WOOFER
LF15N451

Professional Low Frequency Transducer

The LF15N451 is a very high power handling woofer , specially designed to provide powerful and accurate bass frequencies with low distortion and low power compression. Ultra fast time response. The LF15N451 uses a fibre loaded cone assembly along a large triple roll surround, this combination provides remarkable strength and control. Double silicon spider system ensures excellent control during large excursions. A fully optimised T-pole design generate the minimum amount of flux modulation to get lower distortion.

PART NUMBER **11100062**

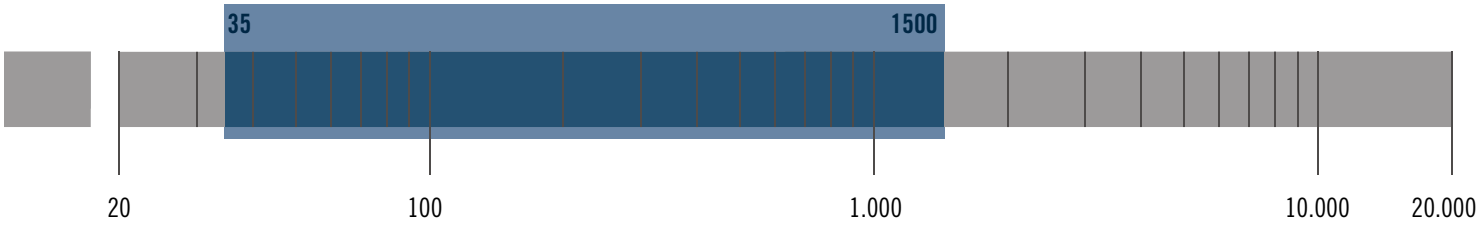
Features

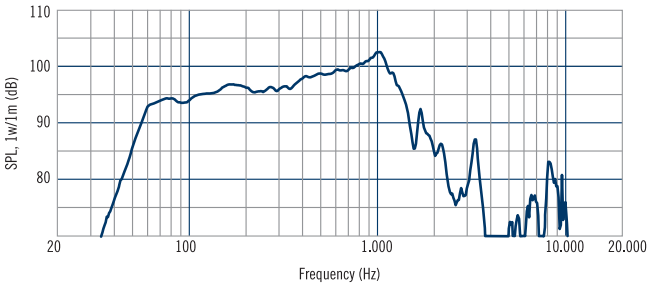
- 4.5-inch fiberglass inside/outside copper voice coil
- 2600 Watt continuous program power handling
- 97 dB Sensitivity
- 35 Hz - 1.5 kHz Frequency range
- Dual-forced air ventilation for minimum power compression
- Dual spider designed with silicon based damping control
- BL of 33.5 T/m to provide a faster and accurate low frequency

The transducer design is based on a very strong neodymium magnetic structure and a new 4,5” inside-outside copper coil, this combination guarantees higher handling especially in comparison to standard 4" voice coil designs. The unique Dual-forced air venting system provides a very efficient voice coil ventilation to minimize the power compression.

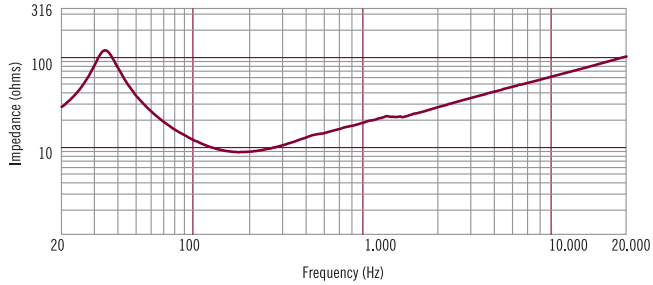
Applications

The LF15N451 is ideal in applications where light weight ,very high BL and power handling are required. It is specially designed for touring, perfect for powerful lows in compact horn loaded sub system or reflex designs.





Frequency response curve of the loudspeaker make in a hemispherical, free field and mounted in a reflex box with an internal volume of 80 litres and tuned at 50Hz, applying a sinusoidal signal of 2.83 V@8 at 1m.



Impedance magnitude curve measured in free air.

General Specifications

Nominal Diameter	380/15	mm/inch
Rated Impedance	8	ohm
Program Power [1]	2600	Watts
Power handling capacity [2]	1300	Watts
Sensitivity [3]	97	dB
Frequency Range	35 - 1500	Hz
Effective Piston Diameter	340/13.4	mm/inch
Max Excursion Before Damage (peak to peak)	64/2.51	mm/inch
Minimum Impedance	7.4	ohm
Voice Coil Diameter	115/4.5	mm/inch
Voice Coil Material	Copper	
Voice Coil Winding Depth	25/0.98	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	Straight	
Surround Material	Polycotton	
Surround Design	Triple roll	

Thiele - Small Parameters [4]

Resonance frequency	Fs	35	Hz
DC resistance	Re	5.1	ohm
Mechanical factor	Qms	4.2	
Electrical factor	Qes	0.19	
Total factor	Qts	0.18	
BL Factor	BL	33.5	T · m
Effective Moving Mass	Mms	171	gr
Equivalent Cas air load	Vas	125	liters
Effettive piston area	Sd	0.091	m^2
Max. linear excursion (mathematical) [5]	Xmax	8.7	mm
Voice - coil inductance @ 1KHz	Le1K	2.6	mH
Half-space efficiency	Eff	2,64	%

Mounting Information

Overall Diameter	393/15.5	mm/inch
Bolt Circle Diameter	371-376/14.6-14.8	mm/inch
Bolt Hole Diameter	6.5/0.25	mm/inch
Front Mount Baffle Cut-out	354/13.9	mm/inch
Rear Mount Baffle Cut-out	354/13.9	mm/inch
Depth	157/6.2	mm/inch
Volume occupied by the driver [6]	3.8/0.13	liters/ft3

Shipping Information

Net Weight	9.9/21.7	Kg/Lbs
Shipping Weight	11.38/25	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.