

PRECISION TRANSDUCERS

Established in 1949, RCF prides itself on carrying out the design and production of its own products. We have always preferred to completely design and construct all our own components. Many years dedicated to studying and building audio transducers have resulted in some notable milestones. There are many different ingredients that go into creating quality products and systems—these include computer aided simulation software to assist the understanding of transducer behaviour and the relationship of dynamics and transient response. RCF utilises many state of the art software, however it is the vast technical and practical experience that our Research and Engineering team possesses that ensures the quality of our products, thus placing RCF as the market leaders in transducer development.

RCF THE TRANSDUCER INNOVATORS

The RCF loudspeaker line incorporates a vast range of transducers covering the entire audio spectrum. We design our transducers to optimise the relationship between the purity of sound, combining the absence of distortion and the ability to withstand high power levels over a long period of time.

RCF develops advanced transducer technology including the application of high-tech materials such as Neodymium, Carbon Fibre, Pure Titanium, Kevlar, Kapton and Mylar hybrids.

With over 70 years of design and manufacturing experience in the market, RCF has been instrumental in technological inventions such as: carbon fibre cone moulding, double silicon spiders, inside/outside voice coil windings to edge wound voice coil manufacturing and pure titanium diaphragm forming. Our latest developments have resulted in designing state of the art neodymium magnetic circuits, radically new voice coil ventilation systems and ground breaking direct drive voice coil assemblies.

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POWER HANDLING

At the core of RCF's new transducer designs, significant amounts of time and resources were spent in terms of material science, design topology research and power testing in order to develop products with high structural strength, optimal thermal characteristics and the best possible power handling. RCF Precision engineers have developed a composite polyimide-imide former material capable of withstanding peak temperatures in excess of 380°C, well beyond the thermal requirements of modern professional audio systems.

By combining this material with special adhesives, our inside-outside voice coil technology, dual silicone spiders, dual forced hyperventilation and cones based on a special fibre doping and treatment, the new RCF family of products features the industry's most robust and reliable transducers.



NEW FERRITE MATERIAL: HIGH POWER, LOW WEIGHT MAGNETIC CIRCUIT DESIGNS

RCF Precision engineers have developed a new ferrite magnet capable of delivering higher flux in a new, minimum weight design. Thanks to this new technology, all new RCF Precision ferrite products present the minimum weight for comparable performances. New specific magnet sizes and moulds have been developed to optimise the new design performances. RCF Precision set out to develop a magnetic circuit topology capable of delivering the highest, balanced level of performance in three specific areas: maintenance of a consistent, high integrity magnetic flux gap, distortion lowering design techniques and efficient integration of the magnetic circuit in a minimum weight design. The T-pole design is optimised to generate the minimum amount of flux modulation in the magnetic assembly during typical voice coil movement within the gap.

DUAL FORCED HYPERVENTING SYSTEMS

In our complex cooling designs individual components come together to create an ideal ventilation system.

Commencing with the design of the basket, RCF Precision has focused on providing finned cooling channels while optimising the surface area available in order for the front magnetic plate to dissipate heat efficiently. When assembled and placed on the basket, the front plate, ceramic core and the rear plate form part of the ventilation system that is highlighted by cooling slots precision machined through all three components. RCF Precision's unique double silicone sealed spider design functions as an air pump expelling hot air and drawing in cool air every time the cone assembly moves. This system provides cooler operating conditions and optimal power compression.

The perfect balance of noise control and quantity of the air venting the inner side of the voice coil is guaranteed from a diffractor placed at the centre of the pole piece.





DIAPHRAGM ASSEMBLY

The new RCF Precision features several state of the art technologies. The diaphragm and suspension are precision formed from ultra thin pure titanium, Kapton or Mylar. The suspension is based on an innovative design that drastically reduces distortion eliminating resonance points and assists in controlling suspension breakup modes. RCF has developed an oxygen free process of moulding pure titanium ultra thin films in high quality, finely controlled shaped diaphragms. Our process offers superior sonic quality, extended to the highest audible frequencies which guarantee consistent power handling and reliability.

DIRECT DRIVE VOICE COIL ASSEMBLY

The top of the former is bent and bonded directly to the edge of the titanium diaphragm resulting in a Direct Drive configuration. Direct Drive guarantees optimal transfer of energy between the voice coil and the dome assembly, providing smoother, extended frequency response beyond 10 KHz, reducing break up modes and lowering distortion.

This assembly delivers high power handling along with excellent mechanical and thermal properties that make RCF neodymium compression drivers robust and reliable.

MAGNETIC CIRCUITS

RCF Precision Neodymium magnetic circuit designs provide even higher magnetic field strength in the voice coil gap than standard ceramic assemblies while dramatically lowering the overall weight of the device. Neodymium rare earth material also provides higher levels of force (BL) that increase control of the dome assembly's moving mass. This leads to higher efficiency, better transient response and diminishes high frequency distortion modes.

RCF's new ferrite magnetic circuit design is optimised to offer the highest possible magnetic field strength achievable in the voice coil gap, providing the required force to precisely control the dome assembly's moving mass.

A thin copper ring is precision pressed onto the pole piece in order to modify and lower the inductance characteristics of the magnetic circuit and voice coil, thus providing a controlled extension of the acoustic frequency response. RCF Precision has provided cooling fins on the rear of the aluminium diaphragm assembly cover that creates a heat dissipating surface area for the driver's magnetic circuit. This assists in lowering circuit temperature, improving the driver's power compression characteristics and increasing output.



PHASE PLUGS

The ND950 features a 4-slot, optimised geometry, aluminium phase plug design. Extensive computer assisted mathematical modelling and testing has resulted in a phase plug geometry that provides balanced acoustic performance by controlling and lowering air distortion and maximizing output. This permits the use of a lower phase plug slot compression ratio that generates substantially lower distortion artefacts. The result is high output with smooth acoustic frequency response and low harmonic distortion artefacts.

Our compression drivers features 3-slot, 2-slot and radial optimised geometry phase plug designs. Extensive computer assisted mathematical modelling and testing has resulted in phase plug geometries that provide balanced acoustic performance by controlling and lowering air distortion.

INSIDE/OUTSIDE VOICE COILS

RCF has developed a unique voice coil, combining the advantages of inside/outside technology with the superior quality of polyimide-imide materials (wire resins and formers resins). The inside/outside coil offers many advantages: the dissipation surface is doubled; the adhesion area to the Former is doubled; during thermal expansion the Former is squeezed between inside and outside layers offering the best mechanical resistance. Our inside/outside formers are made from polyimide-imide fibreglass and the area between the coil and the cone is a triple layer of Nomex - Fibreglass - Nomex for maximum stiffness and accurate sound transfer.



DUAL SILICONE SPIDERS

RCF's original invention of the dual silicone sealed spider design offers many advantages: the two spiders offer double resistance to fatigue; the silicone between the cloth layers, being a very high memory material, provides the best shape stability to the spiders; the system, being sealed, functions as an air pump expelling hot air and drawing in cool air every time the cone assembly moves.

RCF dual silicon sealed spider design provides our transducers with cooler operating conditions and optimised power compression.

MECHANICAL DESIGN


RCF Precision has also invested countless hours addressing mechanical design issues. Connection of lead wires is improved through the design of a specific spoke capable of providing a safe and larger excursion in a noiseless and safe side connection. Baskets are designed to provide the maximum strength, the lightest weight, while minimizing overall diameter and maximizing cone piston diameter.



EDGEWOUND COILS

Edge-wound flat wire voice coils are a hallmark of advanced manufacturing. RCF produces in-house all the flat wire voice coils used in its compression drivers. To guarantee the ultimate level of performance and reliability, maximum care in material selection and process design is combined with extensive use of quality control and power testing procedures. Each driver is thoroughly tested for frequency response, impedance and distortion with DSP enabled digital testing equipment. The result is a robust device capable of withstanding the rigors of modern loudspeaker system applications.





LOW FREQUENCY
**NEODYMIUM
TRANSDUCERS**

For decades RCF professional woofers have represented the ultimate performance, the highest power handling and the most advanced technology.

Thanks to high energy magnetic designs, complex cooling systems and specifically developed new technologies, our neodymium transducers place themselves at the same, unsurpassed level.

SEALED MIDRANGE TRANSDUCERS

RCF has developed two exceptional, sealed, midrange neodymium designs. This innovative solution offer many advantages compared to traditional midranges designs:

- thanks to a massive neodymium magnetic circuit, sensitivity is up to 4 dB higher than traditional designs;
- the optimally tuned rear chamber is sealed and doesn't require the typical back wooden chamber;
- the aluminum basket, in direct contact to the magnetic circuit, provides the best cooling ever found in a midrange transducer.

INSIDE/OUTSIDE VOICE COILS

RCF has developed a unique voice coil, combining the advantages of inside/outside technology to the superior quality of polyimide-imide materials (wire resins and formers resins).

The inside/outside coil offers many advantages:

- the dissipation surface is doubled;
- the adhesion area to the Former is doubled;
- during thermal expansion the Former is squeezed between inside and outside layers offering the best mechanical resistance.

Our inside/outside formers are made from polyimide-imide fibreglass and the area between the coil and the cone is a triple layer of Nomex - fibreglass - Nomex for maximum stiffness and accurate sound transfer.

COMPLEX COOLING SYSTEMS

In our complex cooling designs individual components come together to create an ideal ventilation system. Commencing with the design of the basket, RCF has focused on providing finned cooling channels while optimising the surface area available to the front magnetic plate to dissipate heat efficiently.

The dust cap and the sealed spiders function as an air pump expelling hot air and drawing in cool air every time the cone assembly moves. Many openings are situated directly on the transducer's side and on the rear plate.

WOOFER

LF21N551

Professional Low Frequency Transducer

PART NUMBER **11100076**

- 4000 Watt continuous program power handling
- 5,3 – inch Inside/Outside copper voice coil
- 97 dB Sensitivity
- 30 Hz - 1 kHz Frequency range
- Dual-forced air ventilation
- Dual spider designed with silicon based damping control
- 72 mm peak to peak excursion
- 39 T/m BL

The LF21N551 is very high power handling 21" neodymium woofer. The combination of a 3600 Watt power handling and a minimum weight of 13,7 Kg makes this transducer a unique product in his category.

The transducer design is based on a very strong neodymium magnetic structure and a new 5,3" inside-outside copper coil.

The new Dual forced design provide an excellent heat dissipation and lower power compression. Special air-forced ventilations are provided for voice coil, magnet assembly and basket. The combination of carbon fibre loaded cone assembly, large triple roll surround, double silicon spider provides to the LF21N551 remarkable

strength and best control under large excursion conditions.

A fully optimised T-pole design generate the minimum amount of flux modulation offering a peak to peak excursion of 72 mm.

The waterproof body cone treatment and polycotton surround ensure a durable performance in every application.

APPLICATIONS

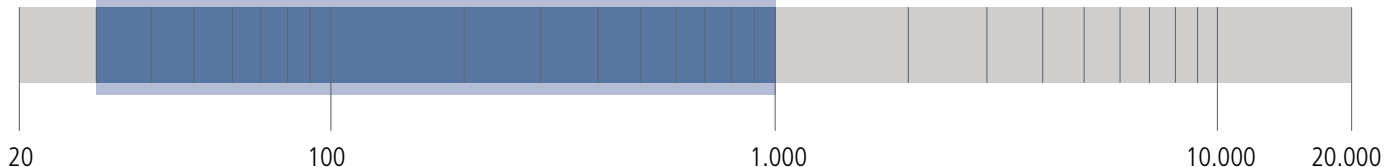
The LF21N551 is ideal in applications where combinations of maximum power handling, light weight and ultra fast time response are required.

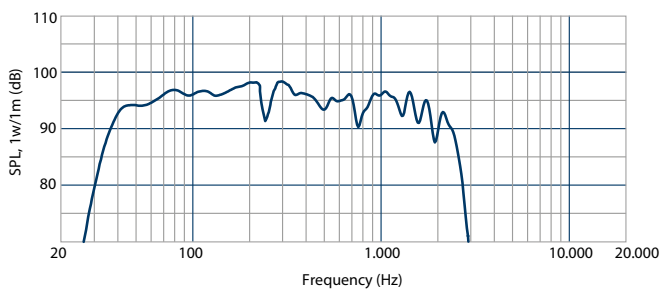
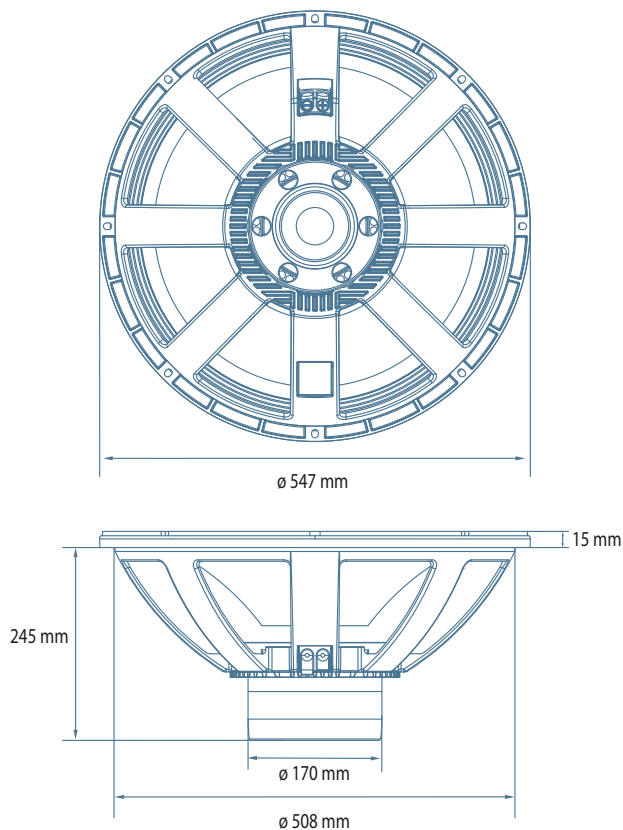
Perfect for powerful lows in horn loaded sub bass systems or reflex designs.

Ideal for touring, find a perfect application in high power, heavy duty, club subwoofer systems.

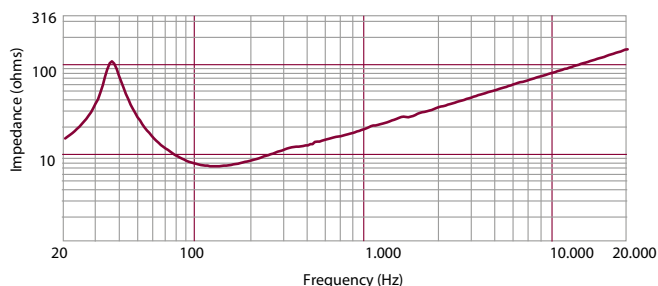


30 1000





Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 55 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	21 / 533	inch / mm
Rated Impedance	8	ohm
Program Power ¹	4000	Watt
Power handling capacity ²	2000	Watt
Sensitivity ³	97	dB
Frequency Range	30 - 1000	Hz
Effective Piston Diameter	470 / 18.50	mm / inch
Max Excursion Before Damage (peak to peak)	72 / 2.83	mm / inch
Minimum Impedance	7.1	ohm
Voice Coil Diameter	5.3 / 135	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	39 / 1.54	mm / inch
Number of layers	2	
Kind of layer	inside / outside	
Top Plate Thickness	18 / 0.71	mm / inch
Cone Material	No pressed pulp carbon fiber reinforced	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	35	Hz
DC resistance	Re	5.2	ohm
Mechanical factor	Qms	6.2	
Electrical factor	Qes	0.35	
Total factor	Qts	0.33	
BL Factor	BL	39	T · m
Effective Moving Mass	Mms	434	gr
Equivalent Cas air load	Vas	200	liters
Effettive piston area	Sd	0.173	m ²
Max. linear excursion (mathematical) ⁵	Xmax	15	mm
Voice - coil inductance @ 1KHz	Le1K	3.2	mH
Half-space efficiency	Eff	2.40	%

MOUNTING INFORMATION

Overall Diameter	547 / 21.5	mm/inch
Bolt Circle Diameter	527 / 20.7	mm/inch
Bolt Hole Diameter	6.5 / 0.25	mm/inch
Front Mount Baffle Cut-out	512 / 20.16	mm/inch
Rear Mount Baffle Cut-out	512 / 20.16	mm/inch
Depth	245 / 9.65	mm/inch
Volume occupied by the driver ⁶	7.2 / 0.28	liters/ft3

SHIPPING INFORMATION

Net Weight	13.7 / 30.2	Kg/Lbs
Shipping Weight	14 / 30.86	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.

WOOFER

LF21N451

Professional Low Frequency Transducer

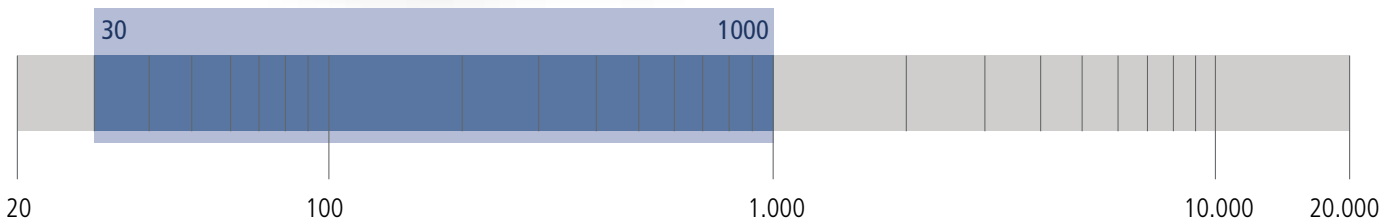
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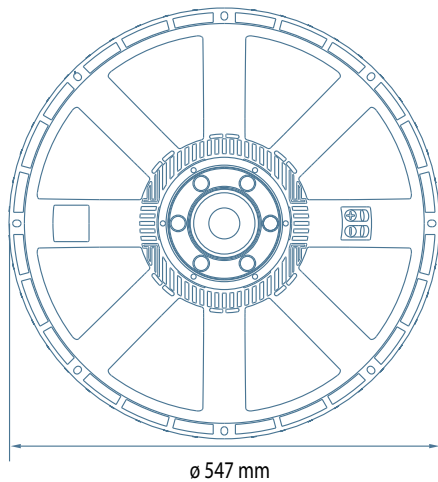
The LF21N451 is a very high power handling and efficiency transducer specially designed to provide powerful and accurate sub-bass frequencies with low distortion and low power compression. Ultra fast time response. The LF21N451 uses a fibre loaded cone assembly along a large triple roll surround, this 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. The Dual-forced air venting system provides a very efficient voice coil ventilation to minimize the power compression.

- 4,5 - inch Inside/Outside copper voice coil
- 3000 Watt continuous program power handling
- 98.5 dB Sensitivity
- 30 Hz - 1 kHz Frequency range
- Dual-forced air ventilation for minimum power compression
- Dual spider designed with silicon based damping control
- BL of 34.5 T/m to provide a faster and accurate low frequency

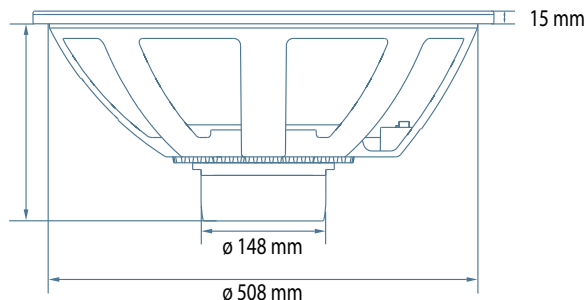
APPLICATIONS

The LF21N451 is ideal in applications where light weight, very high BL and power handling are required. It's especially used for touring, perfect for powerful lows in horn loaded sub bass system or reflex designs.





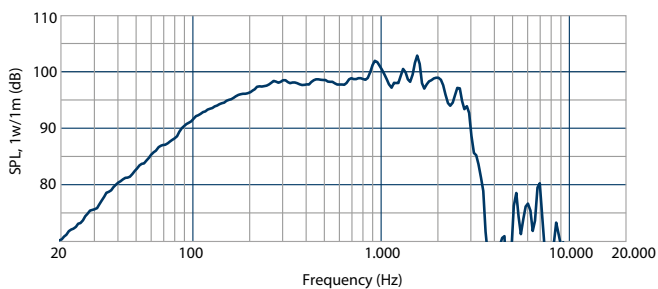
ø 547 mm



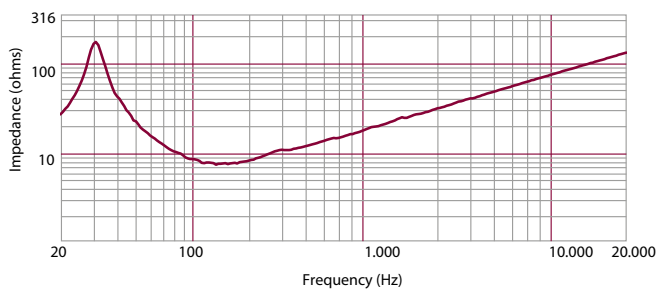
234 mm

ø 148 mm

ø 508 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	21 / 533	inch / mm
Rated Impedance	8	ohm
Program Power ¹	3000	Watt
Power handling capacity ²	1500	Watt
Sensitivity ³	98.5	dB
Frequency Range	30 - 1000	Hz
Effective Piston Diameter	470 / 18.5	mm / inch
Max Excursion Before Damage (peak to peak)	58 / 2.28	mm / inch
Minimum Impedance	7.1	ohm
Voice Coil Diameter	4.5 / 114	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	34 / 1.34	mm / inch
Number of layers	2	
Kind of layer	inside / outside	
Top Plate Thickness	15 / 0.59	mm / inch
Cone Material	No pressed pulp carbon fiber reinforced	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	30	Hz
DC resistance	Re	5.6	ohm
Mechanical factor	Qms	6.1	
Electrical factor	Qes	0.27	
Total factor	Qts	0.26	
BL Factor	BL	34.5	T · m
Effective Moving Mass	Mms	315	gr
Equivalent Cas air load	Vas	375	liters
Effective piston area	Sd	0.173	m ²
Max. linear excursion (mathematical) ⁵	Xmax	13.2	mm
Voice - coil inductance @ 1KHz	Le1K	3.0	mH
Half-space efficiency	Eff	4.0	%

MOUNTING INFORMATION

Overall Diameter	547 / 21.54	mm / inch
Bolt Circle Diameter	527 / 20.75	mm / inch
Bolt Hole Diameter	6.25 / 0.25	mm / inch
Front Mount Baffle Cut-out	512 / 20.16	mm / inch
Rear Mount Baffle Cut-out	512 / 20.16	mm / inch
Depth	234 / 9.21	mm / inch
Volume occupied by the driver ⁶	6.5 / 0.26	liters / ft3

SHIPPING INFORMATION

Net Weight	10.9 / 24.03	Kg / Lbs
Shipping Weight	13.5 / 29.76	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.

WOOFER

LF21N401

Professional Low Frequency Transducer

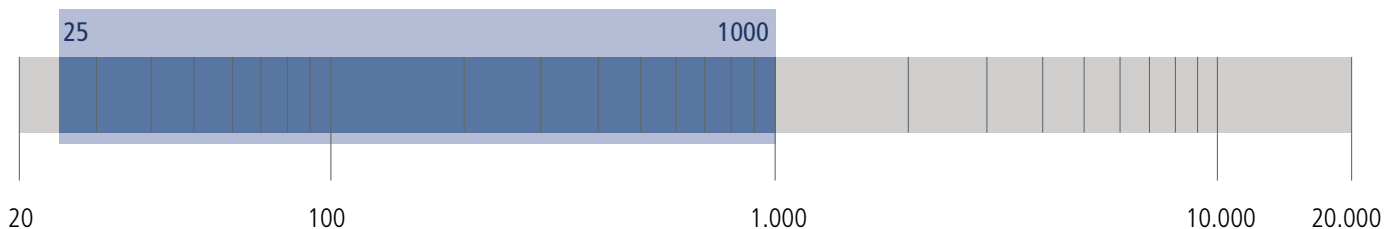
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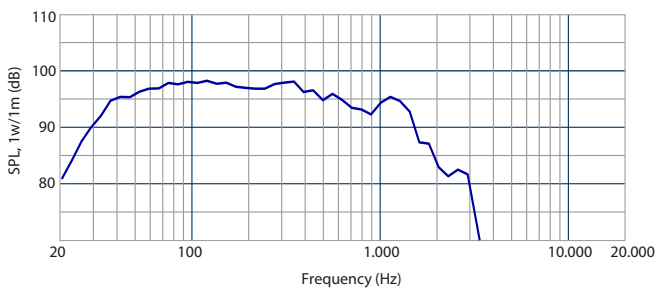
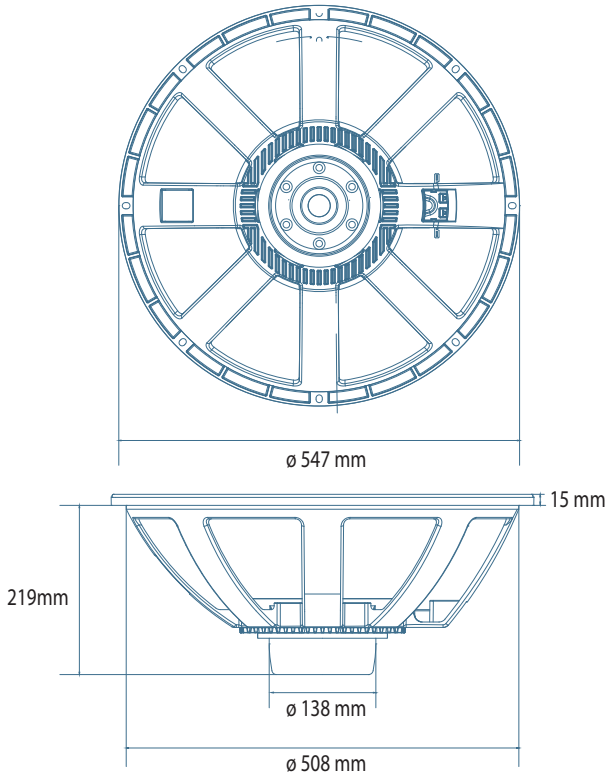
The LF21N401 is a high power handling and efficiency transducer specially designed to provide powerful and accurate sub-bass frequencies with low distortion and low power compression. With a fast time response, the LF21N401 uses a fiber loaded cone assembly along a large triple roll surround. This combination provides remarkable strength and control. Double silicon spider system ensures excellent control during large excursions. A fully optimized T-pole design generate the minimum amount of flux modulation. The Dual-forced air venting system provides a very efficient voice coil ventilation to minimize the power compression.

- 4,0 - inch Inside/Outside copper voice coil
- 3000 Watt continuous program power handling
- 98.0 dB Sensitivity
- 25 Hz - 1 kHz Frequency range
- Dual-forced air ventilation for minimum power compression
- Dual spider designed with silicon based damping control
- BL of 27.6 T/m to provide a faster and accurate low frequency

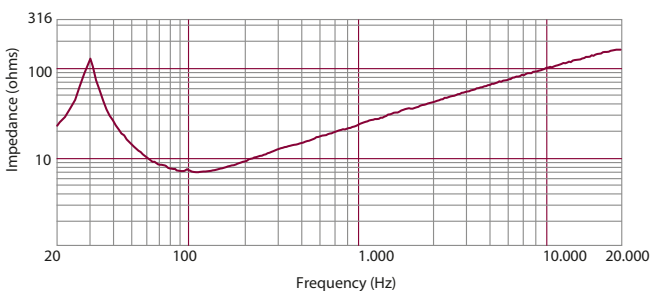
APPLICATIONS

The LF21N401 is ideal in applications where ultra-light weight, high BL and power handling are required. Ideal for touring, perfect for powerful lows in bass reflex designs.





Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 55 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	21 / 533	inch / mm
Rated Impedance	8	ohm
Program Power ¹	3000	Watt
Power handling capacity ²	1500	Watt
Sensitivity ³	98	dB
Frequency Range	25 - 1000	Hz
Effective Piston Diameter	470 / 18.5	mm / inch
Max Excursion Before Damage (peak to peak)	60 / 2.36	mm / inch
Minimum Impedance	6.9	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	31 / 1.22	mm / inch
Number of layers	2	
Kind of layer	inside / outside	
Top Plate Thickness	15 / 0.59	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	30	Hz
DC resistance	Re	5.0	ohm
Mechanical factor	Qms	6.8	
Electrical factor	Qes	0.40	
Total factor	Qts	0.37	
BL Factor	BL	27.6	T · m
Effective Moving Mass	Mms	318	gr
Equivalent Cas air load	Vas	374	liters
Effective piston area	Sd	0.122	m ²
Max. linear excursion (mathematical) ⁵	Xmax	11.4	mm
Voice - coil inductance @ 1KHz	Le1K	1.7	mH
Half-space efficiency	Eff	2.50	%

MOUNTING INFORMATION

Overall Diameter	547 / 21.54	mm / inch
Bolt Circle Diameter	527 / 20.75	mm / inch
Bolt Hole Diameter	6.5 / 0.25	mm / inch
Front Mount Baffle Cut-out	512 / 20.16	mm / inch
Rear Mount Baffle Cut-out	512 / 20.16	mm / inch
Depth	219 / 8.62	mm / inch
Volume occupied by the driver ⁶	6.5 / 0.229	liters / ft3

SHIPPING INFORMATION

Net Weight	8.8 / 19	Kg / Lbs
Shipping Weight	10 / 22	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.

WOOFER

LF18N451

Professional Low Frequency Transducer

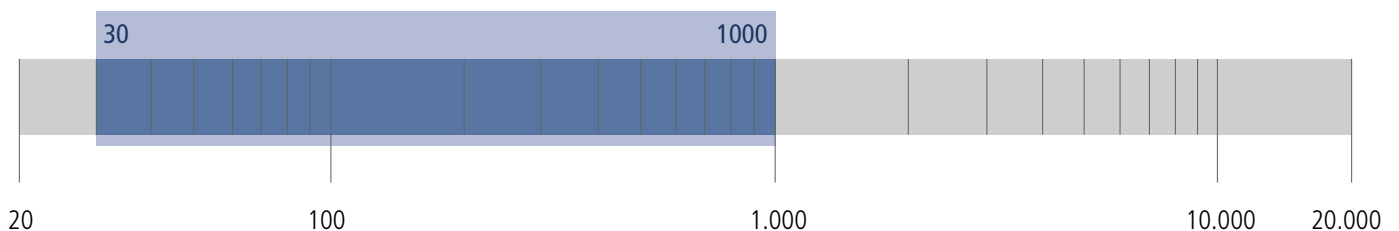
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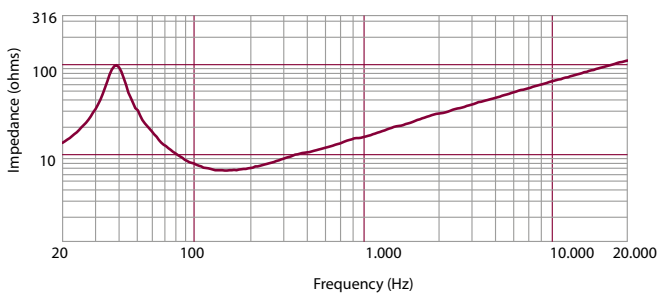
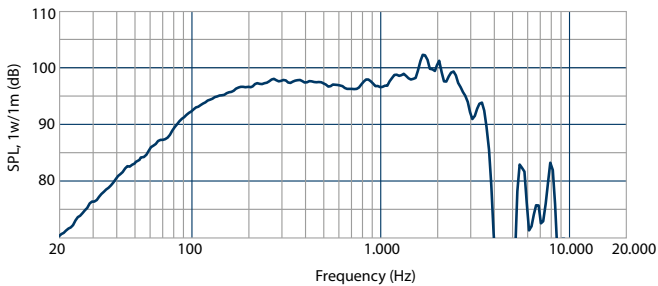
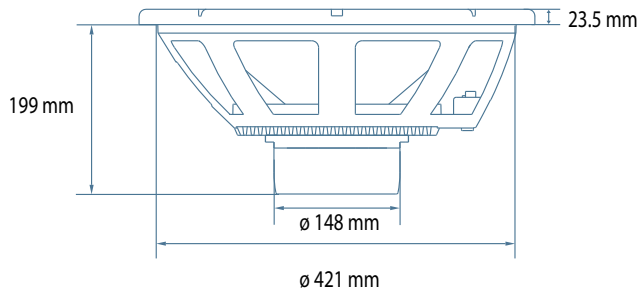
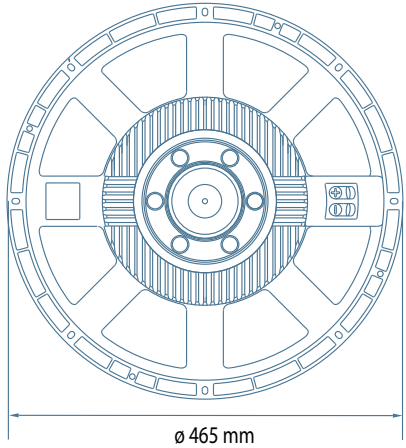
The LF18N451 is a very high power handling and efficiency transducer specially designed to provide powerful and accurate bass frequencies with low distortion and low power compression. Ultra fast time response. The LF18N451 uses a fibre loaded cone assembly along a large triple roll surround, this combination 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. The Dual-forced air venting system provides a very efficient voice coil ventilation to minimize the power compression.

- 4,5 - inch Inside/Outside copper voice coil
- 3000 Watt continuous program power handling
- 97.5 dB Sensitivity
- 30 Hz - 1 kHz Frequency range
- Dual-forced air ventilation for minimum power compression
- Dual spider designed with silicon based damping control
- BL of 30.2 T/m to provide a faster and accurate low frequency

APPLICATIONS

The LF18N451 is ideal in applications where light weight ,very high BL and power handling are required. It's especially designed for touring, perfect for powerful lows in horn loaded sub system or reflex designs.





GENERAL SPECIFICATIONS

Nominal Diameter	18 / 457	inch / mm
Rated Impedance	8	ohm
Program Power ¹	3000	Watt
Power handling capacity ²	1500	Watt
Sensitivity ³	97.5	dB
Frequency Range	30 - 1000	Hz
Effective Piston Diameter	395 / 15.55	mm / inch
Max Excursion Before Damage (peak to peak)	60 / 2.36	mm / inch
Minimum Impedance	6.3	ohm
Voice Coil Diameter	4.5 / 114	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	26 / 1.02	mm / inch
Number of layers	2	
Kind of layer	inside / outside	
Top Plate Thickness	15 / 0.59	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	31	Hz
DC resistance	Re	5.0	ohm
Mechanical factor	Qms	6.0	
Electrical factor	Qes	0.25	
Total factor	Qts	0.24	
BL Factor	BL	30.2	T · m
Effective Moving Mass	Mms	235	gr
Equivalent Cas air load	Vas	245	liters
Effettive piston area	Sd	0.122	m ²
Max. linear excursion (mathematical) ⁵	Xmax	8.8	mm
Voice - coil inductance @ 1KHz	Le1K	2.6	mH
Half-space efficiency	Eff	2.54	%

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 / 16.69	mm / inch
Rear Mount Baffle Cut-out	425 / 16.73	mm / inch
Depth	199 / 7.83	mm / inch
Volume occupied by the driver ⁶	5.5 / 0.22	liters / ft3

SHIPPING INFORMATION

Net Weight	10.5 / 23.15	Kg / Lbs
Shipping Weight	12.5 / 27.56	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.

WOOFER

LF18N408

Professional Low Frequency Transducer

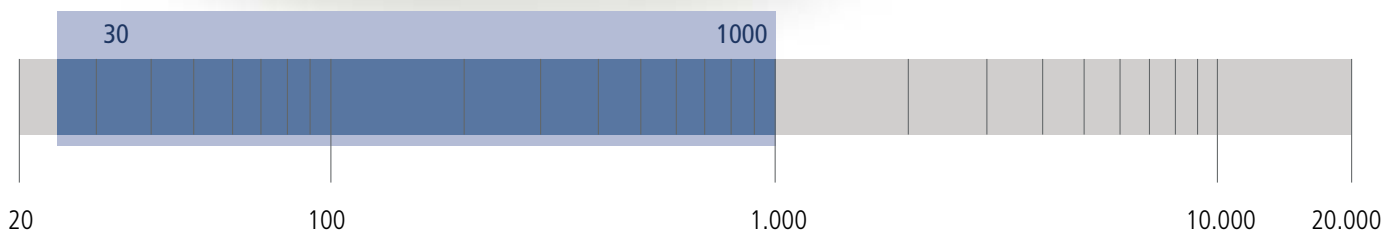
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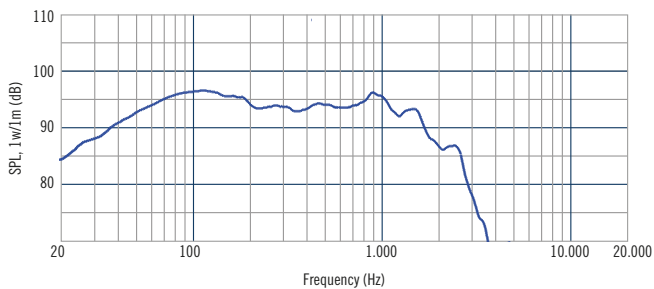
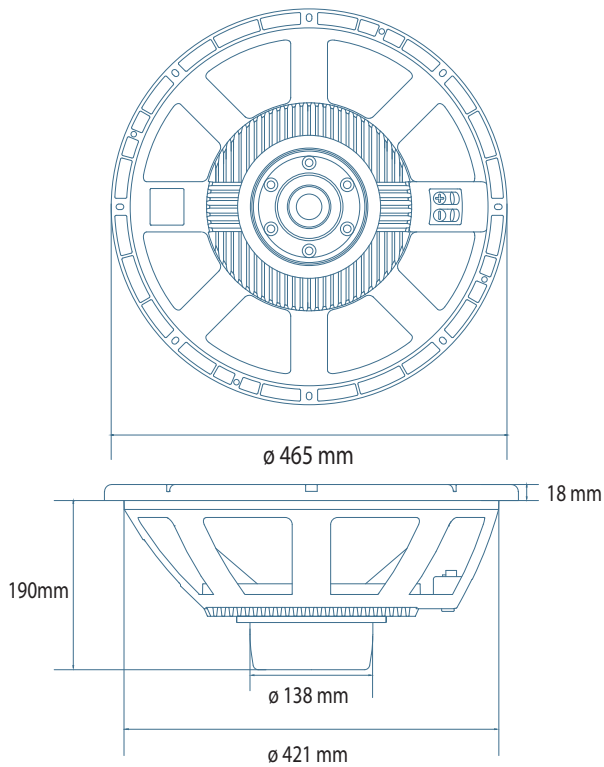
The LF18N408 is an extended low frequency with high power handling, designed to provide powerful and accurate bass frequencies with low distortion, low power compression and very high SPL. The LF18N408 uses a fibre loaded cone assembly along a large triple roll surround, this combination provides remarkable strength and control. The single spider system is specifically designed with a heavy cloth which ensures excellent control during large excursions. A fully optimized T-pole together with double demodulating rings are designed to reduce flux modulations with benefits on harmonic and intermodulation distortions while improving the transient response. The Dual-forced air venting magnetic structure system provides a very efficient voice coil ventilation to minimize the power compression.

- 4,0 - inch Inside/Outside copper voice coil
- 3000 Watt continuous program power handling
- 97 dB Sensitivity
- 25 Hz - 1 kHz Frequency range
- Hypervented magnetic structure for minimum power compression
- Triple roll surround and exponential cone geometry
- Double aluminum demodulation rings

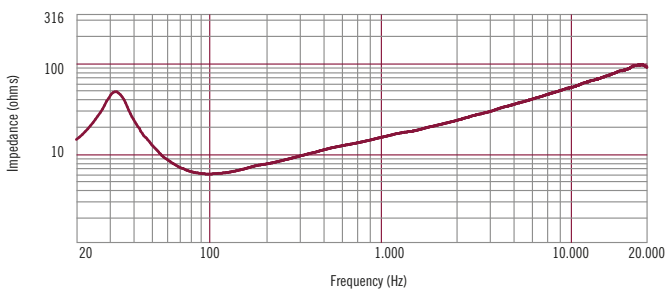
APPLICATIONS

The LF18N408 is ideal for use in applications where incredible power handling is required, long excursion and light weight. Specially designed for touring, perfect for high quality professional bass reflex or bandpass enclosure.





Frequency response curve of the loudspeaker made in a hemispherical, free field applying a sinusoidal signal of 2.83 V @ 8 at 1m.



Impedance magnitude curve measured in free air

GENERAL SPECIFICATIONS

Nominal Diameter	18 / 457	inch / mm
Rated Impedance	8	ohm
Program Power ¹	3000	Watt
Power handling capacity ²	1500	Watt
Sensitivity ³	97	dB
Frequency Range	25 - 1000	Hz
Effective Piston Diameter	395 / 15.55	mm / inch
Max Excursion Before Damage (peak to peak)	58 / 2.28	mm / inch
Minimum Impedance	6.0	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	38 / 1.41	mm / inch
Number of layers	2	
Kind of layer	inside / outside	
Top Plate Thickness	15 / 0.59	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Neodymium	
Demodulating rings	Double	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	30	Hz
DC resistance	Re	4.3	ohm
Mechanical factor	Qms	3.6	
Electrical factor	Qes	0.36	
Total factor	Qts	0.33	
BL Factor	BL	25.7	T · m
Effective Moving Mass	Mms	284	gr
Equivalent Cas air load	Vas	193	liters
Effettive piston area	Sd	0.122	m ²
Max. linear excursion (mathematical) ⁵	Xmax	15	mm
Voice - coil inductance	Le	1.56	mH
Half-space efficiency	Eff	1.57	%

MOUNTING INFORMATION

Overall Diameter	465 / 18.31	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 / 16.69	mm / inch
Rear Mount Baffle Cut-out	425 / 16.73	mm / inch
Depth	190 / 7.48	mm / inch
Volume occupied by the driver ⁶	5.5 / 0.22	liters / ft ³

SHIPPING INFORMATION

Net Weight	9 / 19.84	Kg / Lbs
Shipping Weight	10 / 22.05	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.

WOOFER

LF18N405

Professional Low Frequency Transducer

PART NUMBER **11100022**

The LF18N405 is an extended low frequency with high power handling , designed to provide powerful and accurate bass frequencies with low distortion, low power compression and very high SPL. The LF18N405 uses a fibre loaded cone assembly along a large triple roll surround, this combination provides remarkable strength and control. The double spider system is specifically designed with a heavy cloth which ensures excellent control during large excursions. A fully optimised T-pole design generates the minimum amount of flux modulation. The Dual-forced air venting magnetic structure system provides a very efficient voice coil ventilation to minimize the power compression.

- 4,0 - inch Inside/Outside copper voice coil
- 3000 Watt continuous program power handling
- 97 dB Sensitivity
- 30 Hz - 1 kHz Frequency range
- Hypervented magnetic structure for minimum power compression
- Triple roll surround and corrugated straight cone geometry

APPLICATIONS

The LF18N405 is ideal for use in applications where incredible power handling is required, long excursion and light weight. Specially designed for touring, perfect for high quality professional bass reflex or bandpass enclosure.



30 1000

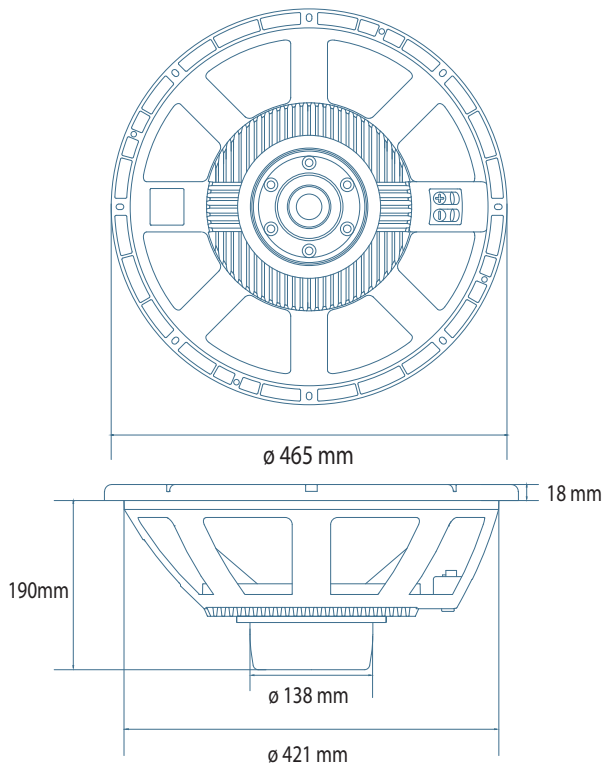
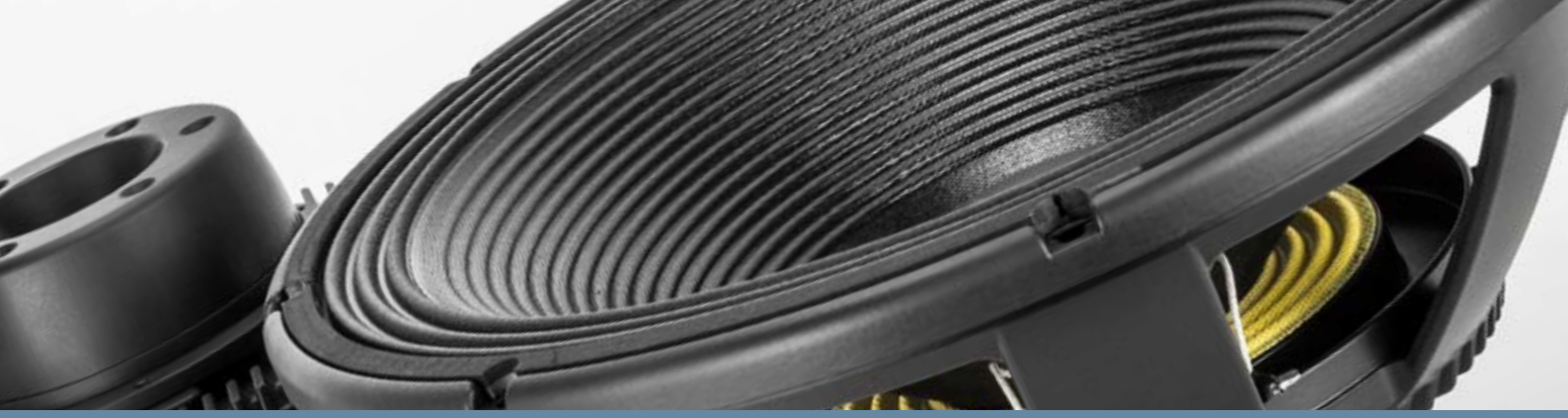
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100

1.000

10.000

20.000



GENERAL SPECIFICATIONS

Nominal Diameter	18 / 457	inch / mm
Rated Impedance	8	ohm
Program Power ¹	3000	Watt
Power handling capacity ²	1500	Watt
Sensitivity ³	97	dB
Frequency Range	30 - 1000	Hz
Effective Piston Diameter	395 / 15.55	mm / inch
Max Excursion Before Damage (peak to peak)	58 / 2.28	mm / inch
Minimum Impedance	6.0	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	36 / 1.41	mm / inch
Number of layers	2	
Kind of layer	inside / outside	
Top Plate Thickness	15 / 0.59	mm / inch
Cone Material	No pressed pulp	
Cone Design	Straight	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

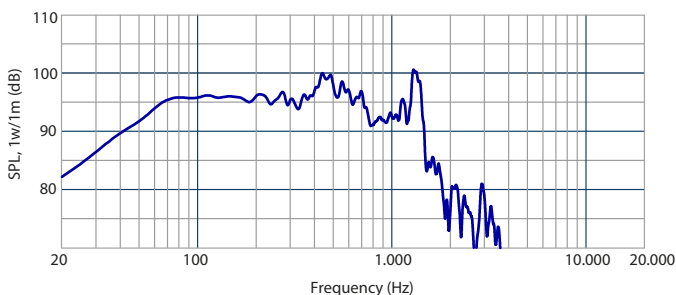
Resonance frequency	Fs	30	Hz
DC resistance	Re	4.9	ohm
Mechanical factor	Qms	7.0	
Electrical factor	Qes	0.34	
Total factor	Qts	0.32	
BL Factor	BL	26.5	T · m
Effective Moving Mass	Mms	261	gr
Equivalent Cas air load	Vas	227	liters
Effettive piston area	Sd	0.122	m ²
Max. linear excursion (mathematical) ⁵	Xmax	14.2	mm
Voice - coil inductance @ 1KHz	Le1K	1.7	mH
Half-space efficiency	Eff	1.70	%

MOUNTING INFORMATION

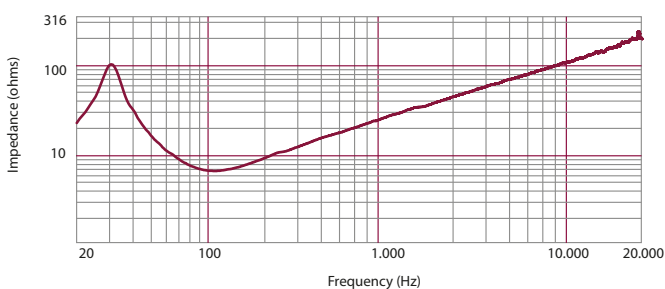
Overall Diameter	465 / 18.31	mm / inch
Bolt Circle Diameter	442-447 / 17.4-17.6	mm / inch
Bolt Hole Diameter	6.5 / 0.25	mm / inch
Front Mount Baffle Cut-out	424 / 16.69	mm / inch
Rear Mount Baffle Cut-out	425 / 16.73	mm / inch
Depth	190 / 7.48	mm / inch
Volume occupied by the driver ⁶	5.5 / 0.22	liters / ft3

SHIPPING INFORMATION

Net Weight	8.8 / 19.4	Kg / Lbs
Shipping Weight	10 / 22.05	Kg / Lbs



Frequency response curve of the loudspeaker made in a hemispherical, free field applying a sinusoidal signal of 2.83 V @ 8 at 1m.



Impedance magnitude curve measured in free air

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.

WOOFER

LF18N401

Professional Low Frequency Transducer

Incredibly linear frequency response characteristics, the highest power handling of any comparable 18-inch neodymium transducer, the lowest power compression. The LF18N401 uses a fibre loaded cone assembly along with a high excursion triple roll, constant geometry surround. This combination provides remarkable strength and a peak to peak maximum excursion of 52 mm. The unique Dual-forced air venting system guarantee a very efficient voice coil ventilation for minimum power compression and higher power handling.

