

# WOOFER LF18X401

Professional Low Frequency Transducer

PART NUMBER **11100089**

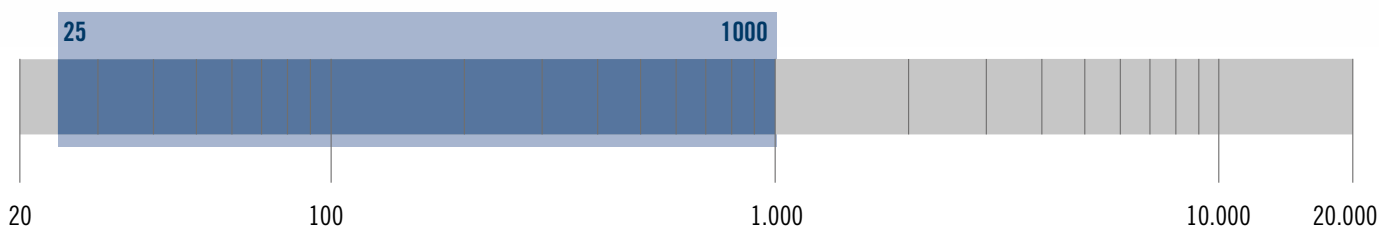
## Features

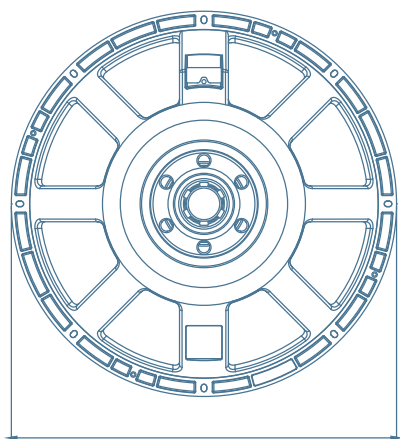
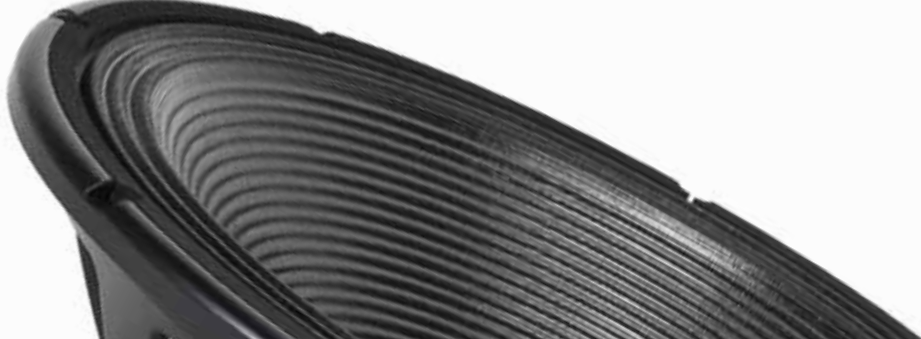
- 4.0 - inch, fibreglass inside-outside copper voice coil
- 3000 Watt continuous program power handling
- 97.5 dB Sensitivity
- 25 Hz - 1 kHz Frequency range
- 26.5 T/m BL
- 50 mm peak-to-peak excursion
- Dual-forced hyper-venting and 15mm top plate for minimum power compression
- Dual spider design with silicon based dampening control
- Triple-roll surround and corrugated straight cone geometry

Very linear frequency response characteristics, extreme high power handling while generating the lowest harmonic distortion of any comparable 18-inch transducer within its application range. The LF18X401 uses a fibre loaded cone assembly along with a high excursion triple roll surround. This combination provides remarkable strength and a peak to peak maximum excursion of 50 mm. The new dual forced hyper-venting system guarantee a very efficient voice coil ventilation for minimum power compression and incredible power handling.

