

## WOOFER

# LF12X401

Professional Low Frequency Transducer

PART NUMBER **11100096**

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 LF12X401 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.

- 4.0 - inch, fibreglass inside-outside copper voice coil
- 2000 Watt continuous program power handling
- 96.5 dB Sensitivity
- 45 Hz – 1.5 kHz Frequency range
- 26.1 T/m BL
- 60 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 curved cone geometry

## APPLICATIONS

The LF12X401 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.



40 1500

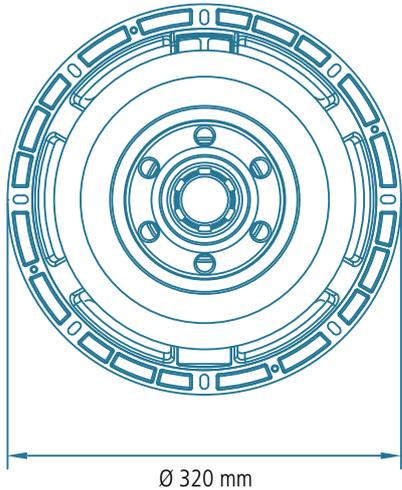
20

100

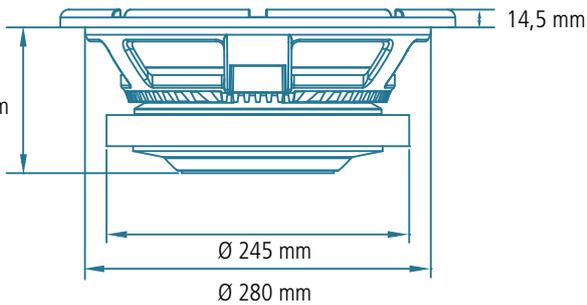
1.000

10.000

20.000



Ø 320 mm

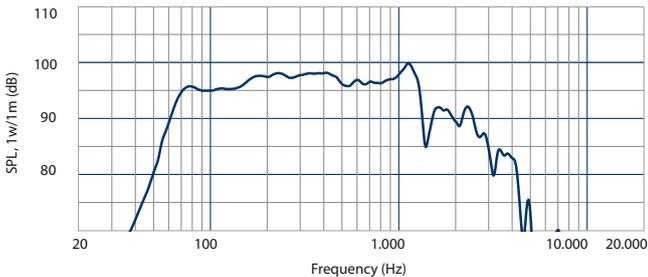


119 mm

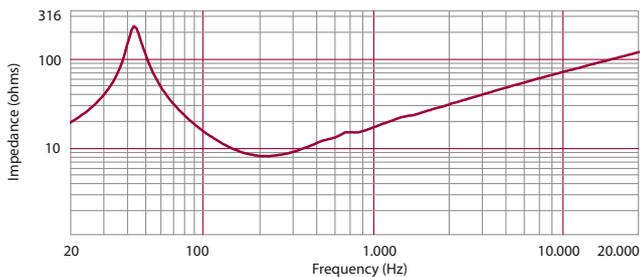
14,5 mm

Ø 245 mm

Ø 280 mm



Frequency response curve of the loudspeaker make in a hemispherical, free field and mounted in a reflex box with an internal volume of 50 litres and tuned at 60Hz, applying a sinusoidal signal of 2.83 V @8 at 1m.



Impedance magnitude curve measured in free air

## GENERAL SPECIFICATIONS

Nominal Diameter	300 / 12	mm/inch
Rated Impedance	8	ohm
Program Power <sup>1</sup>	2000	Watts
Power handling capacity <sup>2</sup>	1000	Watts
Sensitivity <sup>3</sup>	96,5	dB
Frequency Range	45-1500	Hz
Effective Piston Diameter	260 / 10,2	mm/inch
Max Excursion Before Damage (peak to peak)	60 / 2,36	mm/inch
Minimum Impedance	6,5	ohm
Voice Coil Diameter	100 / 4	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	Curved	
Surround Material	Polycotton	
Surround Design	Triple roll	

## THIELE - SMALL PARAMETERS <sup>4</sup>

Resonance frequency	Fs	45	Hz
DC resistance	Re	5,2	ohm
Mechanical factor	Qms	8	
Electrical factor	Qes	0,28	
Total factor	Qts	0,27	
BL Factor	BL	26,1	T · m
Effective Moving Mass	Mms	105	gr
Equivalent Cas air load	Vas	50	liters
Effettive piston area	Sd	0,053	m <sup>2</sup>
Max. linear excursion (mathematical) <sup>5</sup>	Xmax	8,8	mm
Voice - coil inductance @ 1KHz	Le	1	mH
Half-space efficiency	Eff	1,5	%

## MOUNTING INFORMATION

Overall Diameter	320 / 12,6	mm/inch
Bolt Circle Diameter	293-304 / 11,5-12	mm/inch
Bolt Hole Diameter	6,5 / 0,25	mm/inch
Front Mount Baffle Cut-out	282 / 11,1	mm/inch
Rear Mount Baffle Cut-out	284 / 11,2	mm/inch
Depth	119 / 4.68	mm/inch
Volume occupied by the driver <sup>6</sup>	2,9 / 0,098	liters/ft3

## SHIPPING INFORMATION

Net Weight	12,2/ 26,8	Kg/Lbs
Shipping Weight	12,8 / 28,4	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. The data are not binding; RCF reserves the right to modify the data at any time and without previous notice.