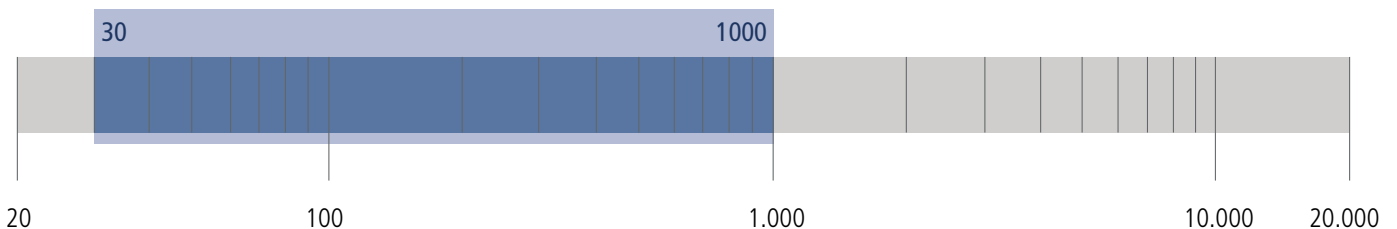
PART NUMBER **11100010**

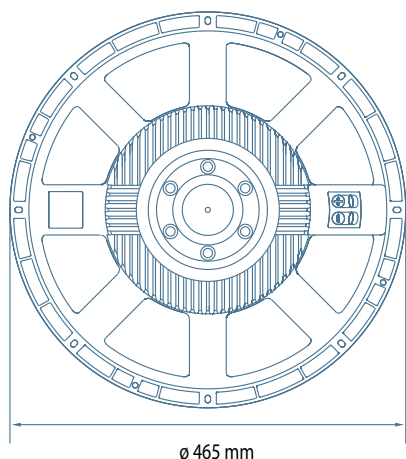
- 4-inch, fibreglass inside-outside copper voice coil
- 2400 Watt continuous program power handling
- 98 dB Sensitivity
- 30 Hz - 1 kHz Frequency range
- Dual-forced air ventilation and 15 mm top plate for minimum power compression
- Dual spider design with silicon based dampening control
- Triple-roll surround and corrugated straight cone geometry

APPLICATIONS

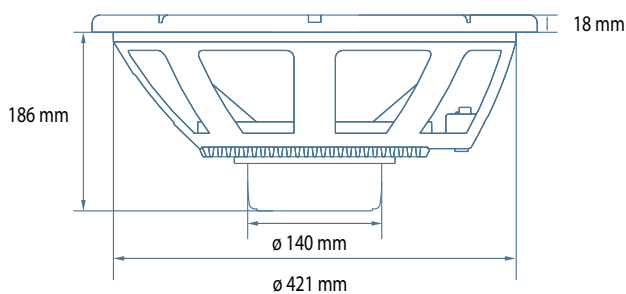
The LF18N401 is ideal for use in applications where incredible power handling is required, long excursion and light weight. Specially designed for touring, perfect for high quality professional bass reflex and bass-horn systems.

The transducer's low frequency extension and control also makes it ideal for use within critical listening applications such as studio monitoring subwoofer systems.





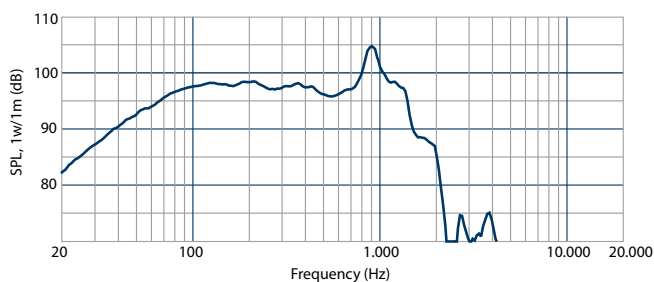
ø 465 mm



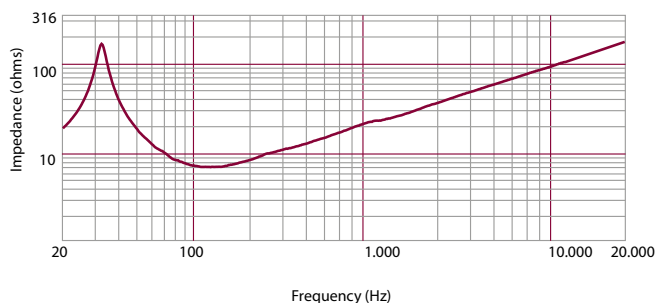
186 mm

ø 140 mm

ø 421 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	18 / 457	inch / mm
Rated Impedance	8	ohm
Program Power ¹	2400	Watt
Power handling capacity ²	1200	Watt
Sensitivity ³	98	dB
Frequency Range	30 - 1000	Hz
Effective Piston Diameter	395 / 15.55	mm / inch
Max Excursion Before Damage (peak to peak)	52 / 2.05	mm / inch
Minimum Impedance	6	ohm
Voice Coil Diameter	4 / 102	inch / mm
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 / 0.59	mm / inch
Cone Material	No pressed pulp	
Cone Design	Straight	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	32	Hz
DC resistance	Re	5.1	ohm
Mechanical factor	Qms	6.5	
Electrical factor	Qes	0.27	
Total factor	Qts	0.26	
BL Factor	BL	27.8	T · m
Effective Moving Mass	Mms	201	gr
Equivalent Cas air load	Vas	257	liters
Effective piston area	Sd	0.122	m ²
Max. linear excursion (mathematical) ⁵	Xmax	8.8	mm
Voice - coil inductance @ 1KHz	Le1K	2.5	mH
Half-space efficiency	Eff	3.01	%

MOUNTING INFORMATION

Overall Diameter	465 / 18.31	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 / 16.69	mm / inch
Rear Mount Baffle Cut-out	424 / 16.69	mm / inch
Depth	186 / 7.32	mm / inch
Volume occupied by the driver ⁶	5.5 / 0.22	liters / ft3

SHIPPING INFORMATION

Net Weight	9.5 / 20.94	Kg / Lbs
Shipping Weight	11.4 / 25.13	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.

WOOFER

LF15N401

Professional Low Frequency Transducer

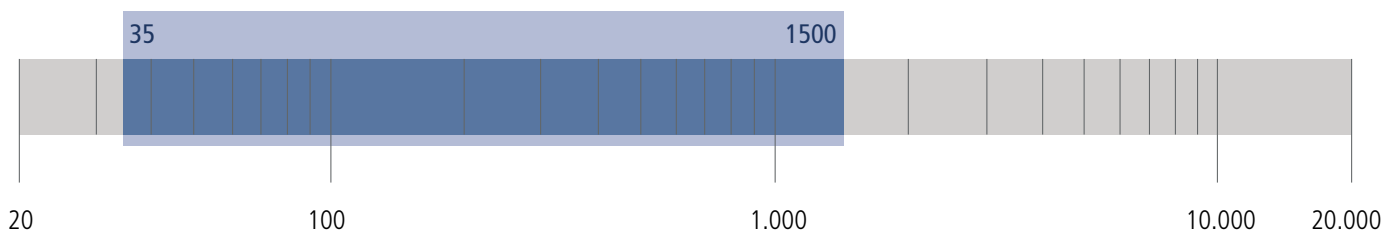
PART NUMBER **11100013**

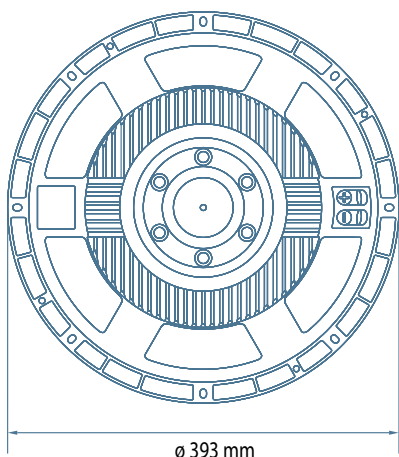
- 4-inch, fibreglass inside-outside copper voice coil
- 1800 Watt continuous program power handling
- 97 dB Sensitivity
- 35 Hz - 1.5 kHz Frequency range
- Dual-forced air ventilation and 15 mm top plate for minimum power compression
- Dual spider design with silicon based dampening control
- Triple-roll surround and corrugated straight cone geometry

Incredibly linear frequency response characteristics, the highest power handling of any comparable 15-inch neodymium transducer, the lower power compression. The LF15N401 uses a fibre loaded cone assembly along with a high excursion triple roll, constant geometry surround. This combination provides remarkable strength and a peak to peak maximum excursion of 52 mm. The unique Dual-forced air venting system guarantee a very efficient voice coil ventilation for minimum power compression and higher power handling.

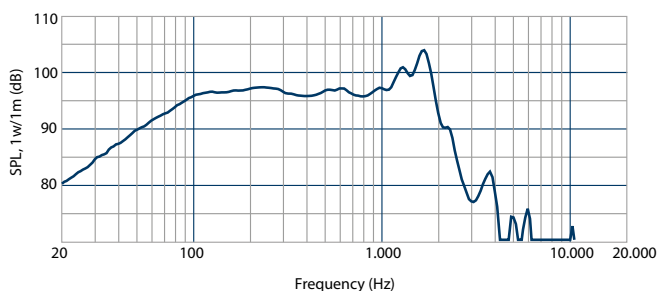
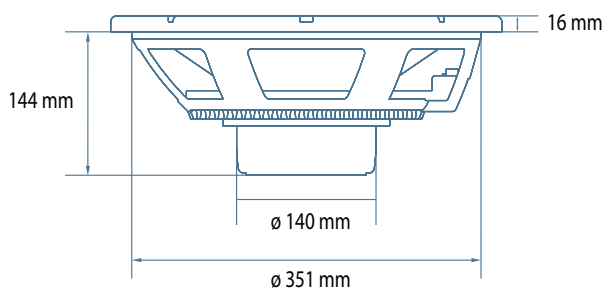
APPLICATIONS

The LF15N401 is ideal for use in applications where incredible power handling, long excursion and light weight is required. Specially designed for touring, perfect for high quality professional bass reflex and bass-horn systems. The transducer's low frequency extension and control also makes it ideal for use within critical listening applications such as studio monitoring subwoofer systems.

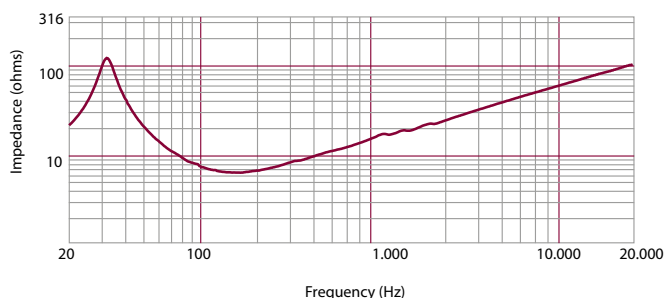




ø 393 mm



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	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1800	Watt
Power handling capacity ²	900	Watt
Sensitivity ³	97	dB
Frequency Range	35 - 1500	Hz
Effective Piston Diameter	340 / 13.39	mm / inch
Max Excursion Before Damage (peak to peak)	52 / 2.05	mm / inch
Minimum Impedance	6.3	ohm
Voice Coil Diameter	4 / 102	inch / mm
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 / 0.59	mm / inch
Cone Material	No pressed pulp	
Cone Design	Straight	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	34	Hz
DC resistance	Re	5.1	ohm
Mechanical factor	Qms	5.8	
Electrical factor	Qes	0.23	
Total factor	Qts	0.22	
BL Factor	BL	27.8	T · m
Effective Moving Mass	Mms	158	gr
Equivalent Cas air load	Vas	160	liters
Effective piston area	Sd	0.091	m ²
Max. linear excursion (mathematical) ⁵	Xmax	8.8	mm
Voice - coil inductance @ 1KHz	Le1K	2.5	mH
Half-space efficiency	Eff	2.64	%

MOUNTING INFORMATION

Overall Diameter	393 / 15.47	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 / 13.94	mm / inch
Rear Mount Baffle Cut-out	354 / 13.94	mm / inch
Depth	144 / 5.66	mm / inch
Volume occupied by the driver ⁶	3.8 / 0.15	liters / ft3

SHIPPING INFORMATION

Net Weight	8.6 / 19.1	Kg / Lbs
Shipping Weight	10.18 / 22.44	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.

MID-BASS

MB15N405

Professional Low Frequency Transducer

PART NUMBER **11100108**

- 4-inch, fibreglass inside/outside aluminium voice coil
- 2200W continuous program power handling
- 100 dB Sensitivity
- 45 Hz – 2.5 kHz Frequency range
- Hypervented for minimum power compression
- Triple roll surround and exponential cone geometry

The MB15N405 is a hypervented neo mid-bass design with a linear frequency response and very high efficiency.

To get this performance the magnetic structure use a high flux neo disc and the cone assembly a fibre loaded exponential shape along with a high excursion triple roll, constant geometry surround.

The fibreglass former and aluminium voice coil provide a very high power handling maintaining a light mass and a proper Q factor for bass alignment.

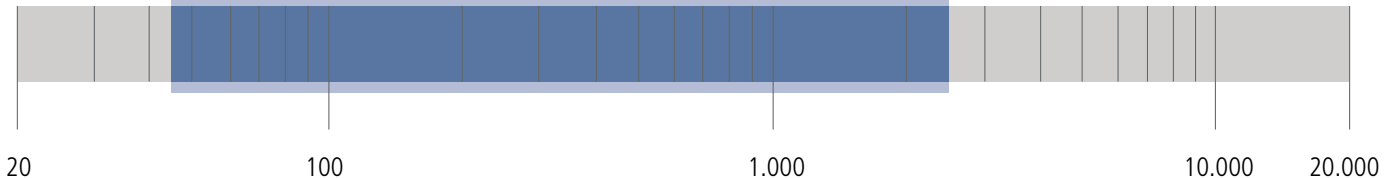
APPLICATIONS

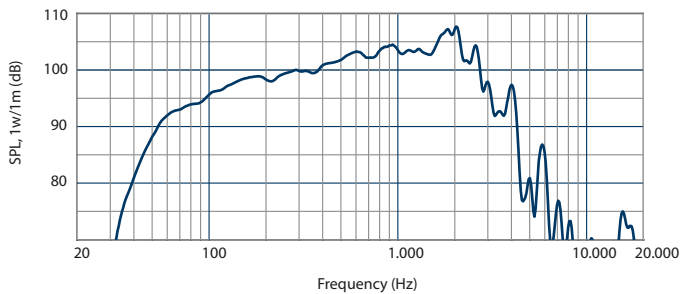
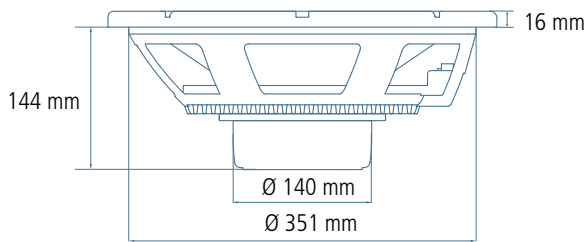
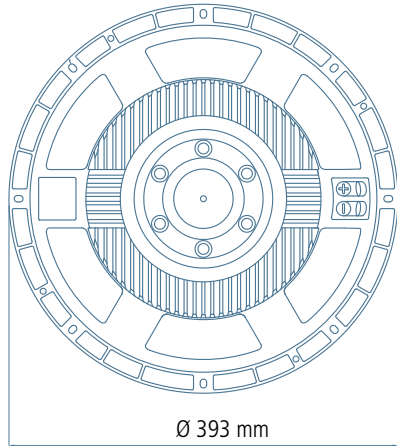
The MB15N405 is ideal where is required extremely high power handling, very high efficiency and perfect linearity.

Is the ideal 15" mid-bass woofer for reference high fidelity, high performance mid-bass application in compact 2 way system.

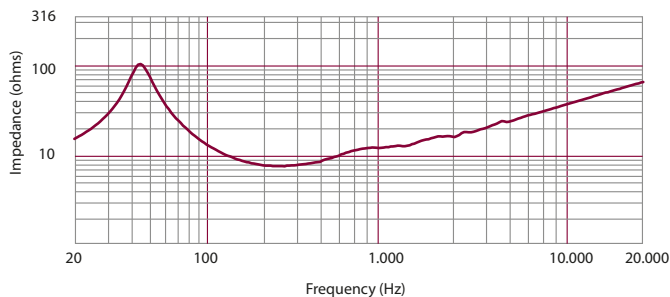


45 2500





Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 55 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	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	2200	Watt
Power handling capacity ²	1100	Watt
Sensitivity ³	100	dB
Frequency Range	45 - 2500	Hz
Effective Piston Diameter	340 / 13.39	mm / inch
Max Excursion Before Damage (peak to peak)	53 / 2.09	mm / inch
Minimum Impedance	5.9	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Aluminum	
Voice Coil Winding Depth	20 / 0.79	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	12 / 0.47	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple - roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	46	Hz
DC resistance	Re	5.5	ohm
Mechanical factor	Qms	4.8	
Electrical factor	Qes	0.28	
Total factor	Qts	0.27	
BL Factor	BL	23.5	T · m
Effective Moving Mass	Mms	98	gr
Equivalent Cas air load	Vas	124	liters
Effective piston area	Sd	0.091	m ²
Max. linear excursion (mathematical) ⁵	Xmax	7.0	mm
Voice - coil inductance @ 1KHz	Le1K	1.1	mH
Half-space efficiency	Eff	4.10	%

MOUNTING INFORMATION

Overall Diameter	393 / 15.47	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 / 13.94	mm / inch
Rear Mount Baffle Cut-out	354 / 13.94	mm / inch
Depth	144 / 5.6	mm / inch
Volume occupied by the driver ⁶	3.8 / 0.15	liters / ft3

SHIPPING INFORMATION

Net Weight	8.6 / 18.96	Kg / Lbs
Shipping Weight	9.3 / 20.5	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.

MID-BASS

MB15N401

Professional Low Frequency Transducer

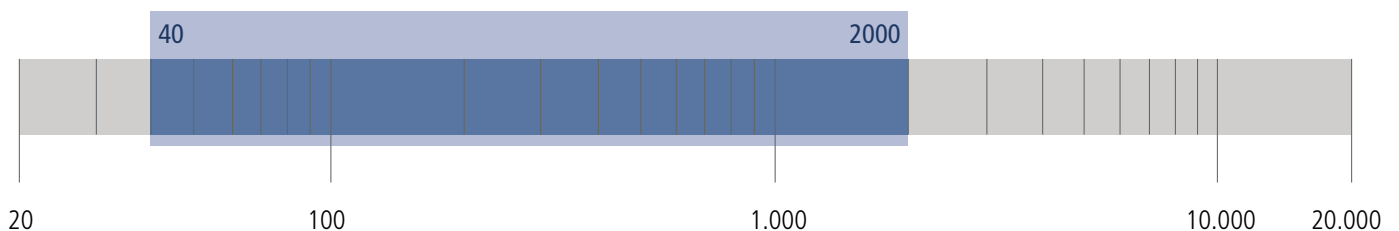
PART NUMBER **11100034**

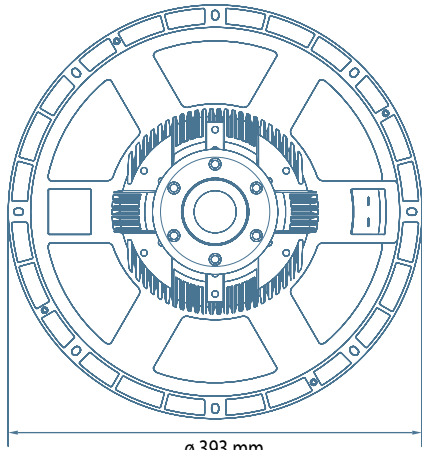
- 4-inch, fibreglass inside-outside copper voice coil
- 1700 Watt continuous program power handling
- 100 dB Sensitivity
- 40 Hz - 2 kHz Frequency range
- Dual -forced air ventilation
- Triple-roll surround and exponential cone geometry
- Aluminum demodulation ring

The MB15N401 is a neo midbass with a linear frequency response and very high efficiency. To get this performance the magnetic structure use a double demodulation ring and a fibre loaded exponential cone assembly along with a high excursion triple roll, constant geometry surround. The fibreglass former, inside / outside copper voice coil provides a very good power handling maintaining a light mass maintaining a proper Q factor for bass alignment. The double demodulations ring guarantee a fastest time response and lowest distortion.

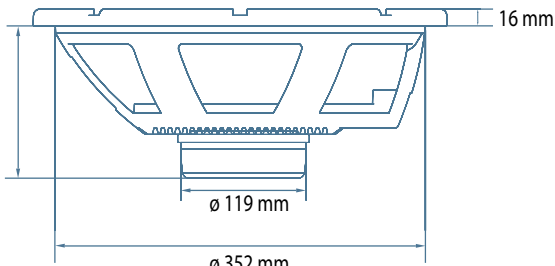
APPLICATIONS

The MB15N401 is ideal for use in applications where is required good power handling, very high efficiency and perfect linearity. Is the ideal 15" woofer for mid-bass application in the compact 2 way system. The robust mechanical design and optimised weight of the device make it desirable for use in fixed installation or portable professional loudspeaker system.





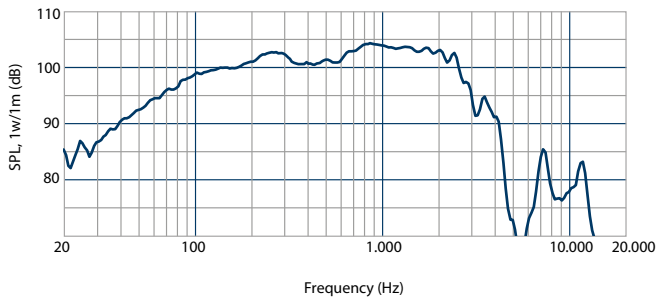
ø 393 mm



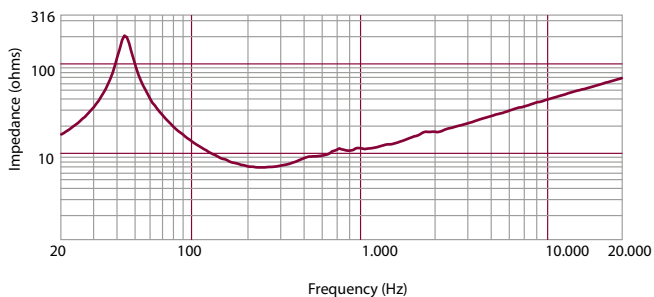
144.6 mm

ø 119 mm

ø 352 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	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1700	Watt
Power handling capacity ²	850	Watt
Sensitivity ³	100	dB
Frequency Range	40 - 2000	Hz
Effective Piston Diameter	340 / 13.39	mm / inch
Max Excursion Before Damage (peak to peak)	40 / 1.57	mm / inch
Minimum Impedance	6.4	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	18 / 0.71	mm / inch
Number of layers	2	
Kind of layer	inside / outside	
Top Plate Thickness	12 / 0.47	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	42	Hz
DC resistance	Re	5.0	ohm
Mechanical factor	Qms	7.7	
Electrical factor	Qes	0.20	
Total factor	Qts	0.19	
BL Factor	BL	26.1	T · m
Effective Moving Mass	Mms	100	gr
Equivalent Cas air load	Vas	136	liters
Effettive piston area	Sd	0.091	m ²
Max. linear excursion (mathematical) ⁵	Xmax	5.5	mm
Voice - coil inductance @ 1KHz	Le1K	1.6	mH
Half-space efficiency	Eff	4.86	%

MOUNTING INFORMATION

Overall Diameter	393 / 15.47	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 / 13.94	mm / inch
Rear Mount Baffle Cut-out	354 / 13.94	mm / inch
Depth	144.6 / 5.69	mm / inch
Volume occupied by the driver ⁶	3.8 / 0.15	liters / ft3

SHIPPING INFORMATION

Net Weight	7.5 / 16.53	Kg / Lbs
Shipping Weight	8.6 / 18.96	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.

MID-BASS

MB15N351

Professional Low Frequency Transducer

The MB15N351 is designed to provide an excellent frequency response linearity with very low distortion. A very strong neodymium magnetic structure guarantee dynamic and precision, a new and unique 3,5" voice coil design provides a very high power handling, especially recommended in comparison to a standard 3" voice coil. The unique Dual-forced air venting system guarantee a very efficient voice coil ventilation to minimize the power compression and provide higher power handling.

PART NUMBER **11100025**

- 3,5-inch, inside-outside copper voice coil
- 1300 Watt continuous program power handling
- 100 dB Sensitivity
- 40 Hz - 3 kHz Frequency range
- Dual-forced air ventilation for minimum power compression
- Dual spider design with silicon based damping control

APPLICATIONS

The MB15N351 is ideal for use in applications where is required a very high efficiency and linearity with high power handling. It's especially recommended for high powered multi-way system.



40 3000

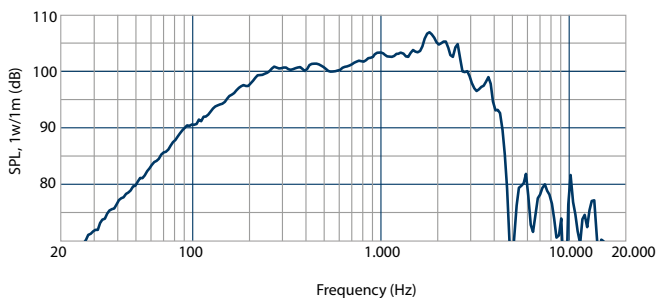
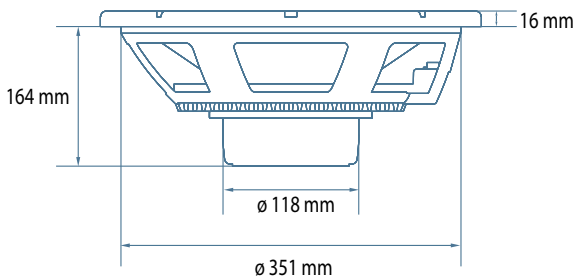
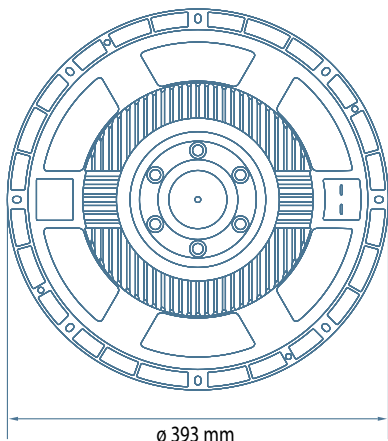
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100

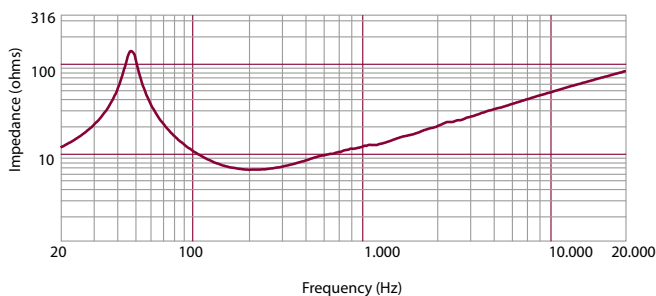
1.000

10.000

20.000



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	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1300	Watt
Power handling capacity ²	650	Watt
Sensitivity ³	100	dB
Frequency Range	40 - 3000	Hz
Effective Piston Diameter	330 / 12.99	mm / inch
Max Excursion Before Damage (peak to peak)	39 / 1.54	mm / inch
Minimum Impedance	6.8	ohm
Voice Coil Diameter	3.5 / 89	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	16.5 / 0.65	mm / inch
Number of layers	2	
Kind of layer	inside / outside	
Top Plate Thickness	11 / 0.43	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	42	Hz
DC resistance	Re	5.6	ohm
Mechanical factor	Qms	4.0	
Electrical factor	Qes	0.24	
Total factor	Qts	0.22	
BL Factor	BL	22.5	T · m
Effective Moving Mass	Mms	80	gr
Equivalent Cas air load	Vas	191	liters
Effettive piston area	Sd	0.085	m ²
Max. linear excursion (mathematical) ⁵	Xmax	5.5	mm
Voice - coil inductance @ 1KHz	Le1K	1.65	mH
Half-space efficiency	Eff	5.68	%

MOUNTING INFORMATION

Overall Diameter	393 / 15.47	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 / 13.94	mm / inch
Rear Mount Baffle Cut-out	354 / 13.94	mm / inch
Depth	164 / 6.4	mm / inch
Volume occupied by the driver ⁶	3.8 / 0.15	liters / ft3

SHIPPING INFORMATION

Net Weight	5.16 / 11.38	Kg / Lbs
Shipping Weight	6.52 / 14.37	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.

MID-BASS

MB15N301

Professional Low Frequency Transducer

PART NUMBER **11100074**

The MB15N301 is a neodymium, high efficiency, 15" mid-bass. High sensitivity, excellent linearity and very high power handling capabilities. The magnetic structure is powered by a large neodymium magnet that provides an extremely high flux density in the gap. The new hyper-vented aluminium basket and magnetic assembly design provide an excellent heat dissipation and lower power compression. Special air-forced ventilations are provided for voice coil, magnet assembly and basket. M-roll surround and spider design offer great linearity and precise reproduction. The waterproof body cone treatment and polycotton surround ensure a durable performance in every application.

- 3.0-inch, fibreglass inside/outside copper voice coil
- 1000 Watt continuous program power handling
- 99 dB Sensitivity
- 40 Hz -3.5KHz Frequency range
- Dual-forced air ventilation for minimum power compression
- Triple-roll surround and exponential cone geometry

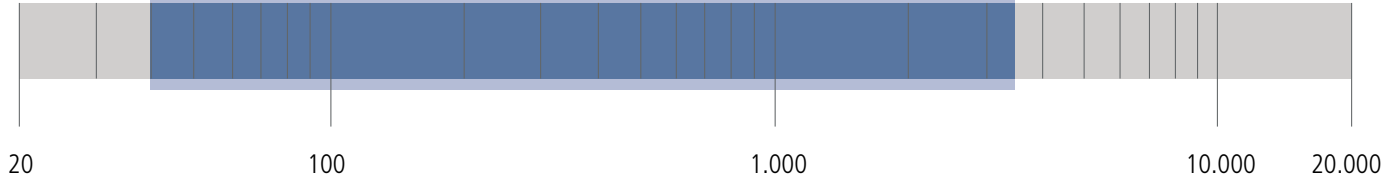
APPLICATIONS

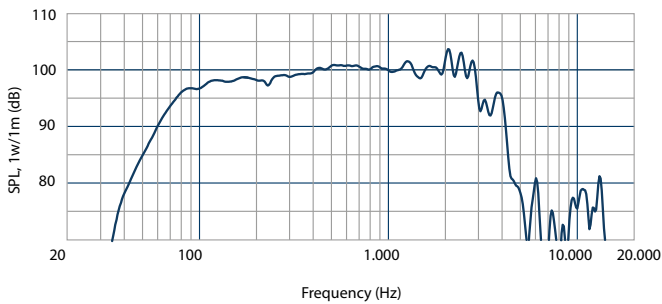
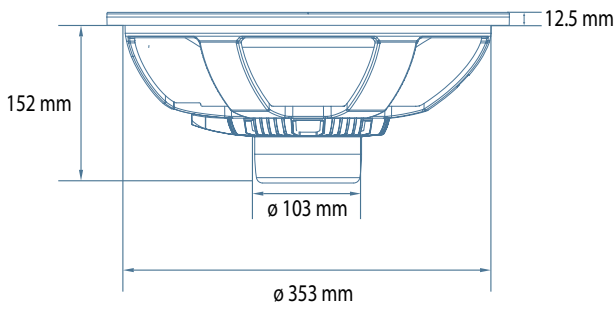
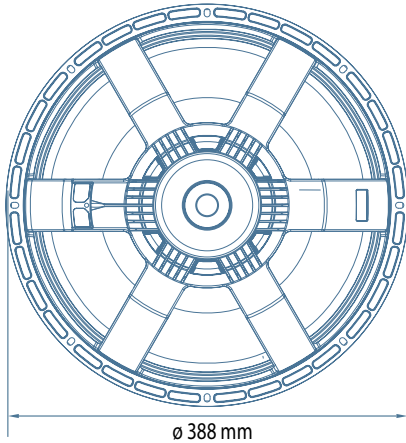
The very light moving mass and linear curve response make the MB15N301 the solution for high quality two or three way system.

The aluminium voice coil guarantee a very high efficiency in conjunction to a proper Q factor for good bass response.

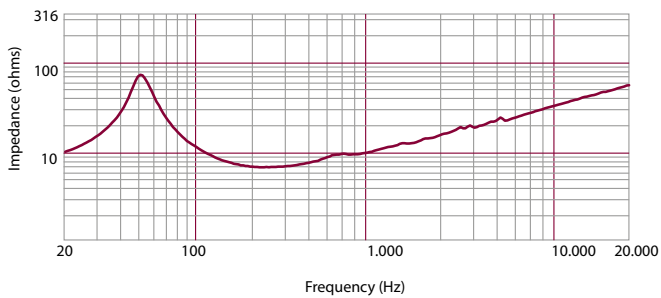


40 3500





Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 55 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	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1000	Watt
Power handling capacity ²	500	Watt
Sensitivity ³	99	dB
Frequency Range	40 - 3500	Hz
Effective Piston Diameter	330 / 12.99	mm / inch
Max Excursion Before Damage (peak to peak)	40 / 1.57	mm / inch
Minimum Impedance	6.8	ohm
Voice Coil Diameter	3 / 76	inch / mm
Voice Coil Material	Aluminum	
Voice Coil Winding Depth	17 / 0.67	mm / inch
Number of layers	2	
Kind of layer	inside / outside	
Top Plate Thickness	10 / 0.39	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple-roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	48	Hz
DC resistance	Re	5.8	ohm
Mechanical factor	Qms	4.6	
Electrical factor	Qes	0.39	
Total factor	Qts	0.37	
BL Factor	BL	19.2	T · m
Effective Moving Mass	Mms	90	gr
Equivalent Cas air load	Vas	134	liters
Effective piston area	Sd	0.086	m ²
Max. linear excursion (mathematical) ⁵	Xmax	6.0	mm
Voice - coil inductance @ 1KHz	Le1K	0.9	mH
Half-space efficiency	Eff	3.70	%

MOUNTING INFORMATION

Overall Diameter	388 / 15.28	mm / inch
Bolt Circle Diameter	369-373 / 14.5-14.7	mm / inch
Bolt Hole Diameter	5.5 / 0.22	mm / inch
Front Mount Baffle Cut-out	355 / 13.98	mm / inch
Rear Mount Baffle Cut-out	358 / 14.09	mm / inch
Depth	152 / 5.98	mm / inch
Volume occupied by the driver ⁶	3.0 / 0.12	liters / ft3

SHIPPING INFORMATION

Net Weight	3.7 / 8.16	Kg / Lbs
Shipping Weight	4.7 / 10.36	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.

MID-BASS

MB12N405

Professional Low Frequency Transducer

PART NUMBER **11100112**

- 4-inch, fibreglass inside/outside aluminium voice coil
- 2000W continuous program power handling
- 98.5 dB Sensitivity
- 50 Hz – 2.0 kHz Frequency range
- Hypervented for minimum power compression
- Triple roll surround and exponential cone geometry

The MB12N405 is a hypervented neo mid-bass design with a linear frequency response and very high efficiency.

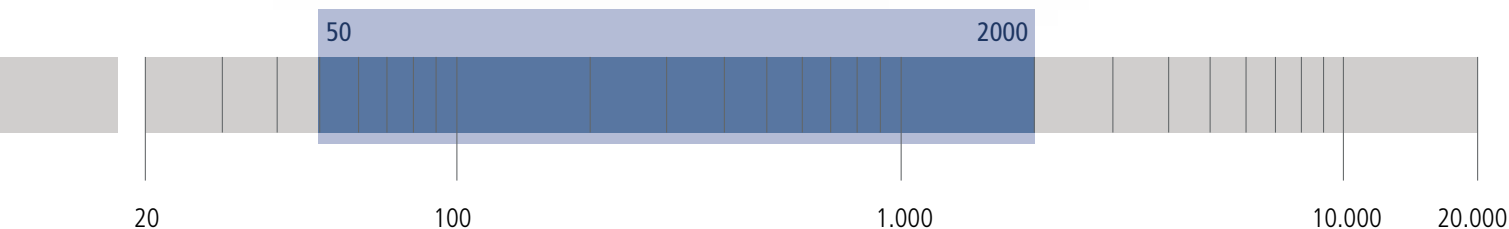
To get this performance the magnetic structure use a high flux neo disc and the cone assembly a fibre loaded exponential shape along with a high excursion triple roll, constant geometry surround.

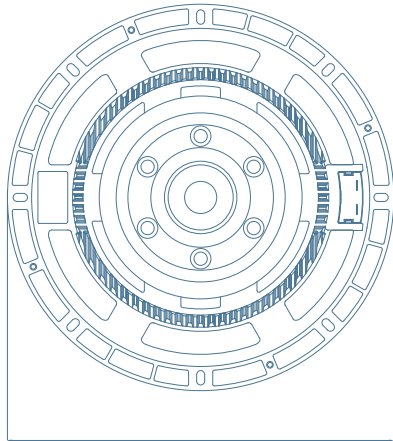
The fibreglass former and aluminium voice coil provide a very high power handling maintaining a light mass and a proper Q factor for bass alignment.

APPLICATIONS

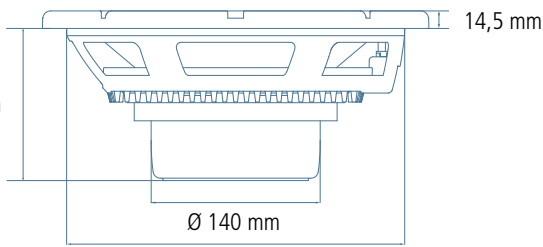
The MB12N405 is ideal where is required extremely high power handling, very high efficiency and perfect linearity.

Is the ideal 12" mid-bass woofer for reference high fidelity, high performance mid-bass application in compact 2 way system.





Ø 320 mm

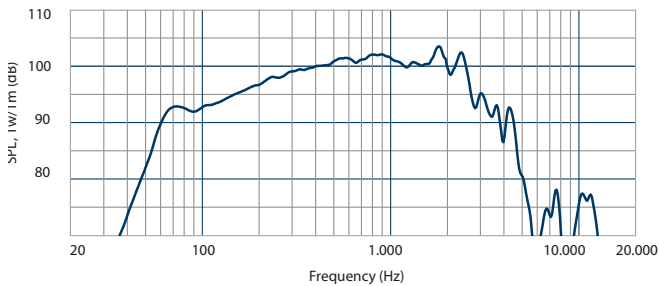


118 mm

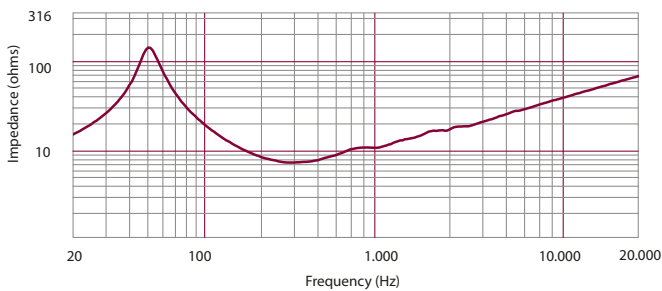
14,5 mm

Ø 140 mm

Ø 280 mm



Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 55 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	12 / 305	inch / mm
Rated Impedance	8	ohm
Program Power ¹	2000	Watt
Power handling capacity ²	1000	Watt
Sensitivity ³	98.5	dB
Frequency Range	50-2000	Hz
Effective Piston Diameter	260 / 10.24	mm / inch
Max Excursion Before Damage (peak to peak)	53 / 2.09	mm / inch
Minimum Impedance	6	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Aluminum	
Voice Coil Winding Depth	20 / 0.79	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	12 / 0.47	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	52	Hz
DC resistance	Re	5.0	ohm
Mechanical factor	Qms	6.0	
Electrical factor	Qes	0.21	
Total factor	Qts	0.20	
BL Factor	BL	23.5	T · m
Effective Moving Mass	Mms	72.5	gr
Equivalent Cas air load	Vas	53	liters
Effective piston area	Sd	0.053	m ²
Max. linear excursion (mathematical) ⁵	Xmax	7.3	mm
Voice - coil inductance @ 1KHz	Le1K	1.2	mH
Half-space efficiency	Eff	3.31	%

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 / 11.18	mm / inch
Depth	118 / 4.64	mm / inch
Volume occupied by the driver ⁶	2.9 / 0.11	liters / ft3

SHIPPING INFORMATION

Net Weight	7.7 / 16.99	Kg / Lbs
Shipping Weight	8.7 / 19.18	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.

MID-BASS

MB12N351

Professional Low Frequency Transducer

The MB12N351 is designed to provide an excellent frequency response linearity with very low distortion. A very strong neodymium magnetic structure guarantee dynamic and precision, a new and unique 3,5" voice coil design provides a very high power handling, especially recommended in comparison to a standard 3" voice coil. The unique Dual-forced air venting system guarantee a very efficient voice coil ventilation to minimize the power compression and provide higher power handling.

PART NUMBER **11100026**

- 3,5-inch, inside-outside copper voice coil
- 1300 Watt continuous program power handling
- 99 dB Sensitivity
- 45 Hz - 3 kHz Frequency range
- Dual-forced air ventilation for minimum power compression
- Single spider design with silicon based damping control

APPLICATIONS

The MB12N351 is ideal for use in applications where is required a very high efficiency and linearity with high power handling. It's especially recommended for high powered multi-way system.



45 3000

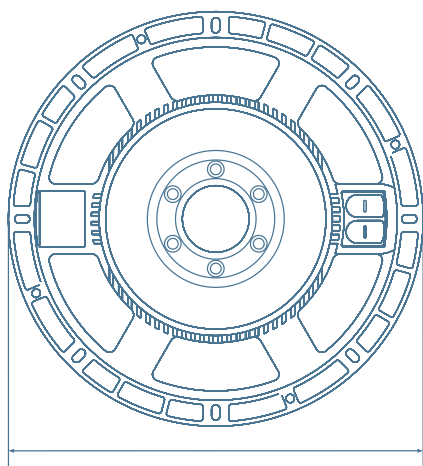
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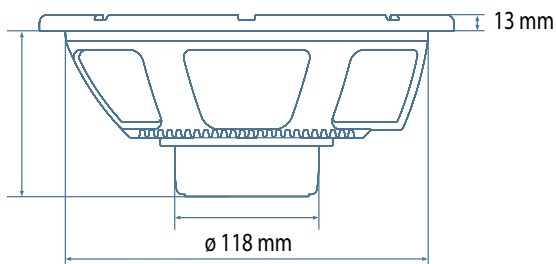
1.000

10.000

20.000



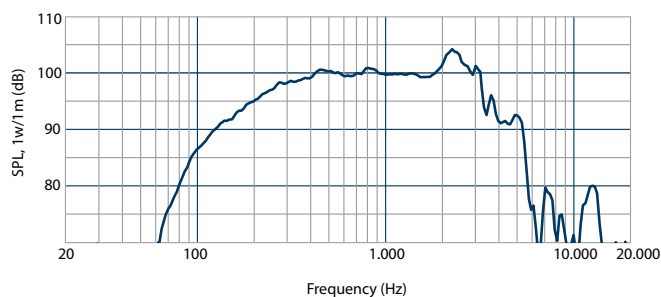
ø 320 mm



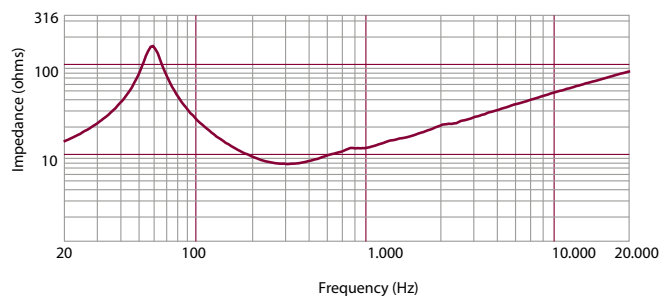
138 mm

ø 118 mm

ø 280 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	12 / 305	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1300	Watt
Power handling capacity ²	650	Watt
Sensitivity ³	99	dB
Frequency Range	45 - 3000	Hz
Effective Piston Diameter	260 / 10.24	mm / inch
Max Excursion Before Damage (peak to peak)	39 / 1.54	mm / inch
Minimum Impedance	7.0	ohm
Voice Coil Diameter	3.5 / 89	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	17 / 0.67	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	11 / 0.43	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	55	Hz
DC resistance	Re	5.6	ohm
Mechanical factor	Qms	4.5	
Electrical factor	Qes	0.21	
Total factor	Qts	0.20	
BL Factor	BL	22.5	T · m
Effective Moving Mass	Mms	54	gr
Equivalent Cas air load	Vas	61	liters
Effettive piston area	Sd	0.053	m ²
Max. linear excursion (mathematical) ⁵	Xmax	5.5	mm
Voice - coil inductance @ 1KHz	Le1K	1.65	mH
Half-space efficiency	Eff	4.66	%

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 / 11.18	mm / inch
Depth	138 / 5.4	mm / inch
Volume occupied by the driver ⁶	2.2 / 0.09	liters / ft3

SHIPPING INFORMATION

Net Weight	4.5 / 9.92	Kg / Lbs
Shipping Weight	5.49 / 12.1	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.

MID-BASS

MB12N301

Professional Low Frequency Transducer

PART NUMBER **11100071**

The MB12N301 is a neodymium, high efficiency, 12" mid-bass. High sensitivity, excellent linearity and very high power handling capabilities.

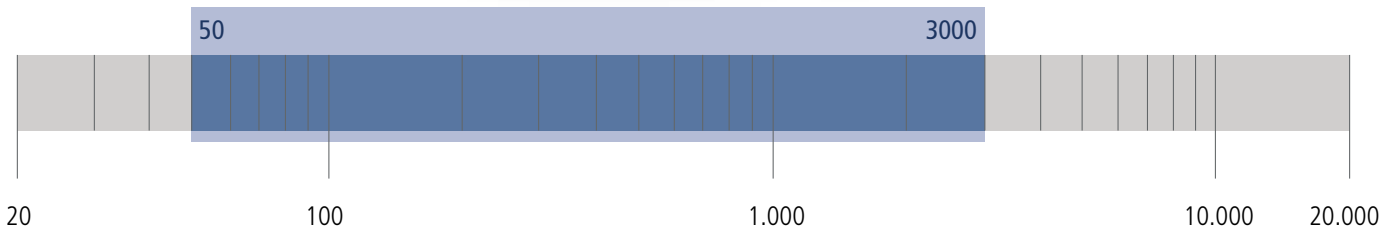
The magnetic structure is powered by a large neodymium magnet that provides an extremely high flux density in the gap. The new hyper-vented aluminium basket and magnetic assembly design provide an excellent heat dissipation and lower power compression. Special air-forced ventilations are provided for voice coil, magnet assembly and basket. M-roll surround and spider design offer great linearity and precise reproduction. The waterproof body cone treatment and polycotton surround ensure a durable performance in every application.

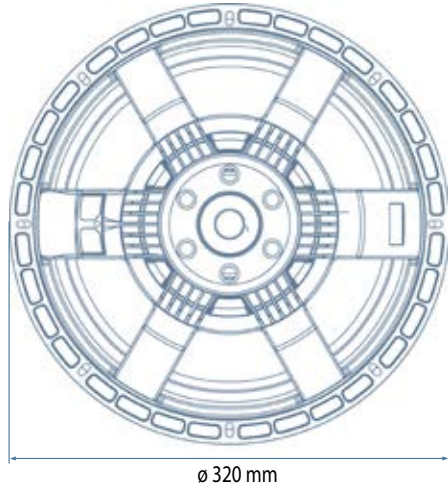
- 3.0-inch, fibreglass inside/outside copper voice coil
- 1000 Watt continuous program power handling
- 98.5 dB Sensitivity
- 50 Hz –3.0KHz Frequency range
- Dual-forced air ventilation for minimum power compression
- M-roll surround and exponential cone geometry

APPLICATIONS

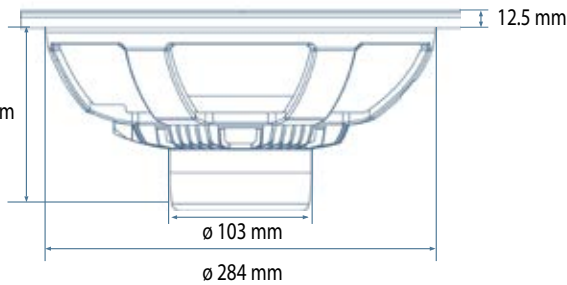
The very light moving mass and linear curve response make the MB12N301 the solution for high quality two or three way system.

The aluminium voice coil guarantee a very high efficiency in conjunction to a proper Q factor for good bass response.





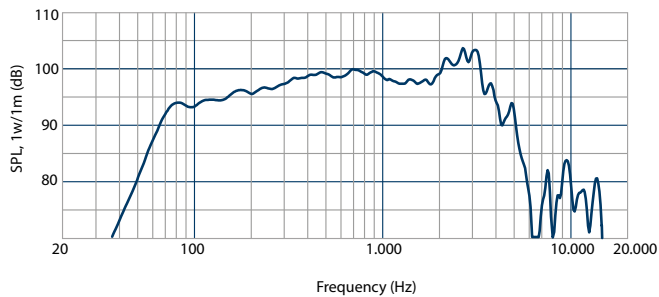
ø 320 mm



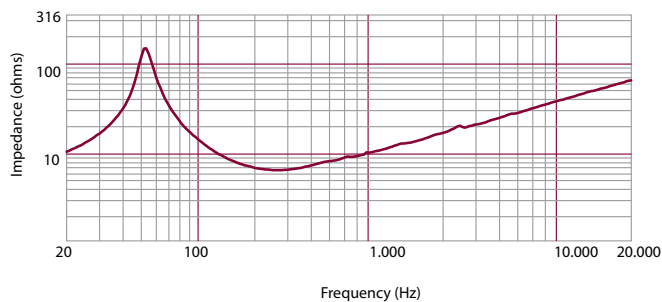
133 mm

ø 103 mm

ø 284 mm



Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 55 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	12 / 305	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1000	Watt
Power handling capacity ²	500	Watt
Sensitivity ³	98.5	dB
Frequency Range	50 - 3000	Hz
Effective Piston Diameter	260 / 10.24	mm / inch
Max Excursion Before Damage (peak to peak)	34 / 1.34	mm / inch
Minimum Impedance	6.7	ohm
Voice Coil Diameter	3 / 76	inch / mm
Voice Coil Material	Aluminum	
Voice Coil Winding Depth	17 / 0.67	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	10 / 0.39	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	54	Hz
DC resistance	Re	5.8	ohm
Mechanical factor	Qms	3.1	
Electrical factor	Qes	0.26	
Total factor	Qts	0.24	
BL Factor	BL	19	T · m
Effective Moving Mass	Mms	48	gr
Equivalent Cas air load	Vas	71	liters
Effective piston area	Sd	0.053	m ²
Max. linear excursion (mathematical) ⁵	Xmax	6.0	mm
Voice - coil inductance @ 1KHz	Le1K	1.8	mH
Half-space efficiency	Eff	4.00	%

MOUNTING INFORMATION

Overall Diameter	320 / 12.6	mm / inch
Bolt Circle Diameter	295-304 / 11.6-11.9	mm / inch
Bolt Hole Diameter	5.5 / 0.21	mm / inch
Front Mount Baffle Cut-out	288 / 11.34	mm / inch
Rear Mount Baffle Cut-out	288 / 11.34	mm / inch
Depth	133 / 5.24	mm / inch
Volume occupied by the driver ⁶	2.2 / 0.09	liters / ft3

SHIPPING INFORMATION

Net Weight	3.4 / 7.5	Kg / Lbs
Shipping Weight	4.2 / 9.26	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.

MID-BASS

MB12N251

Professional Low Frequency Transducer

PART NUMBER **11100065**

The MB12N251 is a 12" neodymium mid-bass driver with an excellent linearity, good efficiency and high power handling capabilities. The 2,5" aluminium voice coil combined with a high strength fibreglass former allows high efficiency and good frequency response extension. Aluminium basket and magnetic assembly design provide an excellent heat dissipation and very low power compression.

The Triple-roll shape combined to spider design offer very low distortion and extended low frequency reproduction. The waterproof body cone treatment ensures a durable performance in every application.

