



PROFESSIONAL LOUDSPEAKERS

— — *Made in Italy*





SOUND IS BEAUTY AND EMOTION

Vibrations moving through the air taking completely the mind. Amplifying these emotions for FitalPRO is a commitment which goes beyond professionalism. It's an inborn passion: the privilege of working in an environment that IS art, genius and excitement and which is corresponded by FitalPRO with precisely the same enthusiasm, respect and admiration.

A BIT ABOUT US

Faital's history reflects the Group's constant development and growth over the last 50 years. The various milestones that have been achieved since the Company was established in 1958 have allowed it to become an important point of reference in the world markets.

1960s

Faital S.p.A. is established in Milan in 1958 as a small family-run business. At the end of the 1960s, Faital is one of the main Italian manufacturers of loudspeakers, accounting for 40% of national demand. Faital initially manufactures loudspeakers only for radios and audio systems and later introduces its products into the market for television amplifier systems. As a result of constant technical and business development, the company gradually expands to cover many areas of industry.



1970s

Faital enters the automotive field and ventures beyond national boundaries with its first European clients. In order to satisfy increasing market demand and its new European clients, in 1974 the company opens a new plant in Chieve, near Crema, Italy.



1980s

The growth trend continues. Faital becomes the official loudspeaker supplier to various car manufacturers. The company undertakes a modernisation and technological development process with investments aimed at updating plants and enhancing the areas of Research and Development and Human Resources. The company commits to TOTAL QUALITY and sets its main objective as "Zero Defects". In 1985, the Fabrica Iberica de Altavoces is established in Spain and a new plant is opened in Barcelona.



1990s

In the early 1990s, Sofaital S.A. is established in France and a new plant is opened at Argenteuil, near Paris. A few years later, a new manufacturing facility is opened in Spain at Vacarisses - Barcelona. As a result of the new subsidiaries being established - Sofaital in France and Fabrica Iberica in Spain - the Faital Group becomes the leading European manufacturer of loudspeakers for the automotive industry. The Group considers with increasing interest the possibility of entering the North American market.

TODAY

In the new millennium, the company enters the North American market and begins to meet local market requirements. The Group consolidates its achievements after almost half a century in business. In order to enter the North American automotive market successfully, the company establishes a commercial office and a new warehouse near New York to provide logistical support to its North American clients. Similarly, to increase its capacity and competitiveness Faital establishes a new manufacturing facility in Hungary and a new sales & logistics center in Hong Kong to support their Asian clients. The new millennium also marks the beginning of a diversification strategy for Faital that leads to the development of the FaitalPRO brand. FaitalPRO is a full line of Professional Loudspeakers suitable for use in heavy-duty applications. These products are specifically designed for the Pro-Audio markets and are manufactured to the highest standard of reliability, sound quality and high power handling.



As already mentioned above, the group's growth is the result of an ongoing commitment to achieve a complete understanding of Clients' requirements. Design, manufacturing and product quality control systems are all proactively geared towards Customer Satisfaction. The company's mission is to ensure that the four basic features of Faital products are met: Technology, Quality, Service and Competitiveness.

In this way, the Faital Group can ensure that their products reflect the following:

- Design expertise and innovation supported by technologically advanced manufacturing processes
- Consistent sound quality and reliability

Effective logistic planning in order to support product distribution and Customer demand. To hold strong to the original passion for good sound that started the small family run business, Faital has decided to keep design and production of the FaitalPRO line of loudspeakers in Italy, combining superb craftsmanship with the latest industrial technologies. As a multinational business currently operating in three continents, the company is preparing to face the new challenges of a highly competitive global market where technological development and customer service are increasingly becoming the key factors for success.

HOW WE DO WHAT WE DO

R&D AND MANUFACTURING BY FAITAL

Every FaitalPRO driver is meticulously designed using the latest CAD and FEA modelling techniques. All electro-acoustic and mechanical performances are simulated and then carefully studied by a team of "sound fanatic" engineers. The individual parts of each loudspeaker are directly designed in this way, in order to ensure that the end product will meet the Client's electro-acoustic and environmental requirements and special attention is given to compliance of the finished product with environmental requirements and international standards.