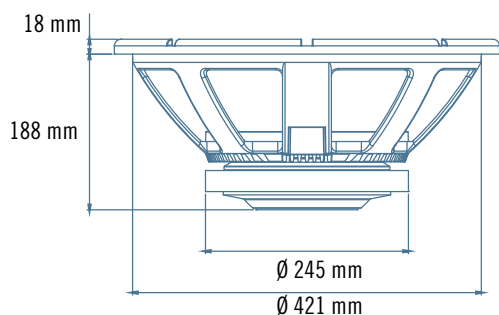
## Applications

The LF18X401 is ideal for use in applications where sizable amounts of low frequency, long excursion and low distortion acoustic power is desired. The robust mechanical design and optimised weight of the device make it desirable for use in fixed installation or touring professional loudspeaker systems. The transducer's low frequency extension, coupled with its extremely low generation of harmonic distortion, also makes it ideal for use within critical listening applications such as studio monitoring subwoofer systems.



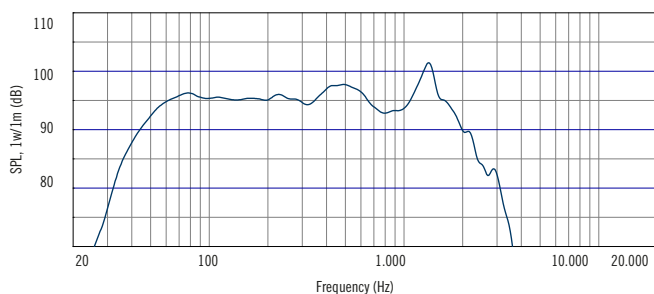


Ø 465 mm

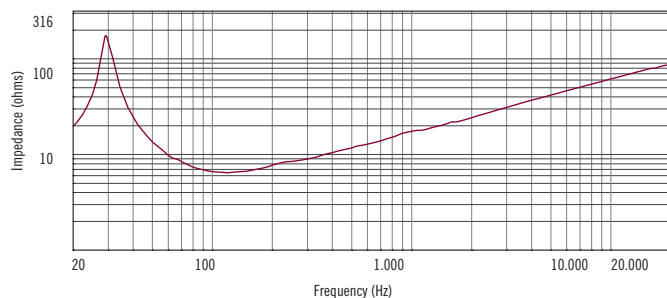


Ø 245 mm

Ø 421 mm



Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 160 litres and tuned at 38Hz, applying a sinusoidal signal of 2.83 V @ 8 at 1m.



Impedance magnitude curve measured in free air.

## General Specifications

Nominal Diameter	460 / 18	mm/inch
Rated Impedance	8	ohm
Program Power <sup>1</sup>	3000	Watts
Power handling capacity <sup>2</sup>	1500	Watts
Sensitivity <sup>3</sup>	97,5	dB
Frequency Range	25-1000	Hz
Effective Piston Diameter	395 / 15,6	mm/inch
Max Excursion Before Damage (peak to peak)	50 / 1,97	mm/inch
Minimum Impedance	6,5	ohm
Voice Coil Diameter	100 / 4	mm/inch
Voice Coil Material	Copper	
Voice coil former material	Fiberglass	
Voice Coil Winding Depth	30 / 1,18	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 <sup>4</sup>

Resonance frequency	Fs	30	Hz
DC resistance	Re	5,4	ohm
Mechanical factor	Qms	7,4	
Electrical factor	Qes	0,31	
Total factor	Qts	0,30	
BL Factor	BL	26,5	T · m
Effective Moving Mass	Mms	215	gr
Equivalent Cas air load	Vas	274	liters
Effective piston area	Sd	0,122	m <sup>2</sup>
Max. linear excursion (mathematical) <sup>5</sup>	Xmax	11,5	mm
Voice - coil inductance @ 1KHz	Le1K	2,4	mH
Half-space efficiency	Eff	2,30	%

## Mounting Information

Overall Diameter	465 / 18,3	mm/inch
Bolt Circle Diameter	442-447 / 17,4-17,6	mm/inch
Bolt Hole Diameter	6,5 / 0,25	mm/inch
Front Mount Baffle Cut-out	424 / 16,7	mm/inch
Rear Mount Baffle Cut-out	425 / 16,7	mm/inch
Depth	188 / 7,40	mm/inch
Volume occupied by the driver <sup>6</sup>	6,5 / 0,23	liters/ft <sup>3</sup>

## Shipping Information

Net Weight	13,3 / 29,3	Kg/Lbs Kg/
Shipping Weight	14,3 / 31,5	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.