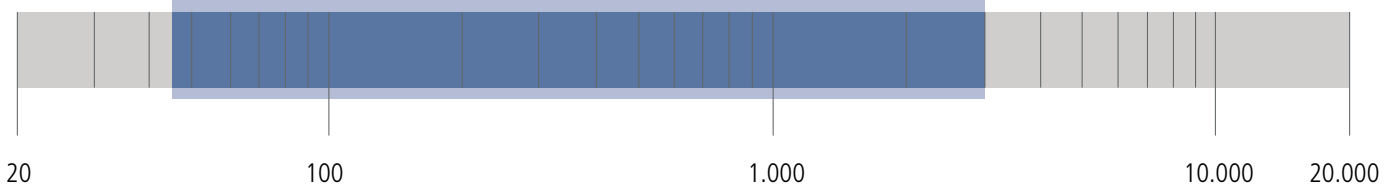
- 2.5-inch, fibreglass outside aluminum voice coil
- 600 Watt continuous program power handling
- 98 dB Sensitivity
- 45 Hz –3.0KHz Frequency range
- Forced air ventilation in the magnetic structure
- Triple-roll surround and exponential cone geometry

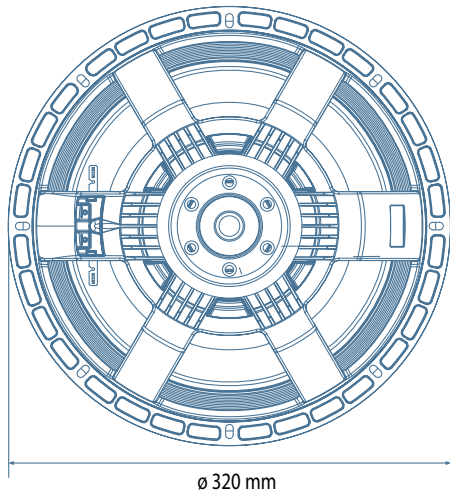
APPLICATIONS

The MB12N251 finds its application in 2-way bass reflex system, typically combined with 1" and 1,4" throat compression drivers. Ideal for light weight portable applications.

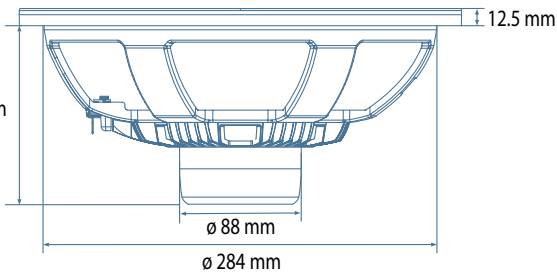


45 3000



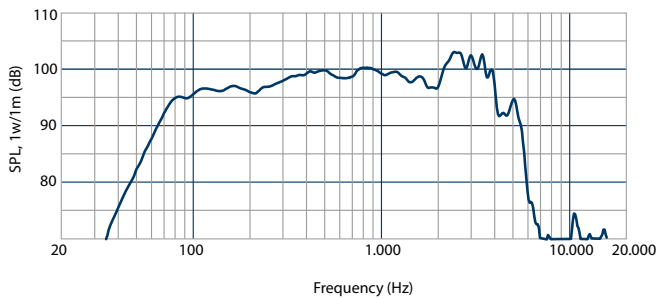


ø 320 mm

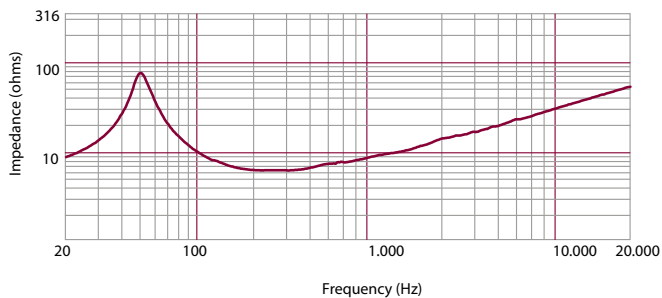


130 mm

ø 88 mm
ø 284 mm



Frequency response curve of the loudspeaker made 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	12 / 305	inch / mm
Rated Impedance	8	ohm
Program Power ¹	600	Watt
Power handling capacity ²	300	Watt
Sensitivity ³	98	dB
Frequency Range	45 - 3000	Hz
Effective Piston Diameter	260 / 10.24	mm / inch
Max Excursion Before Damage (peak to peak)	38 / 1.5	mm / inch
Minimum Impedance	6.4	ohm
Voice Coil Diameter	2.5 / 63	inch / mm
Voice Coil Material	Aluminum	
Voice Coil Winding Depth	14 / 0.55	mm / inch
Number of layers	1	
Kind of layer	outside	
Top Plate Thickness	9 / 0.35	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple-roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	50	Hz
DC resistance	Re	5.1	ohm
Mechanical factor	Qms	5.4	
Electrical factor	Qes	0.36	
Total factor	Qts	0.34	
BL Factor	BL	15	T · m
Effective Moving Mass	Mms	49	gr
Equivalent Cas air load	Vas	83	liters
Effective piston area	Sd	0.053	m ²
Max. linear excursion (mathematical) ⁵	Xmax	4.8	mm
Voice - coil inductance @ 1KHz	Le1K	1.3	mH
Half-space efficiency	Eff	2.7	%

MOUNTING INFORMATION

Overall Diameter	320 / 12.6	mm / inch
Bolt Circle Diameter	295-304 / 11.6-11.9	mm / inch
Bolt Hole Diameter	5.5 / 0.21	mm / inch
Front Mount Baffle Cut-out	288 / 11.34	mm / inch
Rear Mount Baffle Cut-out	288 / 11.34	mm / inch
Depth	130 / 5.1	mm / inch
Volume occupied by the driver ⁶	2.2 / 0.09	liters / ft3

SHIPPING INFORMATION

Net Weight	2.58 / 5.69	Kg / Lbs
Shipping Weight	3.67 / 8.09	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.

MID-BASS

MB10N305

Professional Low Frequency Transducer

The MB10N305 is a hypervented neo, high linearity mid-bass. The magnetic structure is powered by a large neodymium magnet that provides an extremely high flux density in the gap. The new hyper-vented aluminium basket and magnetic assembly design provide an excellent heat dissipation and lower power compression. Special air-forced ventilations are provided for voice coil, magnet assembly and basket. M-roll surround and spider design offer great linearity and precise reproduction.

PART NUMBER **11100111**

- 3-inch, fibreglass inside/outside aluminium voice coil
- 1000W continuous program power handling
- 97.5 dB Sensitivity
- 55 Hz – 3.5 kHz Frequency range
- Hypervented for minimum power compression
- M-roll surround and exponential cone geometry

APPLICATIONS

The MB10N305 is ideal where is required high power handling, high efficiency and perfect linearity. Is the ideal 10" mid-bass woofer for reference high fidelity, high performance mid-bass application in compact 2 way system.



55 3500

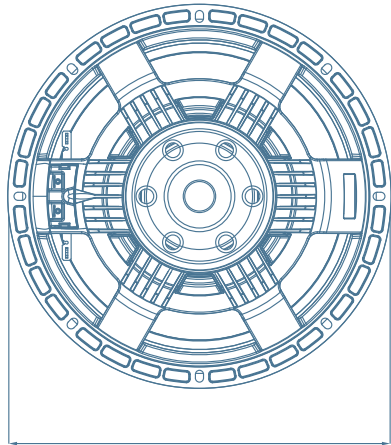
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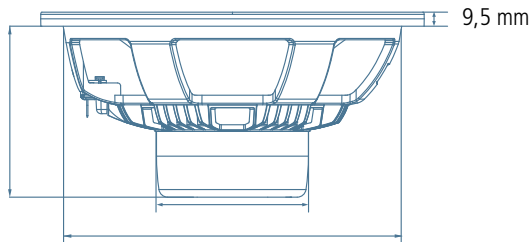
1.000

10.000

20.000



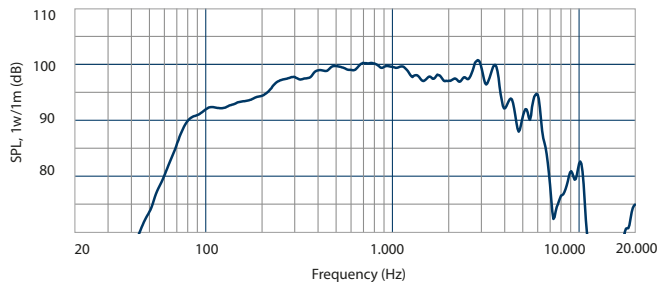
Ø 260 mm



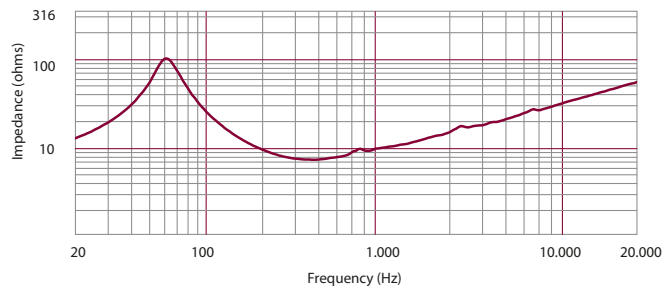
116 mm

9,5 mm

Ø 229,5mm



Frequency response curve of the loudspeaker made 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	10 / 254	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1000	Watt
Power handling capacity ²	500	Watt
Sensitivity ³	97.5	dB
Frequency Range	55 - 3500	Hz
Effective Piston Diameter	210 / 8.27	mm / inch
Max Excursion Before Damage (peak to peak)	34 / 1.34	mm / inch
Minimum Impedance	6.9	ohm
Voice Coil Diameter	3 / 76	inch / mm
Voice Coil Material	Aluminium	
Voice Coil Winding Depth	14 / 0.55	mm / inch
Number of layers	1	
Kind of layer	inside / outside	
Top Plate Thickness	10 / 0.39	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	60	Hz
DC resistance	Re	5.6	ohm
Mechanical factor	Qms	4.0	
Electrical factor	Qes	0.24	
Total factor	Qts	0.23	
BL Factor	BL	18.5	T · m
Effective Moving Mass	Mms	36.5	gr
Equivalent Cas air load	Vas	31	liters
Effective piston area	Sd	0.035	m ²
Max. linear excursion (mathematical) ⁵	Xmax	5.0	mm
Voice - coil inductance @ 1KHz	Le1K	0.9	mH
Half-space efficiency	Eff	2.90	%

MOUNTING INFORMATION

Overall Diameter	260 / 10.24	mm / inch
Bolt Circle Diameter	241-246 / 9.5-9.6	mm / inch
Bolt Hole Diameter	5.5 / 0.21	mm / inch
Front Mount Baffle Cut-out	234 / 9.21	mm / inch
Rear Mount Baffle Cut-out	234 / 9.21	mm / inch
Depth	116 / 4.56	mm / inch
Volume occupied by the driver ⁶	1.4 / 0.06	liters / ft3

SHIPPING INFORMATION

Net Weight	3.2 / 7.05	Kg / Lbs
Shipping Weight	3.8 / 8.38	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.

MID-BASS

MB10N251

Professional Low Frequency Transducer

PART NUMBER **11100064**

The MB10N251 is a 10" neodymium mid-bass driver with an excellent linearity, good efficiency and high power handling capabilities. The 2,5" aluminium voice coil combined with a high strength fibreglass former allows high efficiency and good frequency response extension. Aluminium basket and magnetic assembly design provide an excellent heat dissipation and very low power compression.

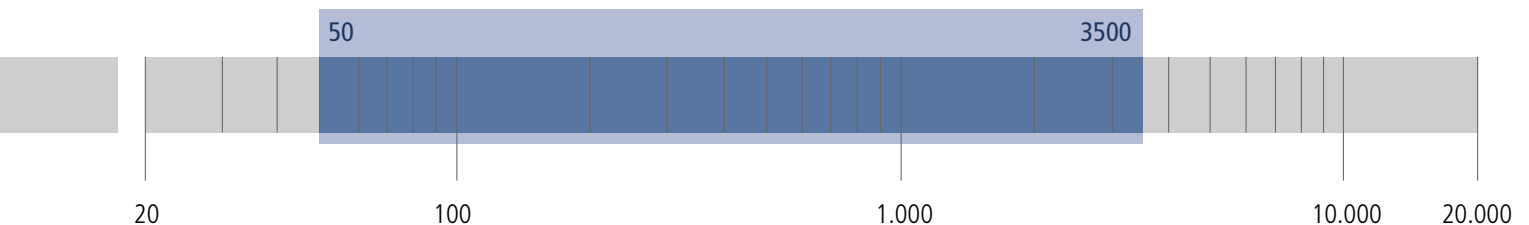
The M-roll surround shape combined to spider design offer good linear displacement and precise low frequency reproduction. The waterproof body cone treatment ensures a durable performance in every application.

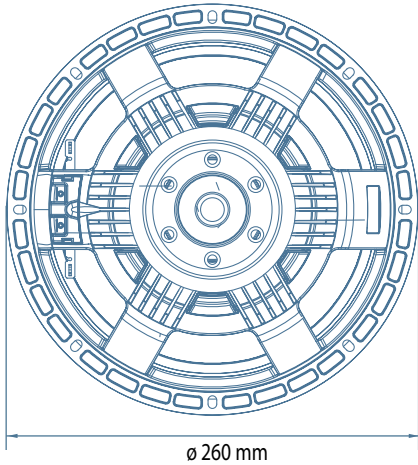
- 2.5-inch, fibreglass former, aluminium voice coil
- 600 Watt continuous program power handling
- 97 dB Sensitivity
- 50 Hz –3.5KHz Frequency range
- Forced air ventilation
- M-roll surround and exponential cone geometry

APPLICATIONS

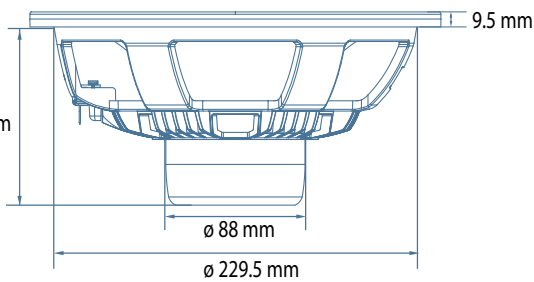
The MB10N251 finds its application in compact 2-way bass reflex system where very high dynamic and power handling are required.

Perfect for multi-way reflex enclosures such as line arrays.





ø 260 mm

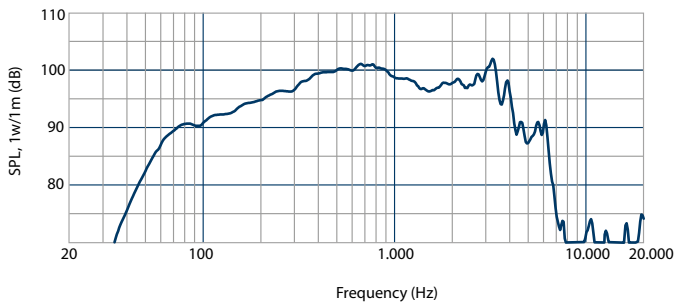


113 mm

9.5 mm

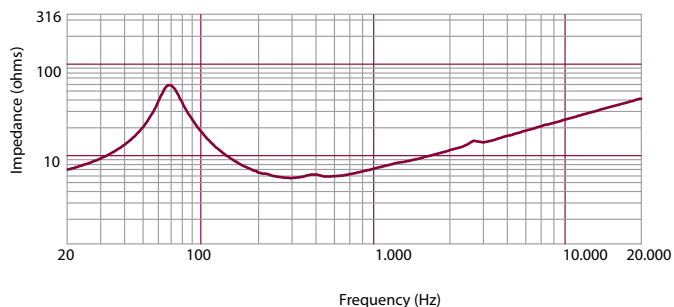
ø 88 mm

ø 229.5 mm



Frequency (Hz)

Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 30 litres and tuned at 60Hz, applying a sinusoidal signal of 2.83 V @ 8 at 1m.



Frequency (Hz)

Impedance magnitude curve measured in free air

GENERAL SPECIFICATIONS

Nominal Diameter	10 / 254	inch / mm
Rated Impedance	8	ohm
Program Power ¹	600	Watt
Power handling capacity ²	300	Watt
Sensitivity ³	97	dB
Frequency Range	50 - 3500	Hz
Effective Piston Diameter	210 / 8.27	mm / inch
Max Excursion Before Damage (peak to peak)	40 / 1.57	mm / inch
Minimum Impedance	6.4	ohm
Voice Coil Diameter	2.5 / 63	inch / mm
Voice Coil Material	Aluminum	
Voice Coil Winding Depth	14 / 0.55	mm / inch
Number of layers	1	
Kind of layer	outside	
Top Plate Thickness	9 / 0.35	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	55	Hz
DC resistance	Re	5.1	ohm
Mechanical factor	Qms	4.2	
Electrical factor	Qes	0.29	
Total factor	Qts	0.27	
BL Factor	BL	15.2	T · m
Effective Moving Mass	Mms	36	gr
Equivalent Cas air load	Vas	38.8	liters
Effective piston area	Sd	0.035	m ²
Max. linear excursion (mathematical) ⁵	Xmax	4.8	mm
Voice - coil inductance @ 1KHz	Le1K	1.3	mH
Half-space efficiency	Eff	2.20	%

MOUNTING INFORMATION

Overall Diameter	260 / 10.24	mm / inch
Bolt Circle Diameter	241-246 / 9.5-9.6	mm / inch
Bolt Hole Diameter	5.5 / 0.21	mm / inch
Front Mount Baffle Cut-out	234 / 9.21	mm / inch
Rear Mount Baffle Cut-out	234 / 9.21	mm / inch
Depth	92.5 / 3.64	mm / inch
Volume occupied by the driver ⁶	1.2 / 0.05	liters / ft3

SHIPPING INFORMATION

Net Weight	2.5 / 5.51	Kg / Lbs
Shipping Weight	3 / 6.61	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.

MIDRANGE

MR10N301

Professional Low Frequency Transducer

PART NUMBER **11100005**

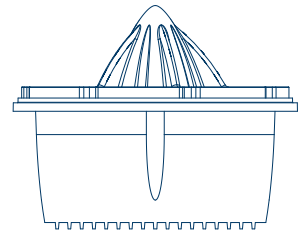
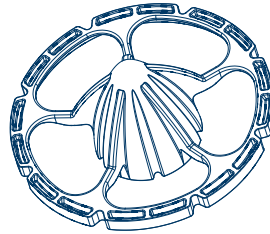
- 3-inch Inside/outside voice coil, high BL neodymium design
- Very high sensitivity (109 dB/1w in horn loaded application), very high BL factor
- 600 Watt Continuous program power handling
- Frequency range: 150 Hz - 2 kHz (mid and mid-low frequencies)
- Unique aluminum sealed basket featuring vented fin heat dissipation design
- Calibrated back volume for a perfect time domain transient reproduction

APPLICATIONS

The MR10N301 is especially designed for horn-loading and line array configurations. The ideal range of application are mid and mid-low frequencies.

The combination of the 3" voice coil, the neodymium motor and the heat sink basket design makes this driver the ideal solution for the most demanding applications.

PHASE PLUG
part number 13360051



150

2000

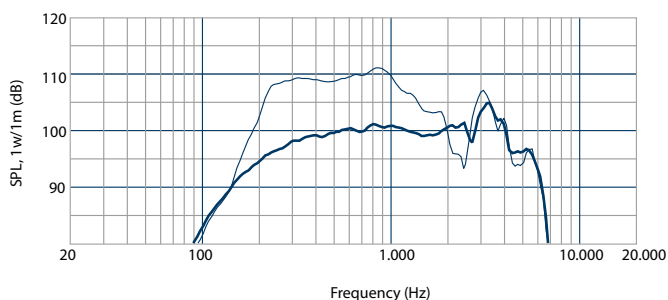
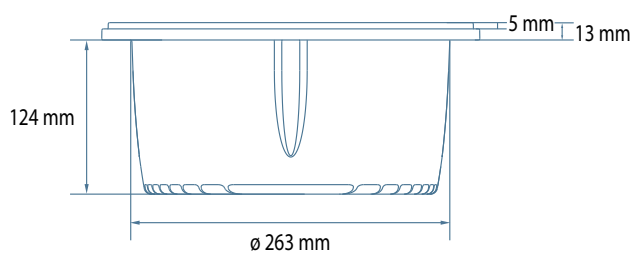
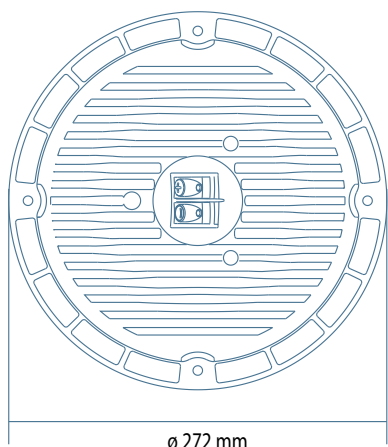
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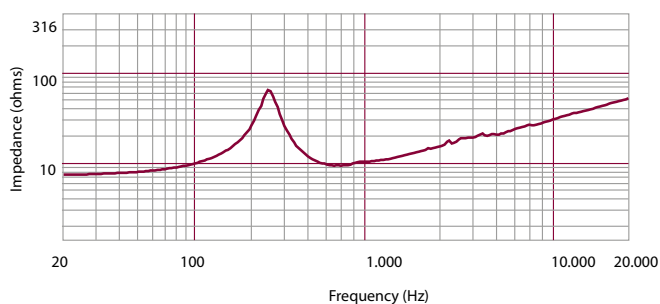
1.000

10.000

20.000



Frequency response curve of the loudspeaker taken in a hemispherical, free field environment and mounted on IEC panel (ticker curve) and on a 60x40 horn (lighter curve)



Impedance magnitude curve measured in free air

GENERAL SPECIFICATIONS

Nominal Diameter	10 / 254	inch / mm
Rated Impedance	8	ohm
Program Power ¹	600	Watt
Power handling capacity ²	300	Watt
Sensitivity ³	102	dB
Frequency Range	150 - 2000	Hz
Effective Piston Diameter	210 / 8.27	mm / inch
Max Excursion Before Damage (peak to peak)	20 / 0,79	mm / inch
Minimum Impedance	8.5	ohm
Voice Coil Diameter	3.0 / 76	inch / mm
Voice Coil Material	Aluminum	
Voice Coil Winding Depth	11 / 0.43	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	10 / 0.39	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	250	Hz
DC resistance	Re	6.2	ohm
Mechanical factor	Qms	6.48	
Electrical factor	Qes	0.72	
Total factor	Qts	0.65	
BL Factor	BL	20.7	T · m
Effective Moving Mass	Mms	31.8	gr
Equivalent Cas air load	Vas	2.2	liters
Effettive piston area	Sd	0.035	m ²
Max. linear excursion (mathematical) ⁵	Xmax	1.4	mm
Voice - coil inductance @ 1KHz	Le1K	1.17	mH
Half-space efficiency	Eff	9.26	%

MOUNTING INFORMATION

Overall Diameter	272 / 10.71	mm / inch
Bolt Circle Diameter	244 / 9.61	mm / inch
Bolt Hole Diameter	7 / 0.28	mm / inch
Front Mount Baffle Cut-out	235 / 9.25	mm / inch
Rear Mount Baffle Cut-out	232 / 9.13	mm / inch
Depth	124 / 4.9	mm / inch
Volume occupied by the driver ⁶	5 / 0.2	liters / ft3

SHIPPING INFORMATION

Net Weight	4.5 / 9.92	Kg / Lbs
Shipping Weight	5 / 11.02	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.

MIDRANGE

MR8N301

Professional Low Frequency Transducer

The MR8N301 is a high efficiency, high power midrange specially designed to provide superior sound pressure level in a very compact size. The total weight is reduced to less than half of a comparable ceramic midrange thanks to an incredibly powerful neodymium magnet assembly. The unique sealed basket design doesn't require a back sealing chamber, simplifying the cabinet design and improving heat dissipation. Every detail of this speaker has been optimized to offer maximum linearity and perfect control to the midrange and mid-high frequencies.

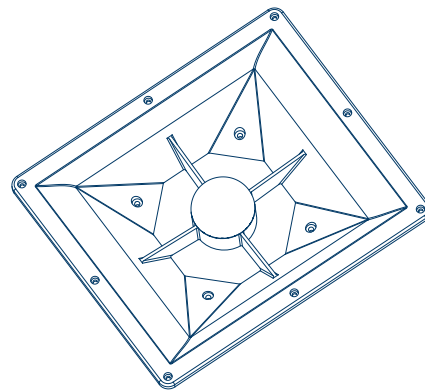
PART NUMBER **11100006**

- 3-inch Inside/outside voice coil, high BL neodymium design
- 400 Watt Continuous program power handling
- Very high sensitivity (107 dB/1w in horn loaded application), very high BL factor
- Frequency range: 300 Hz - 3 kHz (mid and mid-high freq.)
- Unique aluminum sealed basket featuring vented fin heat dissipation design
- Calibrated back volume for a perfect time domain transient reproduction

APPLICATIONS

The MR8N301 is especially designed for horn-loading and line array configurations. The ideal range of application are mid and mid-high frequencies. The combination of the 3" voice coil, the neodymium motor and the heat sink basket design makes this driver the ideal solution for the most demanding applications.

H6000
80° x 60° Horn
part number 13133052



300 3000

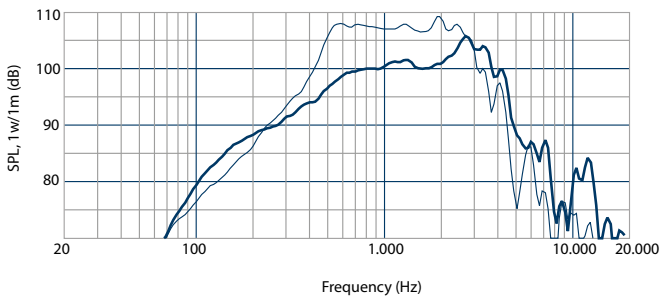
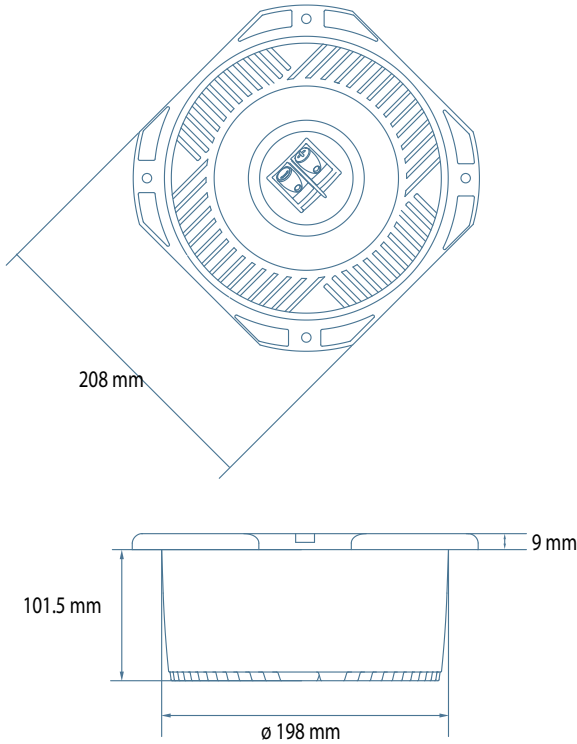
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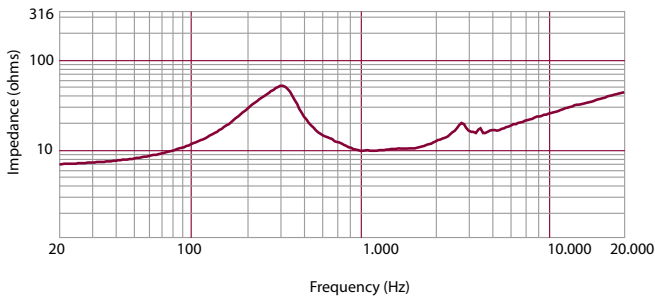
1.000

10.000

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Frequency response curve of the loudspeaker taken in a hemispherical, free field environment and mounted on IEC panel (ticker curve) and on a 60x40 horn (lighter curve)



Impedance magnitude curve measured in free air

GENERAL SPECIFICATIONS

Nominal Diameter	8 / 200	inch / mm
Rated Impedance	8	ohm
Program Power ¹	400	Watt
Power handling capacity ²	200	Watt
Sensitivity ³	102	dB
Frequency Range	300 - 3000	Hz
Effective Piston Diameter	168 / 6.61	mm / inch
Max Excursion Before Damage (peak to peak)	15 / 0.59	mm / inch
Minimum Impedance	9.8	ohm
Voice Coil Diameter	3.0 / 76	inch / mm
Voice Coil Material	Aluminum	
Voice Coil Winding Depth	11 / 0.43	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	8 / 0.31	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple - roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	310	Hz
DC resistance	Re	6.6	ohm
Mechanical factor	Qms	3.45	
Electrical factor	Qes	0.41	
Total factor	Qts	0.37	
BL Factor	BL	17.8	T · m
Effective Moving Mass	Mms	10.1	gr
Equivalent Cas air load	Vas	1.65	liters
Effettive piston area	Sd	0.021	m ²
Max. linear excursion (mathematical) ⁵	Xmax	3.5	mm
Voice - coil inductance @ 1KHz	Le1K	1.16	mH
Half-space efficiency	Eff	12.8	%

MOUNTING INFORMATION

Overall Diameter	238 / 9.37	mm / inch
Bolt Circle Diameter	220 / 8.66	mm / inch
Bolt Hole Diameter	6.5 / 0.25	mm / inch
Front Mount Baffle Cut-out	202 / 7.95	mm / inch
Rear Mount Baffle Cut-out	182/7.2	mm / inch
Depth	101.5 / 4.0	mm / inch
Volume occupied by the driver ⁶	2 / 0.08	liters / ft3

SHIPPING INFORMATION

Net Weight	3.31 / 7.3	Kg / Lbs
Shipping Weight	3.77 / 8.31	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.

MID-BASS

MB8N251

Professional Low Frequency Transducer

PART NUMBER **11100061**

The MB8N251 is a 8" neodymium mid-bass driver with an excellent linearity, good efficiency and high power handling capabilities. The 2,5" aluminium voice coil combined with a high strength fibreglass former allows high efficiency and good frequency response extension.

Aluminium basket and magnetic assembly design provide an excellent heat dissipation and very low power compression.

The M-roll surround shape combined to spider design offer good linear displacement and precise low frequency reproduction. The waterproof body cone treatment ensures a durable performance in every application.

- 2.5-inch, fibreglass former, aluminum voice coil
- 600 Watt continuous program power handling
- 96 dB Sensitivity
- 60 Hz - 3.5 kHz Frequency range
- Forced air ventilation
- M-roll surround and exponential cone geometry

APPLICATIONS

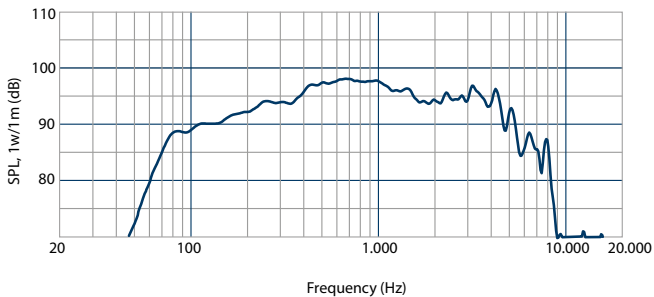
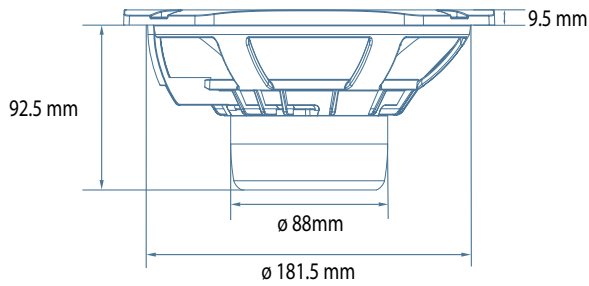
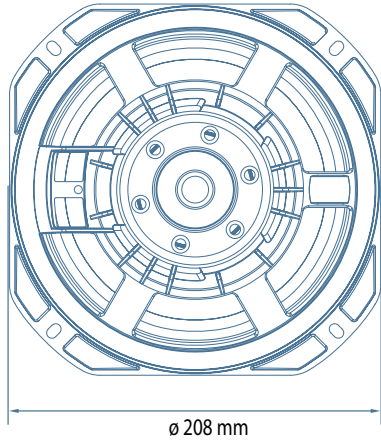
The MB8N251 finds its application in compact 2-way bass reflex system where very high dynamic and power handling are required.

Perfect for multi-way reflex enclosures such as line arrays.

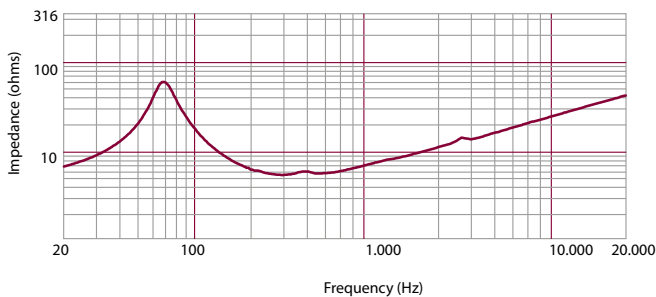


60 3500

20 100 1.000 10.000 20.000



Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 55 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	8 / 200	inch / mm
Rated Impedance	8	ohm
Program Power ¹	600	Watt
Power handling capacity ²	300	Watt
Sensitivity ³	96	dB
Frequency Range	60 - 3500	Hz
Effective Piston Diameter	165 / 6.5	mm / inch
Max Excursion Before Damage (peak to peak)	40 / 1.57	mm / inch
Minimum Impedance	6.0	ohm
Voice Coil Diameter	2.50 / 64	inch / mm
Voice Coil Material	Aluminum	
Voice Coil Winding Depth	14 / 0.55	mm / inch
Number of layers	1	
Kind of layer	outside	
Top Plate Thickness	9 / 0.35	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Neodymium	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	68	Hz
DC resistance	Re	5.1	ohm
Mechanical factor	Qms	4.6	
Electrical factor	Qes	0.26	
Total factor	Qts	0.25	
BL Factor	BL	15.2	T · m
Effective Moving Mass	Mms	27.2	gr
Equivalent Cas air load	Vas	12.8	liters
Effettive piston area	Sd	0.021	m ²
Max. linear excursion (mathematical) ⁵	Xmax	4.8	mm
Voice - coil inductance @ 1KHz	Le1K	1.3	mH
Half-space efficiency	Eff	1.70	%

MOUNTING INFORMATION

Overall Diameter	239 / 9.41	mm / inch
Bolt Circle Diameter	221-227 / 8.70-8.93	mm / inch
Bolt Hole Diameter	6.5 / 0.25	mm / inch
Front Mount Baffle Cut-out	185 / 7.28	mm / inch
Rear Mount Baffle Cut-out	185 / 7.28	mm / inch
Depth	92.5 / 3.64	mm / inch
Volume occupied by the driver ⁶	0.6 / 0.02	liters / ft3

SHIPPING INFORMATION

Net Weight	2.01 / 4.43	Kg / Lbs
Shipping Weight	2.47 / 5.45	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.



LOW FREQUENCY

TRANSDUCERS

RCF was the first manufacturer introducing many of the innovations that are now recognised standard in professional transducers, pioneering new solutions, from inside-outside voice coils to dual spider silicon damped designs.

Our range, including several industry milestones, is able to provide innovative tools and solutions for the most demanding speaker manufacturers.

MAGNETIC CIRCUITS DESIGNS

RCF R&D set out to develop magnetic circuits capable of delivering the highest, balanced level of performance in three specific areas; maintenance of a consistent, high integrity magnetic flux, distortion lowering design techniques and efficient integration of the magnetic circuit design within the overall design of the loudspeaker cooling system. Our transducers features a fully optimized magnetic circuit highlighted by a flux maximizing design and a rear plate that provides the lightest possible weight and highest flux efficiency. The design is optimized to generate the minimum amount of flux modulation in the magnetic assembly during typical voice coil movement within the gap.

DUAL SILICON SPIDERS

RCF original dual silicone sealed spider design offers many advantages:

- the two spiders offers double resistance to fatigue;
- the silicon between the cloth layers, being a very high memory material, provides the best shape stability to the spiders;
- the system, being sealed, functions as an air pump expelling hot air and drawing in cool air every time the cone assembly moves.

RCF dual silicon sealed spider design provides to our transducers cooler operating conditions and optimised power compression.

PROGRESSIVE SPACED DEMODULATION RINGS

Our top level low frequency transducers feature RCF unique spaced gap demodulation technology designed to dramatically lower distortion artifacts within the loudspeaker's operating frequency band. This technology assists in progressively braking the voice coil as it reaches its maximum excursion point. This braking effect provides a much quieter, smoother transition for the moving mass as it reaches its maximum excursion limits.

WOOFER

LF21X451

Professional Low Frequency Transducer

PART NUMBER **11100092**

- 4.5 - inch, fibreglass inside-outside copper voice coil
- 4000 Watt continuous program power handling
- 97 dB Sensitivity
- 28 Hz - 1 kHz Frequency range
- 30.5 T/m BL
- 54 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

The LF21X451 low frequency transducer is the result of many years of R&D developments with the goal of creating new levels of professional audio performance standards. This products features advancements and improvements in all the key areas of transducer technology.

Incredibly linear frequency response characteristics, the highest power handling of any comparable transducer, the lowest power compression.

The LF21X451 features a fibre loaded cone assembly along with a high excursion triple roll, constant geometry surround: this combination provides remarkable strength and a peak to peak maximum excursion of 54 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 LF21X451 is ideal in applications where combinations of incredible power handling, reasonable weight and ultra fast time response are required.

Perfect for powerful lows in horn loaded sub bass systems or reflex designs.

Ideal for touring, find a perfect application in high power, heavy duty, club subwoofer systems.



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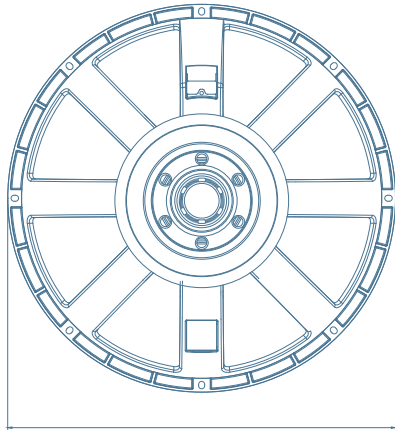
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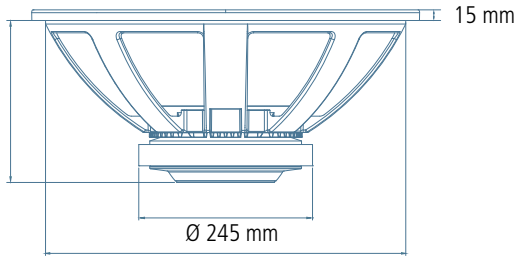
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Ø 547 mm

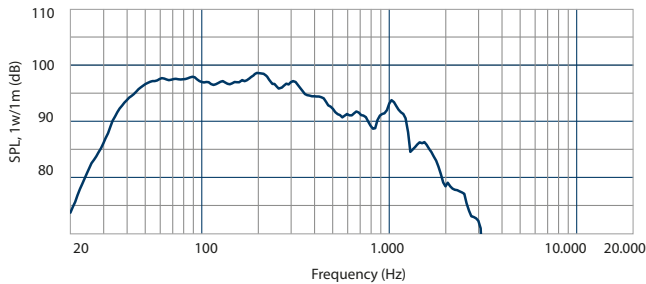


230 mm

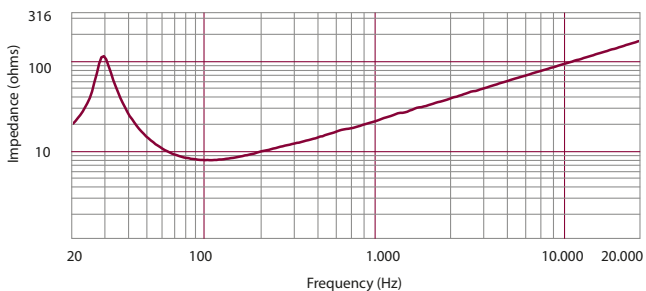
15 mm

Ø 245 mm

Ø 508 mm



Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 55 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	21 / 533	inch / mm
Rated Impedance	8	ohm
Program Power ¹	4000	Watt
Power handling capacity ²	2000	Watt
Sensitivity ³	97	dB
Frequency Range	28 - 1000	Hz
Effective Piston Diameter	470 / 18.5	mm / inch
Max Excursion Before Damage (peak to peak)	54 / 2.13	mm / inch
Minimum Impedance	6.7	ohm
Voice Coil Diameter	4.5 / 115	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	34 / 1.34	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	15 / 0.59	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	28	Hz
DC resistance	Re	5.4	ohm
Mechanical factor	Qms	6.9	
Electrical factor	Qes	0.39	
Total factor	Qts	0.37	
BL Factor	BL	30.5	T · m
Effective Moving Mass	Mms	355	gr
Equivalent Cas air load	Vas	385	liters
Effective piston area	Sd	0.173	m ²
Max. linear excursion (mathematical) ⁵	Xmax	13.5	mm
Voice - coil inductance @ 1KHz	Le1K	1.5	mH
Half-space efficiency	Eff	2.20	%

MOUNTING INFORMATION

Overall Diameter	547 / 21.54	mm / inch
Bolt Circle Diameter	527 / 20.75	mm / inch
Bolt Hole Diameter	6.5 / 0.25	mm / inch
Front Mount Baffle Cut-out	512 / 20.16	mm / inch
Rear Mount Baffle Cut-out	512 / 20.16	mm / inch
Depth	230 / 9.05	mm / inch
Volume occupied by the driver ⁶	6.5 / 0.26	liters / ft3

SHIPPING INFORMATION

Net Weight	15.5 / 34.17	Kg / Lbs
Shipping Weight	18.50 / 40.79	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.

WOOFER

LF18X451

Professional Low Frequency Transducer

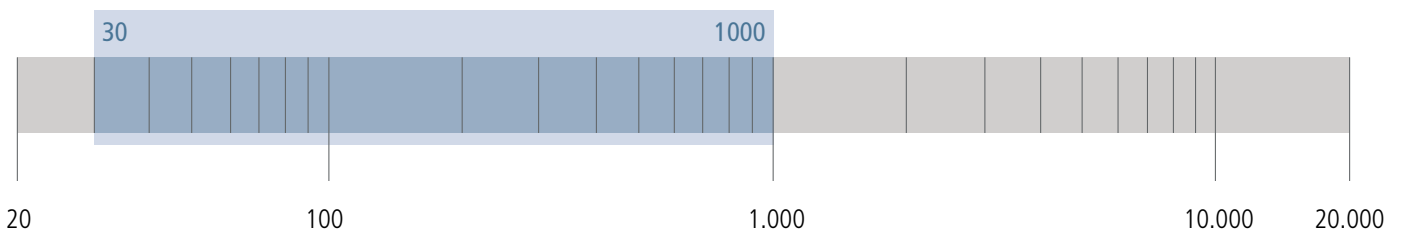
PART NUMBER **11100091**

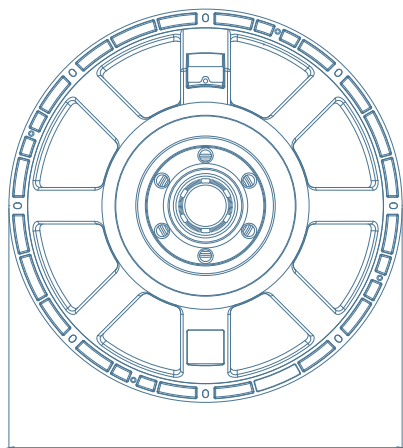
- 4.5 - inch, fibreglass inside-outside copper voice coil
- 3600 Watt continuous program power handling
- 97 dB Sensitivity
- 30 Hz - 1 kHz Frequency range
- 30.5 T/m BL
- 54 mm peak-to-peak excursion
- Dual-forced hyper-venting and 15mm top plate for
- minimum power compression
- Dual spider design with silicon based dampening control
- Triple-roll surround and corrugated straight cone geometry

Incredibly linear frequency response characteristics, the highest power handling of any comparable 18-inch transducer, the lowest power compression. The LF18X451 features a fibre loaded cone assembly along with a high excursion triple roll, constant geometry surround: this combination provides remarkable strength and a peak to peak maximum excursion of 54 mm. The new dual forced hyper-venting system guarantee a very efficient voice coil ventilation for minimum power compression and incredible power handling. A double silicon spider system ensures excellent control during large excursions. A fully optimised T-pole design generate the minimum amount of flux modulation.

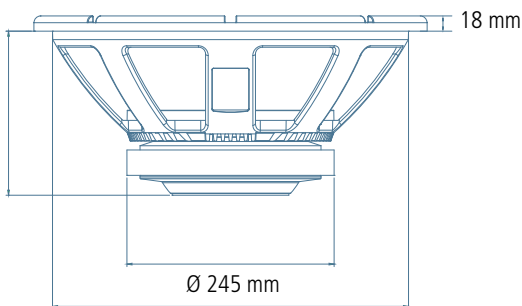
APPLICATIONS

The LF18X451 is ideal in applications where combinations of incredible power handling, reasonable weight and ultra fast time response are required. Perfect for powerful lows in horn loaded sub bass systems or reflex designs. Ideal for touring, find a perfect application in high power, heavy duty, club subwoofer systems.





Ø 465 mm

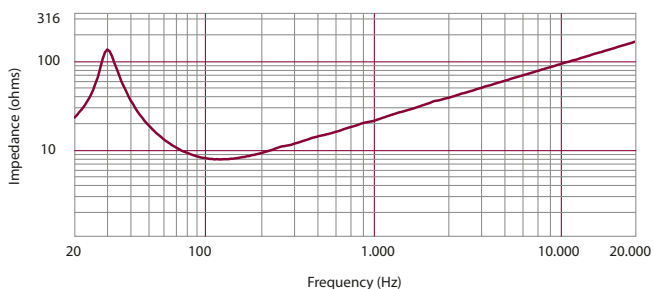
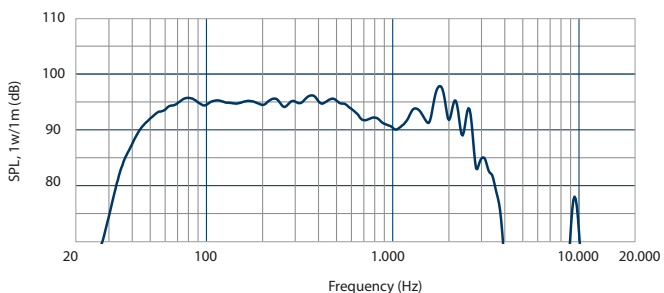


194 mm

18 mm

Ø 245 mm

Ø 421 mm



GENERAL SPECIFICATIONS

Nominal Diameter	18 / 457	inch / mm
Rated Impedance	8	ohm
Program Power ¹	3600	Watt
Power handling capacity ²	1800	Watt
Sensitivity ³	97	dB
Frequency Range	30 - 1000	Hz
Effective Piston Diameter	395 / 15.55	mm / inch
Max Excursion Before Damage (peak to peak)	54 / 2.13	mm / inch
Minimum Impedance	6.8	ohm
Voice Coil Diameter	4.5 / 114	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	34 / 1.34	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	15 / 0.59	mm / inch
Cone Material	No pressed pulp	
Cone Design	Straight	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	30	Hz
DC resistance	Re	5.4	ohm
Mechanical factor	Qms	6.7	
Electrical factor	Qes	0.29	
Total factor	Qts	0.28	
BL Factor	BL	30.5	T · m
Effective Moving Mass	Mms	260	gr
Equivalent Cas air load	Vas	220	liters
Effective piston area	Sd	0.122	m ²
Max. linear excursion (mathematical) ⁵	Xmax	13.5	mm
Voice - coil inductance @ 1KHz	Le1K	1.38	mH
Half-space efficiency	Eff	1.90	%

MOUNTING INFORMATION

Overall Diameter	465 / 18.31	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 / 16.69	mm / inch
Rear Mount Baffle Cut-out	424 / 16.69	mm / inch
Depth	230 / 9.05	mm / inch
Volume occupied by the driver ⁶	6.5 / 0.26	liters / ft3

SHIPPING INFORMATION

Net Weight	15.2 / 33.51	Kg / Lbs
Shipping Weight	17 / 37.48	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.

WOOFER

LF18X401

Professional Low Frequency Transducer

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.

PART NUMBER **11100089**

- 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

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.



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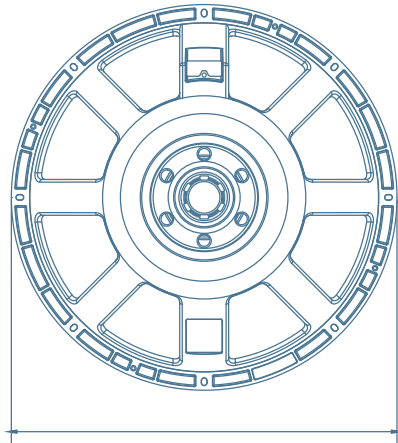
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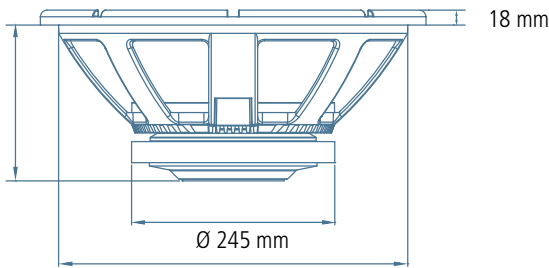
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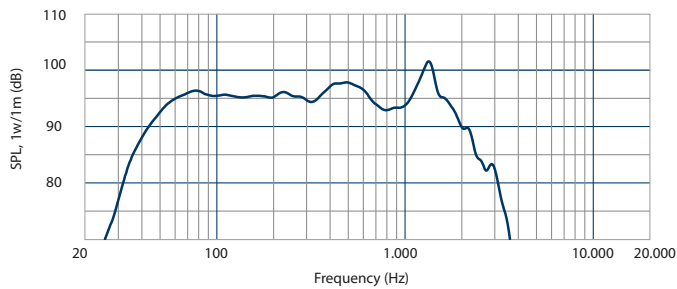
Ø 465 mm



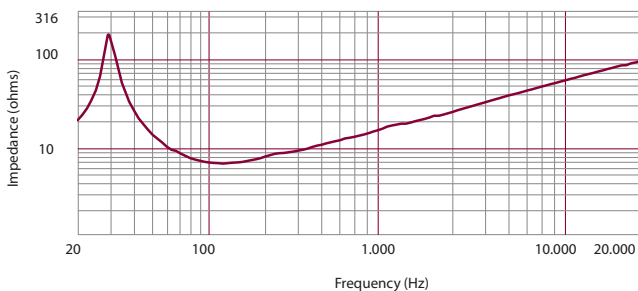
188 mm

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 55 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	18 / 457	inch / mm
Rated Impedance	8	ohm
Program Power ¹	3000	Watt
Power handling capacity ²	1500	Watt
Sensitivity ³	97.5	dB
Frequency Range	25 - 1000	Hz
Effective Piston Diameter	395 / 15.55	mm / inch
Max Excursion Before Damage (peak to peak)	50 / 1.97	mm / inch
Minimum Impedance	6.5	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	30 / 1.18	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	15 / 0.59	mm / inch
Cone Material	No pressed pulp	
Cone Design	Straight	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

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 ²
Max. linear excursion (mathematical) ⁵	Xmax	11.5	mm
Voice - coil inductance @ 1KHz	Le1K	0.83	mH
Half-space efficiency	Eff	2.30	%

MOUNTING INFORMATION

Overall Diameter	465 / 18.31	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 / 16.69	mm / inch
Rear Mount Baffle Cut-out	425 / 16.73	mm / inch
Depth	188 / 7.4	mm / inch
Volume occupied by the driver ⁶	6.5 / 0.26	liters / ft3

SHIPPING INFORMATION

Net Weight	12.5 / 27.56	Kg / Lbs
Shipping Weight	15 / 33.07	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.

WOOFER

LF18X400

Professional Low Frequency Transducer

PART NUMBER **11185002**

Incredibly 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 LF18X400 uses a fibre loaded cone assembly along with a high excursion triple roll, constant geometry surround. A fully optimised T-pole design generate the minimum amount of flux modulation. The T-pole also features RCF Precision's spaced gap demodulation technology, progressively braking the voice coil, providing a much smoother transition for the moving mass as it reaches its maximum excursion limits. Forced air venting system.

