surround Material | Polycotton | |
| Surround Design | Triple roll | |

## Thiele - Small Parameters [4]

| | | | |
|---|---|---|---|
| Resonance frequency | Fs | 48 | Hz |
| DC resistance | Re | 5.5 | ohm |
| Mechanical factor | Qms | 9,1 | |
| Electrical factor | Qes | 0.21 | |
| Total factor | Qts | 0.20 | |
| BL Factor | BL | 26 | T · m |
| Effective Moving Mass | Mms | 78 | gr |
| Equivalent Cas air load | Vas | 50 | liters |
| Effettive piston area | Sd | 0.053 | $m^2$ |
| Max. linear excursion (mathematical) [5] | Xmax | 7,3 | mm |
| Voice - coil inductance @ 1KHz | Le1K | 1.7 | mH |
| Half-space efficiency | Eff | 2,54 | % |

## Mounting Information

| | | |
|---|---|---|
| Overall Diameter | 320/12.6 | mm/inch |
| Bolt Circle Diameter | 293-304/11.5-12 | mm/inch |
| Bolt Hole Diameter | 6.5/0.3 | mm/inch |
| Front Mount Baffle Cut-out | 282/11.1 | mm/inch |
| Rear Mount Baffle Cut-out | 284/11.2 | mm/inch |
| Depth | 140/5.5 | mm/inch |
| Volume occupied by the driver [6] | 2.9/0.098 | liters/ft3 |

## Shipping Information

| | | |
|---|---|---|
| Net Weight | 6,5/14,3 | Kg/Lbs |
| Shipping Weight | 7,5/16,5 | Kg/Lbs |

### Notes to Specifications

1 Program Power is defined as 3 dB greater than AES power. - 2 AES standard. - 3 Sensitivity measurement is based on a 500-2,5 kHz pink noise signal with input power of 2.83V @ 8 Ohms. - 4 Thiele-Small parameters are measured after a 2 hour warm up period running the loudspeaker at full power handling capacity. - 5 The maximum linear excursion is calculated as: (Hvc - Hg)/2 + Hg/4 where Hvc is the voice coil depth and Hg the gap depth. - 6 Calculated for front mounting on 18 mm thick board.