1 Design

Creating a loudspeaker system involves a combination of design, technology and sensory considerations. Emotions, communicated by listening to an audio system, are the result of a complex process. Faital's Research and Development laboratory is a centre of excellence in the fields of research, planning, development, testing and support for the manufacture of loudspeaker systems.



In the following pages, Faital will take you on a guided tour of the various stages involved in manufacturing its products, which is undoubtedly part of one of the most advanced processes in the industry. You will be able to experience first-hand the commitment, expertise and quality that underline each of our products.

2 OEM Co-Design

The major component of an audio system is the enjoyment that it transmits to the end user. This is the result of work that begins early on, once design models are ready. Initially customers' requirements are clearly defined. Therefore, Faital works in synergy with the customers right from the beginning. A number of meetings are required with the customer and the other suppliers involved in the project, in order to outline an initial concept of what the loudspeaker system will be like. A work group is set up within Faital, with representatives from all company departments, including design, sales, purchasing, quality, production and logistics. Based on their work, valuable suggestions will be proposed to the customer during the project, as well as strict quality control criteria at each stage of the project. Firstly the type, number and size of loudspeakers in the audio system need to be determined, as well as their position in relation to listeners in a room or in an open environment. The performance of the sound system will largely depend on this positioning, which is often the result of an optimisation based upon the customer design choices and needs.

3 CAD System

At the design stage, work begins on drawing individual loudspeakers and their specific components using three-dimensional modeling software. In order to do this, both Faital and the customer can use compatible software and quickly exchange files containing the drawings. Faital currently has 8 workstations and is able to carry out drawings using three different CAD systems: CATIA, Autocad and NX. At the same time, an electro-acoustic simulation of the various loudspeakers in development is carried out using "Finite Element Analysis" software based on the required physical and dimensional parameters, this way their acoustic performance can be predicted before they are built in the laboratory. The materials and single components that will be used are also tested using engineering simulation software. Faital has also acquired over the years the ability to create a feedback system that enables the R&D dept to feed actual performance data into the FEA system which in turn is constantly becoming more precise and reliable.



4 Prototyping

When the process of drawing and defining the technical characteristics of the various parts of the new models designed has been sufficiently consolidated, Faital builds the first version of the loudspeakers. This phase is achieved by the construction of pilot tools or the use of rapid prototyping techniques, such as laser sintering of baskets, so that parts very similar to the final ones can be quickly assembled.

The first prototypes can then be measured to verify that all electrical and acoustic parameters comply with the initial design specifications. At this stage the work-group assigned to the project, co-ordinated by the project leader, can predict reliability problems in the final product using third-generation DFMEA methods. In addition, aspects relating to the industrial manufacturing of individual parts can be assessed, providing an initial outline of production flow and defining any special manufacturing equipment that will be required.

This verification stage is extremely important because, in addition to allowing the required adjustments and changes to be made to the loudspeaker designs, it provides an opportunity to present useful suggestions to the R&D dept or the customer for improving the overall product and the final application.

All problems arising at this point and any changes that need to be made to individual parts are discussed at constant inter-functional progress meetings. This allows to assess their possible impact, both economic and industrial making use of advanced PFMEA's for a detailed reliability evaluation, all the while ensuring that development deadlines are met. At this stage the customer can also be involved so that any changes to the initial technical requirements can be evaluated and agreed upon.

5 Off Tool Parts

Once this stage has been completed, work can start on the production of final tools and equipment for the manufacture of all parts. Attention is now focused on second-level suppliers and production methods: purchasing, quality of suppliers and production methods, play an important role in this stage. At the proposed production plant an initial review of the manufacturing process for the loudspeaker being developed is carried out. This allows control plans and production flow process to be optimized by clearly identifying process variables. On receiving final of tool parts and equipment, the supplier quality department and the laboratory carry out a key role once again. While the laboratory undertakes manual assembly of all loudspeakers required for the audio system in order to verify their compliance with project specifications, the quality department "certifies" the quality of supplies. This is carried out using the pre-series products in accordance with similar criteria as to that required by the end customer. This process continues even after mass production start up and is based on a continuous performance-monitoring plan.