- 4-inch, fibreglass inside-outside copper voice coil
- 2000 Watt continuous program power handling
- 97.5 dB Sensitivity
- 25 Hz - 1 kHz Frequency range
- Progressive, spaced, aluminum demodulation rings
- Forced air ventilation and 14 mm top plate for minimum power compression
- Dual spider design with silicon based dampening control
- Triple-roll surround and corrugated straight cone geometry

APPLICATIONS

The LF18X400 is ideal for use in applications where incredible power handling, long excursion and perfect control is required. Ideal for high quality professional bass reflex and bass-horn 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.



25 1000

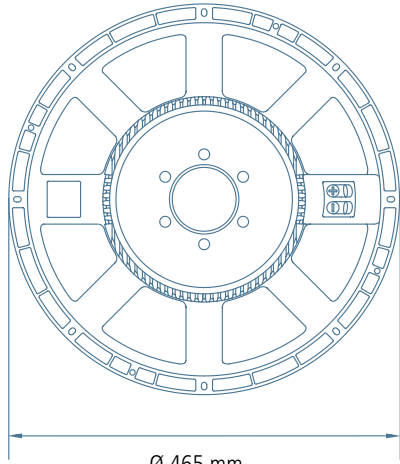
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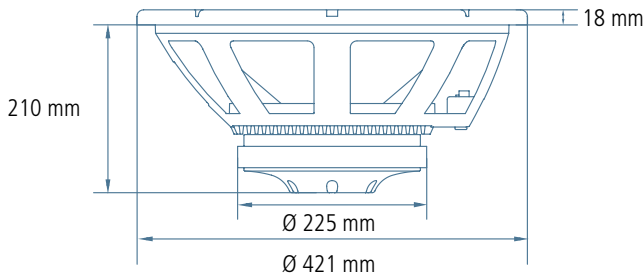
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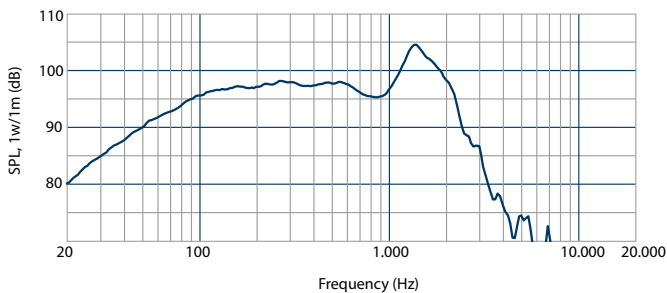
Ø 465 mm



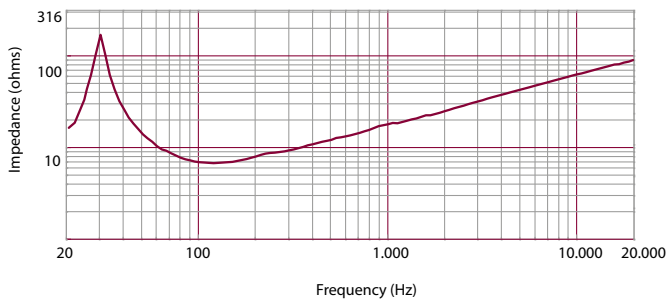
210 mm

Ø 225 mm

Ø 421 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	18 / 457	inch / mm
Rated Impedance	8	ohm
Program Power ¹	2000	Watt
Power handling capacity ²	1000	Watt
Sensitivity ³	97.5	dB
Frequency Range	25 - 1000	Hz
Effective Piston Diameter	395 / 15.55	mm / inch
Max Excursion Before Damage (peak to peak)	50 / 1.97	mm / inch
Minimum Impedance	6	ohm
Voice Coil Diameter	4 / 102	inch / mm
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	14 / 0.55	mm / inch
Cone Material	No pressed pulp	
Cone Design	Straight	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	28	Hz
DC resistance	Re	5.1	ohm
Mechanical factor	Qms	6.5	
Electrical factor	Qes	0.29	
Total factor	Qts	0.27	
BL Factor	BL	25	T · m
Effective Moving Mass	Mms	192	gr
Equivalent Cas air load	Vas	340	liters
Effective piston area	Sd	0.122	m ²
Max. linear excursion (mathematical) ⁵	Xmax	9.0	mm
Voice - coil inductance @ 1KHz	Le1K	1.2	mH
Half-space efficiency	Eff	2.64	%

MOUNTING INFORMATION

Overall Diameter	465 / 18.31	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 / 16.69	mm / inch
Rear Mount Baffle Cut-out	424 / 16.69	mm / inch
Depth	210 / 8.3	mm / inch
Volume occupied by the driver ⁶	7 / 0.28	liters / ft3

SHIPPING INFORMATION

Net Weight	13.3 / 29.32	Kg / Lbs
Shipping Weight	15.6 / 34.39	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.

WOOFER

LF18G401

Professional Low Frequency Transducer

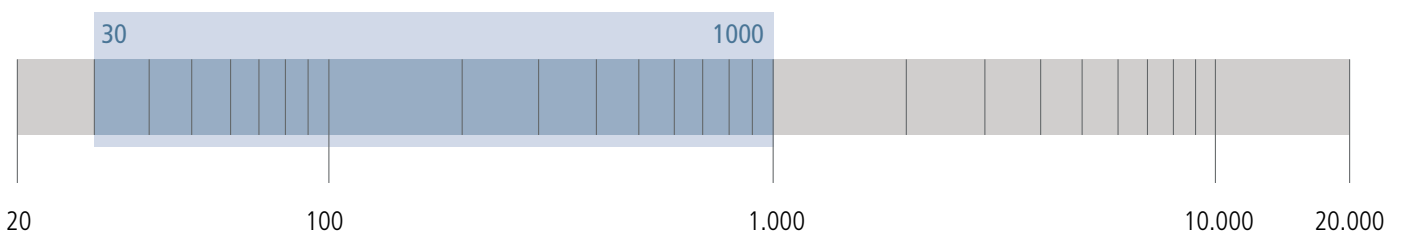
The LF18G401 is a 18-inch woofer with linear frequency response characteristics and very high power handling. The LF18G401 uses a fibre loaded cone assembly along with a high excursion triple roll, constant geometry surround. This combination provides remarkable strength and a peak to peak maximum excursion of 50 mm.

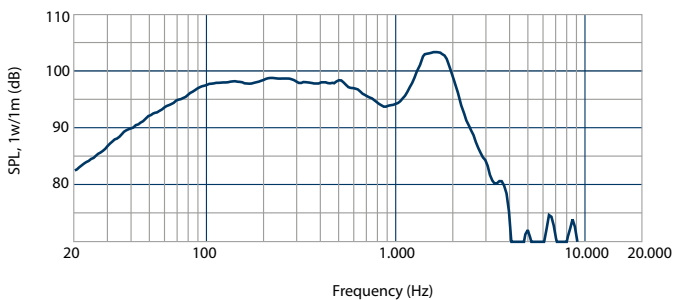
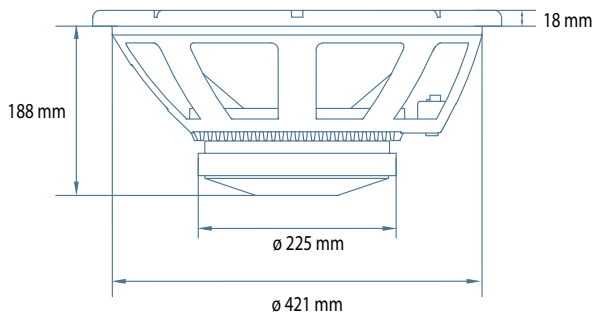
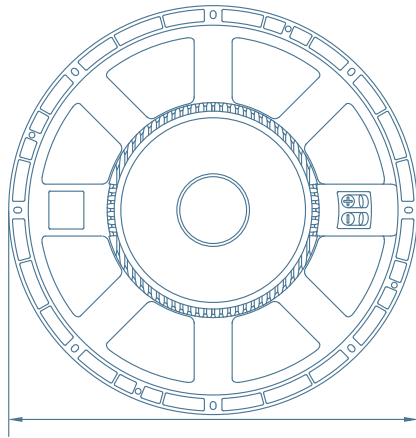
PART NUMBER **11100012**

- 4-inch, fibreglass inside-outside copper voice coil
- 1800 Watt continuous program power handling
- 98 dB Sensitivity
- 30 Hz - 1 kHz Frequency range
- Dual spider design with silicon based dampening control
- Triple-roll surround and corrugated straight cone geometry

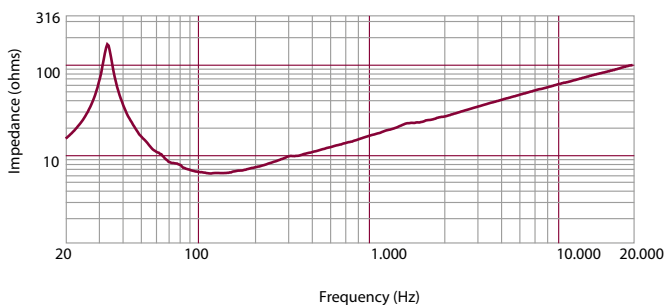
APPLICATIONS

The LF18G401 is ideal for use in applications where incredible power handling, long excursion and perfect control is required. Ideal for high quality professional bass reflex and bass-horn systems. The robust mechanical design and optimised weight of the device make it desirable for use in fixed installation or portable professional loudspeaker systems.





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	18 / 457	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1800	Watt
Power handling capacity ²	900	Watt
Sensitivity ³	98	dB
Frequency Range	30 - 1000	Hz
Effective Piston Diameter	395 / 15.55	mm / inch
Max Excursion Before Damage (peak to peak)	50 / 1.97	mm / inch
Minimum Impedance	5.9	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	23 / 0.91	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	12 / 0.47	mm / inch
Cone Material	No pressed pulp	
Cone Design	Straight	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	33	Hz
DC resistance	Re	4.8	ohm
Mechanical factor	Qms	7.6	
Electrical factor	Qes	0.30	
Total factor	Qts	0.29	
BL Factor	BL	24.6	T · m
Effective Moving Mass	Mms	182	gr
Equivalent Cas air load	Vas	268	liters
Effective piston area	Sd	0.122	m ²
Max. linear excursion (mathematical) ⁵	Xmax	8.5	mm
Voice - coil inductance @ 1KHz	Le1K	1.8	mH
Half-space efficiency	Eff	3.09	%

MOUNTING INFORMATION

Overall Diameter	465 / 18.31	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 / 16.69	mm / inch
Rear Mount Baffle Cut-out	424 / 16.69	mm / inch
Depth	188 / 7.40	mm / inch
Volume occupied by the driver ⁶	6 / 0.24	liters / ft3

SHIPPING INFORMATION

Net Weight	13 / 28.66	Kg / Lbs
Shipping Weight	15 / 33.07	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.

WOOFER

L18P400

Professional Low Frequency Transducer

PART NUMBER **11100044**

Incredibly 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 L18P400 uses a fibre loaded cone assembly along with a high excursion triple roll, constant geometry surround. A fully optimised T-pole design generate the minimum amount of flux modulation. The T-pole also features RCF Precision's spaced gap demodulation technology, progressively braking the voice coil, providing a much smoother transition for the moving mass as it reaches its maximum excursion limits. Forced air venting system.

- 4-inch, fibreglass inside-outside copper voice coil
- 2000 Watt continuous program power handling
- 97.5 dB Sensitivity
- 25 Hz - 1 kHz Frequency range
- Aluminum demodulation ring
- Forced air ventilation and 14 mm top plate for minimum power compression
- Dual spider design with silicon based dampening control
- Triple-roll surround and corrugated straight cone geometry

APPLICATIONS

The L18P400 is ideal for use in applications where incredible power handling, long excursion and perfect control is required. Ideal for high quality professional bass reflex and bass-horn 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.



25 1000

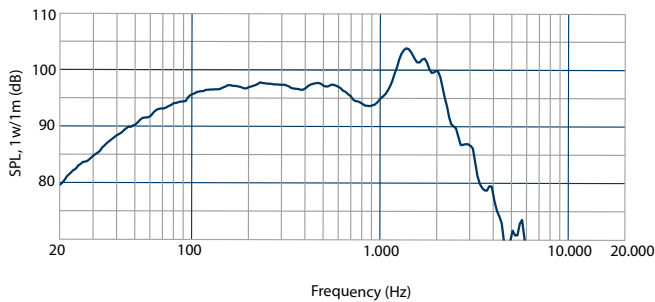
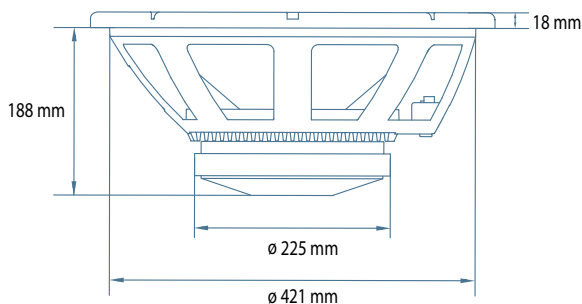
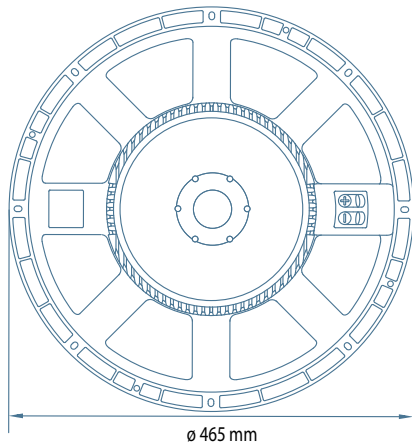
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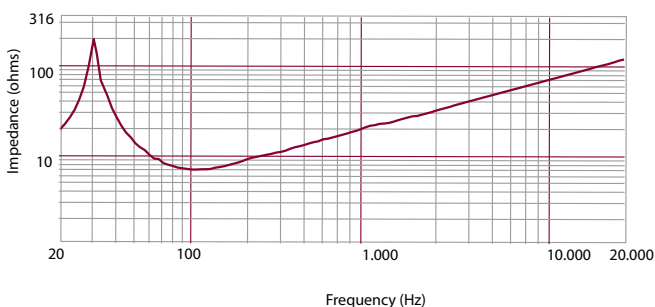
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Frequency response curve of the loudspeaker taken in a hemispherical, free field environment and mounted in a closed box with an internal volume of 600 litres (21,2 cu.ft) enclosing the rear of the driver



Impedance magnitude curve measured in free air

GENERAL SPECIFICATIONS

Nominal Diameter	18 / 457	inch / mm
Rated Impedance	8	ohm
Program Power ¹	2000	Watt
Power handling capacity ²	1000	Watt
Sensitivity ³	97.5	dB
Frequency Range	25 - 1000	Hz
Effective Piston Diameter	395 / 15.55	mm / inch
Max Excursion Before Damage (peak to peak)	50 / 1.97	mm / inch
Minimum Impedance	6.5	ohm
Voice Coil Diameter	4 / 102	inch / mm
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 / 0.59	mm / inch
Cone Material	No pressed pulp	
Cone Design	Straight	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	29	Hz
DC resistance	Re	5.1	ohm
Mechanical factor	Qms	7.6	
Electrical factor	Qes	0.29	
Total factor	Qts	0.28	
BL Factor	BL	24.6	T · m
Effective Moving Mass	Mms	200	gr
Equivalent Cas air load	Vas	340	liters
Effettive piston area	Sd	0.122	m ²
Max. linear excursion (mathematical) ⁵	Xmax	8.8	mm
Voice - coil inductance @ 1KHz	Le1K	1.2	mH
Half-space efficiency	Eff	2.63	%

MOUNTING INFORMATION

Overall Diameter	465 / 18.31	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 / 16.69	mm / inch
Rear Mount Baffle Cut-out	425 / 16.73	mm / inch
Depth	188 / 7.4	mm / inch
Volume occupied by the driver ⁶	6 / 0.24	liters / ft3

SHIPPING INFORMATION

Net Weight	13.5 / 29.76	Kg / Lbs
Shipping Weight	15.5 / 34.17	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.

WOOFER

L18P300

Professional Low Frequency Transducer

PART NUMBER **11185016**

In production for over 20 years, the L18P300 is an industry-standard. With 15 mm thick plates and specially designed suspensions, the sturdy magnetic unit ensures an excellent amplitude control of over +/- 12 millimeters. The special cooling system with forced air ventilation offers excellent heat dissipation and minimum power compression. Voice coil construction, suspensions, and cone materials can withstand massive RMS power. The L18P300 finds its best application in bass reflex and bandpass systems. Its capacity to reproduce extremely low frequencies with remarkable definition makes it one of the favorite woofer in its category, ideal for live and recorded music.

- 4-inch, fiberglass inside/outside copper voice coil
- 2000W continuous program power handling
- 97 dB Sensitivity
- 35 Hz – 1.5 kHz Frequency range
- Forced air ventilation and 15mm top plate for minimum power compression
- Dual spider design with silicone based dampening control
- M-roll surround and exponential cone geometry

APPLICATIONS

The L18P300 finds its best application in both bass reflex and band pass systems. Its capacity to reproduce extremely low frequencies along with extraordinary definition make it a no compromise woofer in its category, ideal for both live and recorded music.



35 1000

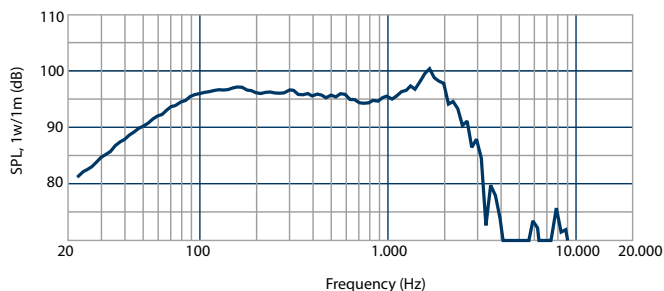
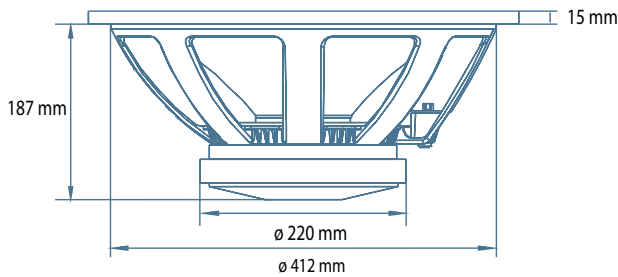
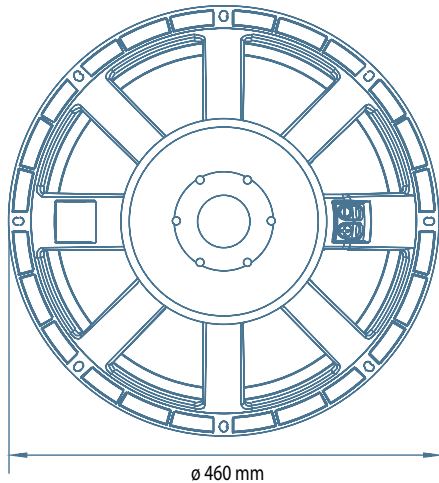
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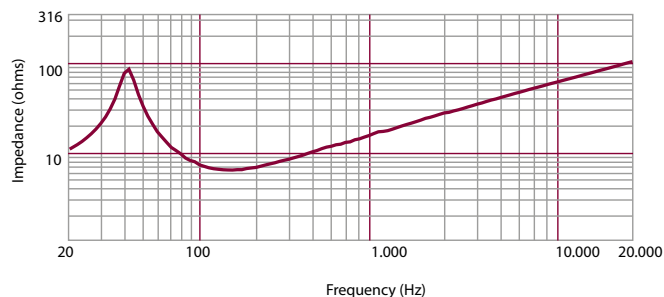
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Frequency response curve of the loudspeaker taken in a hemispherical, free field environment and mounted in a closed box with an internal volume of 600 litres (21,2 cu.ft) enclosing the rear of the driver



Impedance magnitude curve measured in free air

GENERAL SPECIFICATIONS

Nominal Diameter	18 / 457	inch / mm
Rated Impedance	8	ohm
Program Power ¹	2000	Watt
Power handling capacity ²	1000	Watt
Sensitivity ³	97	dB
Frequency Range	35 - 1000	Hz
Effective Piston Diameter	380 / 14.96	mm / inch
Max Excursion Before Damage (peak to peak)	40 / 1.57	mm / inch
Minimum Impedance	6.0	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	23 / 0.91	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	15 / 0.59	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	33	Hz
DC resistance	Re	5.0	ohm
Mechanical factor	Qms	8.3	
Electrical factor	Qes	0.34	
Total factor	Qts	0.33	
BL Factor	BL	23.5	T · m
Effective Moving Mass	Mms	180	gr
Equivalent Cas air load	Vas	226	liters
Effective piston area	Sd	0.113	m ²
Max. linear excursion (mathematical) ⁵	Xmax	7.8	mm
Voice - coil inductance @ 1KHz	Le1K	1.8	mH
Half-space efficiency	Eff	2.30	%

MOUNTING INFORMATION

Overall Diameter	460 / 18.11	mm / inch
Bolt Circle Diameter	438 / 17.24	mm / inch
Bolt Hole Diameter	8 / 0.31	mm / inch
Front Mount Baffle Cut-out	416 / 16.38	mm / inch
Rear Mount Baffle Cut-out	418 / 16.46	mm / inch
Depth	187 / 7.36	mm / inch
Volume occupied by the driver ⁶	6.5 / 0.26	liters / ft3

SHIPPING INFORMATION

Net Weight	13 / 28.66	Kg / Lbs
Shipping Weight	15 / 33.07	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.

WOOFER

L18S801

Professional Low Frequency Transducer

PART NUMBER **11100047**

- 4-inch, fibreglass inside-outside copper voice coil
- 1400 Watt continuous program power handling
- 99.5 dB Sensitivity
- 38 Hz - 1 kHz Frequency range
- Forced air ventilation and front heat sink for minimum power compression
- Dual spider design with silicon based dampening control
- M-roll surround and exponential cone geometry

The L18S801 is the RCF classical high efficiency 18" woofer. A perfect blend of voice coil length, moving mass weight and suspensions control makes this transducer the preferred solution for many speakers and rental companies. Efficient heat dissipation is ensured by forcing air out through a special vented radiator system which is part of the gap, situated between the basket and the upper plate.

Voice coil construction, suspensions and cone materials are upgraded in order to withstand up to 700 Watt RMS power.

APPLICATIONS

The L18S801 finds its best application in band pass, reflex-horn and horn loaded systems. It is a perfect compact bass reflex solution for live music, when the maximum punch is required. It is one of the fastest transducers in its category.



38 1000

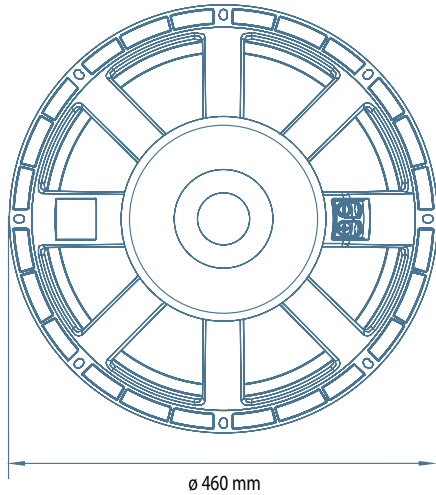
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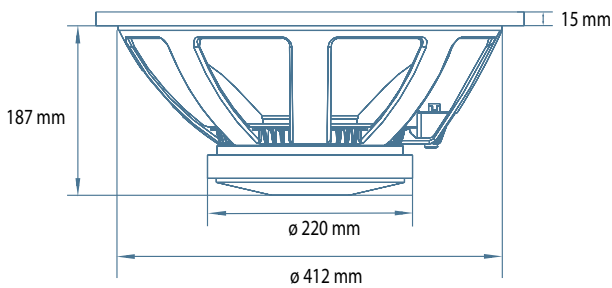
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ø 460 mm

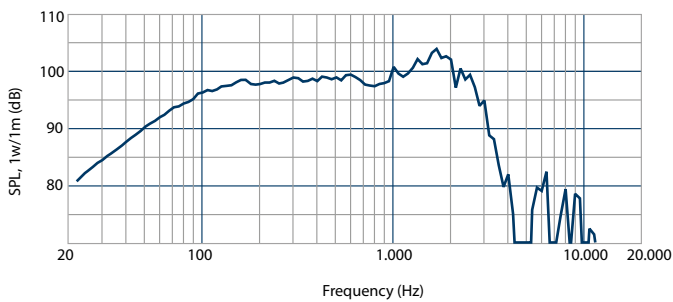


187 mm

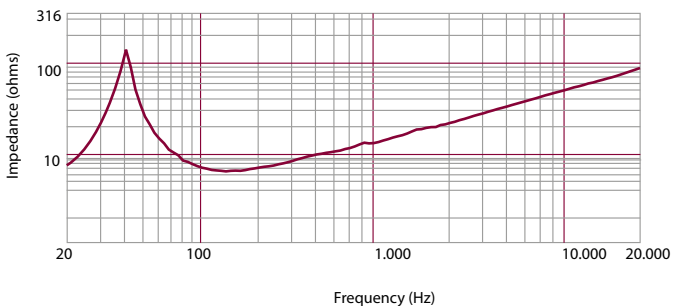
15 mm

ø 220 mm

ø 412 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	18 / 457	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1400	Watt
Power handling capacity ²	700	Watt
Sensitivity ³	99.5	dB
Frequency Range	38 - 1000	Hz
Effective Piston Diameter	380 / 14.96	mm / inch
Max Excursion Before Damage (peak to peak)	40 / 1.57	mm / inch
Minimum Impedance	6	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	19 / 0.75	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	10 / 0.39	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	39	Hz
DC resistance	Re	4.9	ohm
Mechanical factor	Qms	8.3	
Electrical factor	Qes	0.30	
Total factor	Qts	0.29	
BL Factor	BL	24.5	T · m
Effective Moving Mass	Mms	148	gr
Equivalent Cas air load	Vas	206	liters
Effective piston area	Sd	0.113	m ²
Max. linear excursion (mathematical) ⁵	Xmax	6.8	mm
Voice - coil inductance @ 1KHz	Le1K	1.7	mH
Half-space efficiency	Eff	3.93	%

MOUNTING INFORMATION

Overall Diameter	460 / 18.11	mm / inch
Bolt Circle Diameter	438 / 17.24	mm / inch
Bolt Hole Diameter	8 / 0.31	mm / inch
Front Mount Baffle Cut-out	416 / 16.38	mm / inch
Rear Mount Baffle Cut-out	418 / 16.46	mm / inch
Depth	187 / 7.36	mm / inch
Volume occupied by the driver ⁶	6.5 / 0.26	liters / ft3

SHIPPING INFORMATION

Net Weight	12 / 26.46	Kg / Lbs
Shipping Weight	14 / 30.86	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.

WOOFER

LF15X401

Professional Low Frequency Transducer

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 LF15X401 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.

PART NUMBER **11100090**

- 4.0 - inch, fibreglass inside-outside copper voice coil
- 3000 Watt continuous program power handling
- 96.5 dB Sensitivity
- 30 Hz - 1.5 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

APPLICATIONS

The LF15X401 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.



30

1500

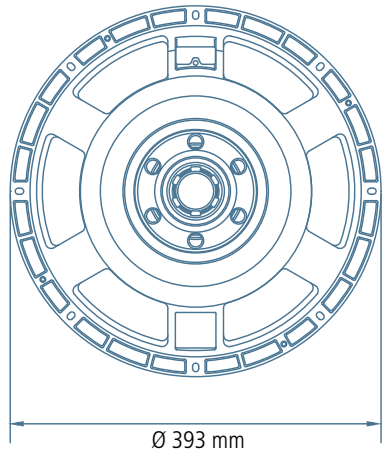
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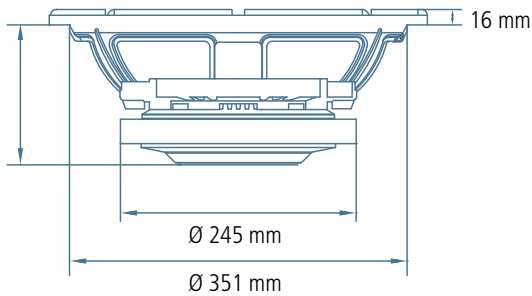
1.000

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Ø 393 mm

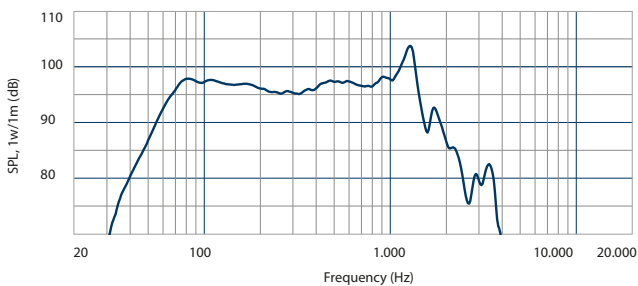


145 mm

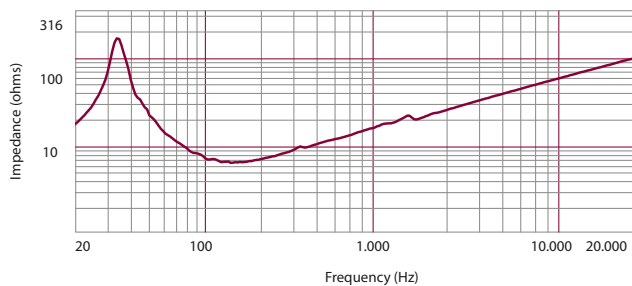
16 mm

Ø 245 mm

Ø 351 mm



Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 55 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	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	3000	Watt
Power handling capacity ²	1500	Watt
Sensitivity ³	96.5	dB
Frequency Range	30 - 1500	Hz
Effective Piston Diameter	340 / 13.39	mm / inch
Max Excursion Before Damage (peak to peak)	50 / 1.97	mm / inch
Minimum Impedance	6.5	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	30 / 1.18	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	15 / 0.59	mm / inch
Cone Material	No pressed pulp	
Cone Design	Straight	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	34	Hz
DC resistance	Re	5.5	ohm
Mechanical factor	Qms	7.6	
Electrical factor	Qes	0.30	
Total factor	Qts	0.29	
BL Factor	BL	26.5	T · m
Effective Moving Mass	Mms	170	gr
Equivalent Cas air load	Vas	146	liters
Effective piston area	Sd	0.091	m ²
Max. linear excursion (mathematical) ⁵	Xmax	11.5	mm
Voice - coil inductance @ 1KHz	Le1K	1.3	mH
Half-space efficiency	Eff	1.90	%

MOUNTING INFORMATION

Overall Diameter	393 / 15.47	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 / 13.94	mm / inch
Rear Mount Baffle Cut-out	354 / 13.94	mm / inch
Depth	145 / 5.70	mm / inch
Volume occupied by the driver ⁶	4.3 / 0.17	liters / ft3

SHIPPING INFORMATION

Net Weight	12 / 26.46	Kg / Lbs
Shipping Weight	13.5 / 29.76	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.

WOOFER

LF15G401

Professional Low Frequency Transducer

The LF15G401 is a 15-inch woofer with linear frequency response characteristics and very high power handling. The LF15G401 uses a fibre loaded cone assembly along with a high excursion triple roll, constant geometry surround. This combination provides remarkable strength and a peak to peak maximum excursion of 52 mm.

PART NUMBER **11100014**

- 4-inch, fibreglass inside-outside copper voice coil
- 1600 Watt continuous program power handling
- 97 dB Sensitivity
- 30 Hz - 1.5 kHz Frequency range
- Dual spider design with silicon based dampening control
- Triple-roll surround and corrugated straight cone geometry

APPLICATIONS

The LF15G401 is ideal for use in applications where incredible power handling, long excursion and perfect control is required. Ideal for high quality professional bass reflex and bass-horn systems. The robust mechanical design and optimised weight of the device make it desirable for use in fixed installation or portable professional loudspeaker systems. Very good for 3 way, extended low frequency configurations.



35 1500

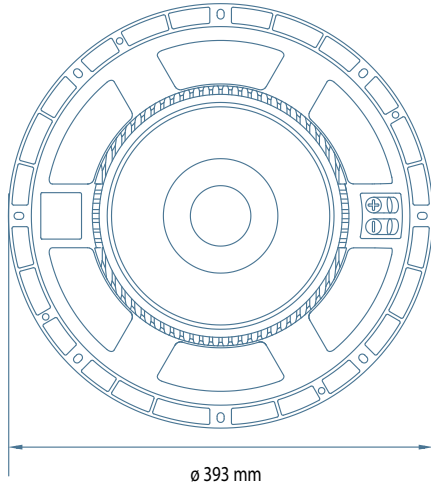
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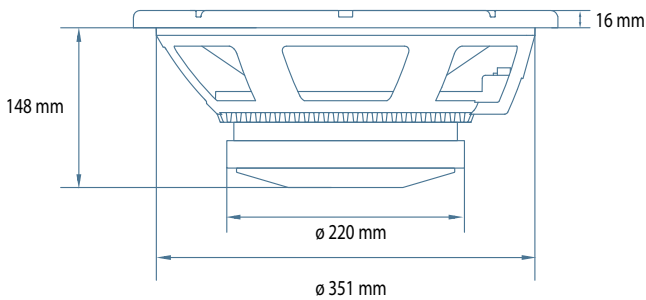
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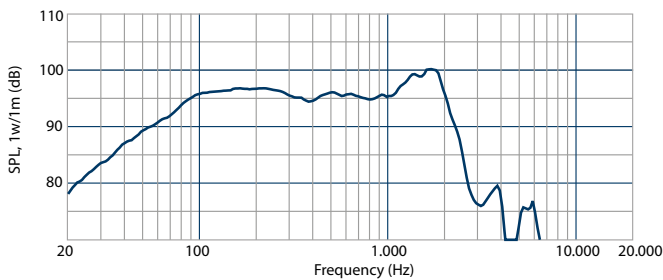
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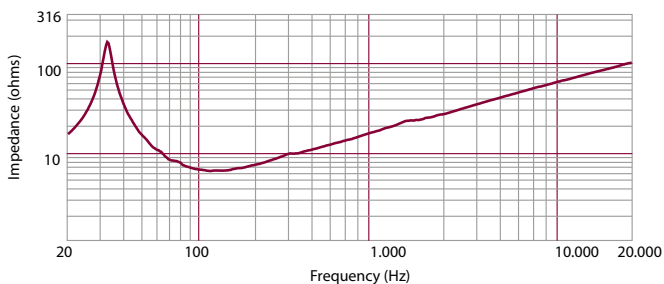
ø 393 mm



ø 351 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	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1600	Watt
Power handling capacity ²	800	Watt
Sensitivity ³	97	dB
Frequency Range	35 - 1500	Hz
Effective Piston Diameter	340 / 13.39	mm / inch
Max Excursion Before Damage (peak to peak)	52 / 2.05	mm / inch
Minimum Impedance	6.1	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	23 / 0.91	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	12 / 0.47	mm / inch
Cone Material	No pressed pulp	
Cone Design	Straight	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	36	Hz
DC resistance	Re	4.8	ohm
Mechanical factor	Qms	6.2	
Electrical factor	Qes	0.27	
Total factor	Qts	0.26	
BL Factor	BL	24.6	T · m
Effective Moving Mass	Mms	150	gr
Equivalent Cas air load	Vas	150	liters
Effective piston area	Sd	0.091	m ²
Max. linear excursion (mathematical) ⁵	Xmax	8.5	mm
Voice - coil inductance @ 1KHz	Le1K	1.8	mH
Half-space efficiency	Eff	2.50	%

MOUNTING INFORMATION

Overall Diameter	393 / 15.47	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	352 / 13.86	mm / inch
Rear Mount Baffle Cut-out	360 / 14.17	mm / inch
Depth	148 / 5.82	mm / inch
Volume occupied by the driver ⁶	4.3 / 0.17	liters / ft3

SHIPPING INFORMATION

Net Weight	13 / 28.66	Kg / Lbs
Shipping Weight	14 / 30.86	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.

WOOFER

L15P400

Professional Low Frequency Transducer

PART NUMBER **11100045**

Incredibly linear frequency response characteristics, extreme high power handling while generating the lowest harmonic distortion of any comparable 15-inch transducer within its application range. The L15P400 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 52 mm. The T-pole also features RCF Precision's spaced gap demodulation technology, progressively braking the voice coil, providing a much smoother transition for the moving mass as it reaches its maximum excursion limits. Forced air venting system.

- 4-inch, fibreglass inside-outside copper voice coil
- 1600 Watt continuous program power handling
- 97 dB Sensitivity
- 30 Hz - 1.5 kHz Frequency range
- Aluminum demodulation ring
- Forced air ventilation and 14 mm top plate for minimum power compression
- Dual spider design with silicon based dampening control
- Triple-roll surround and corrugated straight cone geometry

APPLICATIONS

The L15P400 is ideal for use in applications where incredible power handling, long excursion and perfect control is required. Ideal for high quality professional bass reflex and bass-horn systems, incredible when used in double 15" subwoofer configuration. 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.



30

1500

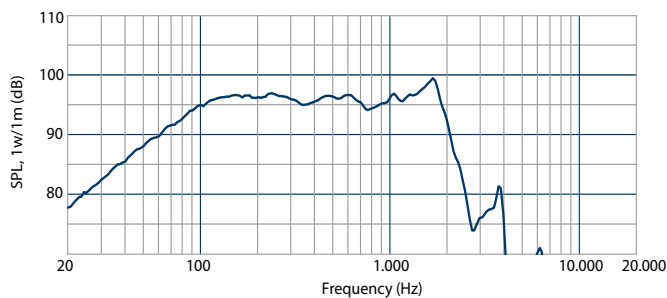
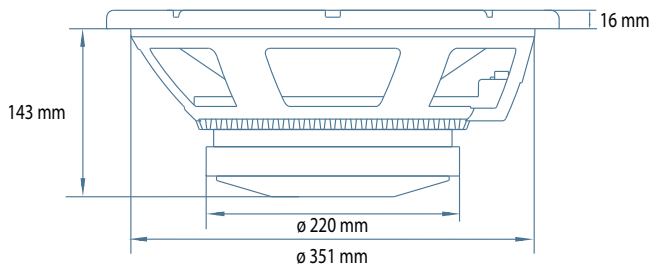
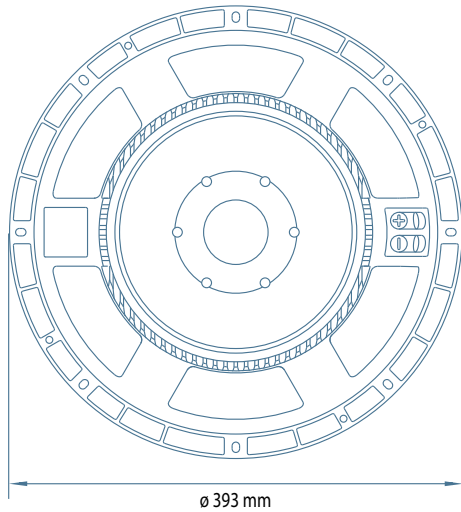
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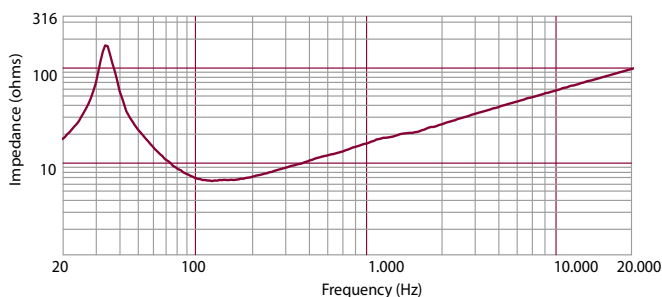
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Frequency response curve of the loudspeaker taken in a hemispherical, free field environment and mounted in a closed box with an internal volume of 600 litres (21,2 cu.ft) enclosing the rear of the driver



Impedance magnitude curve measured in free air

GENERAL SPECIFICATIONS

Nominal Diameter	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1600	Watt
Power handling capacity ²	800	Watt
Sensitivity ³	97	dB
Frequency Range	30 - 1500	Hz
Effective Piston Diameter	340 / 13.39	mm / inch
Max Excursion Before Damage (peak to peak)	50 / 1.97	mm / inch
Minimum Impedance	6.3	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	23 / 0.91	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	14 / 0.55	mm / inch
Cone Material	No pressed pulp	
Cone Design	Straight	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	36	Hz
DC resistance	Re	4.8	ohm
Mechanical factor	Qms	7.5	
Electrical factor	Qes	0.27	
Total factor	Qts	0.25	
BL Factor	BL	24.8	T · m
Effective Moving Mass	Mms	150	gr
Equivalent Cas air load	Vas	160	liters
Effettive piston area	Sd	0.091	m ²
Max. linear excursion (mathematical) ⁵	Xmax	8.0	mm
Voice - coil inductance @ 1KHz	Le1K	1.2	mH
Half-space efficiency	Eff	2.6	%

MOUNTING INFORMATION

Overall Diameter	393 / 15.47	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	352 / 13.86	mm / inch
Rear Mount Baffle Cut-out	360 / 14.17	mm / inch
Depth	143 / 5.62	mm / inch
Volume occupied by the driver ⁶	4.3 / 0.17	liters / ft3

SHIPPING INFORMATION

Net Weight	13.5 / 29.76	Kg / Lbs
Shipping Weight	15.5 / 34.17	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.

MID-BASS

MB15H401

Professional Low Frequency Transducer

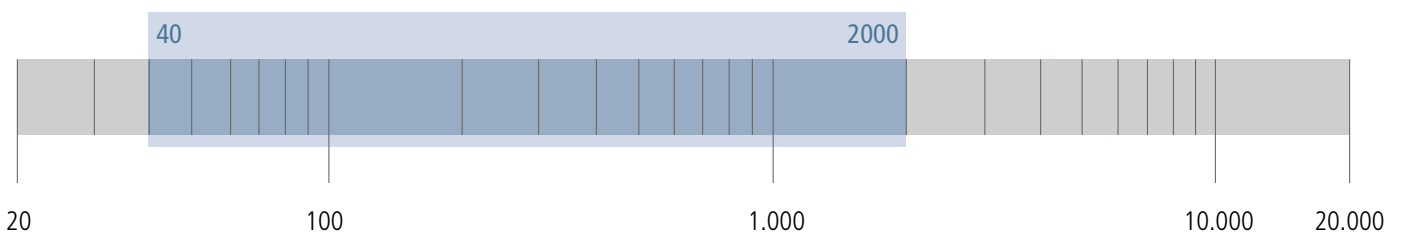
The MB15H401 is a 15-inch midbass with linear frequency response characteristics and very high efficiency. The MB15H401 uses a fibre loaded exponential cone assembly along with a high excursion triple roll, constant geometry surround. The fibreglass former, inside/outside aluminum voice coil provides a very good power handling maintaining light moving mass and proper Q for bass alignment. Demodulation ring for fastest time response and lowest distortion.

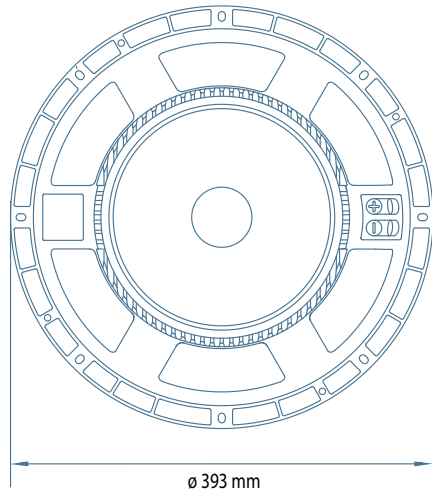
PART NUMBER **11100015**

- 4-inch, fibreglass inside-outside aluminum voice coil
- 1400 Watt continuous program power handling
- 100 dB Sensitivity
- 40 Hz - 2 kHz Frequency range
- Dual spider design with silicon based dampening control
- Triple-roll surround and corrugated exponential cone geometry
- Aluminum demodulation ring

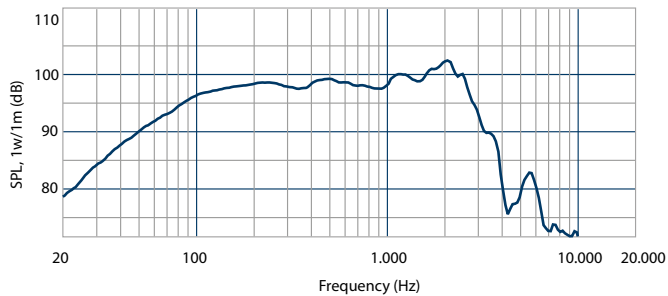
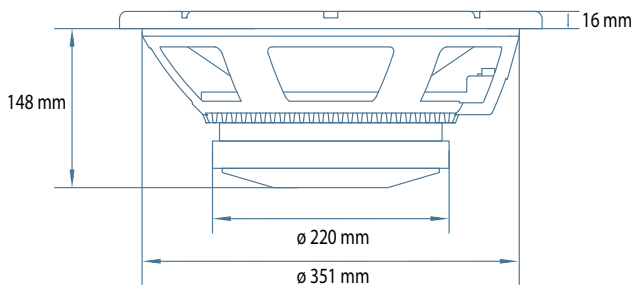
APPLICATIONS

The MB15H401 is ideal for use in applications where is required good power handling, very high efficiency and perfect linearity. Is the ideal 15" woofer for mid-bass application in high power, compact 2 way systems. Thanks to his linearity, very easy to crossover compared to competitors 4" voice coil 15". The robust mechanical design and optimised weight of the device make it desirable for use in fixed installation or portable professional loudspeaker systems.

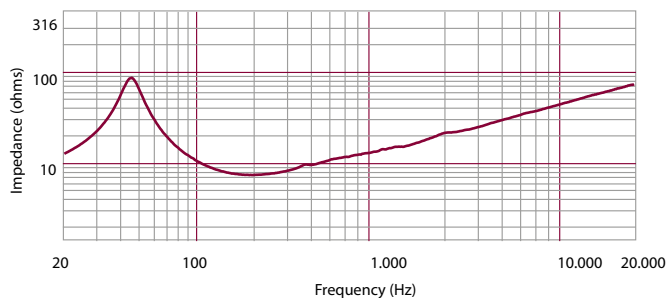




ø 393 mm



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	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1400	Watt
Power handling capacity ²	700	Watt
Sensitivity ³	100	dB
Frequency Range	40 - 2000	Hz
Effective Piston Diameter	340 / 13.39	mm / inch
Max Excursion Before Damage (peak to peak)	50 / 1.97	mm / inch
Minimum Impedance	7.0	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	21 / 0.83	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	12 / 0.47	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	44	Hz
DC resistance	Re	5.4	ohm
Mechanical factor	Qms	4.8	
Electrical factor	Qes	0.32	
Total factor	Qts	0.30	
BL Factor	BL	22.1	T · m
Effective Moving Mass	Mms	107	gr
Equivalent Cas air load	Vas	121	liters
Effective piston area	Sd	0.091	m ²
Max. linear excursion (mathematical) ⁵	Xmax	7.5	mm
Voice - coil inductance @ 1KHz	Le1K	0.7	mH
Half-space efficiency	Eff	3.11	%

MOUNTING INFORMATION

Overall Diameter	393 / 15.47	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	352 / 13.86	mm / inch
Rear Mount Baffle Cut-out	360 / 14.17	mm / inch
Depth	148 / 5.82	mm / inch
Volume occupied by the driver ⁶	4.3 / 0.17	liters / ft3

SHIPPING INFORMATION

Net Weight	12 / 26.46	Kg / Lbs
Shipping Weight	13.5 / 29.76	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.

WOOFER

L15S801

Professional Low Frequency Transducer

The L15S801 is the RCF classical high efficiency 15" woofer. A perfect blend of voice coil length, moving mass weight and suspensions control makes this transducer the preferred solution for many speakers and rental companies. Efficient heat dissipation is ensured by forcing hair out through a special vented radiator system which is part of the gap, situated between the basket and the upper plate.

PART NUMBER **11100048**

- 4-inch, fibreglass inside-outside copper voice coil
- 1400 Watt continuous program power handling
- 99.5 dB Sensitivity
- 40 Hz - 1.5 kHz Frequency range
- Forced air ventilation and front heat sink for minimum power compression
- Dual spider design with silicon based dampening control
- M-roll surround and exponential cone geometry

APPLICATIONS

The L15S801 finds its best application in band pass, reflex-horn and horn loaded systems.

It is a perfect compact bass reflex solution for live music, when the maximum punch is required. It is one of the fastest transducers in its category.



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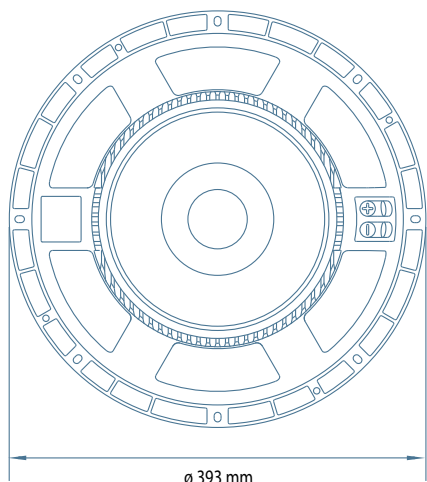
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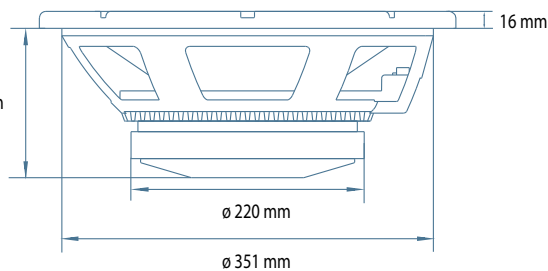
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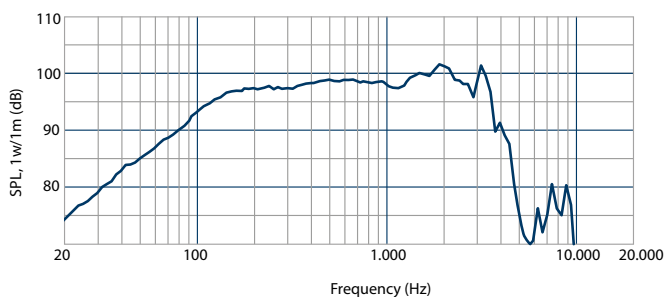
ø 393 mm



146 mm

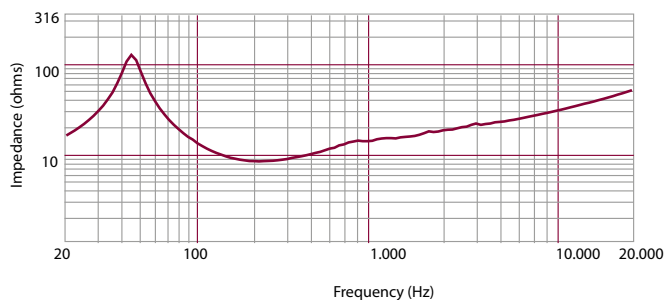
ø 220 mm

ø 351 mm



Frequency (Hz)

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



Frequency (Hz)

Impedance magnitude curve measured in free air

GENERAL SPECIFICATIONS

Nominal Diameter	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1400	Watt
Power handling capacity ²	700	Watt
Sensitivity ³	99.5	dB
Frequency Range	40 - 1500	Hz
Effective Piston Diameter	330 / 12.99	mm / inch
Max Excursion Before Damage (peak to peak)	48 / 1.89	mm / inch
Minimum Impedance	8	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	16 / 0.63	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	10 / 0.39	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	48	Hz
DC resistance	Re	6.1	ohm
Mechanical factor	Qms	11	
Electrical factor	Qes	0.33	
Total factor	Qts	0.32	
BL Factor	BL	23.6	T · m
Effective Moving Mass	Mms	100	gr
Equivalent Cas air load	Vas	113	liters
Effective piston area	Sd	0.085	m ²
Max. linear excursion (mathematical) ⁵	Xmax	5.5	mm
Voice - coil inductance @ 1KHz	Le1K	0.8	mH
Half-space efficiency	Eff	3.65	%

MOUNTING INFORMATION

Overall Diameter	393 / 15.47	mm / inch
Bolt Circle Diameter	371 / 14.61	mm / inch
Bolt Hole Diameter	6.5 / 0.25	mm / inch
Front Mount Baffle Cut-out	352 / 13.86	mm / inch
Rear Mount Baffle Cut-out	360 / 14.17	mm / inch
Depth	146 / 5.74	mm / inch
Volume occupied by the driver ⁶	3.8 / 0.15	liters / ft3

SHIPPING INFORMATION

Net Weight	11.5 / 25.35	Kg / Lbs
Shipping Weight	13 / 28.66	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.

MID-BASS

L15-554K

Professional Low Frequency Transducer

Very high efficiency and good linearity are distinctive features of this mid-bass woofer. Kapton former voice coil, polycotton suspensions and treated cone guarantee the very high power handling of this transducer.

PART NUMBER **11160011**

- 4-inch, fibreglass inside-outside copper voice coil
- 1200 Watt continuous program power handling
- 99 dB Sensitivity
- 40 Hz - 2 kHz Frequency range
- M-roll damped surround
- Exponential damped cone
- Copper ring

APPLICATIONS

The L15/554 is designed to be mounted in compact size bass reflex enclosures. The good combination of voice coil length, very low mass weight and suspensions control makes the L15/554 a very good choice for high power 2 way systems. Thanks to a very high BL/Re ratio, small mechanical depth and a strong cone, the L15/554 is a good solution for horn loaded or hybrid horn loaded systems.



40 2000

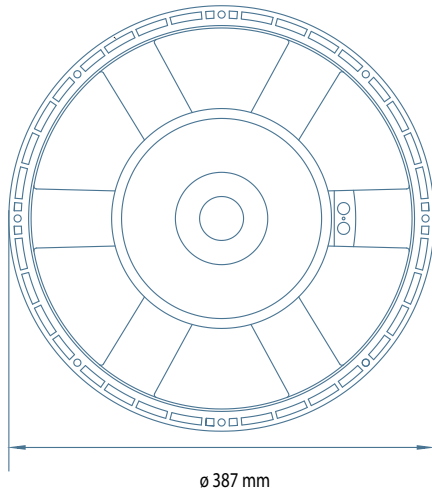
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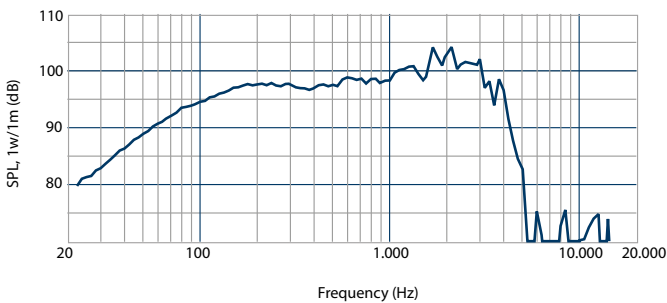
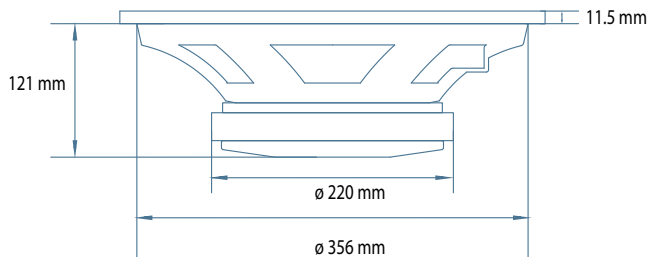
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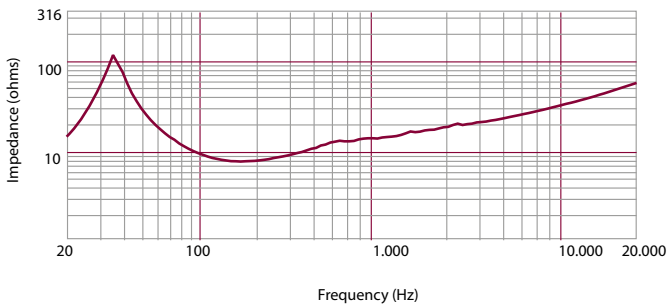
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ø 387 mm



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	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1200	Watt
Power handling capacity ²	600	Watt
Sensitivity ³	99	dB
Frequency Range	40 - 2000	Hz
Effective Piston Diameter	325 / 12.8	mm / inch
Max Excursion Before Damage (peak to peak)	44 / 1.73	mm / inch
Minimum Impedance	7.9	ohm
Voice Coil Diameter	4 / 102	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	16 / 0.63	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	9 / 0.35	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	35	Hz
DC resistance	Re	6.6	ohm
Mechanical factor	Qms	8.6	
Electrical factor	Qes	0.25	
Total factor	Qts	0.24	
BL Factor	BL	23	T · m
Effective Moving Mass	Mms	91	gr
Equivalent Cas air load	Vas	227	liters
Effective piston area	Sd	0.083	m ²
Max. linear excursion (mathematical) ⁵	Xmax	5.8	mm
Voice - coil inductance @ 1KHz	Le1K	1	mH
Half-space efficiency	Eff	3.75	%

MOUNTING INFORMATION

Overall Diameter	387 / 15.24	mm / inch
Bolt Circle Diameter	371 / 14.61	mm / inch
Bolt Hole Diameter	6.5 / 0.25	mm / inch
Front Mount Baffle Cut-out	358 / 14.09	mm / inch
Rear Mount Baffle Cut-out	362 / 14.25	mm / inch
Depth	121 / 4.76	mm / inch
Volume occupied by the driver ⁶	3.8 / 0.15	liters / ft3

SHIPPING INFORMATION

Net Weight	11 / 24.25	Kg / Lbs
Shipping Weight	12.5 / 27.56	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.

MID-BASS

MB15X351

Professional Low Frequency Transducer

The MB15X351 is designed to provide an excellent frequency response linearity with very low distortion. A very strong ceramic magnetic structure guarantee dynamic and precision, a new and unique 3,5" voice coil design provides a very high power handling, especially recommended in comparison to a standard 3" voice coil. The new dual forced hyper-venting system guarantee a very efficient voice coil ventilation for minimum power compression and incredible power handling.

PART NUMBER **11100101**

- 3.5 - inch, fibreglass inside-outside copper voice coil
- 1400 Watt continuous program power handling
- 99.0 dB Sensitivity
- 40 Hz – 2.5 kHz Frequency range
- 22.8 T/m BL
- 40 mm peak-to-peak excursion
- Dual-forced hyper-venting and 10mm top plate for minimum power compression
- Dual spider design with silicon based dampening control
- M-roll surround and curved cone geometry

APPLICATIONS

The MB15X351 is ideal for use in applications where is required a very high efficiency and linearity with high power handling. It's especially recommended for high powered two-way or multi-way system.



40

2500

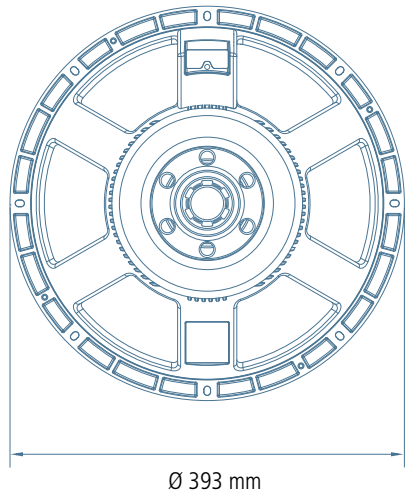
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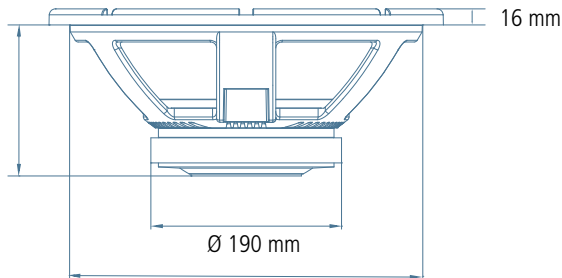
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Ø 393 mm

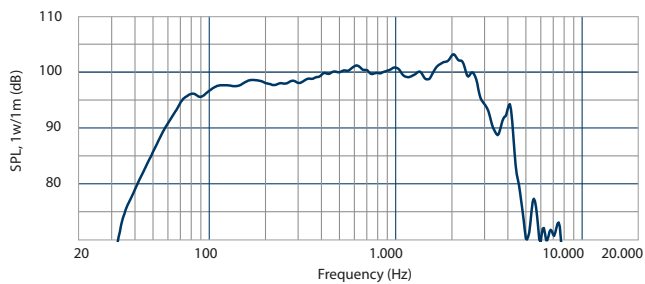


16 mm

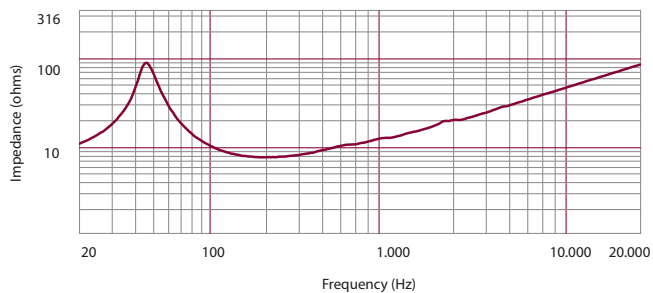
151 mm

Ø 190 mm

Ø 352 mm



Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 55 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	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1400	Watt
Power handling capacity ²	700	Watt
Sensitivity ³	99	dB
Frequency Range	40 - 2500	Hz
Effective Piston Diameter	330 / 12.99	mm / inch
Max Excursion Before Damage (peak to peak)	40 / 1.57	mm / inch
Minimum Impedance	6.5	ohm
Voice Coil Diameter	3.5 / 89	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	19 / 0.75	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	10 / 0.39	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	46	Hz
DC resistance	Re	5.4	ohm
Mechanical factor	Qms	6.7	
Electrical factor	Qes	0.33	
Total factor	Qts	0.31	
BL Factor	BL	22.8	T · m
Effective Moving Mass	Mms	106	gr
Equivalent Cas air load	Vas	114	liters
Effettive piston area	Sd	0.086	m ²
Max. linear excursion (mathematical) ⁵	Xmax	7.0	mm
Voice - coil inductance @ 1KHz	Le1K	0.9	mH
Half-space efficiency	Eff	3.20	%

MOUNTING INFORMATION

Overall Diameter	393 / 15.47	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 mm / 13.94	mm / inch
Rear Mount Baffle Cut-out	354 / 13.94	mm / inch
Depth	151 / 5.94	mm / inch
Volume occupied by the driver ⁶	4.5 / 0.18	liters / ft3

SHIPPING INFORMATION

Net Weight	8.2 / 18.08	Kg / Lbs
Shipping Weight	9.5 / 20.94	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.

MID-BASS

MB15X301

Professional Low Frequency Transducer

The MB15X301 is designed to provide an excellent frequency response linearity with very low distortion. A strong magnetic structure guarantee dynamic and precision. The new dual forced hyper-venting system guarantee a very efficient voice coil ventilation for minimum power compression and incredible power handling. Triple roll surround and spider design offer great linearity and precise reproduction.

PART NUMBER **11100106**

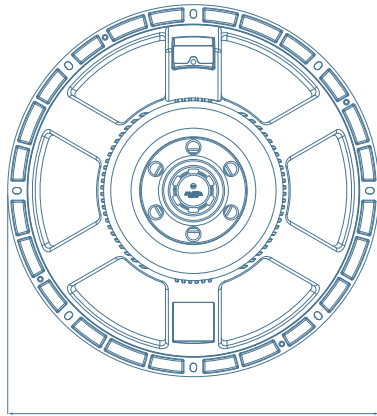
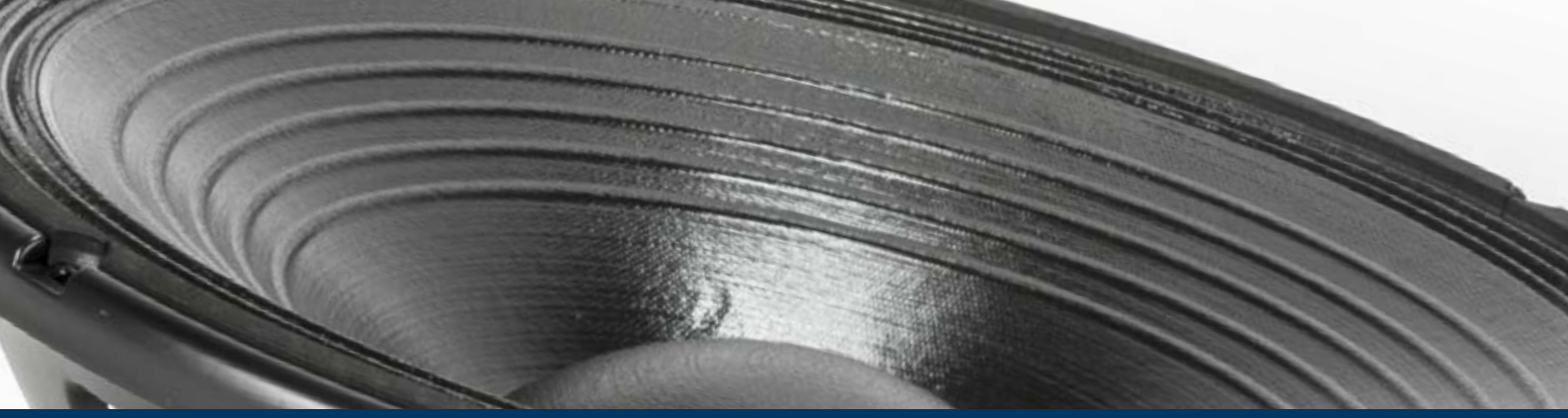
- 3-inch, fibreglass inside/outside aluminium voice coil
- 1000W continuous program power handling
- 98.5 dB Sensitivity
- 40 Hz – 3.0 kHz Frequency range
- Hypervented for minimum power compression
- Triple roll surround and exponential cone geometry

APPLICATIONS

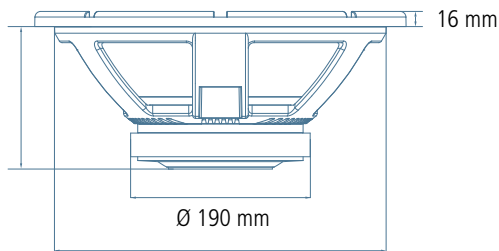
A light moving mass, a curve response linear above 3.0 kHz makes the MB15X301 a very good solution for high quality two way systems.

The 3.0" copper voice coil guarantee a very high power handling and perfect low frequency control.





Ø 393 mm

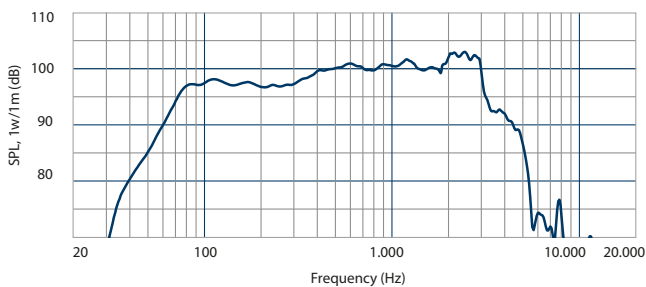


151 mm

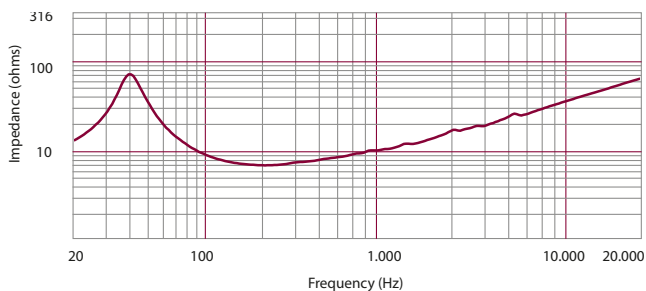
16 mm

Ø 190 mm

Ø 352 mm



Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 55 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	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1000	Watt
Power handling capacity ²	500	Watt
Sensitivity ³	98.5	dB
Frequency Range	40 - 3000	Hz
Effective Piston Diameter	330 / 12.99	mm / inch
Max Excursion Before Damage (peak to peak)	40 / 1.57	mm / inch
Minimum Impedance	6.5	ohm
Voice Coil Diameter	3.0 / 76	inch / mm
Voice Coil Material	Aluminium	
Voice Coil Winding Depth	17 / 0.67	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	10 / 0.39	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	38	Hz
DC resistance	Re	5.4	ohm
Mechanical factor	Qms	5.0	
Electrical factor	Qes	0.37	
Total factor	Qts	0.34	
BL Factor	BL	18	T · m
Effective Moving Mass	Mms	91.5	gr
Equivalent Cas air load	Vas	195	liters
Effective piston area	Sd	0.086	m ²
Max. linear excursion (mathematical) ⁵	Xmax	6.0	mm
Voice - coil inductance @ 1KHz	Le1K	0.52	mH
Half-space efficiency	Eff	2.80	%

MOUNTING INFORMATION

Overall Diameter	393 / 15.47	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 / 13.94	mm / inch
Rear Mount Baffle Cut-out	354 / 13.94	mm / inch
Depth	151 / 5.94	mm / inch
Volume occupied by the driver ⁶	4.5 / 0.18	liters / ft3

SHIPPING INFORMATION

Net Weight	8 / 17.64	Kg / Lbs
Shipping Weight	9.5 / 20.94	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.

WOOFER

L15P540

Professional Low Frequency Transducer

High power 15" woofer. Very good power handling, excellent linearity and very low distortion.
Very efficient heat dissipation is ensured by a radiator that is part of the basket design. The air is forced in the radiator thanks to a dual sealed spider design.

PART NUMBER **11165015**

- 3-inch, fibreglass inside-outside copper voice coil
- 1000 Watt continuous program power handling
- 98 dB Sensitivity
- 40 Hz - 2 kHz Frequency range
- Dual spider design with silicon based dampening control
- M-roll surround and exponential cone geometry

APPLICATIONS

The excellent linear response, well controlled down to 40 Hertz, makes the L15P540 especially suitable for horn-loaded applications, band-pass enclosures and small size bass reflex systems.

It is a very good solution for two or three way system when a very high BL and maximum punch is required.



40 2000

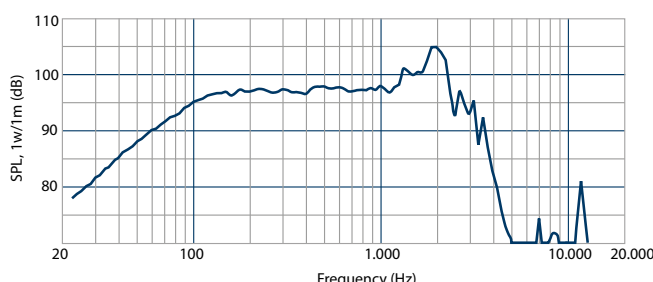
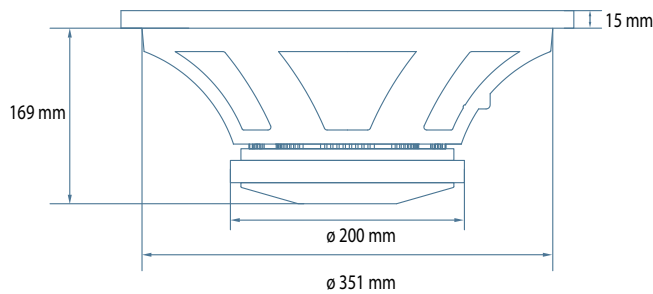
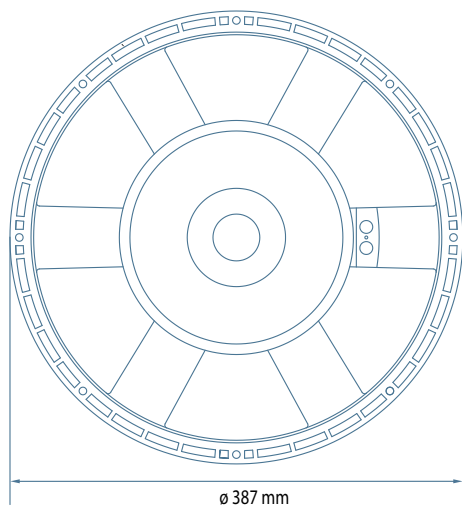
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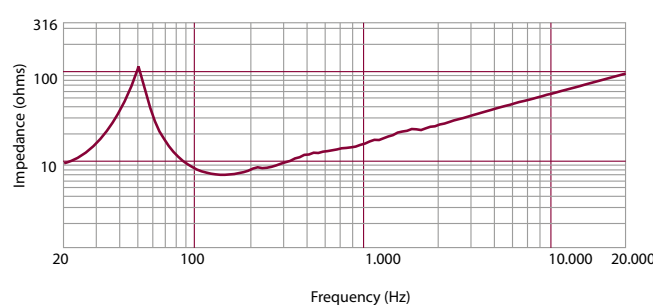
1.000

10.000

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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	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1000	Watt
Power handling capacity ²	500	Watt
Sensitivity ³	98	dB
Frequency Range	40 - 2000	Hz
Effective Piston Diameter	330 / 12.99	mm / inch
Max Excursion Before Damage (peak to peak)	36 / 1.42	mm / inch
Minimum Impedance	6.8	ohm
Voice Coil Diameter	3.0 / 76	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	18 / 0.71	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	10 / 0.39	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	50	Hz
DC resistance	Re	5.6	ohm
Mechanical factor	Qms	9.7	
Electrical factor	Qes	0.41	
Total factor	Qts	0.39	
BL Factor	BL	21.4	T · m
Effective Moving Mass	Mms	106	gr
Equivalent Cas air load	Vas	100	liters
Effetive piston area	Sd	0.085	m ²
Max. linear excursion (mathematical) ⁵	Xmax	6.5	mm
Voice - coil inductance @ 1KHz	Le1K	1.5	mH
Half-space efficiency	Eff	2.94	%

MOUNTING INFORMATION

Overall Diameter	387 / 15.24	mm / inch
Bolt Circle Diameter	371 / 14.61	mm / inch
Bolt Hole Diameter	6.5 / 0.25	mm / inch
Front Mount Baffle Cut-out	352 / 13.86	mm / inch
Rear Mount Baffle Cut-out	360 / 14.17	mm / inch
Depth	169 / 6.65	mm / inch
Volume occupied by the driver ⁶	3.8 / 0.15	liters / ft3

SHIPPING INFORMATION

Net Weight	8.8 / 19.4	Kg / Lbs
Shipping Weight	10.2 / 22.49	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.

MID-BASS

L15P530

Professional Low Frequency Transducer

High power 15" mid-bass. Very high sensitivity, excellent linearity and very low distortion. Very efficient heat dissipation is ensured by a radiator that is part of the basket design. The air is forced in the radiator thanks to a sealed spider design.

PART NUMBER **11165017**

- 3-inch edgewound aluminum voice coil
- 700 Watt continuous program power handling
- 100 dB Sensitivity
- 40 Hz - 3 kHz Frequency range
- Spider dampening treatment
- M-roll surround and exponential cone geometry

APPLICATIONS

A very light moving mass, a curve response linear above 3 kHz makes the L15P530 a very good solution for high quality two or three way systems.

The aluminum voice coil guarantee a very high efficiency in conjunction to a proper Q factor for a good bass response.



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3000

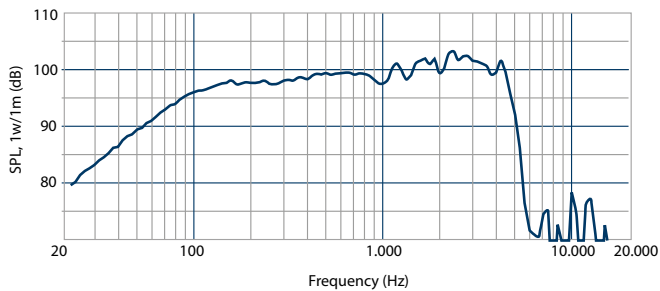
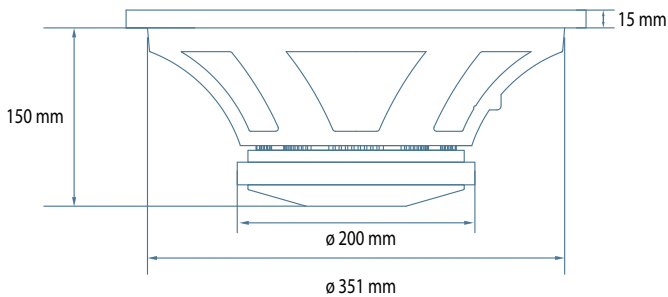
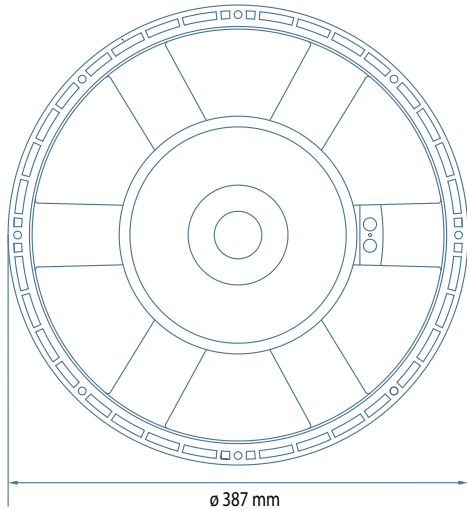
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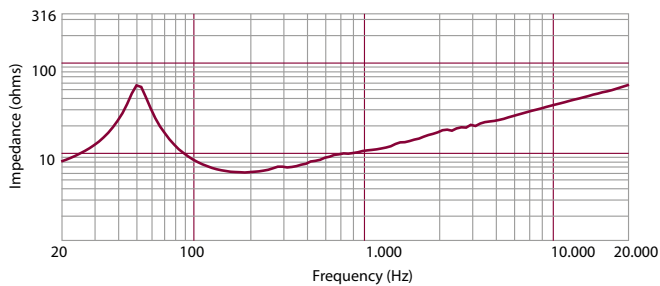
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10.000

20.000



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	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	700	Watt
Power handling capacity ²	350	Watt
Sensitivity ³	100	dB
Frequency Range	40 - 3000	Hz
Effective Piston Diameter	330 / 12.99	mm / inch
Max Excursion Before Damage (peak to peak)	36 / 1.42	mm / inch
Minimum Impedance	5.9	ohm
Voice Coil Diameter	3.0 / 76	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	18 / 0.71	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	10 / 0.39	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	45	Hz
DC resistance	Re	5.1	ohm
Mechanical factor	Qms	7.5	
Electrical factor	Qes	0.51	
Total factor	Qts	0.48	
BL Factor	BL	15.3	T · m
Effective Moving Mass	Mms	83	gr
Equivalent Cas air load	Vas	160	liters
Effective piston area	Sd	0.085	m ²
Max. linear excursion (mathematical) ⁵	Xmax	6.5	mm
Voice - coil inductance @ 1KHz	Le1K	0.4	mH
Half-space efficiency	Eff	2.76	%

MOUNTING INFORMATION

Overall Diameter	387 / 15.24	mm / inch
Bolt Circle Diameter	371 / 14.61	mm / inch
Bolt Hole Diameter	6.5 / 0.25	mm / inch
Front Mount Baffle Cut-out	352 / 13.86	mm / inch
Rear Mount Baffle Cut-out	360 / 14.17	mm / inch
Depth	150 / 5.90	mm / inch
Volume occupied by the driver ⁶	3.8 / 0.15	liters / ft3

SHIPPING INFORMATION

Net Weight	8.7 / 19.18	Kg / Lbs
Shipping Weight	10.2 / 22.49	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.

WOOFER

LF12X401

Professional Low Frequency Transducer

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.

PART NUMBER **11100096**

- 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

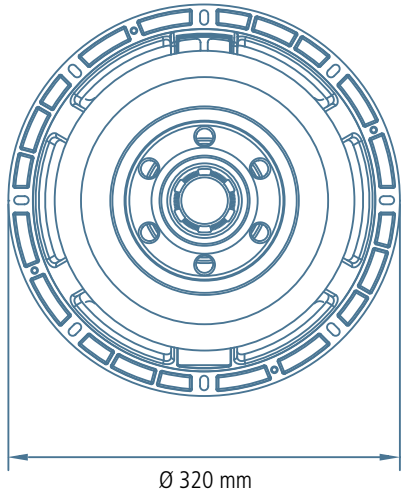
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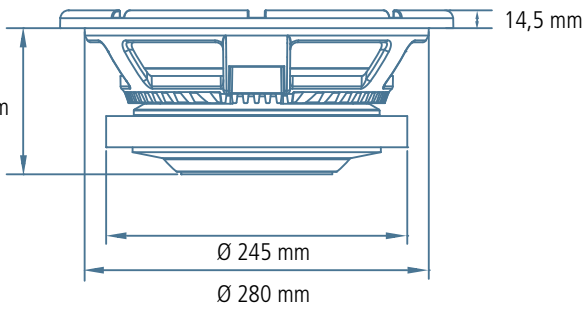
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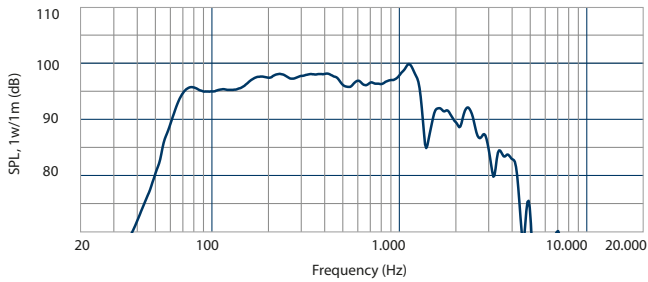
Ø 320 mm



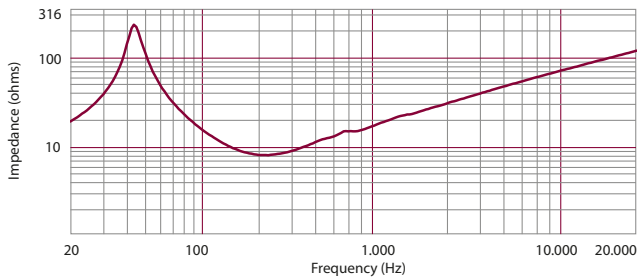
119 mm

Ø 245 mm

Ø 280 mm



Frequency response curve of the loudspeaker made 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	12 / 305	inch / mm
Rated Impedance	8	ohm
Program Power ¹	2000	Watt
Power handling capacity ²	1000	Watt
Sensitivity ³	96.5	dB
Frequency Range	45 - 1500	Hz
Effective Piston Diameter	260 / 10.24	mm / inch
Max Excursion Before Damage (peak to peak)	60 / 2.36	mm / inch
Minimum Impedance	6.5	ohm
Voice Coil Diameter	4.0 / 102	inch / mm
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 / 0.59	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

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
Effective piston area	Sd	0.053	m ²
Max. linear excursion (mathematical) ⁵	Xmax	8.8	mm
Voice - coil inductance @ 1KHz	Le1K	1	mH
Half-space efficiency	Eff	1.5	%

MOUNTING INFORMATION

Overall Diameter	320 / 12.6	mm / inch
Bolt Circle Diameter	293-304 / 11.5-11.9	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 / 11.18	mm / inch
Depth	119 / 4.68	mm / inch
Volume occupied by the driver ⁶	2.9 / 0.11	liters / ft3

SHIPPING INFORMATION

Net Weight	11.37 / 25.07	Kg / Lbs
Shipping Weight	12.3 / 27.12	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.

WOOFER

LF12G301

Professional Low Frequency Transducer

High power 12" woofer. Very good power handling, excellent linearity and very low distortion.
Copper voice coil construction, suspensions and cone materials designed to survive at 450 Watt RMS power.

PART NUMBER **11100016**

- 3-inch, fibreglass inside-outside copper voice coil
- 900 Watt continuous program power handling
- 97 dB Sensitivity
- 40 Hz - 2 kHz Frequency range
- M-roll surround and exponential cone geometry

APPLICATIONS

The excellent linear response, well controlled down to 50 Hertz, makes the LF12G301 especially suitable for band-pass subwoofers and small size bass reflex systems. It is a very good solution for two or three way system when a good BL and punch is required.



40 2000

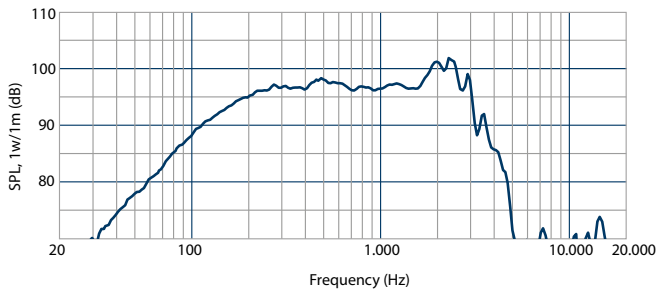
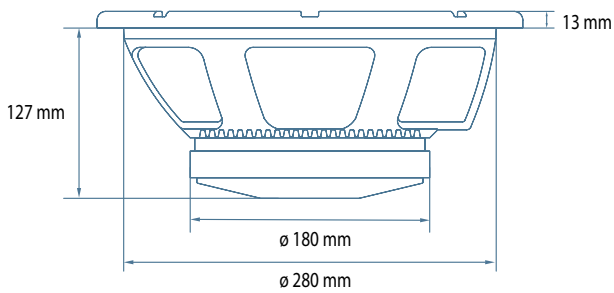
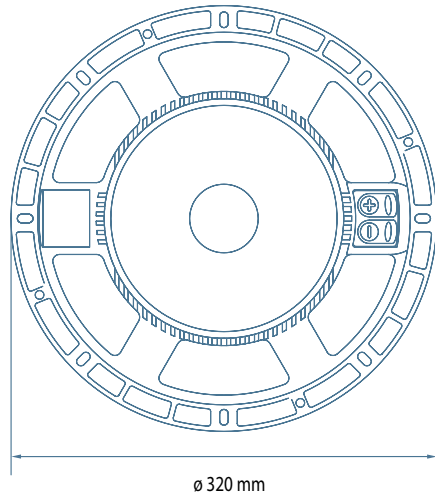
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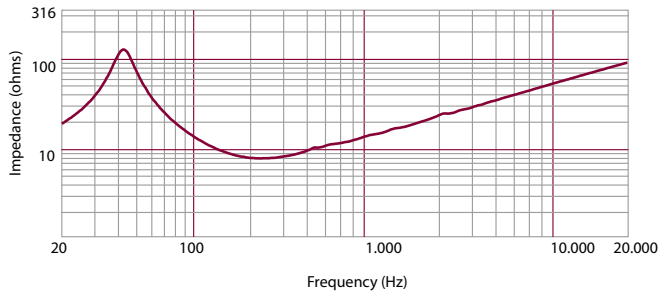
1.000

10.000

20.000



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	12 / 305	inch / mm
Rated Impedance	8	ohm
Program Power ¹	900	Watt
Power handling capacity ²	450	Watt
Sensitivity ³	97	dB
Frequency Range	40 - 2000	Hz
Effective Piston Diameter	260 / 10.24	mm / inch
Max Excursion Before Damage (peak to peak)	36 / 1.42	mm / inch
Minimum Impedance	7.2	ohm
Voice Coil Diameter	3.0 / 76	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	19 / 0.75	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	10 / 0.39	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	43	Hz
DC resistance	Re	5.8	ohm
Mechanical factor	Qms	4.6	
Electrical factor	Qes	0.23	
Total factor	Qts	0.22	
BL Factor	BL	19	T · m
Effective Moving Mass	Mms	56	gr
Equivalent Cas air load	Vas	97	liters
Effettive piston area	Sd	0.053	m ²
Max. linear excursion (mathematical) ⁵	Xmax	6.8	mm
Voice - coil inductance @ 1KHz	Le1K	1.2	mH
Half-space efficiency	Eff	3.23	%

MOUNTING INFORMATION

Overall Diameter	320 / 12.6	mm / inch
Bolt Circle Diameter	293-304 / 11.5-11.9	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 / 11.1	mm / inch
Depth	127 / 5	mm / inch
Volume occupied by the driver ⁶	2.6 / 0.1	liters / ft3

SHIPPING INFORMATION

Net Weight	7 / 15.43	Kg / Lbs
Shipping Weight	8.05 / 17.75	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.

MID-BASS

MB12X351

Professional Low Frequency Transducer

The MB12X351 is designed to provide an excellent frequency response linearity with very low distortion. A very strong ceramic magnetic structure guarantee dynamic and precision, a new and unique 3,5" voice coil design provides a very high power handling, especially recommended in comparison to a standard 3" voice coil. The new dual forced hyper-venting system guarantee a very efficient voice coil ventilation for minimum power compression and incredible power handling.

PART NUMBER **11100100**

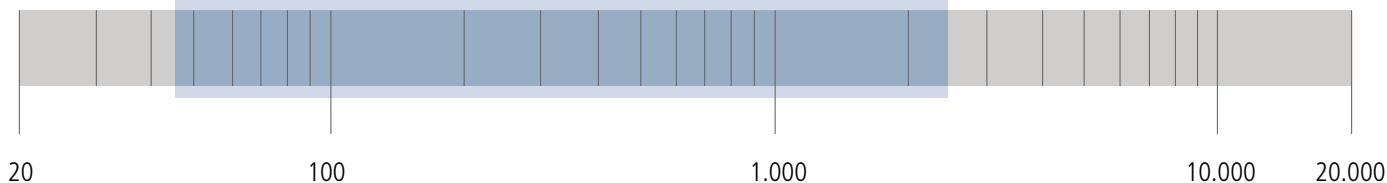
- 3.5 - inch, fibreglass inside-outside copper voice coil
- 1400 Watt continuous program power handling
- 98.5 dB Sensitivity
- 45 Hz – 2.5 kHz Frequency range
- 22.5 T/m BL
- 40 mm peak-to-peak excursion
- Dual-forced hyper-venting and 10mm top plate for minimum power compression
- Dual spider design with silicon based dampening control
- M-roll surround and curved cone geometry

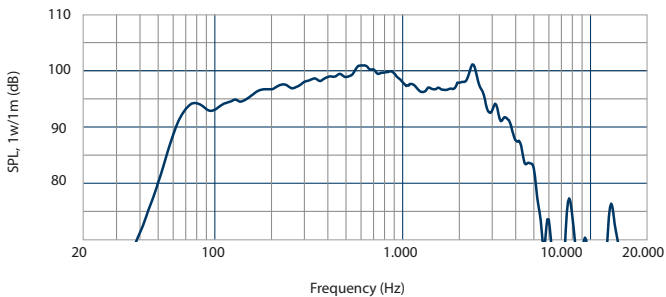
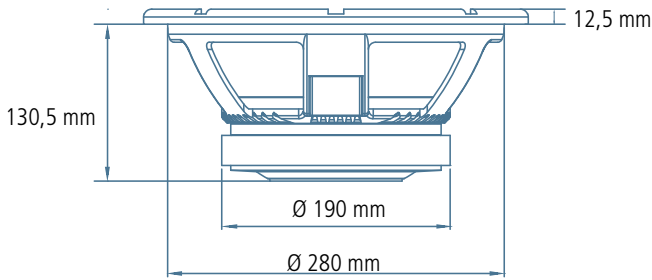
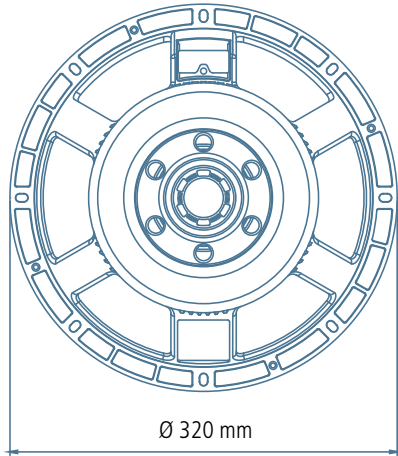
APPLICATIONS

The MB12X351 is ideal for use in applications where is required a very high efficiency and linearity with high power handling. It's especially recommended for high powered two-way or multi-way system.

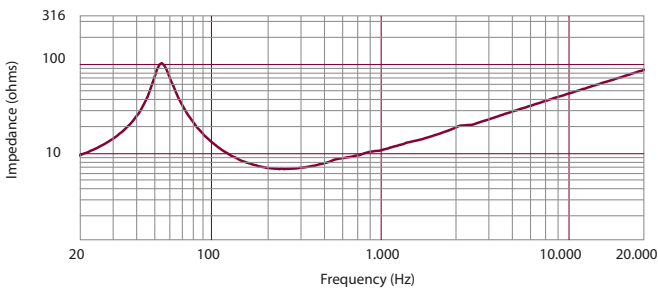


45 2500





Frequency response curve of the loudspeaker made 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	12 / 305	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1400	Watt
Power handling capacity ²	700	Watt
Sensitivity ³	98.5	dB
Frequency Range	45 - 2500	Hz
Effective Piston Diameter	260 / 10.24	mm / inch
Max Excursion Before Damage (peak to peak)	40 / 1.57	mm / inch
Minimum Impedance	7.1	ohm
Voice Coil Diameter	3.5 / 89	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	19 / 0.75	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	10 / 0.39	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	55	Hz
DC resistance	Re	5.4	ohm
Mechanical factor	Qms	5.9	
Electrical factor	Qes	0.27	
Total factor	Qts	0.26	
BL Factor	BL	22.5	T · m
Effective Moving Mass	Mms	72	gr
Equivalent Cas air load	Vas	46	liters
Effective piston area	Sd	0.053	m ²
Max. linear excursion (mathematical) ⁵	Xmax	7.0	mm
Voice - coil inductance @ 1KHz	Le1K	0.9	mH
Half-space efficiency	Eff	3.00	%

MOUNTING INFORMATION

Overall Diameter	320 / 12.6	mm / inch
Bolt Circle Diameter	293-304 / 11.5-11.9	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 / 11.18	mm / inch
Depth	103 / 5.13	mm / inch
Volume occupied by the driver ⁶	2.2 / 0.09	liters / ft3

SHIPPING INFORMATION

Net Weight	7.6 / 16.76	Kg / Lbs
Shipping Weight	8.4 / 18.52	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.

MID-BASS

MB12X301

Professional Low Frequency Transducer

The MB12X301 is designed to provide an excellent frequency response linearity with very low distortion. A strong magnetic structure guarantee dynamic and precision. The new dual forced hyper-venting system guarantee a very efficient voice coil ventilation for minimum power compression and incredible power handling. M-roll surround, exponential cone geometry and spider design offer great linearity and precise reproduction.

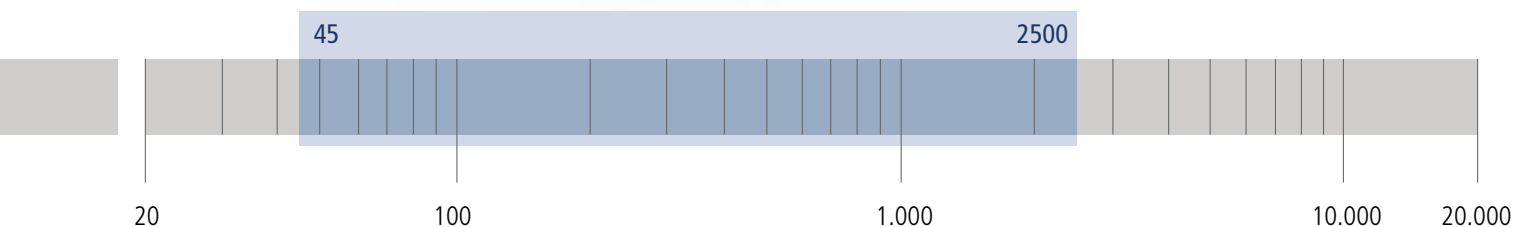
PART NUMBER **11100105**

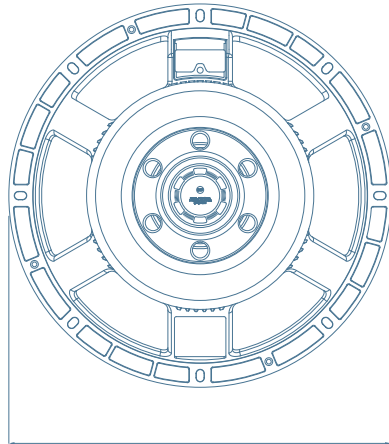
- 3-inch, fibreglass inside/outside copper voice coil
- 1000W continuous program power handling
- 98.0 dB Sensitivity
- 45 Hz – 2.5 kHz Frequency range
- Hypervented for minimum power compression
- M-roll surround and exponential cone geometry

APPLICATIONS

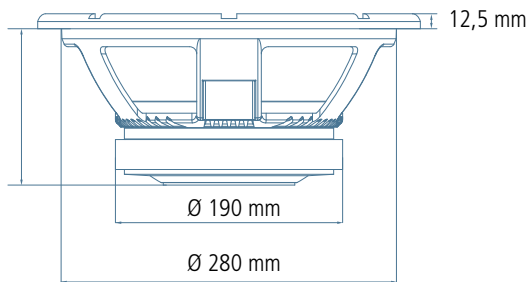
A light moving mass, a curve response linear above 2.5 kHz makes the MB12X301 a very good solution for high quality two way systems.

The 3.0" copper voice coil guarantee a very high power handling and perfect low frequency control.





Ø 320 mm

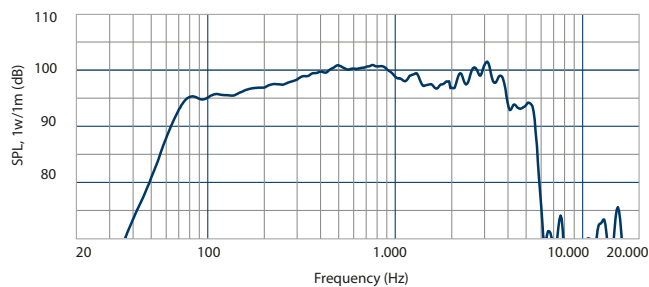


130,5 mm

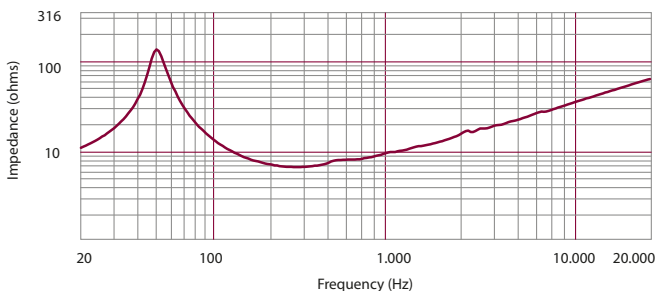
12,5 mm

Ø 190 mm

Ø 280 mm



Frequency response curve of the loudspeaker made 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	12 / 305	inch / mm
Rated Impedance	8	ohm
Program Power ¹	1000	Watt
Power handling capacity ²	500	Watt
Sensitivity ³	98	dB
Frequency Range	45 - 2500	Hz
Effective Piston Diameter	260 / 10.24	mm / inch
Max Excursion Before Damage (peak to peak)	39 / 1.54	mm / inch
Minimum Impedance	6.7	ohm
Voice Coil Diameter	3.0 / 76	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	17 / 0.67	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	10 / 0.39	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	50	Hz
DC resistance	Re	5.4	ohm
Mechanical factor	Qms	9	
Electrical factor	Qes	0.30	
Total factor	Qts	0.29	
BL Factor	BL	18	T · m
Effective Moving Mass	Mms	57	gr
Equivalent Cas air load	Vas	70	liters
Effective piston area	Sd	0.053	m ²
Max. linear excursion (mathematical) ⁵	Xmax	6.0	mm
Voice - coil inductance @ 1KHz	Le1K	0.6	mH
Half-space efficiency	Eff	2.80	%

MOUNTING INFORMATION

Overall Diameter	320 / 12.6	mm / inch
Bolt Circle Diameter	293-304 / 11.5-11.9	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 / 11.18	mm / inch
Depth	130 / 5.13	mm / inch
Volume occupied by the driver ⁶	2.2 / 0.09	liters / ft3

SHIPPING INFORMATION

Net Weight	7.57 / 16.69	Kg / Lbs
Shipping Weight	8.51 / 18.76	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.

MID-BASS

MB12G301

Professional Low Frequency Transducer

High efficiency 12" mid-bass. Very high sensitivity, excellent linearity and very low distortion. Voice coil construction, suspensions and cone materials designed to survive at 400 Watt RMS power.

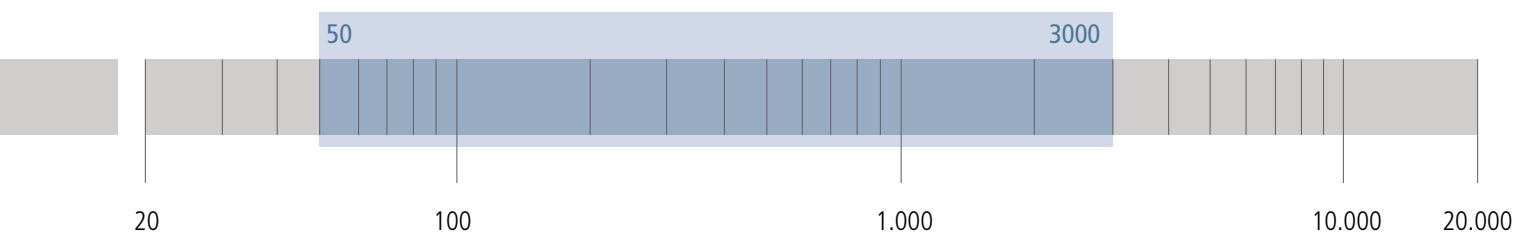
PART NUMBER **11100017**

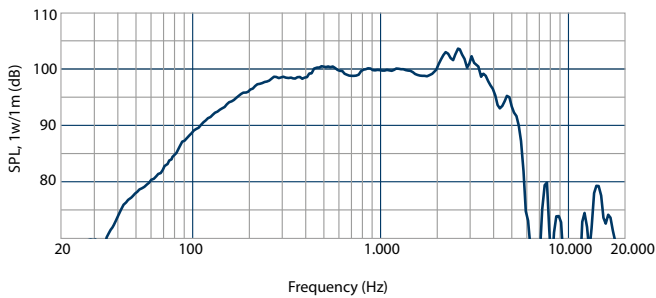
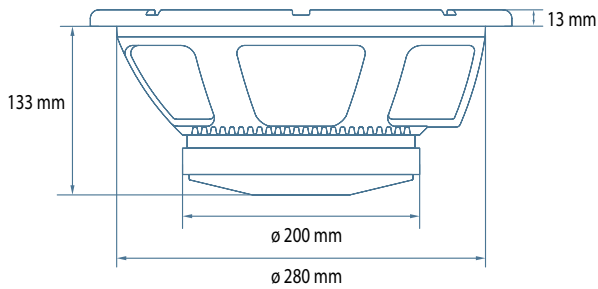
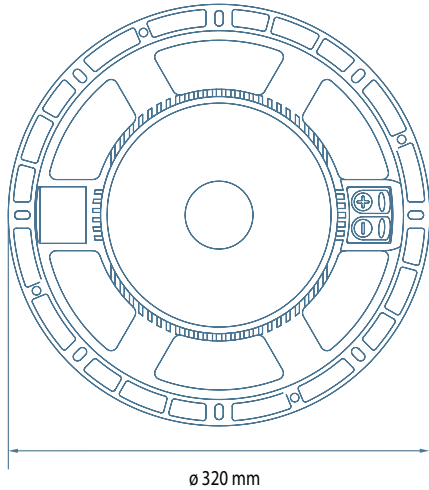
- 3-inch inside-outside aluminum voice coil
- 800 Watt continuous program power handling
- 98 dB Sensitivity
- 50 Hz - 3 kHz Frequency range
- M-roll surround and exponential cone geometry

APPLICATIONS

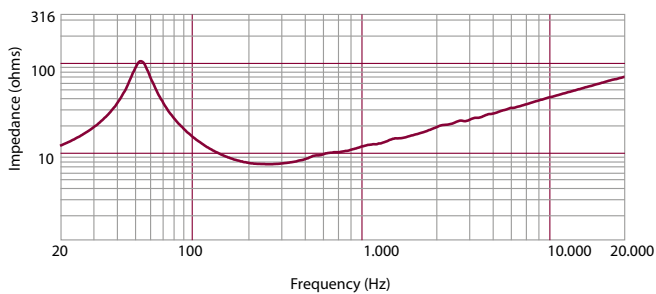
A very light moving mass, a curve response linear above 3 kHz makes the MB12G301 a very good solution for high quality two or three way system.