6 Acoustic Testing

In addition to instrumental testing, the prototypes produced in the laboratory are also subjected to a series of tests ranging from installation testing to dimensional compatibility, as well as verifying their acoustic performance. Final adjustments could still be possible at this stage by fine tuning and implementing minor changes, this way the final characteristics of the manufactured product can be finally set. Sound is evaluated by tests using instruments and through a series of listening sessions carried out by specially trained engineers. Carefully selected pieces of music are used in order to highlight specific features of the audio system's acoustic performance. The listening tests are also compared with audio recordings that have been made in a reference environment, such as a state of the art listening room.

7 Pre-Series Production

When the results that have been achieved are considered satisfactory of all technical requirements, a pre-series production is undertaken at the manufacturing plant chosen for the project. This allows for verification that the products manufactured in the final production process comply with the initial project specifications. Pre-series production, which is carried out using the final manufacturing equipment and components on the proposed manufacturing line is also subjected to product and process validation carried out by the R&D laboratory. This marks the beginning of product and process validation both of which aspects are subject to careful quality control. At this point the plant committee, along with the engineers from the R&D laboratory, carries out an initial review of the effectiveness of the production processes that had been previously planned. At this stage a verification is carried out to ensure that process variables are under control, based on accurate measurements and using appropriate statistical methods. Any deviations or problems that are found generate immediate feedback regarding the project, in addition to the necessary corrective action being taken in relation to the product, processes and suppliers.



8 Validation Testing

The loudspeakers from the pre-series production are also used for validation testing, which is carried out by Faital's R&D dept. The tests used to verify the reliability and performance of loudspeakers during their lifecycle vary enormously from customer to customer and from application to application. Faital, having acquired an invaluable experience in this area, is able to share its know-how with customers by suggesting the most appropriate solutions and methods if needed. Faital has for some time implemented a series of routine activities for the validation process of products; these activities include salt fog tests, life tests, temperature shock, humidity, UV exposure and vibration test either carried out singularly or combined together, as well as all the most advanced electro-acoustic measurements, including linear parameters measurement, large signal identification, thermal behaviour, suspension part measurement and scanning vibrometer systems. All these activities result in a detailed report completing the validation phase.



9 Production

The project has been completed. From this point on, the production department is responsible for ensuring that production volumes required are met and verified using R@R (Run @ Rate) tests, in accordance with product characteristics set in the project specifications. Production processes are verified and optimized through continuous quality control on the production line. All loudspeakers manufactured by the Faital group are fully checked at the end of the assembly line. Loudspeakers are tested individually also using proprietary computerized equipment, which verifies in real time six electro-acoustic parameters relating to nominal use conditions specific to each product. Defective items are always set aside for careful analysis and possible feedback to the R&D dept. Quality Assurance and the Plant Committee continuously monitor production progress. In the case of non-conformities or deterioration in the level of production rejects, corrective actions, either internal or relating to suppliers, are identified and implemented. In addition, a general management committee oversees the progress of all Faital plants globally, in order to ensure that a uniform level of product quality is achieved wherever a product is manufactured. Most of a product is emotion and Faital ensures the emotion of a perfect sound.

10 FaitalPRO Products

The use of NdFeB throughout the entire range of FaitalPRO drivers allows for an important weight reduction. In fact, when confronting ferrite and NdFeB magnets with the same magnetic induction in the gap, the results show that NdFeB transducers weigh from 3 to 6 times less than ferrite. This aspect is an evident advantage for manufacturers of speaker boxes allowing them to design products that are easier to move and to implement in projects with simpler structures for speaker support and fixing points. The same concept can be considered for Line Array applications that use numerous transducers in modular blocks. The complete FaitalPRO line of drivers is produced using state of the art materials. Our team of engineers design all acoustical components as well as all hard parts. A special heat dissipation system, designed by our R&D team, allows outstanding power handling capability while improving the drivers' reliability. Cones and suspensions, as well as voice coils, undergo a special treatment in order to provide reliable performance even in the most severe environmental conditions. The specifically selected adhesives and the curing phase during the production process are a guarantee for product reliability and durability. The entire line of FaitalPRO drivers has been tested and verified to withstand the most severe working environments. With this in mind Faital has chosen to carry out life tests in accordance with the severe AES 2 - 1984 Rev.2003. norm. Every FaitalPRO driver is manufactured combining superb craftsmanship with the latest industrial technologies and rigorous tests are constantly performed during quality checks. All driver components are put through continuous visual, mechanical and electrical tests to verify their conformity to the design parameters. This procedure is in place to keep production tolerances within very tight limits ensuring consistency in quality and reliability over time. As quality and environmental protection are of utmost importance to us, Faital has been certified for many years in accordance with the following international standards:

- ISO/TS 16949:2009
- ISO 14001:2004
- ISO 9001:2008



"BEHIND THE SCENES" OF A PROJECT BY FAITAL

■ The Design of a magnet assembly

The magnet assemblies of all products in the FaitalPRO range are carefully designed to guarantee the nominal performance of each loudspeaker during its lifetime.

Detailed simulations using FEA techniques have allowed evaluations to be made on both flux density as well as thermal equilibrium. The presence of high temperature in the magnet assembly is a result of the voice coil overheating. This, in turn, is linked to the Joule effect produced by the current that circulates in the coil windings on the basis of the power supplied from the source and the electro-acoustical yield of the loudspeakers itself. For this reason a great deal of attention has gone into designing products capable of efficiency (η_{0}) in the area of 2.70% - 3.00%. Furthermore the magnet assemblies have been conceived to have a double function: guaranteeing performance and, at the same time, contributing and optimizing the coil heat dissipation. This takes place by maximizing the surface area available for heat exchange of the voice coil in the air gap, easing the thermal radiation, and quickly transporting the absorbed energy to the aluminum basket.

Great care has been taken in the design phase to allow for the correct distribution of the magnetic flux within the air gap and avoiding areas of saturation in the iron parts of the magnet assembly itself.

■ Thermal behaviour of the voice coil

The voice coils have been designed to withstand high temperatures (up to 240° C on the windings) as well as the mechanical stress of the support during normal use. For this reason the material chosen for the former is glass fiber. A special joint has also been designed to ensure that the correct cylindrical shape is maintained. The coil windings are positioned to form two layers, one on the outer surface and the other on the inner surface of the former. This doubles the surface area available for heat exchange from the coil to the magnet assembly.

This way heat dissipation by convection is also made easier. The airways inside the magnet assembly have been studied to make the outward movement of dissipated energy as efficient as possible. This is helped by the geometry of the magnet assembly and the specific structure of the base of the speaker basket itself. The movement of the mobile parts of the speaker allows the hot air to be forced out, especially in the frequency range under 400Hz.

The thermal energy generated by the coil in free air is approximately 2.5 x 108 W/m³. Exceeding this limit during the design phase will certainly result in the destruction of the coil in a real application. This parameter therefore constitutes a fundamental aspect in regards to reliability and has been taken into consideration in the design phase of the magnet assembly and the definition of the maximum power associated with each model of speaker in the range.

The application of energy dissipation techniques is another measure that guarantees the reliability and performance during the products' life.

■ Electro-acoustical behaviour

FEA analyses allow the dynamic behaviour of a magnet assembly to be studied. In this way it is possible to study the Eddy currents calculating the loss and the impedance. In parallel an analysis is carried out on the compliance and the non-linearity of the spider using specific instruments. Consolidating together the data obtained allows for a final analysis that simulates the behaviour of the loudspeaker at low frequencies. This is carried out using another one of Faital's simulation tools called "Data Processing Engine", allowing for the prediction of resonance frequency, excursion, distortion, and other loudspeaker parameters.

The structural analysis and frequency response, permits the acoustical verification to be completed. This also permits to define, at a design level, all necessary parameters for acoustical optimization.

■ Experimental tests and reliability

The parameters previously simulated are used as the starting point for a performance verification of all the components that make up a FaitalPRO transducer. Once the speakers are made using definitive production tools Faital carries out an in-depth laboratory activity of each component's performance. The objective is to verify that every product in the FaitalPRO range corresponds to the design parameters.