The aluminum voice coil guarantee a very high efficiency in conjunction to a proper Q factor for a good bass response.





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	12 / 305	inch / mm
Rated Impedance	8	ohm
Program Power ¹	800	Watt
Power handling capacity ²	400	Watt
Sensitivity ³	98	dB
Frequency Range	50 - 3000	Hz
Effective Piston Diameter	260 / 10.24	mm / inch
Max Excursion Before Damage (peak to peak)	38 / 1.5	mm / inch
Minimum Impedance	7.2	ohm
Voice Coil Diameter	3.0 / 76	inch / mm
Voice Coil Material	Aluminium	
Voice Coil Winding Depth	16 / 0.63	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	4 / 0.16	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	53	Hz
DC resistance	Re	5.4	ohm
Mechanical factor	Qms	4.7	
Electrical factor	Qes	0.28	
Total factor	Qts	0.27	
BL Factor	BL	17	T · m
Effective Moving Mass	Mms	48	gr
Equivalent Cas air load	Vas	72	liters
Effective piston area	Sd	0.053	m ²
Max. linear excursion (mathematical) ⁵	Xmax	5.5	mm
Voice - coil inductance @ 1KHz	Le1K	0.7	mH
Half-space efficiency	Eff	3.69	%

MOUNTING INFORMATION

Overall Diameter	320 / 12.6	mm / inch
Bolt Circle Diameter	294-304 / 11.5-11.9	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 / 11.18	mm / inch
Depth	133 / 5.23	mm / inch
Volume occupied by the driver ⁶	2.6 / 0.1	liters / ft3

SHIPPING INFORMATION

Net Weight	7 / 15.43	Kg / Lbs
Shipping Weight	8 / 17.64	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.

MID-BASS

L10-750YK

Professional Low Frequency Transducer

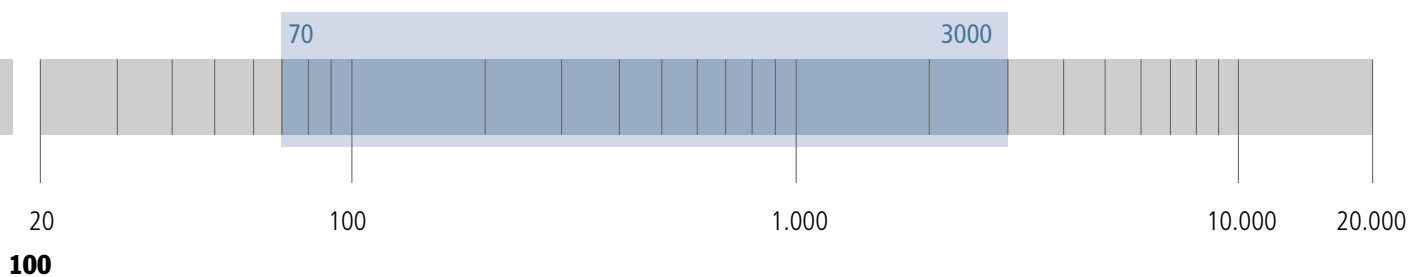
The L10/750YK is a professional mid-bass woofer featuring very high output and dynamics. The mobile equipment, used a 3" coil, fibreglass former and copper wire winding, has enabled considerable improvement in transient peak response and has allowed good extension on mid-high frequencies. A specially designed M-roll surround guarantee a very low midrange distortion and perfect damping of the spurious resonances.

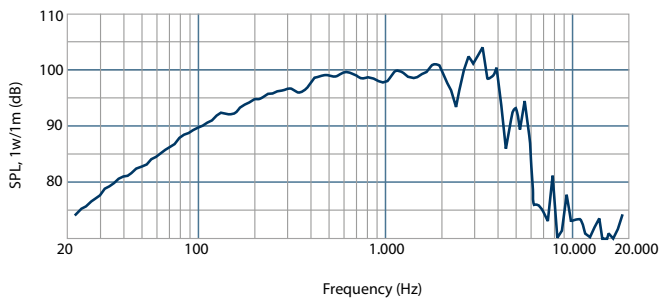
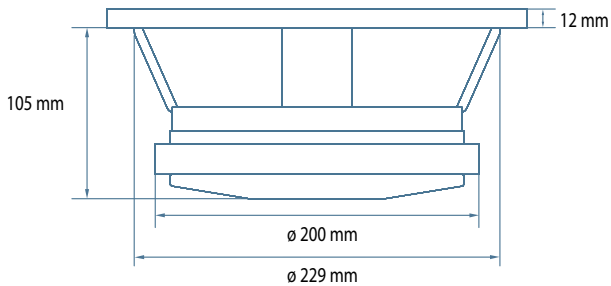
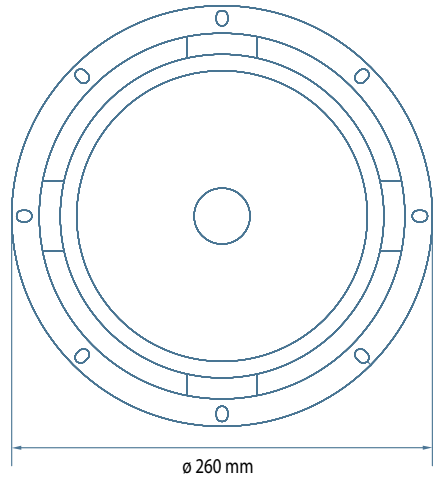
PART NUMBER **11130015**

- 3-inch, fibreglass inside-outside copper voice coil
- 700 Watt continuous program power handling
- 100 dB Sensitivity
- 70 Hz - 3 kHz Frequency range
- Shaped M-roll damped surround

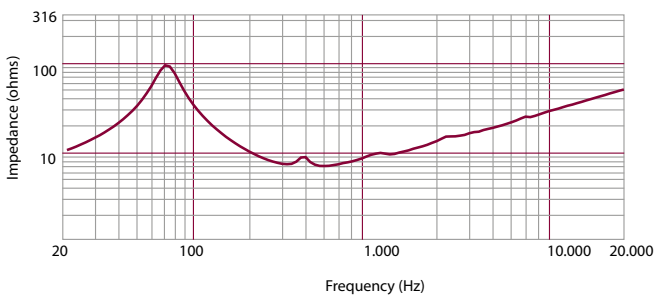
APPLICATIONS

The L10/750YK is primary designed to be horn loaded in medium and long throw systems. When mounted in compact size bass reflex enclosures, the good combination of short voice coil, very low mass and suspensions control makes the L10/750YK a very good choice for high power, 2 way, satellite applications.





Frequency response curve of the loudspeaker made 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	10 / 254	inch / mm
Rated Impedance	8	ohm
Program Power ¹	700	Watt
Power handling capacity ²	350	Watt
Sensitivity ³	100	dB
Frequency Range	70 - 3000	Hz
Effective Piston Diameter	210 / 8.27	mm / inch
Max Excursion Before Damage (peak to peak)	40 / 1.57	mm / inch
Minimum Impedance	6.7	ohm
Voice Coil Diameter	3.0 / 76	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	9 / 0.35	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	9 / 0.35	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	68	Hz
DC resistance	Re	5.1	ohm
Mechanical factor	Qms	4.2	
Electrical factor	Qes	0.25	
Total factor	Qts	0.24	
BL Factor	BL	17.5	T · m
Effective Moving Mass	Mms	36	gr
Equivalent Cas air load	Vas	26	liters
Effettive piston area	Sd	0.035	m ²
Max. linear excursion (mathematical) ⁵	Xmax	2.5	mm
Voice - coil inductance @ 1KHz	Le1K	0.5	mH
Half-space efficiency	Eff	3.15	%

MOUNTING INFORMATION

Overall Diameter	260 / 10.24	mm / inch
Bolt Circle Diameter	242-247 / 9.53-9.72	mm / inch
Bolt Hole Diameter	5.5 / 0.2	mm / inch
Front Mount Baffle Cut-out	230 / 9.06	mm / inch
Rear Mount Baffle Cut-out	229 / 9.02	mm / inch
Depth	105 / 4.13	mm / inch
Volume occupied by the driver ⁶	1.2 / 0.05	liters / ft3

SHIPPING INFORMATION

Net Weight	7 / 15.43	Kg / Lbs
Shipping Weight	7.9 / 17.42	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.

MID-BASS

MB10G251

Professional Low Frequency Transducer

The MB10G251 is designed to provide an excellent frequency response linearity with very low distortion. A strong magnetic structure guarantee dynamic and precision. M-roll surround and spider design offer great linearity and precise reproduction.

PART NUMBER **11100110**

- 2.5-inch, fibreglass former, aluminium voice coil
- 600 W continuous program power handling
- 98.5 dB Sensitivity
- 55 Hz – 3.0 kHz Frequency range
- M-roll surround and exponential cone geometry

APPLICATIONS

A very light moving mass, a curve response linear above 3 kHz makes the MB10G251 a very good solution for high quality two way systems.

The 2.5" aluminium voice coil guarantee a very high power handling and perfect low frequency control.



55

3000

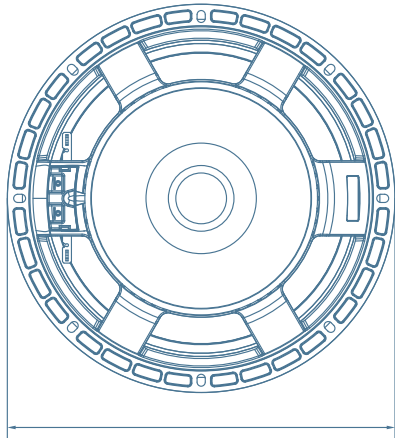
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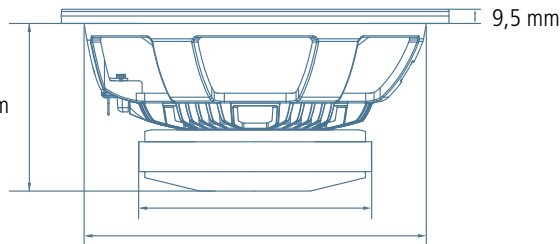
1.000

10.000

20.000



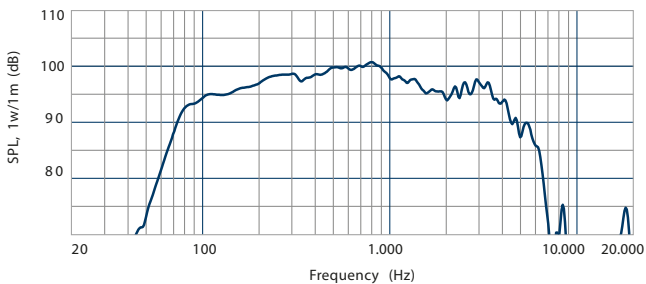
Ø 260 mm



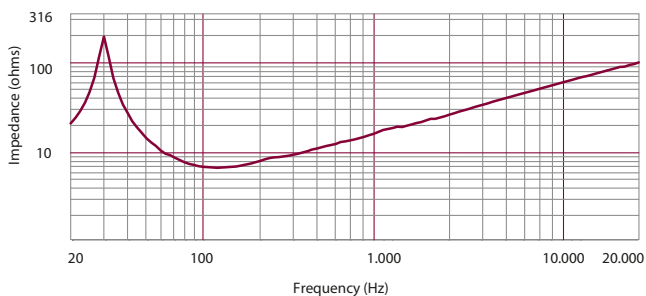
113 mm

9,5 mm

Ø 229,5 mm



Frequency response curve of the loudspeaker made 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	10 / 254	inch / mm
Rated Impedance	8	ohm
Program Power ¹	600	Watt
Power handling capacity ²	300	Watt
Sensitivity ³	98.5	dB
Frequency Range	55 - 3000	Hz
Effective Piston Diameter	210 / 8.27	mm / inch
Max Excursion Before Damage (peak to peak)	40 / 1.57	mm / inch
Minimum Impedance	6.4	ohm
Voice Coil Diameter	2.5 / 63	inch / mm
Voice Coil Material	Aluminium	
Voice Coil Winding Depth	18 / 0.71	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	8 / 0.31	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	76	Hz
DC resistance	Re	5.2	ohm
Mechanical factor	Qms	8	
Electrical factor	Qes	0.35	
Total factor	Qts	0.34	
BL Factor	BL	14.9	T · m
Effective Moving Mass	Mms	32.5	gr
Equivalent Cas air load	Vas	24	liters
Effective piston area	Sd	0.035	m ²
Max. linear excursion (mathematical) ⁵	Xmax	7.0	mm
Voice - coil inductance @ 1KHz	Le1K	0.5	mH
Half-space efficiency	Eff	2.71	%

MOUNTING INFORMATION

Overall Diameter	260 / 10.24	mm / inch
Bolt Circle Diameter	241-246 / 9.49-9.69	mm / inch
Bolt Hole Diameter	5.5 / 0.2	mm / inch
Front Mount Baffle Cut-out	232 / 9.13	mm / inch
Rear Mount Baffle Cut-out	232 / 9.13	mm / inch
Depth	113 / 4.45	mm / inch
Volume occupied by the driver ⁶	1.2 / 0.05	liters / ft3

SHIPPING INFORMATION

Net Weight	5 / 11.02	Kg / Lbs
Shipping Weight	5.5 / 12.13	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.

MID-BASS

L10-568H

Professional Low Frequency Transducer

High efficiency 10" mid-bass. Very high sensitivity, excellent linearity. A copper ring helps reducing distortion and smoothing the response up to 3 kHz. Voice coil construction, suspensions and cone materials designed to survive at 350 Watt RMS power.

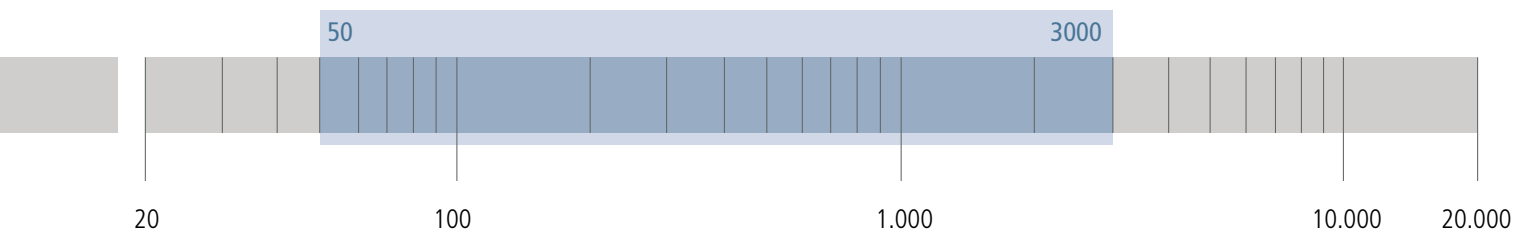
PART NUMBER **11130023**

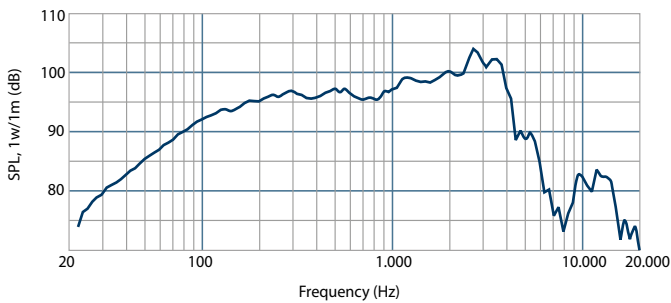
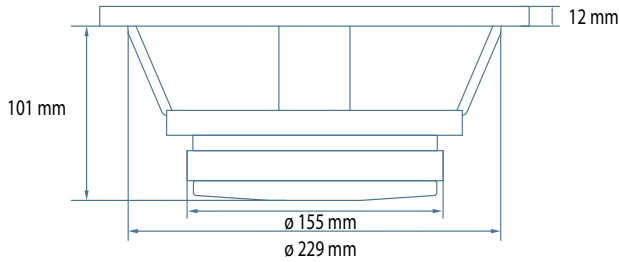
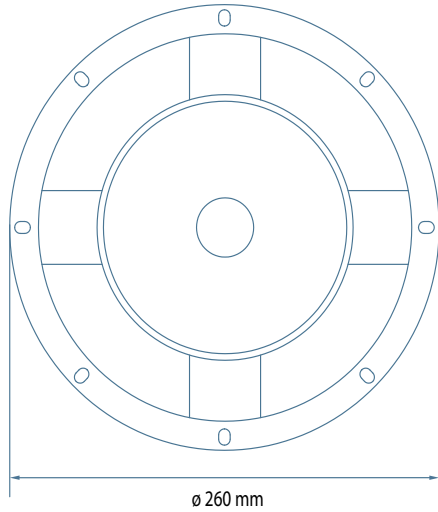
- 2-inch inside-outside aluminum voice coil
- 400 Watt continuous program power handling
- 97.5 dB Sensitivity
- 50 Hz - 3 kHz Frequency range
- M-roll surround and exponential cone geometry
- Copper ring

APPLICATIONS

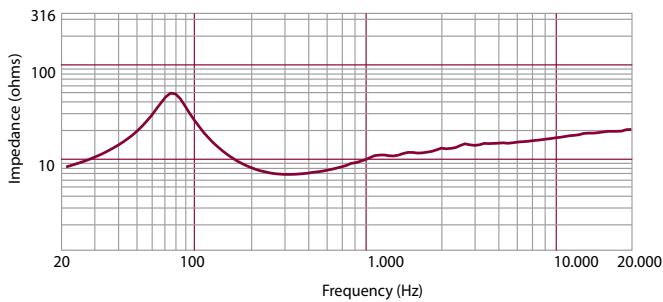
A very light moving mass, a curve response linear above 3 kHz makes the L10/568H a very good solution for high quality two way systems.

The 2" copper voice coil guarantee a very high power handling and perfect low frequency control.





Frequency response curve of the loudspeaker made 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	10 / 254	inch / mm
Rated Impedance	8	ohm
Program Power ¹	400	Watt
Power handling capacity ²	200	Watt
Sensitivity ³	97.5	dB
Frequency Range	50 - 3000	Hz
Effective Piston Diameter	210 / 8.27	mm / inch
Max Excursion Before Damage (peak to peak)	40 / 1.57	mm / inch
Minimum Impedance	6.6	ohm
Voice Coil Diameter	2.0 / 51	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	13 / 0.51	mm / inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	9 / 0.35	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Magnets Material	Ceramic	

THIELE - SMALL PARAMETERS ⁴

Resonance frequency	Fs	70	Hz
DC resistance	Re	5.1	ohm
Mechanical factor	Qms	6	
Electrical factor	Qes	0.41	
Total factor	Qts	0.38	
BL Factor	BL	12.8	T · m
Effective Moving Mass	Mms	30	gr
Equivalent Cas air load	Vas	29.4	liters
Effective piston area	Sd	0.035	m ²
Max. linear excursion (mathematical) ⁵	Xmax	4.3	mm
Voice - coil inductance @ 1KHz	Le1K	0.14	mH
Half-space efficiency	Eff	2.37	%

MOUNTING INFORMATION

Overall Diameter	260 / 10.24	mm / inch
Bolt Circle Diameter	242-247 / 9.53-9.72	mm / inch
Bolt Hole Diameter	7 / 0.28	mm / inch
Front Mount Baffle Cut-out	230 / 9.06	mm / inch
Rear Mount Baffle Cut-out	229 / 9.02	mm / inch
Depth	101 / 3.97	mm / inch
Volume occupied by the driver ⁶	1.1 / 0.04	liters / ft3

SHIPPING INFORMATION

Net Weight	5 / 11.02	Kg / Lbs
Shipping Weight	5.5 / 12.13	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.

HIGH FREQUENCY NEODYMIUM TRANSDUCERS

Every detail is under our control, from titanium forming and voice coil winding to phase plugs machining and final assembly. Lightweight and powerful, our neodymium drivers are a reference in performance and reliability.

DIRECT DRIVE VOICE COIL ASSEMBLIES

The top of the former is bent and bonded directly to the edge of the titanium diaphragm resulting in a Direct Drive configuration. Direct Drive guarantees optimal transfer of energy between the voice coil and the dome assembly, providing smoother, extended frequency response beyond 10 KHz, reducing break up modes and lowering distortion. This assembly delivers high power handling along with excellent mechanical and thermal properties that make RCF neodymium compression drivers robust and reliable.

DIAPHRAGM ASSEMBLIES

Diaphragms and suspensions are precision formed from ultra thin pure titanium. Suspensions are based on an innovative design using progressive parabolic semi circles. The sections of the suspension offer a consistent suspension modulus with a variable, altering profile. This drastically reduces distortion eliminating resonance points and assists in controlling suspension break-up modes. The rear magnetic plate where the diaphragm assembly is located, possesses specially designed CNC machined ventilation slots that eliminate standing waves, turbulence and distortion created by the movement of the suspension. At the point where the titanium suspension is bonded to the assembly ring, a special dampening adhesive has been applied in order to further reduce and eliminate distortion creating resonances. The diaphragm assembly has been designed with easy field service in mind as it can be removed and replaced within minutes.

NEODYMIUM MAGNETIC CIRCUITS

Neodymium magnetic circuit designs provide even higher magnetic field strength in the voice coil gap than standard ceramic assemblies while dramatically lowering the overall weight of the device. Neodymium rare earth material also provides higher levels of force (BL) that increase control of the dome assembly's moving mass. This leads to higher efficiency, better transient response and diminishes high frequency distortion modes. A thin copper ring is precision pressed on to the pole piece in order to modify and lower the inductance characteristics of the magnetic circuit and voice coil providing a controlled extension of the acoustic frequency response. RCF has provided cooling fins on the rear of the aluminum diaphragm assembly cover that creates a heat dissipating surface area for the driver's magnetic circuit. This assists in lowering circuit temperature, improving the driver's power compression characteristics and increasing output. Specific attention has been paid to magnetic circuit polarization for optimum thermal immunity.

DRIVER

ND950 2.0

Professional High Frequency Transducer

PART NUMBER **15129040**

The ND950 2.0 is a ultra compact size, high performance, high power handling 4.0-inch diaphragm compression driver with a 2.0 inch exit throat. The high power neodymium magnet guarantee the perfect control of the dome assembly's moving mass. This leads to higher efficiency, better transient response and diminishes high frequency distortion modes. A thin copper ring is precision pressed on to the pole piece in order to modify and lower the inductance characteristics of the magnetic circuit and voice coil providing a controlled extension of the acoustic frequency response. The ND950 2.0 features a .05 mm thick pure titanium in combination with low distortion Kapton suspension. The voice coil assembly is designed using a high strength, high temperature Kapton® voice coil former and edge wound copper clad aluminium wire. The ND950 2.0 features a 4-slot, optimised geometry, phase plug design. Extended computer assisted mathematical modelling and testing has resulted in a geometry that provides a balanced acoustic performance controlling and lowering air distortion and maximizing output.

- 4.0 inch, Kapton former, edge wound aluminium voice coil
- 280 Watt continuous program power handling
- 2.0" throat
- 110 dB Sensitivity
- 500 Hz –20 KHz Frequency range
- Titanium dome, Polyimide surround
- 4 slot phase plug
- The minimum size 4" driver available

APPLICATIONS

With a wide frequency response range (500 Hz – 20.000 Hz) and 280 Watt power handling, the ND950 2.0 is the ideal driver for heavy duty professional applications.

GENERAL SPECIFICATIONS

Exit Throat Diameter	2.0 / 51	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 0.8 kHz	280	Watt
AES above 0.8 kHz	140	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	110	dB
Frequency Range ³	500 - 20000	Hz
Diaphragm Material	Pure Titanium	
Suspension Material	Polyimide	
Suspension Design	Flat	
Minimum Impedance	8.5 ohm at 3500 Hz	
Voice Coil Diameter	4.0 / 102	inch / mm
Voice Coil Material	Edgewound Aluminum	
Voice Coil Former Design	Direct Drive Kapton	
Number of layers	1 - Outside	
BL Factor	17.6	T · m
Flux Density	2.05	T
Phase Plug Design	4 slot	
Phase Plug Material	Aluminum	
Magnetics	Neodymium	
Voice Coil Demodulation Ring	Copper	

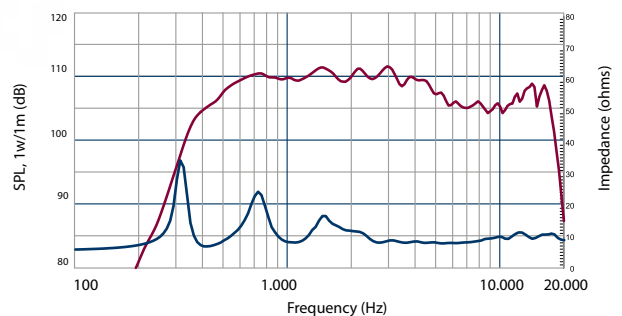
MOUNTING INFORMATION

Overall Diameter	146 / 5.75	mm / inch
Overall Height	97 / 3.82	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	101.6 / 4.0	mm / inch
Net Weight	3.82 / 8.42	kg / Lbs
Shipping Weight	4.02 / 8.86	kg / Lbs

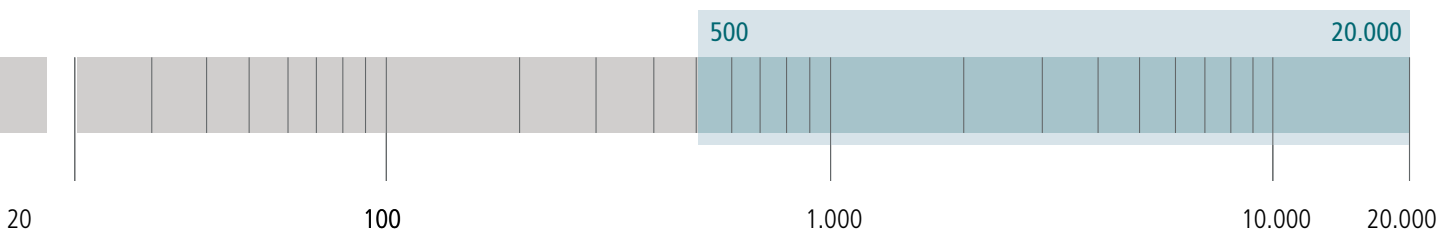


NOTES TO SPECIFICATIONS

1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

ND950 1.4

Professional High Frequency Transducer

PART NUMBER **15129038**

The ND950 1.4 is a ultra compact size, high performance, high power handling 4.0-inch diaphragm compression driver with a 1.4 inch exit throat. The high power neodymium magnet guarantee the perfect control of the dome assembly's moving mass. This leads to higher efficiency, better transient response and diminishes high frequency distortion modes. A thin copper ring is precision pressed on to the pole piece in order to modify and lower the inductance characteristics of the magnetic circuit and voice coil providing a controlled extension of the acoustic frequency response. The ND950 1.4 features a 0.05 mm thick pure titanium dome in combination with low distortion Kapton suspension. The voice coil assembly is designed using a high strength, high temperature Kapton® voice coil former and edge wound copper clad aluminium wire. The ND950 1.4 features a 4-slot, optimised geometry, phase plug design. Extended computer assisted mathematical modelling and testing has resulted in a geometry that provides a balanced acoustic performance controlling and lowering air distortion and maximizing output.

- 4.0 inch, Kapton former, edge wound aluminium voice coil
- 1.4" throat
- 280 Watt continuous program power handling
- 110 dB Sensitivity
- 500 Hz –20 KHz Frequency range
- Titanium dome, Polyimide surround
- 4 slot phase plug
- The minimum size 4" driver available

APPLICATIONS

With a wide frequency response range (500 Hz – 20.000 Hz) and 280 Watt power handling, the ND950 1.4 is the ideal driver for heavy duty professional applications.



NOTES TO SPECIFICATIONS

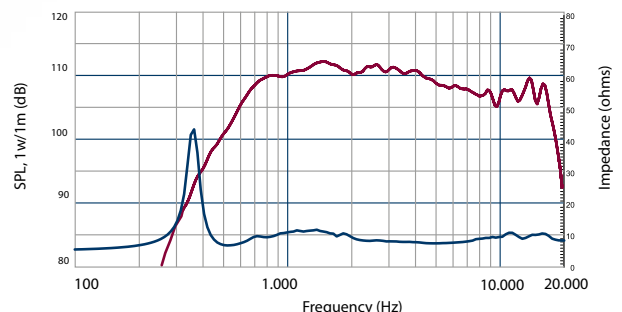
1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

GENERAL SPECIFICATIONS

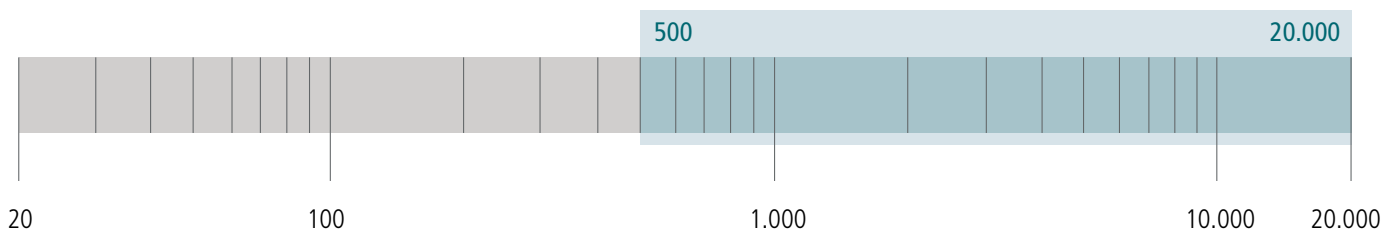
Exit Throat Diameter	1.4 / 36	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 0.8 kHz	280	Watt
AES above 0.8 kHz	140	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	110	dB
Frequency Range ³	500 - 20000	Hz
Diaphragm Material	Pure Titanium	
Suspension Material	Polyimide	
Suspension Design	Flat	
Minimum Impedance	8.5 ohm at 3500 Hz	
Voice Coil Diameter	4.0 / 102	inch / mm
Voice Coil Material	Edgewound Aluminum	
Voice Coil Former Design	Direct Drive Kapton	
Number of layers	1 - inside/outside	
BL Factor	17.6	T · m
Flux Density	2.05	T
Phase Plug Design	4 slot	
Phase Plug Material	Aluminum	
Magnetics	Neodymium	
Voice Coil Demodulation Ring	Copper	

MOUNTING INFORMATION

Overall Diameter	146 / 5.75	mm / inch
Overall Height	60 / 2.36	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	101.6 / 4.0	mm / inch
Net Weight	3.5 / 7.72	kg / Lbs
Shipping Weight	3.7 / 8.16	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

ND940

Professional High Frequency Transducer

PART NUMBER **15129053**

The ND940 is a ultra compact size, high performance, high power handling 4.0-inch diaphragm compression driver with a 1.4 inch exit throat. A thin copper ring is precision pressed on to the pole piece in order to modify and lower the inductance characteristics of the magnetic circuit and voice coil providing a controlled extension of the acoustic frequency response. The voice coil assembly is designed using a high strength, high temperature Kapton® voice coil former and edge wound copper clad aluminium wire directly joined to the diaphragm by RCF proprietary Direct Drive kapton technology. The ND940 features a 4-slot, optimised geometry, phase plug design. Extended computer assisted mathematical modelling and testing has resulted in a geometry that provides a balanced acoustic performance controlling and lowering air distortion and maximizing output.

- 4.0 inch, Kapton former, edge wound aluminium voice coil
- 1.4" throat
- 280 Watt continuous program power handling
- 110 dB Sensitivity
- 500 Hz –20 KHz Frequency range
- Titanium dome, Polyimide surround
- 4 slot phase plug
- The minimum size 4" driver available

APPLICATIONS

With a wide frequency response range (500 Hz – 20.000 Hz) and 280 Watt power handling, the ND940 is the ideal driver for heavy duty professional applications.



NOTES TO SPECIFICATIONS

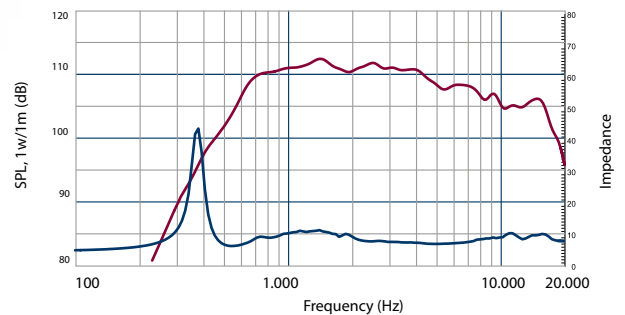
1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

GENERAL SPECIFICATIONS

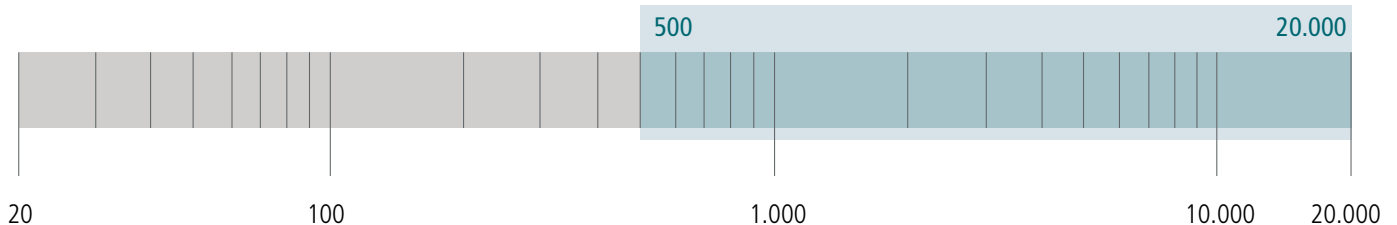
Exit Throat Diameter	1.4 / 36	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 0.8 kHz	280	Watt
AES above 0.8 kHz	140	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	110	dB
Frequency Range ³	500 - 20000	Hz
Diaphragm Material	Pure Titanium	
Suspension Material	Polyimide	
Suspension Design	Flat	
Minimum Impedance	8.5 ohm at 3500 Hz	
Voice Coil Diameter	4.0 / 102	inch / mm
Voice Coil Material	Edgewound Aluminum	
Voice Coil Former Design	Direct Drive Kapton	
Number of layers	1 - Outside	
BL Factor	17.6	T · m
Flux Density	1.9	T
Phase Plug Design	4 slot	
Phase Plug Material	Aluminum	
Magnetics	Neodymium	
Voice Coil Demodulation Ring	Copper	

MOUNTING INFORMATION

Overall Diameter	146 / 5.75	mm / inch
Overall Height	60 / 2.36	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	101.6 / 4.0	mm / inch
Net Weight	3.3 / 7.28	kg / Lbs
Shipping Weight	3.3 / 7.28	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

ND850 2.0

Professional High Frequency Transducer

The ND850 2.0 is a high performance 3.0-inch diaphragm compression driver with a 2 inch exit throat featuring several state of the art technologies. The diaphragm are precision formed from pure titanium. The suspension is based on a vented and damped design in order to provide low distortion. Voice coil assembly is designed using high temperature kapton former.

PART NUMBER **15129037**

- 3-inch Diaphragm, 2-inch Exit Throat/ Pure Titanium Compression Driver
- 220 watt Continuous program power handling
- Frequency range: 500 Hz - 20 kHz
- 3-slot, optimized geometry phase plug
- Titanium diaphragm
- Copper inductance ring for extended response
- Vented, damped, low distortion suspension System
- Neodymium magnet assembly
- The minimum size 4" driver available

APPLICATIONS

The ND850 2.0 is the ideal driver for professional high performance applications, from high power 2-way systems to multiple-way long throw systems. Very good linearity and efficiency in combination with RCF H6040 horn.

GENERAL SPECIFICATIONS

Exit Throat Diameter	2.0 / 51	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.2 kHz	220	Watt
AES above 1.0 kHz	110	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	109	dB
Frequency Range ³	500 - 20000	Hz
Diaphragm Material	Pure Titanium	
Suspension Material	Polyester	
Suspension Design	Flat	
Minimum Impedance	8.5 ohm at 3500 Hz	
Voice Coil Diameter	3.0 / 76	inch / mm
Voice Coil Material	Edgewound Aluminum	
Voice Coil Former Design	Straight - Kapton	
Number of layers	1 - outside	
BL Factor	13.00	T · m
Flux Density	2.05	T
Phase Plug Design	3 slot	
Phase Plug Material	Aluminum	
Magnetics	Neodymium	
Voice Coil Demodulation Ring	Copper	

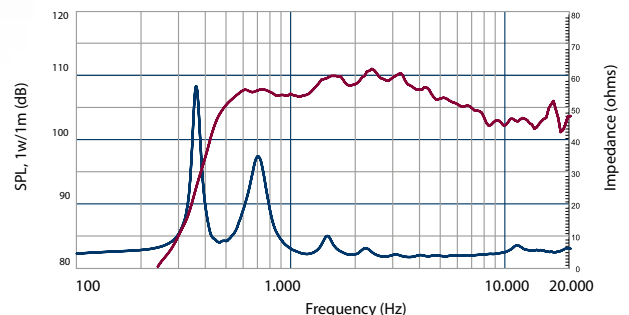
MOUNTING INFORMATION

Overall Diameter	131 / 5.16	mm / inch
Overall Height	88 / 3.46	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	101.6 / 4.0	mm / inch
Net Weight	2.74 / 6.04	kg / Lbs
Shipping Weight	2.95 / 6.5	kg / Lbs

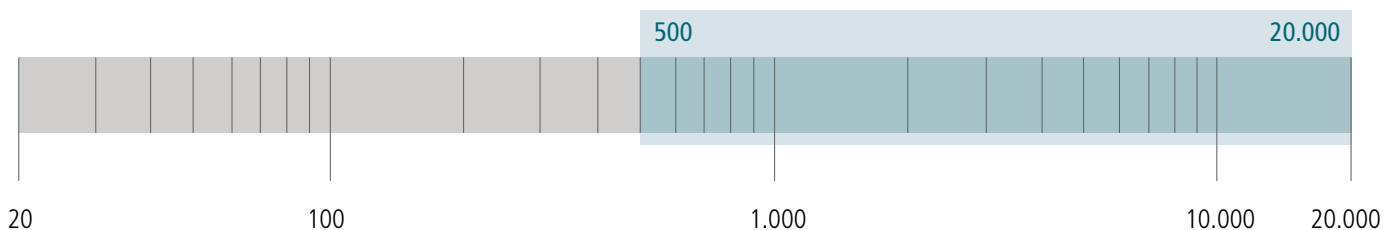


NOTES TO SPECIFICATIONS

1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

ND850 1.4

Professional High Frequency Transducer

PART NUMBER (8 Ohm) **15129022**
 PART NUMBER (16 Ohm) **15129039**

The ND850 is a high performance 3.0-inch diaphragm compression driver with a 1.4 inch exit throat featuring several state of the art technologies. The diaphragm are precision formed from pure titanium. The suspension is based on a vented and damped design in order to provide low distortion. Voice coil assembly is designed using high temperature kapton former.

- 3-inch Diaphragm, 1.4-inch Exit Throat/ Pure Titanium Compression Driver
- 220 watt Continuous program power handling
- Frequency range: 500 Hz - 20 kHz
- 3-slot, optimized geometry phase plug
- Titanium diaphragm
- Copper inductance ring for extended response
- Vented, damped, low distortion suspension System
- Neodymium magnet assembly

APPLICATIONS

The ND850 is the ideal driver for professional high performance applications, from high power 2-way systems to multiple-way long throw systems and large format line arrays. Very good linearity and efficiency in combination with RCF HF94 and HF64 horns.



NOTES TO SPECIFICATIONS

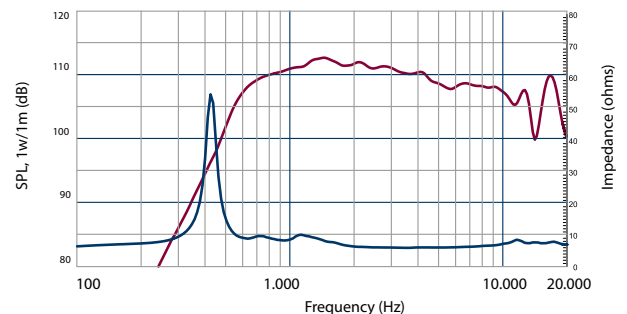
1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

GENERAL SPECIFICATIONS

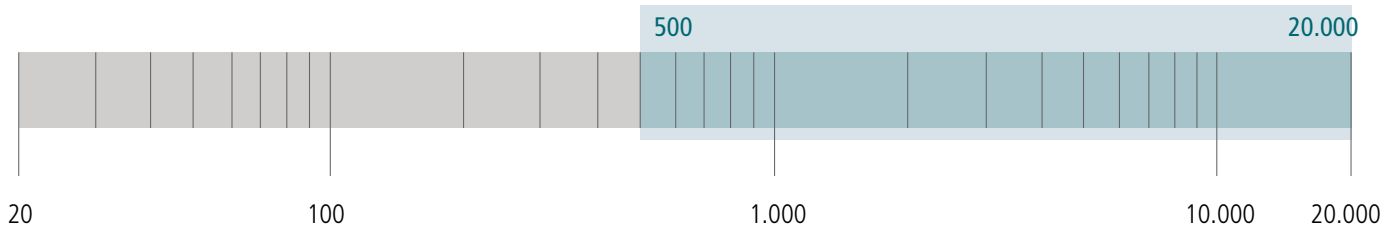
Exit Throat Diameter	1.4 / 36	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.2 kHz	220	Watt
AES above 1.0 kHz	110	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	109	dB
Frequency Range ³	500 - 20000	Hz
Diaphragm Material	Pure Titanium	
Suspension Material	Polyester	
Suspension Design	Flat	
Minimum Impedance	8.5 ohm at 3500 Hz	
Voice Coil Diameter	3.0 / 76	inch / mm
Voice Coil Material	Edgewound Aluminum	
Voice Coil Former Design	Straight - Kapton	
Number of layers	1 - Outside	
BL Factor	13.00	T · m
Flux Density	2.05	T
Phase Plug Design	3 slot	
Phase Plug Material	Aluminum	
Magnetics	Neodymium	
Voice Coil Demodulation Ring	Copper	

MOUNTING INFORMATION

Overall Diameter	131 / 5.16	mm / inch
Overall Height	54 / 2.13	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	101.6 / 4.0	mm / inch
Net Weight	2.5 / 5.51	kg / Lbs
Shipping Weight	2.66 / 5.86	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

ND840

Professional High Frequency Transducer

PART NUMBER (8 Ohm) **15129052**
 PART NUMBER (16 Ohm) **15100004**

The ND840 is a high performance 3-inch diaphragm compression driver with a 1.4 inch exit throat featuring the smallest size of the art technology. The diaphragm are precision completely formed from pure titanium. Voice coil assembly is designed using high temperature kapton former and it is joined to the diaphragm by RCF proprietary Direct Drive kapton technology. Diaphragm suspension is designed by extensive FEM study for low distortion and low frequency range extension.

- 3-inch Diaphragm, 1.4-inch Exit Throat/ Pure Titanium Compression Driver
- 220 watt Continuous program power handling
- Frequency range: 500 Hz - 20 kHz
- 3-slot, optimized geometry phase plug
- Direct Drive kapton technology
- Copper inductance ring for extended response
- Vented, damped, low distortion suspension System
- Neodymium magnet assembly
- Compact Size

APPLICATIONS

The ND840 is the ideal driver for professional high performance applications, from high power 2-way systems to multiple-way long throw systems and large format line arrays. Very good linearity and efficiency in combination with RCF HF series horns.



NOTES TO SPECIFICATIONS

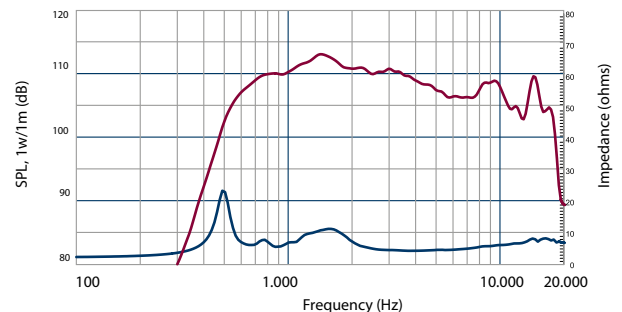
1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

GENERAL SPECIFICATIONS

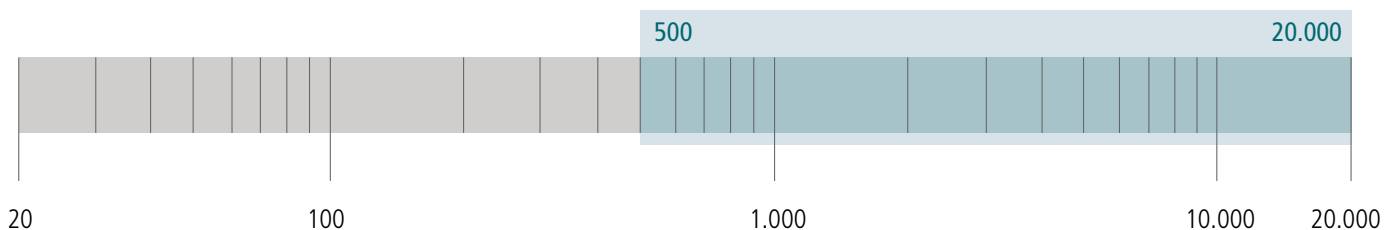
Exit Throat Diameter	1.4 / 36	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.0 kHz	220	Watt
AES above 1.0 kHz	110	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	109	dB
Frequency Range ³	500 - 20000	Hz
Diaphragm Material	Pure Titanium	
Suspension Material	Pure Titanium	
Suspension Design	Double Roll	
Minimum Impedance	7 ohm at 3500 Hz	
Voice Coil Diameter	3.0 / 76	inch / mm
Voice Coil Material	Edgewound Aluminum	
Voice Coil Former Design	Direct Drive Kapton	
Number of layers	1 - inside/outside	
BL Factor	12.30	T · m
Flux Density	1.9	T
Phase Plug Design	3 slot	
Phase Plug Material	Aluminum	
Magnetics	Neodymium	
Voice Coil Demodulation Ring	Copper	

MOUNTING INFORMATION

Overall Diameter	115 / 4.53	mm / inch
Overall Height	46 / 1.81	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	101.6 / 4.0	mm / inch
Net Weight	1.4 / 3.09	kg / Lbs
Shipping Weight	1.7 / 3.75	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

ND650

Professional High Frequency Transducer

PART NUMBER (8 Ohm) **15129024**
 PART NUMBER (16 Ohm) **15129036**

The ND650 is a high performance 2.5-inch diaphragm compression driver with a 1.4 inch exit throat featuring several state of the art technologies. The diaphragm are precision formed from pure titanium. The suspension is based on a vented Polyester design for low distortion. Voice coil assembly is designed using high temperature kapton former.

- 2.5-inch Diaphragm, 1.4-inch Exit Throat/ Pure Titanium Compression Driver
- 180 watt Continuous program power handling
- Frequency range: 700 Hz - 20 kHz
- 3-slot, optimized geometry phase plug
- Titanium diaphragm
- Copper inductance ring for extended response
- Vented, damped, low distortion suspension System
- Neodymium magnet assembly

APPLICATIONS

Perfect driver for professional high performance applications, from high power 2-way systems to multiple-way long throw systems and medium to large format line arrays. Very flexible and easy to crossover, offer the clarity of the 1" and the efficiency and power handling of a large format compression driver. Very good linearity and efficiency in combination with RCF HF94 and HF64 horns.



NOTES TO SPECIFICATIONS

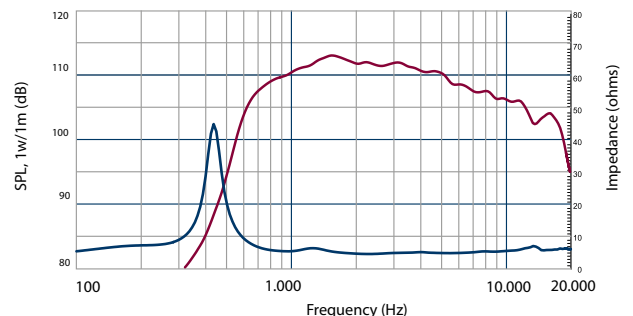
1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

GENERAL SPECIFICATIONS

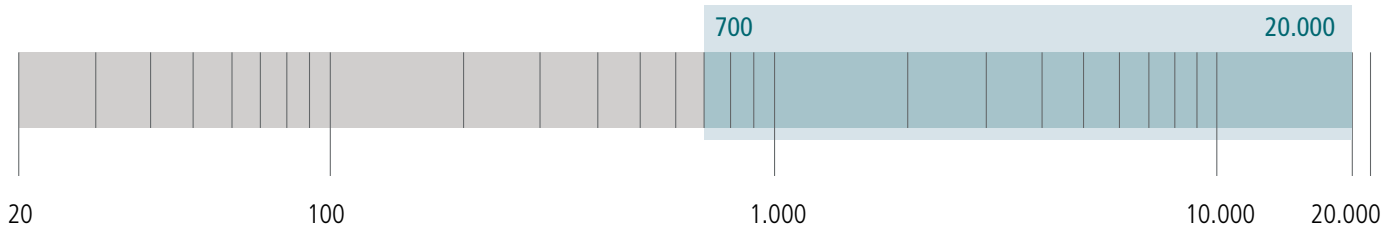
Exit Throat Diameter	1.4 / 36	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.2 kHz	180	Watt
AES above 1.2 kHz	90	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	110	dB
Frequency Range ³	700 - 20000	Hz
Diaphragm Material	Pure Titanium	
Suspension Material	Polyester	
Suspension Design	Flat	
Minimum Impedance	7.5 ohm at 3500 Hz	
Voice Coil Diameter	2.5 / 63	inch / mm
Voice Coil Material	Edgewound Aluminum	
Voice Coil Former Design	Straight - Kapton	
Number of layers	1 - Outside	
BL Factor	10.40	T · m
Flux Density	2	T
Phase Plug Design	3 slot	
Phase Plug Material	Aluminum	
Magnetics	Neodymium	
Voice Coil Demodulation Ring	Copper	

MOUNTING INFORMATION

Overall Diameter	115 / 4.53	mm / inch
Overall Height	46 / 1.81	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	101.6 / 4.0	mm / inch
Net Weight	1.88 / 4.14	kg / Lbs
Shipping Weight	2.02 / 4.45	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

ND640

Professional High Frequency Transducer

The ND640 is a high performance 2.5-inch diaphragm compression driver with a 1.4 inch exit throat featuring the smallest size of the art technology. The diaphragm are precision completely formed from pure titanium. Voice coil assembly is designed using high temperature kapton former and it is joined to the diaphragm by RCF proprietary Direct Drive kapton technology. Diaphragm suspension is designed by extensive FEM study for low distortion and low frequency range extension.

PART NUMBER **15129051**

- 2.5-inch Diaphragm, 1.4-inch Exit Throat/ Pure Titanium Compression Driver
- 180 watt Continuous program power handling
- Frequency range: 700 Hz - 20 kHz
- 3-slot, optimized geometry phase plug
- Direct Drive kapton technology
- Copper inductance ring for extended response
- Vented, damped, low distortion suspension System
- Neodymium magnet assembly
- Compact size

APPLICATIONS

Perfect driver for professional high performance applications, from high power 2-way systems to multiple-way long throw systems and medium to large format line arrays. Very compact size and easy to crossover, offer the clarity of the 1" and the efficiency and power handling of a large format compression driver. Very good linearity and efficiency in combination with RCF HF series horns.