Particular attention is paid to the verification of:

- Magnetic properties
- Electro-acoustical characteristics
- Mechanical performance
- Climatic and environmental performance
- Reliability and product life

Faital's 50 years of activity has allowed the company to consolidate its experience. Working in markets where defects are calculated in ppm (parts per million) and every product issue causes a series of costs that are much higher than the cost of the individual loudspeaker, Faital has invested in the latest technology and instrumentation allowing this kind of verification to be carried out. Faital's Research & Development Department has at its disposal three anechoic chambers with integrated and computerized instruments capable of satisfying any requirement from the market. When it comes to reliability and products' capabilities to maintain and guarantee the performance for which they were originally designed, Faital's position is to go beyond the standard criteria used and to test all its products with a far greater level of severity. With this in mind Faital has chosen to carry out life tests in accordance with the severe norm AES 2-1984 Rev. 2003, that requires the driver to function in free air for 2 hours at nominal power, powering the unit with DIN filtered Pink Noise. This test is by far more severe than that normally used by our leading competitors who usually test their speakers for a much lower number of hours as well as fitting the speaker in a vented acoustic box. The tests carried out allow Faital to face the Professional Audio market with the guarantee of offering its clients a complete family of transducers that are in line with the highest market standards and that are produced using the most advanced technologies. All the products are designed at Faital's headquarters and main R&D laboratory in S. Donato Milanese, near Milan in Italy. The woofer's production takes place at Faital's Manufacturing plant in Chieve, about 40 Km from the company's headquarters. The compression drivers are produced in Spain near Barcelona in the Vacarisses plant. All of Faital's plants are certified ISO TS 16949:2009, ISO 14001:2004, ISO 9001:2008.

■ FaitalPRO Range

The range comprises a complete series of woofers, compression drivers and horns in every category the market needs be it equipped with Ferrite or Neodymium magnets. These products are only a starting point, in fact Faital's intention is to expand and improve the entire FaitalPRO line of products with the goal of continuing to satisfy even the most demanding clients. In order to achieve this goal Faital will continue to invest in its research R&D and will maintain the production sites updated by continuously applying the latest technologies.

ECO-CONSCIOUS

by Faital



SOLAR ENERGY

THE NEXT STEP FORWARD FOR FAITALPRO!

Pressing on with our environmental efforts, we at Faital added to our already highly technological profile an ecologically conscious approach by harnessing solar power.

The Chieve plant, in the Cremona province, is the location chosen by Faital to install the manufacturing operations for the entire range dedicated to the professional audio world, in other words, the FaitalPRO division. This modern manufacturing facility has constantly sustained technological innovation over time and is now equipped with a powerful photovoltaic system of extremely modern conception which is, above all, **dedicated to energy savings and reducing Faital's Carbon footprint.**

Initially opened in 1978, the Chieve production plant has continuously been updated following and at times even anticipating the most advanced technological trends, including the installation of highly automated production lines, that guarantee the accurate reproduction and consistently high quality of the entire pro-audio range. The Chieve plant roof presented the ideal layout and orientation for the solar panels planned for this project. This new power generation system was designed and built to achieve outstanding production efficiency - thus significant savings – as well as to continue on Faital's pursuit for always more "ecologically conscious" operations and guaranteeing FaitalPRO's ever "greener" signature. In fact, Faital states that on a power level, this new installation is aligned with the global policy for energy savings in terms of consumption and it is not by chance that this photovoltaic system was **designed to cover 40% of the internal energy requirements.** On the other hand, from the increasingly important ecological point of view, the new system will also prevent dumping several tons of harmful CO₂ into the atmosphere every year.



The system's installed capacity is 199 KWp with an annual estimated contribution of **210,000 kWh**, equivalent to about 40% of the Chieve plant's current annual consumption. The official data indicate a significant savings of carbon dioxide released into the atmosphere, almost 111,000 kg per year, which means **sparing more than 2,000 metric tons of CO₂ emissions** over the next 20 year.