NOTES TO SPECIFICATIONS

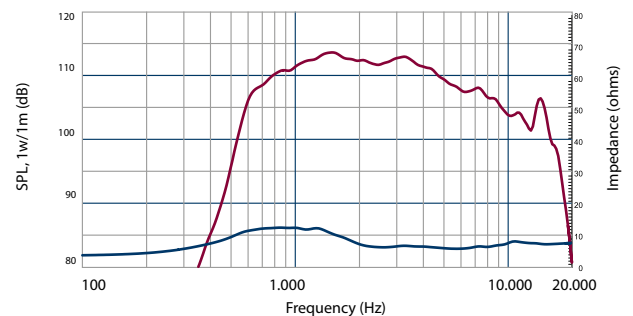
1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

GENERAL SPECIFICATIONS

Exit Throat Diameter	1.4 / 36	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.0 kHz	180	Watt
AES above 1.0 kHz	90	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	110	dB
Frequency Range ³	700 - 20000	Hz
Diaphragm Material	Pure Titanium	
Suspension Material	Pure Titanium	
Suspension Design	Double Roll	
Minimum Impedance	7.5 ohm at 3500 Hz	
Voice Coil Diameter	2.5 / 63	inch / mm
Voice Coil Material	Edgewound Aluminum	
Voice Coil Former Design	Direct Drive Kapton	
Number of layers	1 - outside	
BL Factor	9.80	T · m
Flux Density	1.9	T
Phase Plug Design	3 slot	
Phase Plug Material	Aluminum	
Magnetics	Neodymium	
Voice Coil Demodulation Ring	Copper	

MOUNTING INFORMATION

Overall Diameter	102 / 4.02	mm / inch
Overall Height	40 / 1.57	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	87 / 3.4 and 76.2 / 3	mm / inch
Net Weight	1.06 / 2.34	kg / Lbs
Shipping Weight	1.06 / 2.34	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

ND340

Professional High Frequency Transducer

The ND340 is a high performance neodymium compression driver with a 1.0-inch exit throat. The diaphragm is precision formed from polyimide. The 1.75" voice coil assembly use high temperature Kapton former, edge wound copper clad aluminum wire and assembled using advanced, specially formulated adhesives.

PART NUMBER **15129054**

- 1.75-inch Diaphragm, 1.0-inch Exit Throat
- 100 watt Continuous program power handling
- Frequency range: 1200 Hz - 20 kHz
- 2-slot, optimised geometry phase plug
- Polyimide diaphragm
- Extremely compact neodymium magnet assembly

APPLICATIONS

The ND340 is an extremely compact size compression driver for professional applications. Compact 2-way systems, multiple-way systems, compact arrays. Flexible and easy to crossover, it offers high efficiency combined to a very high frequency extension. Very good in combination with RCF HF94, HF64, H100, HF101 horns.



NOTES TO SPECIFICATIONS

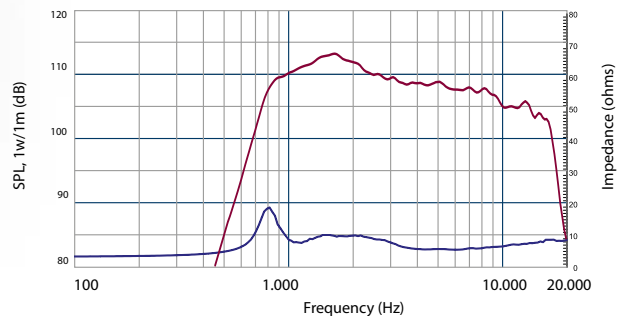
1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

GENERAL SPECIFICATIONS

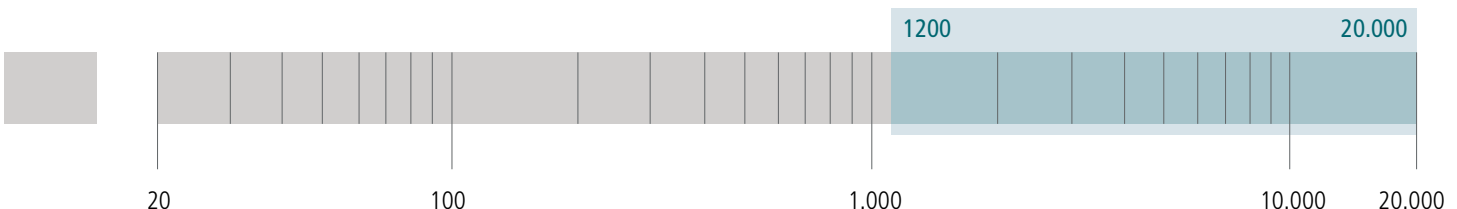
Exit Throat Diameter	1.0 / 25	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.5 kHz	100	Watt
AES above 1.5 kHz	50	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	109	dB
Frequency Range ³	1200 - 20000	Hz
Diaphragm Material	Polymide	
Suspension Material	Polymide	
Suspension Design	Flat	
Minimum Impedance	6.5 ohm at 3500 Hz	
Voice Coil Diameter	1.75 / 44	inch / mm
Voice Coil Material	Edgewound Aluminum	
Voice Coil Former Design	Straight - Kapton	
Number of layers	1 - Outside	
BL Factor	7.90	T · m
Flux Density	1.9	T
Phase Plug Design	2 slot	
Phase Plug Material	PP Composite	
Magnetics	Neodymium	
Voice Coil Demodulation Ring	-	

MOUNTING INFORMATION

Overall Diameter	76 / 2.99	mm / inch
Overall Height	39 / 1.54	mm / inch
Mounting		
4 x 5 mm threaded holes at 90°	76.2 / 3.0	mm / inch
Net Weight	0.63 / 1.39	kg / Lbs
Shipping Weight	0.81 / 1.79	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

ND350

Professional High Frequency Transducer

PART NUMBER	15129027
PART NUMBER ND350-I (8 Ohm)	15129028
PART NUMBER ND350-I (16 Ohm)	15129049

The ND350 is a high performance 1.75-inch diaphragm neodymium compression driver with a 1.0 inch exit throat. The diaphragm is precision formed from polyester. The voice coil assembly is designed using high temperature Kapton former, rectangular profile copper clad aluminum wire and assembled using advanced, specially formulated adhesives.

- 1.75-inch Diaphragm, 1.0-inch Exit Throat
- 100 watt Continuous program power handling
- Frequency range: 1200 Hz - 20 kHz
- 2-slot, optimised geometry phase plug
- Polyester diaphragm
- Vented suspension system
- Compact neodymium magnet assembly

APPLICATIONS

The ND350 is a very compact size compression driver for professional applications. Compact 2-way systems, multiple-way systems, compact arrays. Flexible and easy to crossover, offer high efficiency combined to a very high frequency extension. Very good in combination with RCF HF94, HF64, H100, HF101 horns.



NOTES TO SPECIFICATIONS

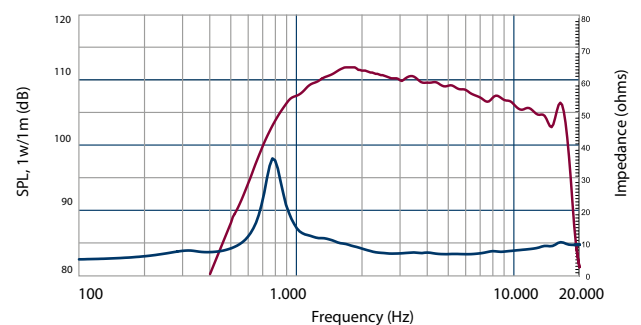
1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

GENERAL SPECIFICATIONS

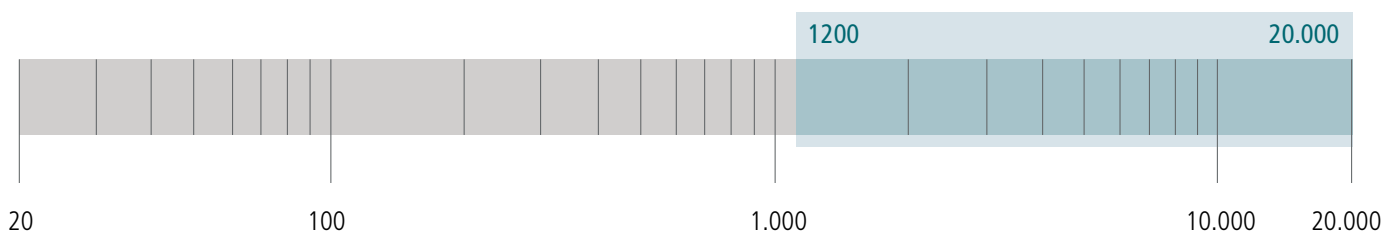
Exit Throat Diameter	1.0 / 25	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.5 kHz	100	Watt
AES above 1.5 kHz	50	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	109	dB
Frequency Range ³	1200 - 20000	Hz
Diaphragm Material	Polyester	
Suspension Material	Polyester	
Suspension Design	Flat	
Minimum Impedance	6.5 ohm at 3500 Hz	
Voice Coil Diameter	1.75 / 44	inch / mm
Voice Coil Material	Edgewound Aluminum	
Voice Coil Former Design	Straight - Kapton	
Number of layers	1 - outside	
BL Factor	7.50	T · m
Flux Density	1.8	T
Phase Plug Design	2 slot	
Phase Plug Material	PP Composite	
Magnetics	Neodymium	
Voice Coil Demodulation Ring	-	

MOUNTING INFORMATION

Overall Diameter	85 / 3.35	mm / inch
Overall Height	43 / 1.69	mm / inch
Mounting		
2 x 6 mm threaded holes at 90°	76.2 / 3.0	mm / inch
Net Weight	0.85 / 1.87	kg / Lbs
Shipping Weight	0.89 / 1.96	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

ND1411-M

Professional High Frequency Transducer

The ND1411-M is a high performance 1.5-inch diaphragm compression driver with a 1.0 inch exit throat featuring a single piece, low compression, radial phase plug. The diaphragm and suspension are precision formed from .10 mm thick Mylar. The ND1411-M is a very compact size, versatile driver for professional applications.

PART NUMBER **15129019**

- 1.5-inch Diaphragm, 1.0-inch Exit Throat
- 50 watt Continuous program power handling
- Frequency range: 1500 Hz - 20 kHz
- Optimized geometry radial phase plug
- Very compact size for array applications
- Neodymium magnet assembly

APPLICATIONS

Compact 2-way systems, multiple-way medium throw systems, compact and medium size high quality line arrays. Unique driver in the market offering high power handling in 70 mm diameter. Very good linearity in combination with RCF HF94, HF64, HF101 horns.



NOTES TO SPECIFICATIONS

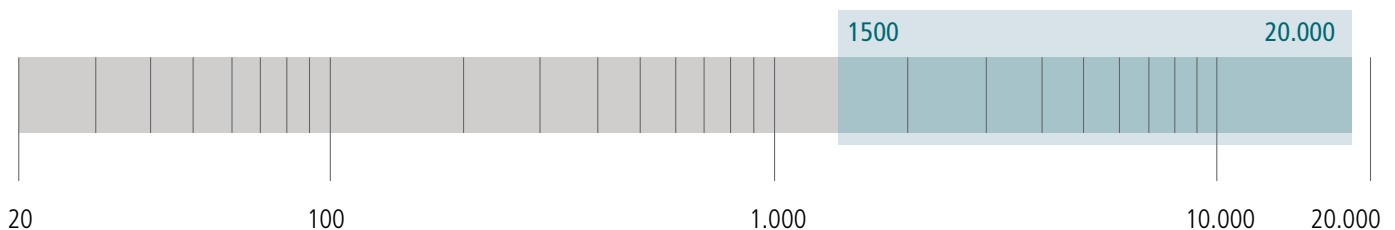
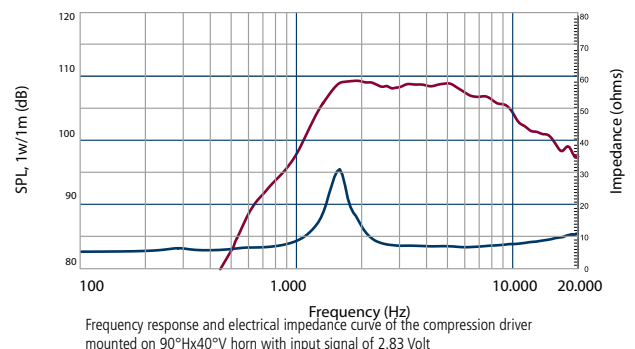
1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

GENERAL SPECIFICATIONS

Exit Throat Diameter	1.0 / 25	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.7 kHz	50	Watt
AES above 1.7 kHz	25	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	109	dB
Frequency Range ³	1500 - 20000	Hz
Diaphragm Material	Mylar	
Suspension Material	Mylar	
Suspension Design	Radial	
Minimum Impedance	7 ohm at 3500 Hz	
Voice Coil Diameter	1.5 / 38	inch / mm
Voice Coil Material	Edgewound Aluminium	
Voice Coil Former Design	Straight - Nomex	
Number of layers	1 - Outside	
BL Factor	4.40	T · m
Flux Density	1.75	T
Phase Plug Design	10 radial slots	
Phase Plug Material	PP Composite	
Magnetics	Neodymium	
Voice Coil Demodulation Ring	-	

MOUNTING INFORMATION

Overall Diameter	69 / 2.72	mm / inch
Overall Height	51 / 2.01	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	76.2 / 3.0	mm / inch
Net Weight	0.69 / 1.52	kg / Lbs
Shipping Weight	0.72 / 1.59	kg / Lbs





HIGH FREQUENCY

TRANSDUCERS

Technology and craftsmanship. At RCF each professional compression driver is precision built using the most advanced moulding and assembly technologies and our experienced dedication and attention.



PURE TITANIUM DIAPHRAGMS

RCF has developed an oxygen free process of moulding pure titanium ultra thin films in high quality, finely controlled shaped diaphragms. Our process offers superior sonic quality, extended to the highest audible frequencies which guarantee consistent power handling and reliability.

EDGE-WOUND COILS TECHNOLOGY

Edge-wound "flat wire" voice coils are a hallmark of advanced manufacturing. RCF internally produces all the flat wire voice coils used in compression drivers. To guarantee the ultimate level of performance and reliability, maximum care in material selection and process design is combined to extensive use of quality control and power testing procedures.

Each driver is thoroughly tested for frequency response, impedance and distortion with DSP enabled digital testing equipment. The result is a robust device capable of withstanding the rigors of modern loudspeaker system applications.

PHASE PLUGS

Our compression drivers features 3-slot, 2-slot and radial optimized geometry phase plug designs. Extensive computer assisted mathematical modelling and testing has resulted in phase plug geometries that provide balanced acoustic performance by controlling and lowering air distortion and maximizing output. The use of a lower slot compression ratio results in higher acoustic output with smoother frequency response and lower harmonic distortion.

DRIVER

CD850 2.0

Professional High Frequency Transducer

PART NUMBER **15129044**

- 3-inch Diaphragm, 2-inch Exit Throat/ Pure Titanium Compression Driver
- 220 watt Continuous program power handling
- Frequency range: 500 Hz - 20 kHz
- 3-slot, optimized geometry phase plug
- Titanium diaphragm
- Copper inductance ring for extended response
- Vented, damped, low distortion suspension System
- Ceramic magnet assembly

APPLICATIONS

The CD850 2.0 is the ideal driver for professional high performance applications, from high power 2-way systems to multiple-way long throw systems. Very good linearity and efficiency in combination with RCF H6040 horn.



NOTES TO SPECIFICATIONS

1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

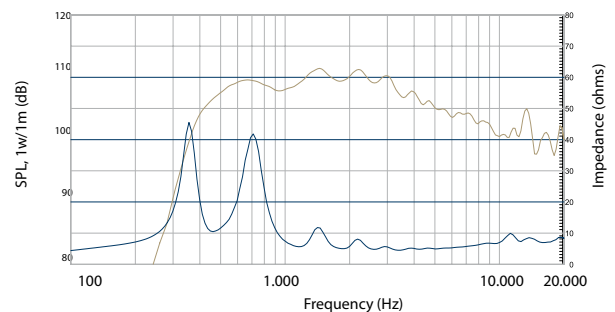
The CD850 2.0 is a high performance 3.0-inch diaphragm compression driver with a 2 inch exit throat featuring several state of the art technologies. The diaphragm are precision formed from pure titanium. The suspension is based on a vented and damped design in order to provide low distortion. Voice coil assembly is designed using high temperature kapton former.

GENERAL SPECIFICATIONS

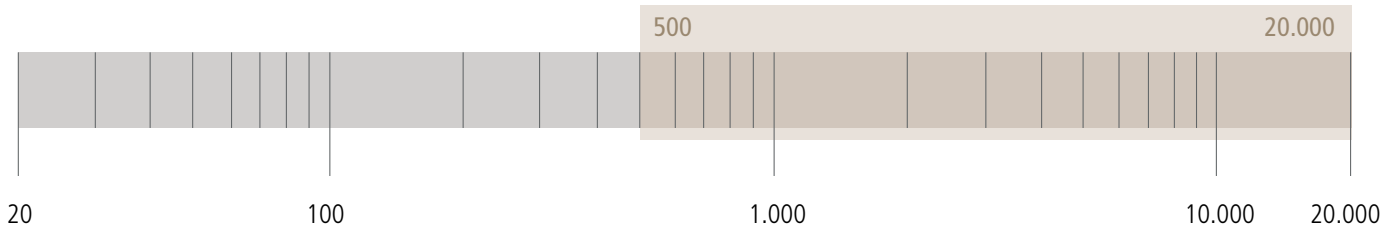
Exit Throat Diameter	2.0 / 51	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.2 kHz	220	Watt
AES above 1.0 kHz	110	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	109	dB
Frequency Range ³	500 - 20000	Hz
Diaphragm Material	Pure Titanium	
Suspension Material	Polyester	
Suspension Design	Flat	
Minimum Impedance	8.50 ohm at 3500 Hz	
Voice Coil Diameter	3.0 / 76	inch / mm
Voice Coil Material	Edgewound Aluminium	
Voice Coil Former Design	Straight - Kapton	
Number of layers	1 - Outside	
BL Factor	12.30	T · m
Flux Density	1.9	T
Phase Plug Design	3 slot	
Phase Plug Material	PP Composite	
Magnetics	Ceramic	
Voice Coil Demodulation Ring	Copper	

MOUNTING INFORMATION

Overall Diameter	180 / 7.09	mm / inch
Overall Height	88 / 3.46	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	101.6 / 4.0	mm / inch
Net Weight	5.72 / 12.61	kg / Lbs
Shipping Weight	5.97 / 13.16	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

N850

Professional High Frequency Transducer

The N850 is a high quality 3.0-inch diaphragm compression driver with a 2 inch exit. The diaphragm is precision formed from .05 mm thick pure titanium. The suspension is based on a Mylar vented design. The front aluminum adaptor guarantee a very smooth transition from the phase plug to the 2" output interface.

PART NUMBER **15120058**

- 3-inch Diaphragm, 2.0-inch Exit Throat Titanium Compression Driver
- 180 watt Continuous program power handling
- Frequency range: 500 Hz - 20 kHz
- 3-slot, optimized geometry phase plug
- Aluminum rear cover and front adaptor
- Copper inductance ring for extended response
- Vented suspension system

APPLICATIONS

The N850 is a compression driver for professional applications, from high power 2-way systems to multiple-way long throw systems and large format arrays. Very good linearity and efficiency in combination with RCF H6040 horn (60 X 40 degrees dispersion).



NOTES TO SPECIFICATIONS

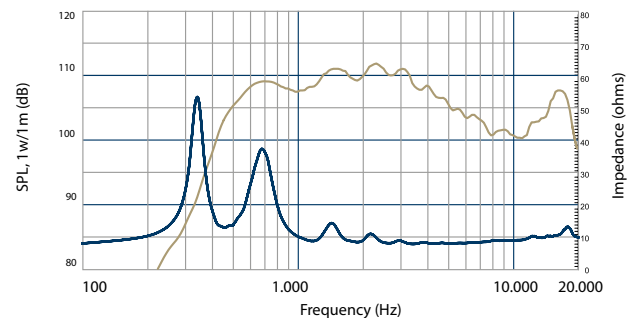
1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

GENERAL SPECIFICATIONS

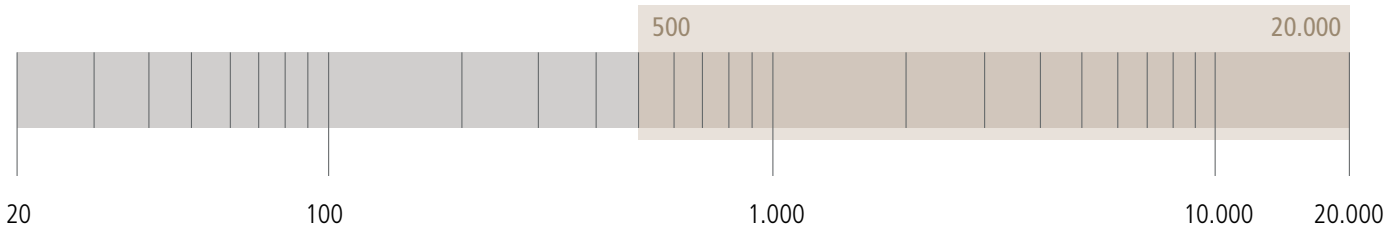
Exit Throat Diameter	2.0 / 51	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.2 kHz	180	Watt
AES above 1.0 kHz	90	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	109	dB
Frequency Range ³	500 - 20000	Hz
Diaphragm Material	Pure Titanium	
Suspension Material	Mylar	
Suspension Design	Radial	
Minimum Impedance	8.80 ohm at 3500 Hz	
Voice Coil Diameter	3.0 / 76	inch / mm
Voice Coil Material	Edgewound Aluminium	
Voice Coil Former Design	Straight - Kapton	
Number of layers	1 - Outside	
BL Factor	12.00	T · m
Flux Density	1.85	T
Phase Plug Design	3 slot	
Phase Plug Material	PP Composite	
Magnetics	Ceramic	
Voice Coil Demodulation Ring	Copper	

MOUNTING INFORMATION

Overall Diameter	180 / 7.09	mm / inch
Overall Height	95 / 3.74	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	101.6 / 4.0	mm / inch
Net Weight	6 / 13.23	kg / Lbs
Shipping Weight	7 / 15.43	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

CD650

Professional High Frequency Transducer

PART NUMBER **15129046**

- 2.5-inch Diaphragm, 1.4-inch Exit Throat/ Pure Titanium Compression Driver
- 180 watt Continuous program power handling
- Frequency range: 700 Hz - 20 kHz
- 3-slot, optimized geometry phase plug
- Titanium diaphragm
- Copper inductance ring for extended response
- Vented, damped, low distortion suspension System

APPLICATIONS

Perfect driver for professional high performance applications, from high power 2-way systems to multiple-way long throw systems. Very flexible and easy to crossover, offer the clarity of the 1" and the efficiency and power handling of a large format compression driver. Very good linearity and efficiency in combination with RCF HF Horns series.



NOTES TO SPECIFICATIONS

1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

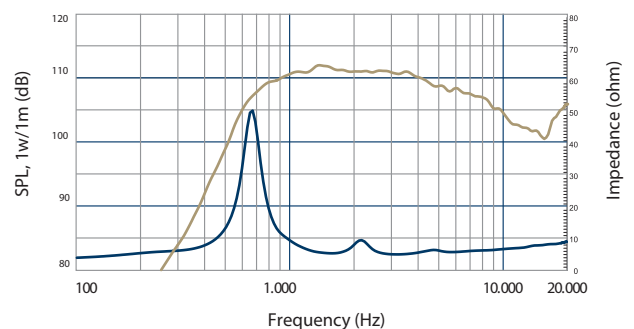
The CD650 is a high performance 2.5-inch diaphragm compression driver with a 1.4 inch exit throat featuring several state of the art technologies. The diaphragm are precision formed from pure titanium. The suspension is based on a vented Polyester design for low distortion. Voice coil assembly is designed using high temperature kapton former.

GENERAL SPECIFICATIONS

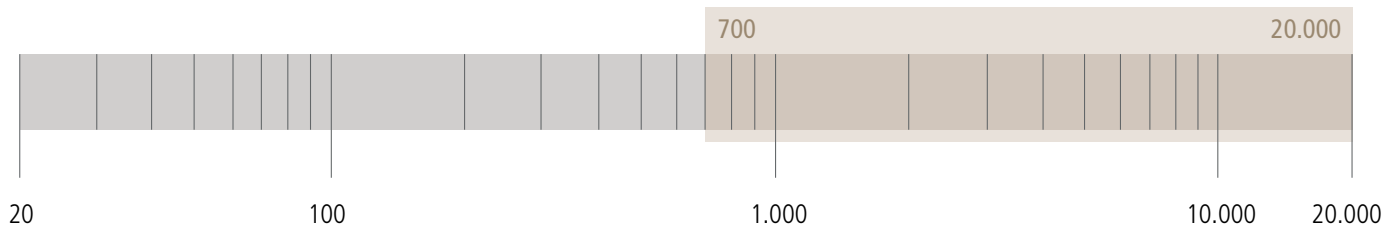
Exit Throat Diameter	1.4 / 36	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.2 kHz	180	Watt
AES above 1.0 kHz	90	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	109	dB
Frequency Range ³	700 - 20000	Hz
Diaphragm Material	Pure Titanium	
Suspension Material	Polyester	
Suspension Design	Flat	
Minimum Impedance	7.50 ohm at 3500 Hz	
Voice Coil Diameter	2.5 / 63	inch / mm
Voice Coil Material	Edgewound Aluminium	
Voice Coil Former Design	Straight - Kapton	
Number of layers	1 - Outside	
BL Factor	9.80	T · m
Flux Density	1.9	T
Phase Plug Design	3 slot	
Phase Plug Material	Aluminium	
Magnetics	Ceramic	
Voice Coil Demodulation Ring	Copper	

MOUNTING INFORMATION

Overall Diameter	165 / 6.5	mm / inch
Overall Height	56 / 2.2	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	101.6 / 4.0	mm / inch
Net Weight	4.33 / 9.55	kg / Lbs
Shipping Weight	4.66 / 10.27	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

CD400

Professional High Frequency Transducer

The CD400 is a high performance 1.75-inch diaphragm ceramic compression driver with a 1.0 inch exit throat. The diaphragm is precision formed from polyester. The voice coil assembly is designed using high temperature Kapton former, rectangular profile copper clad aluminum wire and assembled using advanced, specially formulated adhesives.

PART NUMBER **15129047**

- 1.75-inch Diaphragm, 1.0-inch Exit Throat
- 100 watt Continuous program power handling
- Frequency range: 1200 Hz - 20 kHz
- 2-slot, optimised geometry phase plug
- Polyester diaphragm
- Vented suspension system
- Ceramic magnet assembly

APPLICATIONS

The CD400 is a very compact size compression driver for professional applications. Compact 2-way systems, multiple-way systems. Flexible and easy to crossover, offer high efficiency combined to a very high frequency extension. Very good in combination with RCF HF94, HF64, H100, HF101 horns.



NOTES TO SPECIFICATIONS

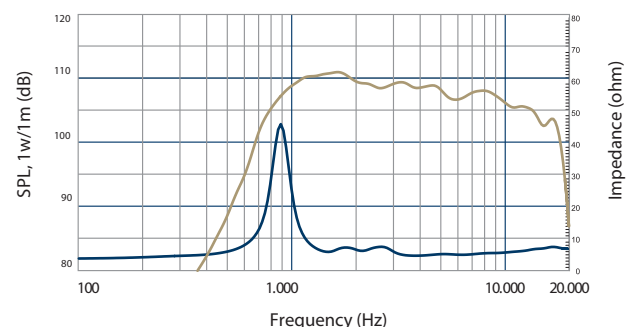
1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

GENERAL SPECIFICATIONS

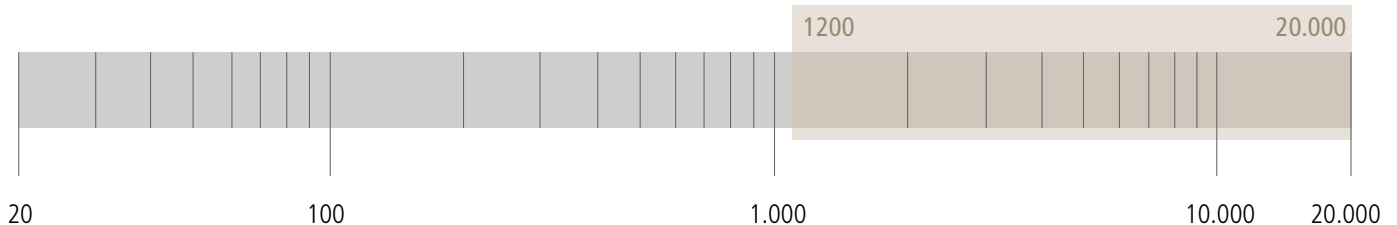
Exit Throat Diameter	1.0 / 25	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.5 kHz	100	Watt
AES above 1.5 kHz	50	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	109	dB
Frequency Range ³	1200 - 20000	Hz
Diaphragm Material	Polyester	
Suspension Material	Polyester	
Suspension Design	Flat	
Minimum Impedance	6.50 ohm at 3500 Hz	
Voice Coil Diameter	1.75 / 44	inch / mm
Voice Coil Material	Edgewound Aluminium	
Voice Coil Former Design	Straight - Kapton	
Number of layers	1 - Outside	
BL Factor	7.50	T · m
Flux Density	1.8	T
Phase Plug Design	2 slot	
Phase Plug Material	PP Composite	
Magnetics	Ceramic	
Voice Coil Demodulation Ring	-	

MOUNTING INFORMATION

Overall Diameter	134 / 5.28	mm / inch
Overall Height	52 / 2.05	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	76.2 / 3.0	mm / inch
Net Weight	2.46 / 5.42	kg / Lbs
Shipping Weight	2.63 / 5.8	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°x40°V horn with input signal of 2.83 Volt



DRIVER

CD350

Professional High Frequency Transducer

The CD350 is a high performance 1.75-inch diaphragm ceramic compression driver with a 1.0 inch exit throat. The diaphragm is precision formed from polyester. The voice coil assembly is designed using high temperature Kapton former, rectangular profile copper clad aluminum wire and assembled using advanced, specially formulated adhesives.

PART NUMBER **15129042**

- 1.75-inch Diaphragm, 1.0-inch Exit Throat
- 100 watt Continuous program power handling
- Frequency range: 1200 Hz - 20 kHz
- 2-slot, optimised geometry phase plug
- Polyester diaphragm
- Vented suspension system
- Ceramic magnet assembly

APPLICATIONS

The CD350 is a very compact size compression driver for professional applications. Compact 2-way systems, multiple-way systems, compact arrays. Flexible and easy to crossover, offer high efficiency combined to a very high frequency extension. Very good in combination with RCF HF94, HF64, H100, HF101 horns.



NOTES TO SPECIFICATIONS

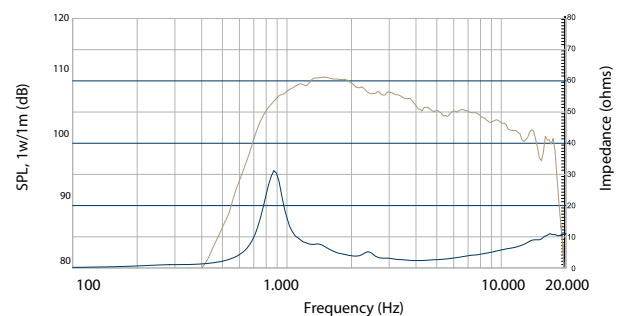
1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

GENERAL SPECIFICATIONS

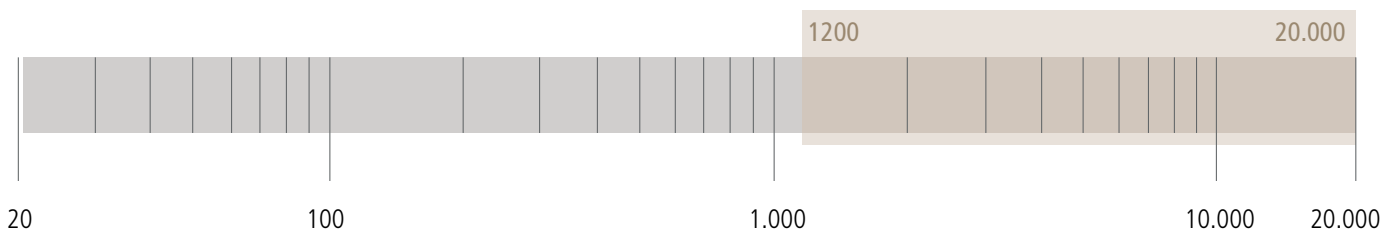
Exit Throat Diameter	1.0 / 25	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.5 kHz	100	Watt
AES above 1.5 kHz	50	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	108	dB
Frequency Range ³	1200 - 20000	Hz
Diaphragm Material	Polyester	
Suspension Material	Polyester	
Suspension Design	Flat	
Minimum Impedance	6.50 ohm at 3500 Hz	
Voice Coil Diameter	1.75 / 44	inch / mm
Voice Coil Material	Edgewound Aluminium	
Voice Coil Former Design	Straight - Kapton	
Number of layers	1 - Outside	
BL Factor	6.70	T · m
Flux Density	1.6	T
Phase Plug Design	2 slot	
Phase Plug Material	PP Composite	
Magnetics	Ceramic	
Voice Coil Demodulation Ring	-	

MOUNTING INFORMATION

Overall Diameter	102 / 4.02	mm / inch
Overall Height	50 / 1.97	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	76.2 / 3.0	mm / inch
Net Weight	1.23 / 2.71	kg / Lbs
Shipping Weight	1.35 / 2.98	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

N350

Professional High Frequency Transducer

PART NUMBER **15120056**

- 1.75-inch Diaphragm, 1.0-inch Exit Throat
- 80 watt Continuous program power handling
- Frequency range: 1500 Hz - 20 kHz
- 2-slot, optimized geometry phase plug
- Aluminum rear cover
- Vented suspension system

APPLICATIONS

The N350 is a compact size compression driver for professional applications. Compact 2-way systems, multiple-way systems, compact arrays.

Flexible and easy to crossover, offer high efficiency combined to a very high frequency extension. Very good in combination with RCF H100, HF101, HF94, HF64 horns.



NOTES TO SPECIFICATIONS

1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

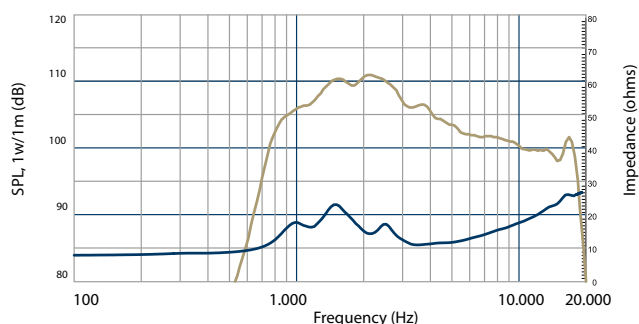
The N350 features 1.75-inch diaphragm with a 1.0 inch exit throat. The diaphragm and suspension are precision formed from .125 mm thick Mylar design. The voice coil assembly is designed using high temperature Kapton former, rectangular profile copper clad aluminum wire and assembled using advanced, specially formulated adhesives.

GENERAL SPECIFICATIONS

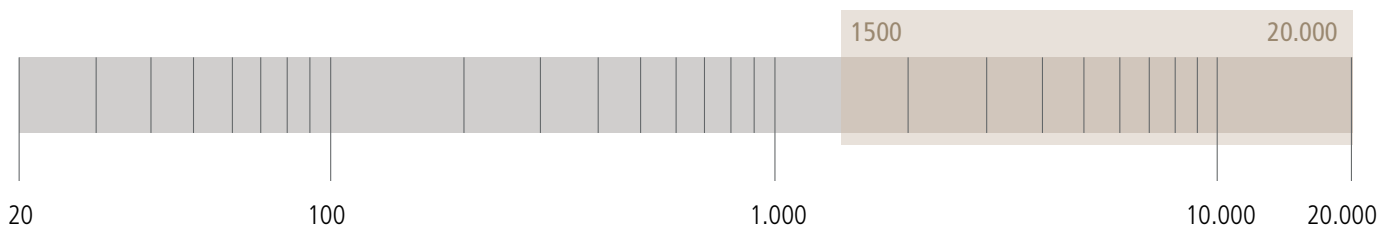
Exit Throat Diameter	1.0 / 25	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.2 kHz	80	Watt
AES above 1.5 kHz	40	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	107	dB
Frequency Range ³	1500 - 20000	Hz
Diaphragm Material	Mylar	
Suspension Material	Mylar	
Suspension Design	Radial	
Minimum Impedance	8.30 ohm at 3500 Hz	
Voice Coil Diameter	1.75 / 44	inch / mm
Voice Coil Material	Edgewound Aluminium	
Voice Coil Former Design	Straight - Kapton	
Number of layers	1 - Outside	
BL Factor	5.90	T · m
Flux Density	1.4	T
Phase Plug Design	2 slot	
Phase Plug Material	PP Composite	
Magnetics	Ceramic	
Voice Coil Demodulation Ring	-	

MOUNTING INFORMATION

Overall Diameter	102 / 4.02	mm / inch
Overall Height	60 / 2.36	mm / inch
Mounting		
2 x 6 mm threaded holes at 180°	76.2 / 3.0	mm / inch
Net Weight	1.71 / 3.77	kg / Lbs
Shipping Weight	1.83 / 4.03	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

CD240-K

Professional High Frequency Transducer

The CD240-K is a high performance 1.5-inch diaphragm compression driver with a 1.0 inch exit throat featuring a single piece, low compression, radial phase plug. The diaphragm and suspension are precision formed from Polyimide for high stability also at high working temperature. The CD240-K is a very compact size, versatile driver for professional applications.

PART NUMBER **15100014**

- 1.5-inch Diaphragm, 1.0-inch Exit Throat
- 50 watt Continuous program power handling
- Frequency range: 1500 Hz - 20 kHz
- Optimized geometry radial phase plug
- Very compact size for array applications
- Ceramic magnet assembly

APPLICATIONS

Compact 2-way systems, multiple-way medium throw systems, compact and medium size high quality line arrays. Very good linearity in combination with RCF HF94, HF64, HF101 horns.



NOTES TO SPECIFICATIONS

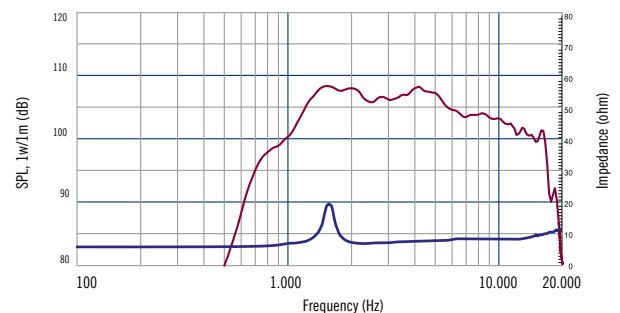
1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

GENERAL SPECIFICATIONS

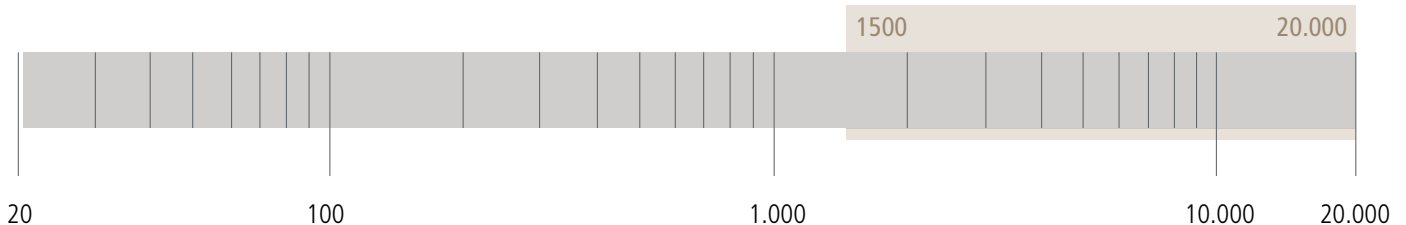
Exit Throat Diameter	1.0 / 25	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.7 kHz	50	Watt
AES above 1.7 kHz	25	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	109	dB
Frequency Range ³	1500 - 20000	Hz
Diaphragm Material	Polyimide	
Suspension Material	Polyimide	
Suspension Design	Radial	
Minimum Impedance	7.0 ohm at 3500 Hz	
Voice Coil Diameter	1.5 / 38	inch / mm
Voice Coil Material	Edgewound Aluminium	
Voice Coil Former Design	Straight - Kapton	
Number of layers	1 - Outside	
BL Factor	4.00	T · m
Flux Density	1.6	T
Phase Plug Design	10 radial slots	
Phase Plug Material	PP Composite	
Magnetics	Ceramic	
Voice Coil Demodulation Ring	-	

MOUNTING INFORMATION

Overall Diameter	91 / 3.58	mm / inch
Overall Height	51 / 2.01	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	76.2 / 3.0	mm / inch
Net Weight	0.95 / 2.09	kg / Lbs
Shipping Weight	1.09 / 2.4	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



DRIVER

CD1411-M

Professional High Frequency Transducer

The CD1411-M is a high performance 1.5-inch diaphragm compression driver with a 1.0 inch exit throat featuring a single piece, low compression, radial phase plug. The diaphragm and suspension are precision formed from Mylar. The CD1411-M is a very compact size, versatile driver for professional applications.

PART NUMBER **15129043**

- 1.5-inch Diaphragm, 1.0-inch Exit Throat
- 50 watt Continuous program power handling
- Frequency range: 1500 Hz - 20 kHz
- Optimized geometry radial phase plug
- Very compact size for array applications
- Ceramic magnet assembly

APPLICATIONS

Compact 2-way systems, multiple-way medium throw systems, compact and medium size high quality line arrays. Very good linearity in combination with RCF HF94, HF64, HF101 horns.



NOTES TO SPECIFICATIONS

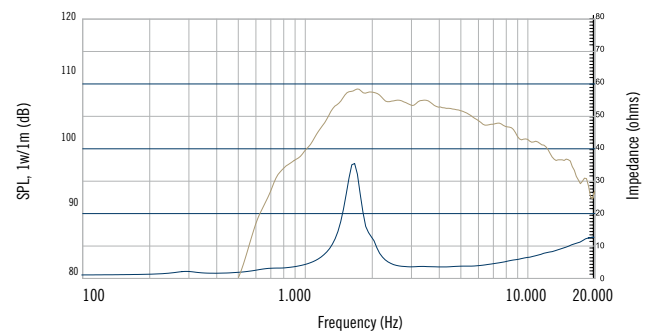
1. Continuous pink noise power ratings are derived from suggested AES standards sending a pink noise signal having a 6 dB crest factor with a high pass filter set at the specified lower limiting frequency for two hours. Continuous program power is a conservative power rating for reproduction of typical audio program material.
2. Sensitivity measurement is based on pink noise signal with input power of 1 watt and measured at 1 meter from the mouth of a horn with a Q of 15 on axis and averaged between 2 and 5 kHz.
3. Frequency range is defined as the measured frequency response -10dB relative to the rated sensitivity.

GENERAL SPECIFICATIONS

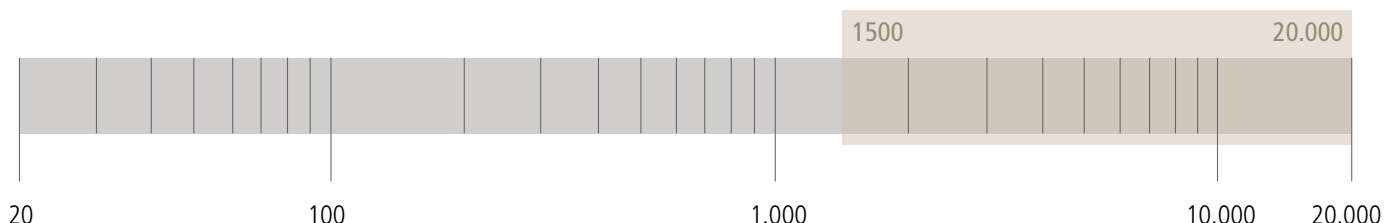
Exit Throat Diameter	1.0 / 25	inch / mm
Rated Impedance	8	ohm
Power handling capacity ¹		
continuous program above 1.7 kHz	50	Watt
AES above 1.7 kHz	25	Watt
Sensitivity 1 W, 1 M, on axis, on horn ²	108	dB
Frequency Range ³	1500 - 20000	Hz
Diaphragm Material	Mylar	
Suspension Material	Mylar	
Suspension Design	Radial	
Minimum Impedance	7.0 ohm at 3500 Hz	
Voice Coil Diameter	1.5 / 38	inch / mm
Voice Coil Material	Edgewound Aluminium	
Voice Coil Former Design	Straight - Kapton	
Number of layers	1 - Outside	
BL Factor	4.00	T · m
Flux Density	1.6	T
Phase Plug Design	10 radial slots	
Phase Plug Material	PP Composite	
Magnetics	Ceramic	
Voice Coil Demodulation Ring	-	

MOUNTING INFORMATION

Overall Diameter	91 / 3.58	mm / inch
Overall Height	51 / 2.01	mm / inch
Mounting		
4 x 6 mm threaded holes at 90°	76.2 / 3.0	mm / inch
Net Weight	0.95 / 2.09	kg / Lbs
Shipping Weight	1.09 / 2.4	kg / Lbs



Frequency response and electrical impedance curve of the compression driver mounted on 90°Hx40°V horn with input signal of 2.83 Volt



COAXIAL

TRANSDUCERS

The power of Neodymium, the integration of two magnetic circuits in one, the precision of assembly.

In all RCF coaxial transducers we take care of every single detail; magnetic circuits, horns, cones and basket designs are all conceived to guarantee the perfect match. RCF coaxial “point source” transducers deliver the full frequency range in correct phase alignment, resulting in a smoother frequency response, precise polar pattern and perfect clarity.

HIGH NEODYMIUM FLUX, BEST CONTROL

Often a big drawback in coaxial designs is the lack of magnetic force due to the fact that woofer and compression driver are sharing the same magnet. All RCF Coaxial designs takes advantage of large sized magnetic rings that guarantee for both the transducers the same flux in the gap that they have in standard, single magnetic circuit, applications.

HIPER VENTED DESIGNS

In a coaxial design the thermal dissipation required is higher than in conventional designs: woofer and compression driver are both dissipating heat in the same structure. New basket designs and new ventilation system for magnet plates, together with inside-outside voice coils and high temperature material guarantee the perfect behaviour of the transducer in the most stressful conditions.

PHASE ALIGNED CONICAL HORNS

The tweeter/cone interaction is improved on RCF coaxial speaker by the mean of large-sized, phase aligned, conical horns. RCF horns are specifically designed to improve the transducers phase alignment, to offer a smooth crossover transition, to guarantee a perfect constant and conical directivity to the compression driver. The presence of the horn avoid any intermodulation distortion caused from the low frequency excursion of the woofer cone.

COAXIAL

CX15N351

Professional Coaxial Transducer

PART NUMBER **11100032**

The CX15N351 is designed to provide an excellent frequency response linearity with very low distortion. This coaxial use a strongest unique neodymium magnetic structure that guarantee high dynamic and sensitivity for both components. The mid-bass section use a 3,5" voice coil design provides a very high power handling, especially recommended in comparison to a standard 3" voice coil, demodulation ring get a fastest time response and lower distortion .The compression driver use a 2.5" diaphragm with a 1.4" throat featuring several state of the art technologies. The diaphragm and suspension are formed from 0.05mm thick pure titanium.

MID-BASS DRIVER

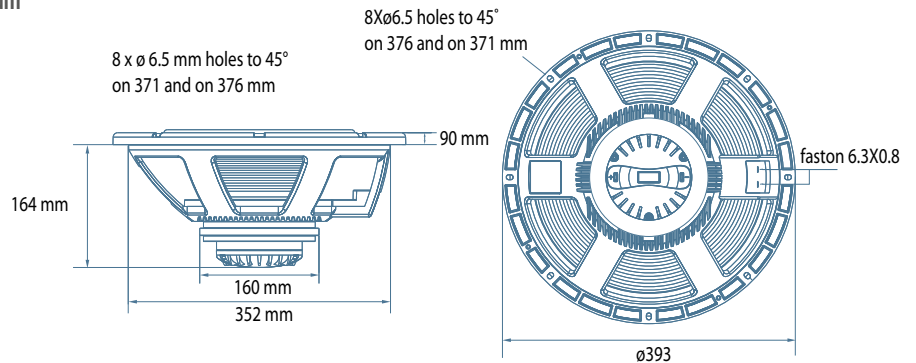
- 3,5 - inch Inside/Outside copper voice coil
- 900 Watt continuous program power LF
- 101 dB Sensitivity
- 40 Hz - 3 kHz Frequency range
- Dual-forced air ventilation for minimum power compression
- Dual spider design with silicon based damping control
- 2.5-inch Diaphragm, 1.4-inch Exit Throat/ Pure Titanium
- Compression Driver

HF DRIVER

- 180 Watt Continuous program power HF
- Frequency range: 700 Hz - 20 kHz
- Direct Drive™ Voice Coil Assembly
- 3-slot, optimized geometry phase plug
- Aluminum rear cover dissipation design
- Copper inductance ring for extended response
- Vented, damped, low distortion, variable profile suspension System

APPLICATIONS

The CX15N351 transducer is designed for use in compact reflex enclosures and stage monitors. Is a ideal for use in applications where is required a very high efficiency and linearity with high power handling.



40 3000

20

100

1.000

10.000

20.000

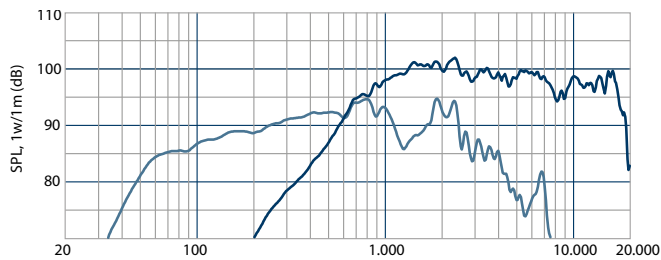


CX15N351 DRIVER

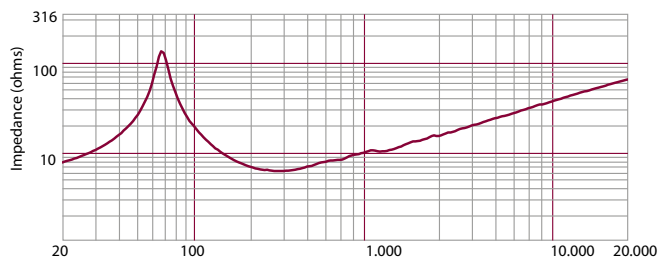
Nominal diameter	1.4 / 36	inch / mm
Rated impedance	8	ohm
Program power	180	Watt
Power handling capacity	90	Watt
Sensitivity 1W, 1m	110	dB
Frequency range	700 - 20000	Hz
Minimum impedance	7.9	ohm
Voice Coil diameter	2.5 / 63.7	inch / mm
Voice Coil material	Edgewound A1	
Number of layers	1- Outside	
Diaphragm material	Pure Titanium	
Diaphragm design	Dome	
Suspension material	Pure Titanium	
Suspension design	Progressive	
BL factor	10.4	T x m
Flux density	2.0	T
Phase plug design	3 slot	
Phase plug material	Aluminum	
Magnetics	Neodymium	
Voice coil demodulation	Copper ring	

CX15N351 HORN

Throat diameter	1.4 / 36	inch / mm
Nominal coverage (-6dB)	60°	
Cut-off Frequency	800	Hz
Material	Structural Polyurethane	



Frequency response curve of the loudspeaker taken in a reflex box with an internal volume of 80 litres tuned at 55 Hz



Impedance magnitude curve measured in free air

GENERAL SPECIFICATIONS

Nominal Diameter	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	900	Watt
Power handling capacity ²	450	Watt
Sensitivity ³	101	dB
Frequency Range	40 - 3000	Hz
Effective Piston Diameter	330 / 12.99	mm / inch
Max Excursion Before Damage (peak to peak)	39 / 1.54	mm / inch
Minimum Impedance	6.8	ohm
Voice Coil Diameter	3.5 / 89	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	16.5 / 0.65	mm / inch
Layer	inside/outside	
Top Plate Thickness	11 / 0.43	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Demodulation Ring	Aluminum	
Magnetics	Neodymium	

THIELE - SMALL PARAMETERS⁴

Resonance frequency	Fs	55	Hz
DC resistance	Re	5.6	ohm
Mechanical factor	Qms	6	
Electrical factor	Qes	0.27	
Total factor	Qts	0.26	
BL Factor	BL	23.5	T · m
Effective Moving Mass	Mms	80	gr
Equivalent Cas air load	Vas	110	liters
Effective piston area	Sd	0.086	m ²
Max. linear excursion (mathematical) ⁵	Xmax	5.5	mm
Voice - coil inductance @ 1KHz	Le1K	1.65	mH
Half-space efficiency	Eff	6.53	%

MOUNTING INFORMATION

Overall Diameter	393 / 15.47	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 / 13.94	mm / inch
Rear Mount Baffle Cut-out	354 / 13.94	mm / inch
Depth	164 / 6.4	mm / inch
Volume occupied by the driver ⁶	3.8 / 0.15	liters / ft3

SHIPPING INFORMATION

Net Weight	7 / 15.43	Kg / Lbs
Shipping Weight	8.5 / 18.74	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.

COAXIAL

CX15N251

Professional Coaxial Transducer

PART NUMBER **11100070**

The CX15N251 is a lightweight coaxial driver with excellent linearity and high efficiency. The CX15N251 radiates a coherent single spherical wave front with perfect dispersion control. The design is powered from a large sized single neodymium ring magnet that provides an extremely high flux density and BL factor. The new hyper-vented aluminium basket and magnetic assembly design provide an excellent heat dissipation and lower power compression.

Special air-forced ventilations are provided for voice coil, magnet assembly and basket. A 2,5" voice coil combined a strength fibreglass former and aluminium wire drives the mid-bass cone with high efficiency and a good extension.

MID-BASS DRIVER

- 600 Watt continuous program power handling
- 2.5-inch, fibreglass outside aluminum voice coil
- 101 dB Sensitivity
- 50 Hz - 3.0 kHz Frequency range
- Dual-forced air ventilation for minimum power compression
- Triple-roll surround and exponential cone geometry
- Demodulation ring

HF DRIVER

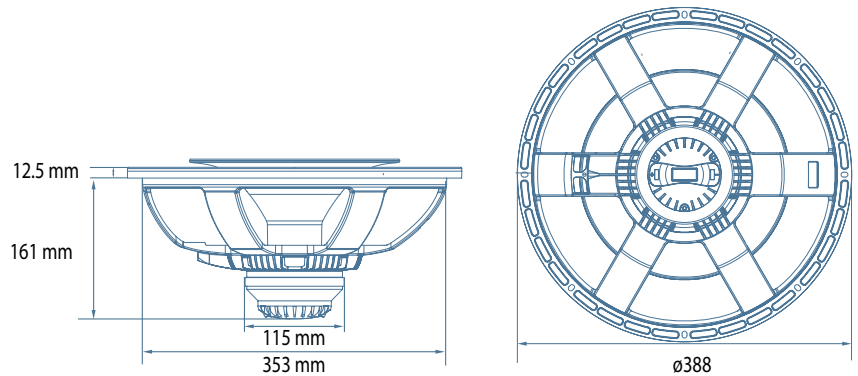
- 100 Watt Continuous program power handling
- 1.75-inch Diaphragm, 1.0-inch Exit Throat
- Frequency range: 1200 Hz - 20 kHz
- 2-slot, optimised geometry phase plug
- Polyester diaphragm
- Aluminum rear cover

The 1,7" dome compression driver, loaded to a 60° conical waveguide, provides a clear vocal output and a perfect high frequency extension.

APPLICATIONS

The CX15N251 is the perfect lightweight solution for vocal applications, stage monitoring and compact 2-way reflex enclosures.

Ideal in designs where a constant radial directivity pattern is a requirement. It is designed for use in compact reflex enclosures and stage monitor.



50

3000

20

100

1.000

10.000

20.000

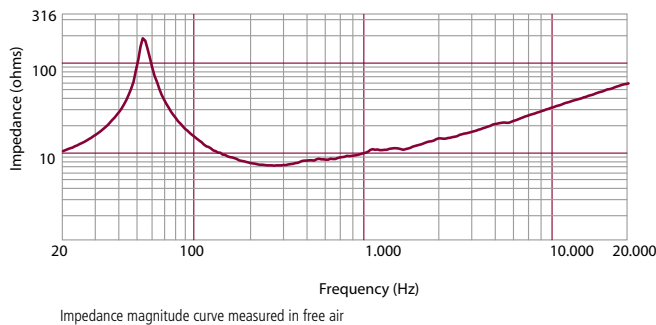
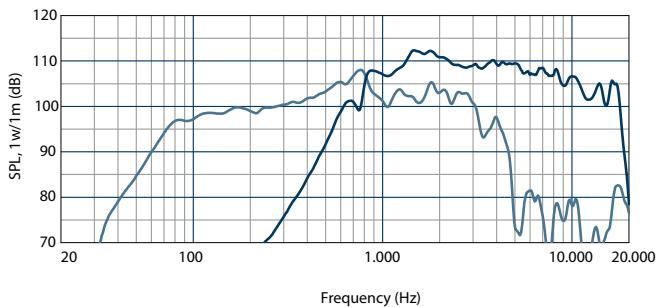


CX15N251 DRIVER

Nominal diameter	1 / 25.4	inch / mm
Rated impedance	8	ohm
Program power	100	Watt
Power handling capacity	50	Watt
Sensitivity 1W, 1m	109	dB
Frequency range	1200 - 20000	Hz
Minimum impedance	6.5	ohm
Voice Coil diameter	1.75 / 44	inch / mm
Voice Coil material	Edgewound Aluminum	
Number of layers	1- Outside	
Diaphragm material	Polyimide	
Diaphragm design	Dome	
Suspension material	Polyimide	
Suspension design	Flat	
BL factor	7.5	T x m
Flux density	1.9	T
Phase plug design	2 slot	
Phase plug material	Composite	
Magnetics	Neodymium	

CX15N251 HORN

Throat diameter	1 / 25.4	inch / mm
Nominal coverage (-6dB)	60°	
Cut-off Frequency	1800	Hz
Material	Structural Polyurethane	



GENERAL SPECIFICATIONS

Nominal Diameter	15 / 381	inch / mm
Rated Impedance	8	ohm
Program Power ¹	600	Watt
Power handling capacity ²	300	Watt
Sensitivity ³	101	dB
Frequency Range	50 - 3000	Hz
Effective Piston Diameter	330 / 12.99	mm / inch
Max Excursion Before Damage (peak to peak)	30 mm / 1.18	mm / inch
Minimum Impedance	6.4	ohm
Voice Coil Diameter	2.5 / 63	inch / mm
Voice Coil Material	Aluminium	
Voice Coil Winding Depth	14 / 0.55	mm / inch
Layer	outside	
Top Plate Thickness	8 / 0.31	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple roll	
Demodulation Ring	Aluminium	
Magnetics	Neodymium	

THIELE - SMALL PARAMETERS⁴

Resonance frequency	Fs	55	Hz
DC resistance	Re	5.2	ohm
Mechanical factor	Qms	8	
Electrical factor	Qes	0.37	
Total factor	Qts	0.35	
BL Factor	BL	18.1	T · m
Effective Moving Mass	Mms	71	gr
Equivalent Cas air load	Vas	136	liters
Effective piston area	Sd	0.086	m ²
Max. linear excursion (mathematical) ⁵	Xmax	4.8	mm
Voice - coil inductance @ 1KHz	Le1K	1.2	mH
Half-space efficiency	Eff	5.0	%

MOUNTING INFORMATION

Overall Diameter	388 / 15.28	mm / inch
Bolt Circle Diameter	369-373 / 14.5-14.7	mm / inch
Bolt Hole Diameter	5.5 / 0.2	mm / inch
Front Mount Baffle Cut-out	357 / 14.06	mm / inch
Rear Mount Baffle Cut-out	358 / 14.09	mm / inch
Depth	161 / 6.34	mm / inch
Volume occupied by the driver ⁶	2.9 / 0.11	liters / ft3

SHIPPING INFORMATION

Net Weight	4.29 / 9.46	Kg / Lbs
Shipping Weight	5.9 / 13.01	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.

COAXIAL

CX12N351

Professional Coaxial Transducer

PART NUMBER **11100058**

The CX12N351 is a top class coaxial design that provides an excellent frequency response linearity with very low distortion. The CX12N351 is powered from an integrated high power neodymium magnetic structure that guarantee high dynamic and sensitivity for both components. The mid-bass section features a 3,5" inside-outside voice coil design that provides a very high power handling, especially in comparison to a standard 3" voice coil. Thanks to an integrated demodulation ring the mid-bass section gets a fastest time response and lower distortion. The compression driver use a 2.5" diaphragm with a 1.4" throat featuring several state of the art technologies. The diaphragm and suspension are formed from 0.05 mm thick pure titanium.

MID-BASS DRIVER

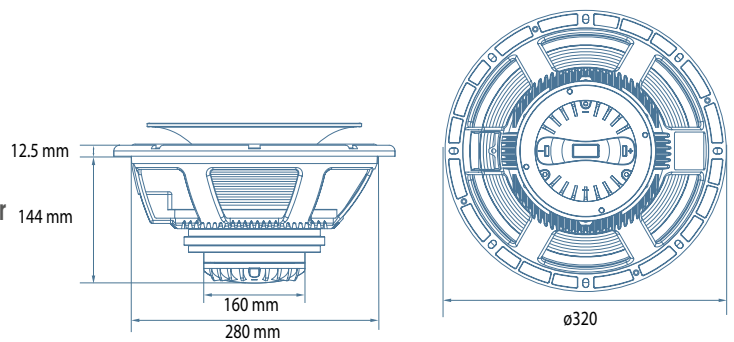
- 3.5-inch, fibreglass outside aluminum voice coil
- 900 Watt continuous program power handling
- 100.4 dB Sensitivity
- 50 Hz - 3.0 kHz Frequency range
- Dual-forced air ventilation for minimum power compression
- M-roll surround and exponential cone geometry
- Demodulation ring

HF DRIVER

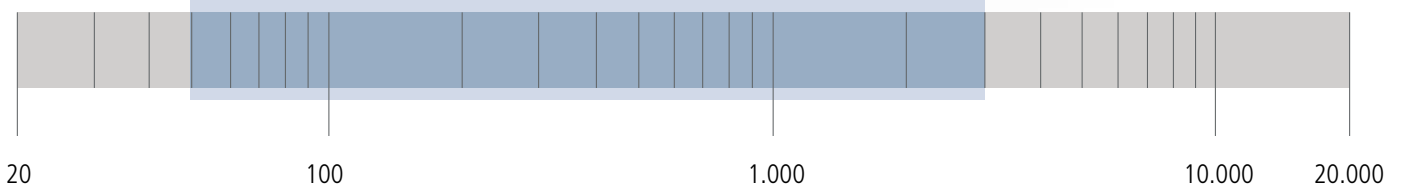
- 2.5-inch Diaphragm, 1.4-inch Exit Throat/pure titanium compression driver
- 180 Watt Continuous program power handling
- Frequency range: 700 Hz - 20 kHz
- Direct Drive Voice Coil Assembly
- 3-slot, optimised geometry phase plug
- Aluminum rear cover
- Copper inductance ring for extended response

APPLICATIONS

The CX12N351 coaxial transducer is ideal in premium quality applications where a perfect radial pattern, low distortion and curve response linearity are required. Perfect in high power stage monitors and compact high power reflex enclosures.



50 3000



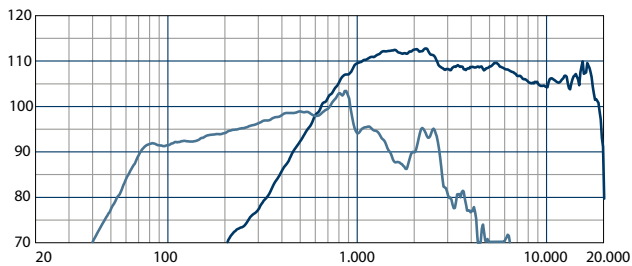


CX12N351 DRIVER

Nominal diameter	1.4 / 36	inch / mm
Rated impedance	8	ohm
Program power	180	Watt
Power handling capacity	90	Watt
Sensitivity 1W, 1m	110	dB
Frequency range	700 - 20000	Hz
Minimum impedance	7.9	ohm
Voice Coil diameter	2.5 / 63	inch / mm
Voice Coil material	Edgewound Aluminum	
Number of layers	1- Outside	
Diaphragm material	Pure Titanium	
Diaphragm design	Dome	
Suspension material	Pure Titanium	
Suspension design	Progressive	
BL factor	10.4	T x m
Flux density	2.0	T
Phase plug design	3 slot	
Phase plug material	Aluminum	
Magnetics	Neodymium	
Voice Coil Demodulation Ring	Copper	

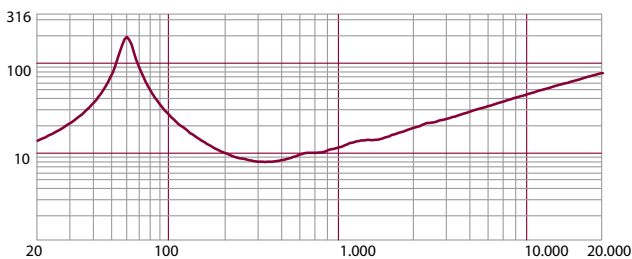
CX12N351 HORN

Throat diameter	1.4 / 36	inch / mm
Nominal coverage (-6dB)	60°	
Cut-off Frequency	900	Hz
Material	Structural Polyurethane	



Frequency (Hz)

Frequency response curve of the loudspeaker made 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.



Frequency (Hz)

Impedance magnitude curve measured in free air

GENERAL SPECIFICATIONS

Nominal Diameter	12 / 305	inch / mm
Rated Impedance	8	ohm
Program Power ¹	900	Watt
Power handling capacity ²	450	Watt
Sensitivity ³	100.4	dB
Frequency Range	50 - 3000	Hz
Effective Piston Diameter	260 / 10.24	mm / inch
Max Excursion Before Damage (peak to peak)	39 / 1.54	mm / inch
Minimum Impedance	6.80	ohm
Voice Coil Diameter	3.5 / 89	inch / mm
Voice Coil Material	Copper	
Voice Coil Winding Depth	14 / 0.55	mm / inch
Layer	inside/outside	
Top Plate Thickness	11 / 0.43	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Demodulation Ring	Aluminum	
Magnetics	Neodymium	

THIELE - SMALL PARAMETERS⁴

Resonance frequency	Fs	58	Hz
DC resistance	Re	5.8	ohm
Mechanical factor	Qms	5.4	
Electrical factor	Qes	0.21	
Total factor	Qts	0.20	
BL Factor	BL	25	T · m
Effective Moving Mass	Mms	62	gr
Equivalent Cas air load	Vas	47	liters
Effective piston area	Sd	0.053	m ²
Max. linear excursion (mathematical) ⁵	Xmax	5.5	mm
Voice - coil inductance @ 1KHz	Le1K	1.5	mH
Half-space efficiency	Eff	4.4	%

MOUNTING INFORMATION

Overall Diameter	320 / 12.6	mm / inch
Bolt Circle Diameter	293-304 / 11.5-11.9	mm / inch
Bolt Hole Diameter	6.5 / 0.25	mm / inch
Front Mount Baffle Cut-out	284 / 11.18	mm / inch
Rear Mount Baffle Cut-out	284 / 11.18	mm / inch
Depth	144 / 5.66	mm / inch
Volume occupied by the driver ⁶	2.2 / 0.09	liters / ft3

SHIPPING INFORMATION

Net Weight	6.29 / 13.87	Kg / Lbs
Shipping Weight	7.47 / 16.47	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.

COAXIAL

CX12N251

Professional Coaxial Transducer

PART NUMBER **11100069**

The CX12N251 is a lightweight coaxial driver with excellent linearity and high efficiency. The CX12N251 radiates a coherent single spherical wave front with perfect dispersion control. The design is powered from a large sized single neodymium ring magnet that provides an extremely high flux density and BL factor. The new hyper-vented aluminium basket and magnetic assembly design provide an excellent heat dissipation and lower power compression. Special air-forced ventilations are provided for voice coil, magnet assembly and basket. A 2,5" voice coil combined a strength fibreglass former and aluminium wire drives the mid-bass cone with high efficiency and a good extension.

MID-BASS DRIVER

- 600 Watt continuous program power handling
- 2.5-inch, fibreglass outside aluminium voice coil
- 99.5 dB Sensitivity
- 50 Hz - 3.5 kHz Frequency range
- Dual-forced air ventilation for minimum power compression
- M-roll surround and exponential cone geometry
- Demodulation ring

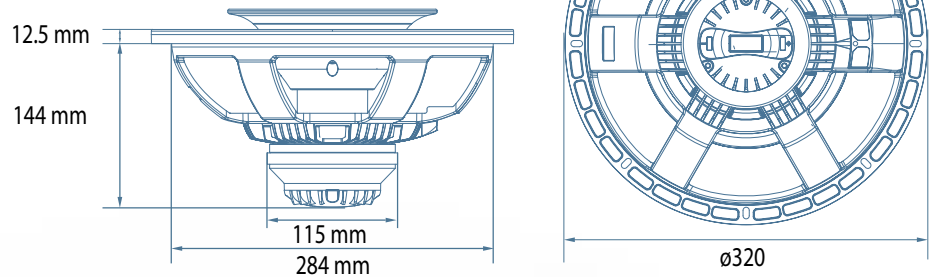
HF DRIVER

- 100 Watt Continuous program power handling
- 1.75-inch Diaphragm, 1.0-inch Exit Throat
- Frequency range: 1200 Hz – 20 kHz
- 2-slot, optimised geometry phase plug
- Polyester diaphragm
- Aluminium rear cover

The 1,7" dome compression driver, loaded to a 60° conical waveguide, provides a clear vocal output and a perfect high frequency extension.

APPLICATIONS

The CX12N251 is the perfect lightweight solution for vocal applications, stage monitoring and compact 2-way reflex enclosures. Ideal in designs where a constant radial directivity pattern is a requirement. is designed for use in compact reflex enclosures and stage monitor.



50 3500

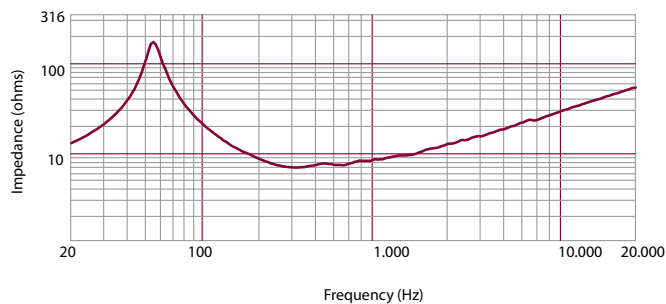
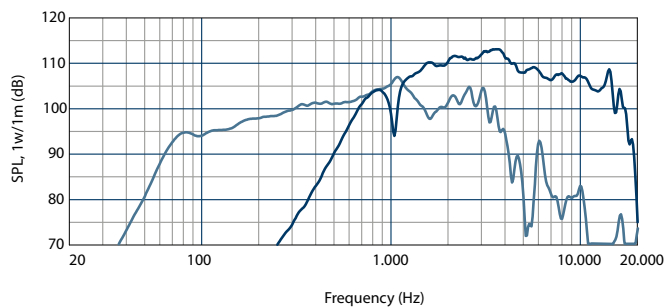


CX12N251 DRIVER

Nominal diameter	1.0 / 25	inch / mm
Rated impedance	8	ohm
Program power	100	Watt
Power handling capacity	50	Watt
Sensitivity 1W, 1m	109	dB
Frequency range	1200 - 20000	Hz
Minimum impedance	6.5	ohm
Voice Coil diameter	1.75 / 44	inch / mm
Voice Coil material	Edgewound Aluminum	
Number of layers	1- Outside	
Diaphragm material	Polyimide	
Diaphragm design	Dome	
Suspension material	Polyimide	
Suspension design	Flat	
BL factor	7.5	T x m
Flux density	1.9	T
Phase plug design	2 slot	
Phase plug material	Composite	
Magnetics	Neodymium	

CX12N251 HORN

Throat diameter	1 / 25	inch / mm
Nominal coverage (-6dB)	60°	
Cut-off Frequency	1800	Hz
Material	Structural Polyurethane	



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.

GENERAL SPECIFICATIONS

Nominal Diameter	12 / 305	inch / mm
Rated Impedance	8	ohm
Program Power ¹	600	Watt
Power handling capacity ²	300	Watt
Sensitivity ³	99.5	dB
Frequency Range	50 - 3500	Hz
Effective Piston Diameter	260 / 10.24	mm / inch
Max Excursion Before Damage (peak to peak)	30 / 1.18	mm / inch
Minimum Impedance	6.40	ohm
Voice Coil Diameter	2.5 / 63	inch / mm
Voice Coil Material	Aluminium	
Voice Coil Winding Depth	14 / 0.55	mm / inch
Layer	outside	
Top Plate Thickness	8 / 0.31	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple roll	
Demodulation Ring	Aluminium	
Magnetics	Neodymium	

THIELE - SMALL PARAMETERS⁴

Resonance frequency	Fs	60	Hz
DC resistance	Re	5.2	ohm
Mechanical factor	Qms	5.4	
Electrical factor	Qes	0.28	
Total factor	Qts	0.26	
BL Factor	BL	17.5	T · m
Effective Moving Mass	Mms	41	gr
Equivalent Cas air load	Vas	62	liters
Effective piston area	Sd	0.053	m ²
Max. linear excursion (mathematical) ⁵	Xmax	4.8	mm
Voice - coil inductance @ 1KHz	Le1K	1.2	mH
Half-space efficiency	Eff	5.2	%

MOUNTING INFORMATION

Overall Diameter	320 / 12.6	mm / inch
Bolt Circle Diameter	295-304 / 11.6-11.9	mm / inch
Bolt Hole Diameter	5.5 / 0.2	mm / inch
Front Mount Baffle Cut-out	288 / 11.34	mm / inch
Rear Mount Baffle Cut-out	288 / 11.34	mm / inch
Depth	144 / 5.66	mm / inch
Volume occupied by the driver ⁶	2.4 / 0.09	liters / ft3

SHIPPING INFORMATION

Net Weight	3.6 / 7.94	Kg / Lbs
Shipping Weight	4.1 / 9.04	Kg / Lbs

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.

COAXIAL

CX10N251

Professional Coaxial Transducer

PART NUMBER **11100068**

The CX10N251 is a lightweight coaxial driver with excellent linearity and high efficiency. The CX10N251 radiates a coherent single spherical wave front with perfect dispersion control. The design is powered from a large sized single neodymium ring magnet that provides an extremely high flux density and BL factor. The new hyper-vented aluminium basket and magnetic assembly design provide an excellent heat dissipation and lower power compression. Special air-forced ventilations are provided for voice coil, magnet assembly and basket. A 2,5" voice coil combined a strength fibreglass former and aluminium wire drives the mid-bass cone with high efficiency and a good extension.

MID-BASS DRIVER

- 600 Watt continuous program power handling
- 2.5-inch, fibreglass outside, aluminum voice coil
- 99 dB Sensitivity
- 65 Hz - 3.5 kHz Frequency range
- Dual-forced air ventilation for minimum power compression
- M-roll surround and exponential cone geometry
- Demodulation ring

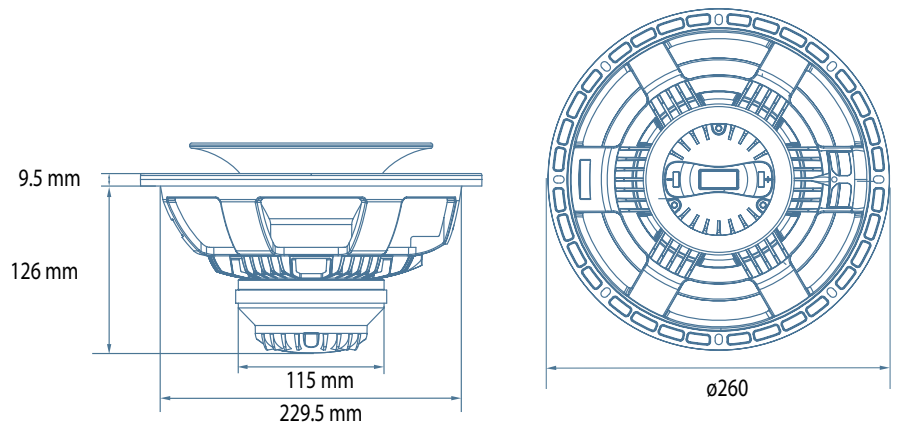
HF DRIVER

- 100 Watt Continuous program power handling
- 1.75-inch Diaphragm, 1.0-inch Exit Throat
- Frequency range: 1200 Hz – 20 kHz
- 2-slot, optimised geometry phase plug
- Polyester diaphragm
- Aluminum rear cover dissipation design

The 1,7" dome compression driver, loaded to a 60° conical waveguide, provides a clear vocal output and a perfect high frequency extension.

APPLICATIONS

The CX10N251 is the perfect lightweight solution for vocal applications, stage monitoring and compact 2-way reflex enclosures. Ideal in designs where a constant radial directivity pattern is a requirement.



65

3500

20

100

1.000

10.000

20.000

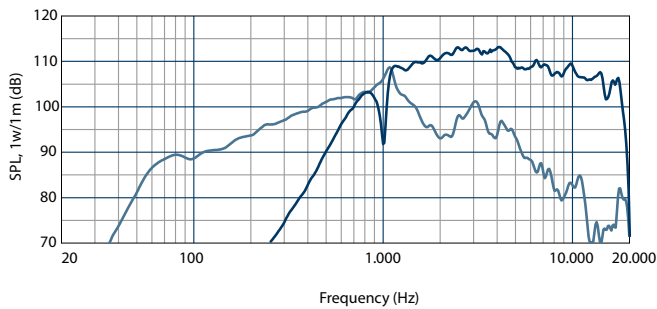


CX10N251 DRIVER

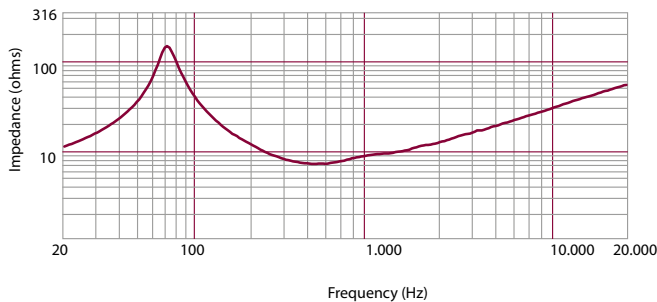
Nominal diameter	1.0 / 25	inch / mm
Rated impedance	8	ohm
Program power	100	Watt
Power handling capacity	50	Watt
Sensitivity 1W, 1m	109	dB
Frequency range	1200 - 20000	Hz
Minimum impedance	6.5	ohm
Voice Coil diameter	1.75 / 44	inch / mm
Voice Coil material	Edgewound Aluminum	
Number of layers	1- Outside	
Diaphragm material	Polyimide	
Diaphragm design	Dome	
Suspension material	Polyimide	
Suspension design	Flat	
BL factor	7.5	T x m
Flux density	1.9	T
Phase plug design	2 slot	
Phase plug material	Composite	
Magnetics	Neodymium	

CX10N251 HORN

Throat diameter	1 / 25	inch / mm
Nominal coverage (-6dB)	60°	
Cut-off Frequency	1800	Hz
Material	Structural Polyurethane	



Frequency response curve of the loudspeaker made 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	10 / 254	inch / mm
Rated Impedance	8	ohm
Program Power ¹	600	Watt
Power handling capacity ²	300	Watt
Sensitivity ³	99	dB
Frequency Range	65 - 3500	Hz
Effective Piston Diameter	210 / 8.27	mm / inch
Max Excursion Before Damage (peak to peak)	30 / 1.18	mm / inch
Minimum Impedance	6.40	ohm
Voice Coil Diameter	2.5 / 63	inch / mm
Voice Coil Material	Aluminium	
Voice Coil Winding Depth	14 / 0.55	mm / inch
Layer	outside	
Top Plate Thickness	8 / 0.31	mm / inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M-roll	
Demodulation Ring	Aluminium	
Magnetics	Neodymium	

THIELE - SMALL PARAMETERS⁴

Resonance frequency	Fs	72	Hz
DC resistance	Re	5.2	ohm
Mechanical factor	Qms	4.5	
Electrical factor	Qes	0.25	
Total factor	Qts	0.23	
BL Factor	BL	17.5	T · m
Effective Moving Mass	Mms	28	gr
Equivalent Cas air load	Vas	25	liters
Effective piston area	Sd	0.035	m ²
Max. linear excursion (mathematical) ⁵	Xmax	4.8	mm
Voice - coil inductance @ 1KHz	Le1K	1.2	mH
Half-space efficiency	Eff	4.7	%

MOUNTING INFORMATION

Overall Diameter	260 / 10.24	mm / inch
Bolt Circle Diameter	241-246 / 9.49-9.69	mm / inch
Bolt Hole Diameter	5.5 / 0.2	mm / inch
Front Mount Baffle Cut-out	234 / 9.21	mm / inch
Rear Mount Baffle Cut-out	234 / 9.21	mm / inch
Depth	126 / 4.96	mm / inch
Volume occupied by the driver ⁶	2.1 / 0.08	liters / ft3

SHIPPING INFORMATION

Net Weight	3.29 / 7.25	Kg / Lbs
Shipping Weight	4.07 / 8.97	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.

HIGH FREQUENCY HORNS

High performance solutions in a lightweight compact package. A perfect match of constant directivity horns for professional applications.

Ideal for compact 2-way systems or bigger sized multiple-way products.



HORN

HF950

Professional High Frequency Horns



PART NUMBER **13133080**

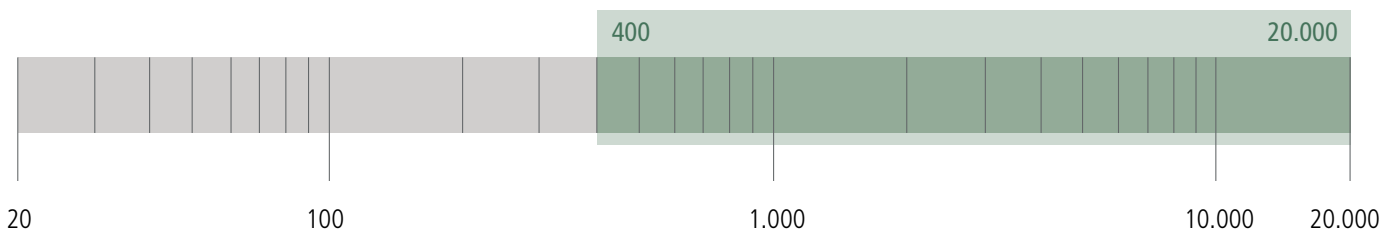
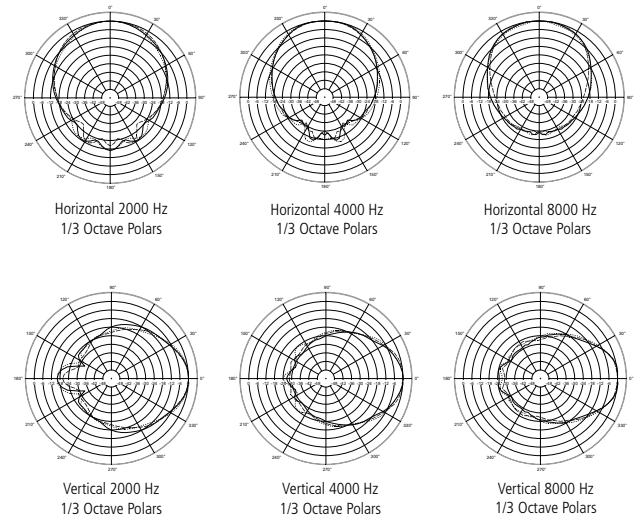
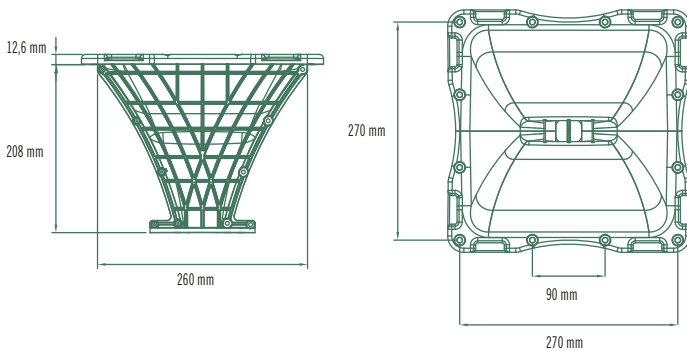
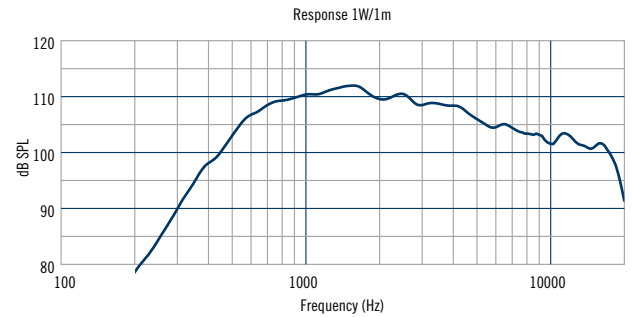
- 1.4 inch Throat Diameter
- 90° x 50° Constant Directivity Coverage
- Loading down to 400 Hz
- Structural Polyurethane
- Perfectly Controlled Dispersion

GENERAL SPECIFICATIONS

Throat Diameter	1.4 / 36	inch / mm
Nominal Coverage (-6dB)	90° x 50°	Hor. x Vert.
Cut-off Frequency	400	Hz
Material	Structural Polyurethane	

MOUNTING INFORMATION

Overall Dimensions	300 / 11.81	mm / inch
Baffle Cut-out Dimensions	260 / 10.24	mm / inch
Total Depth	208 / 8.19	mm / inch
Driver Mounting	4 x 7 mm holes, interaxes 101 mm	
	101 / 3.97	mm / inch
Net Weight	1.06 / 2.34	kg / Lbs
Shipping Weight	1.06 / 2.34	kg / Lbs



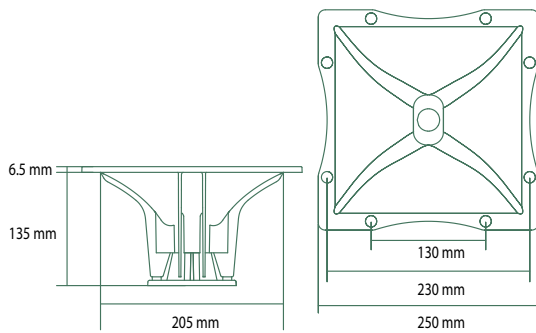
HORN

HF94

Professional High Frequency Horns

PART NUMBER **13133047**

- 1-inch/1.4 inch Throat Adaptor
- 90° x 40° Constant Directivity Coverage
- Loading down to 500 Hz
- Thick Aluminum Body for best heat dissipation in conjunction to Neodimium Compression Drivers
- Perfectly Controlled Dispersion

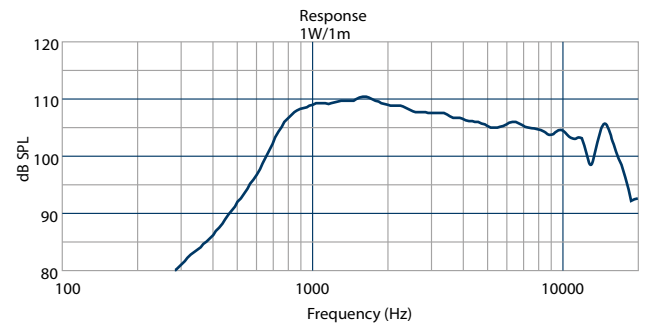


GENERAL SPECIFICATIONS

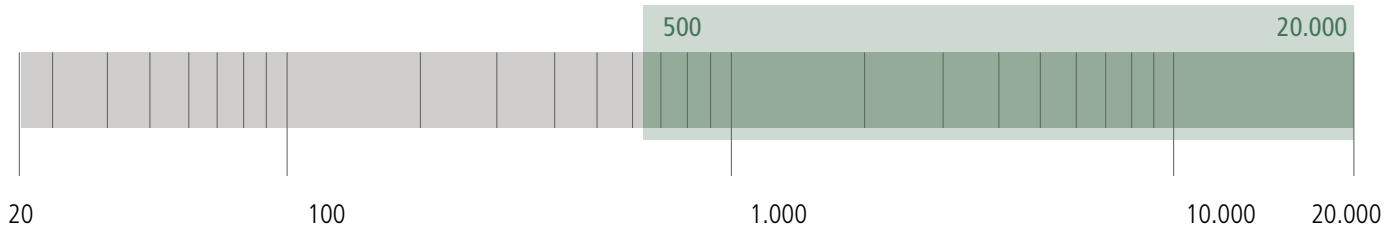
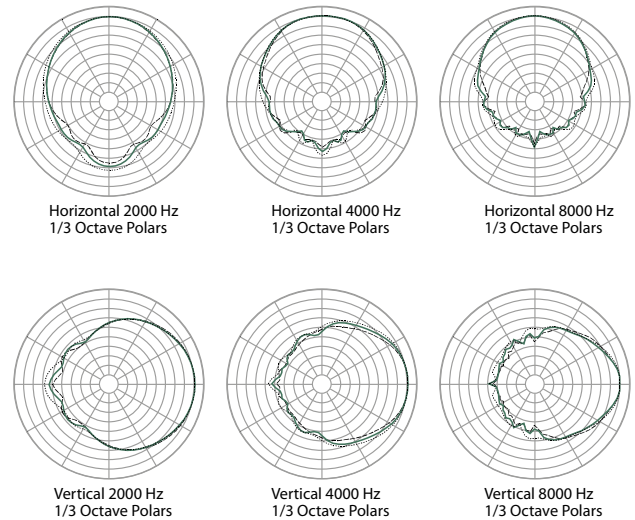
Throat Diameter	1.0-1.4 / 25-36	inch / mm
Nominal Coverage (-6dB)	90° x 40°	Hor. x Vert.
Cut-off Frequency	500	Hz
Material	Aluminium	

MOUNTING INFORMATION

Overall Dimensions	250 / 9.84	mm / inch
Baffle Cut-out Dimensions	205 / 8.07	mm / inch
Total Depth	135 / 5.31	mm / inch
Driver Mounting	4 x 7 mm holes, interaxes 101 mm/76 mm	101-76 / 3.97- 2.99
Net Weight	1.12 / 2.47	kg / Lbs
Shipping Weight	2 / 4.41	kg / Lbs



Frequency response curve of the horn measured on axis at distance of 1 meter with 1 watt signal, in an anechoic environment, with ND2530-T3 compression driver



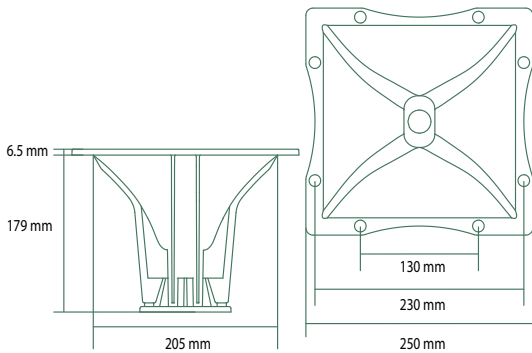
HORN

HF64

Professional High Frequency Horns

PART NUMBER **13133046**

- 1-inch/1.4 inch Throat Adaptor
- 60° x 40° Constant Directivity Coverage
- Loading down to 500 Hz
- Thick Aluminum Body for best heat dissipation in conjunction to Neodimium Compression Drivers
- Perfectly Controlled Dispersion

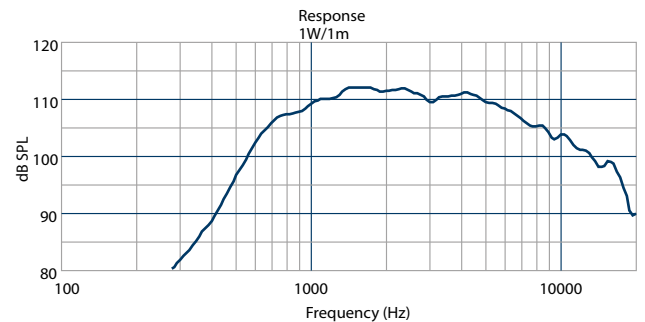


GENERAL SPECIFICATIONS

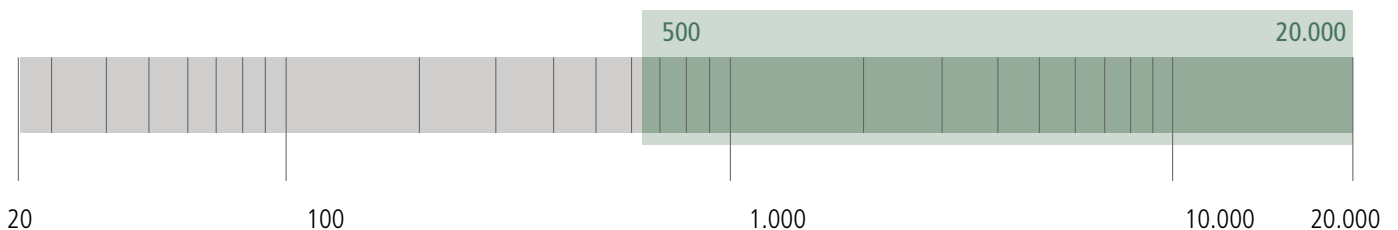
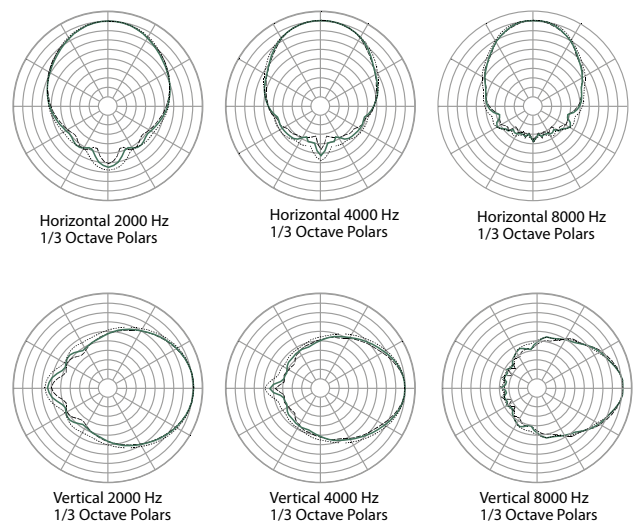
Throat Diameter	1.0-1.4 / 25-36	inch / mm
Nominal Coverage (-6dB)	60° x 40°	Hor. x Vert.
Cut-off Frequency	500	Hz
Material	Aluminium	

MOUNTING INFORMATION

Overall Dimensions	250 / 9.84	mm / inch
Baffle Cut-out Dimensions	205 / 8.07	mm / inch
Total Depth	179 / 7.05	mm / inch
Driver Mounting	4 x 7 mm holes, interaxes 101 mm/76 mm	101-76 / 3.97- 2.99
Net Weight	1.48 / 3.26	kg / Lbs
Shipping Weight	2.4 / 5.29	kg / Lbs



Frequency response curve of the horn measured on axis at distance of 1 meter with 1 watt signal, in an anechoic environment, with ND2530-T3 compression driver



HORN

HF101

Professional High Frequency

PART NUMBER **13133048**

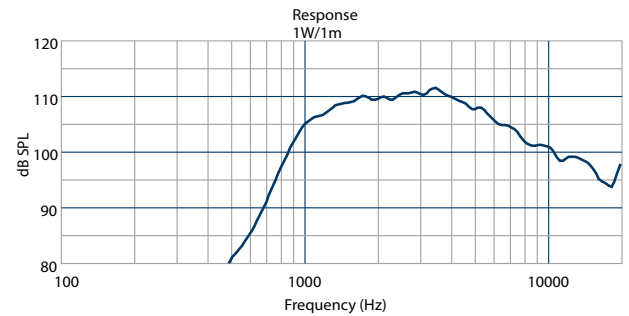
- 1-inch Throat Diameter
- 90° x 70° Constant Directivity Coverage
- Loading down to 1000 Hz
- Aluminum Body
- Perfectly Controlled Dispersion

GENERAL SPECIFICATIONS

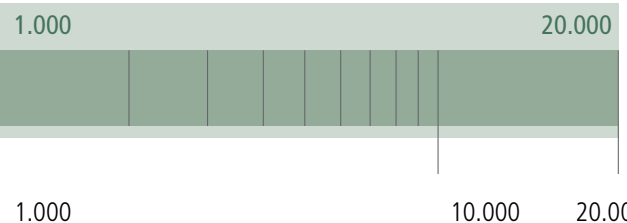
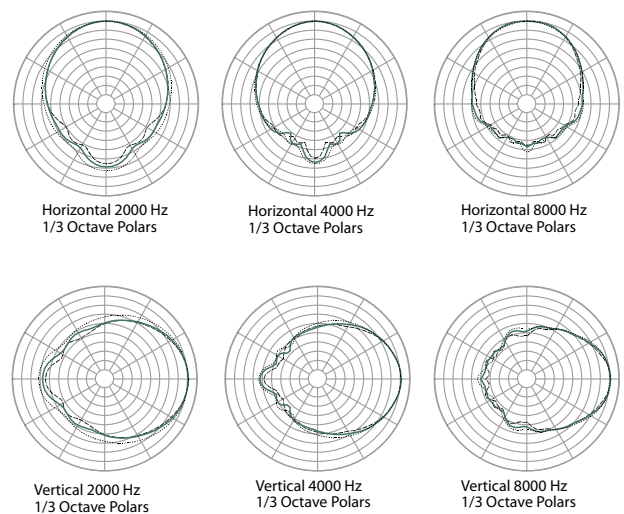
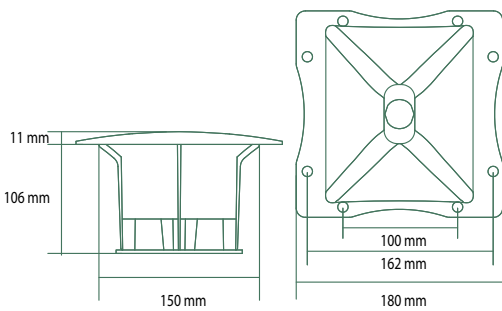
Throat Diameter	1.0-1.4 / 25-36	inch / mm
Nominal Coverage (-6dB)	90° x 70°	Hor. x Vert.
Cut-off Frequency	1000	Hz
Material	Aluminium	

MOUNTING INFORMATION

Overall Dimensions	180 / 7.09	mm / inch
Baffle Cut-out Dimensions	150 / 5.91	mm / inch
Total Depth	106 / 4.17	mm / inch
Driver Mounting		
4 x 8 mm holes, interaxes 76 mm	76 / 2.99	mm / inch
Net Weight	0.16 / 0.35	kg / Lbs
Shipping Weight	0.83 / 1.83	kg / Lbs



Frequency response curve of the horn measured on axis at distance of 1 meter with 1 watt signal, in an anechoic environment, with ND1411-M compression driver



HORN

H100

Professional High Frequency Horns

PART NUMBER **13125015**

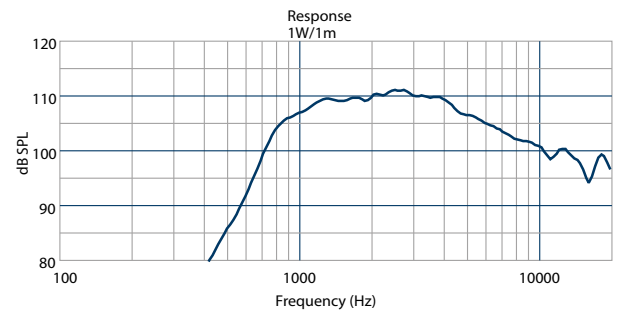
- 1-inch Throat Diameter
- 90° x 75° Constant Directivity Coverage
- Loading down to 800 Hz
- State of the art sound quality

GENERAL SPECIFICATIONS

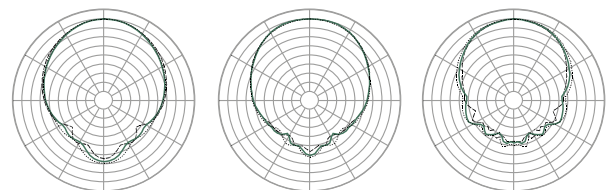
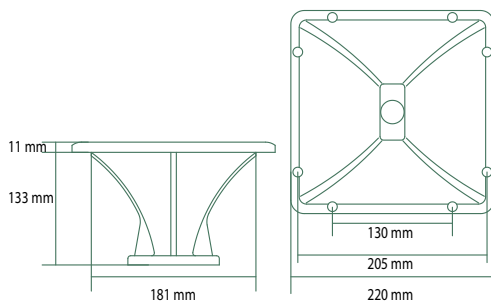
Throat Diameter	1.0 / 25	inch / mm
Nominal Coverage (-6dB)	90° x 75°	Hor. x Vert.
Cut-off Frequency	800	Hz
Material	Structural Polyurethane	

MOUNTING INFORMATION

Overall Dimensions	220 mm / 8.66	mm / inch
Baffle Cut-out Dimensions	182 mm / 7.17	mm / inch
Total Depth	133 mm / 5.24	mm / inch
Driver Mounting	4 x 7 mm holes, interaxes 76 mm	
	76 / 2.99	mm / inch
Net Weight	0.06 / 0.13	kg / Lbs
Shipping Weight	0.73 / 1.61 lbs	kg / Lbs



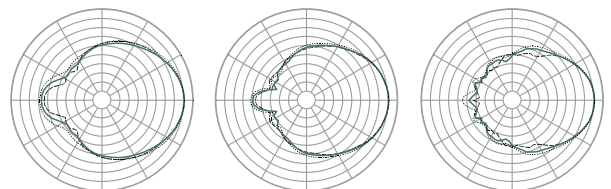
Frequency response curve of the horn measured on axis at distance of 1 meter with 1 watt signal, in an anechoic environment, with ND1411-M compression driver



Horizontal 2000 Hz
1/3 Octave Polars

Horizontal 4000 Hz
1/3 Octave Polars

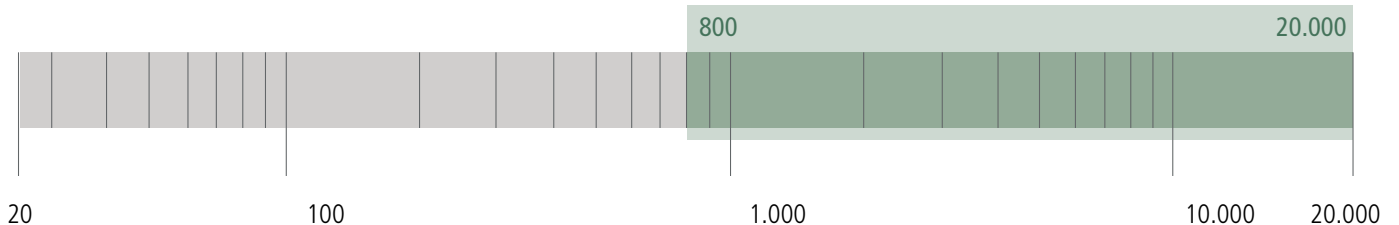
Horizontal 8000 Hz
1/3 Octave Polars



Vertical 2000 Hz
1/3 Octave Polars

Vertical 4000 Hz
1/3 Octave Polars

Vertical 8000 Hz
1/3 Octave Polars





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