The system was officially activated the last week of June 2012 and the entire installation was completed in a record two months time. In all the setup includes 848 polycrystalline panels (Sovello Pure Power L with 235 Wp each and a guaranteed output for at least 25 years) and eight Delta Solivia 20TL inverters, all Made in Germany.

With a useful life of over 25 years, this system is the latest step forward in **Faital's long term and long established consideration for the safety of the environment.**



ENVIRONMENTAL COMPLIANCE

Over the years Faital has always stayed ahead of the European Union's environmental requirements. **Continuous studies and implementation of changes and controls are aimed at guaranteeing a lower impact on the environment of all Faital processes.** This led to the attainment of the important and certainly not widely awarded **ISO 14001**, a certification that is exclusively bestowed on companies that respect very stringent, specifically defined "environmental management requisites" and that is not a requirement but a voluntary act of those who seek coherent, efficient and sustainable improvement in environmental protection matters: a certification with the goal of - "establishing/implementing/actively maintaining/improving a system of sustainable environmental management".

Faital S.p.A. is committed to complying with all applicable laws and regulations, including the European Union's Waste Electrical and Electronic Equipment (WEEE) and Restriction of Hazardous Substances (RoHS2) directives.

■ WEEE Directive (2012/19/EU)



The Waste Electrical and Electronic Equipment Directive (WEEE) of the European Parliament and of the Council of July 4th, 2012 applies to companies that manufacture, sell, distribute, recycle or treat electrical and electronic equipment to consumers in the European Union (EU). It covers all large and small household appliances, IT equipment, radio and audio equipment, electrical tools and telecommunications equipment. The Directive aims to reduce the waste arising from electrical and electronic equipment and to improve the environmental performance of all those involved in the life cycle of these products.

■ RoHS2 Directive (2011/65/EU)

The Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS2) Directive of the European Parliament and of the Council of June 8th, 2011.

It affects manufacturers, sellers, distributors and recyclers of electrical and electronic equipment containing Lead, Cadmium, Mercury, Hexavalent Chrome, Polybrominated Biphenyl (PBB) and Polybrominated Diphenyl Ether (PBDE).

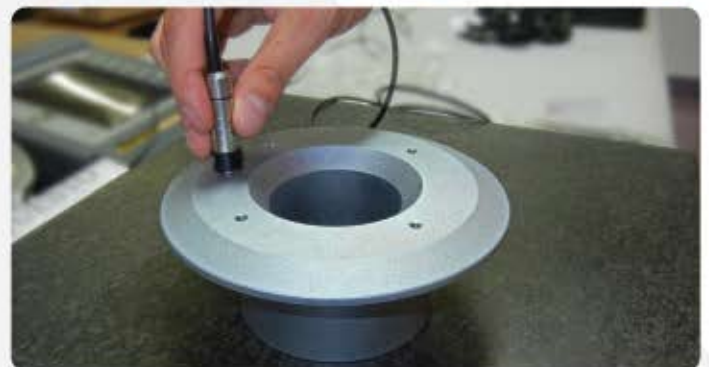
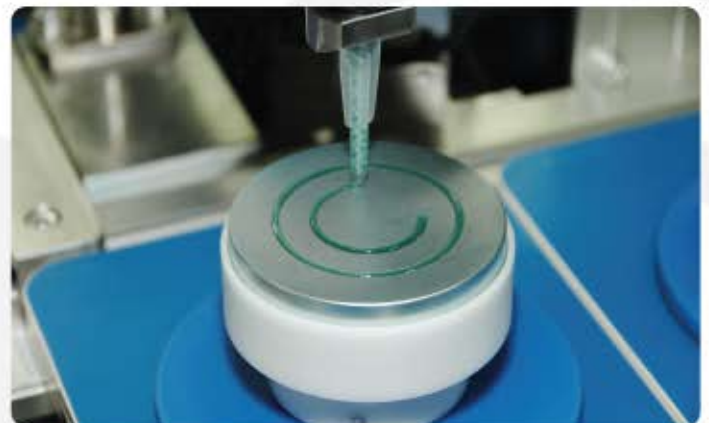
Therefore the use of these materials is banned in all products sold in Europe.

FaitalPRO has established a number of Project Teams to assess implementation alternatives and to understand the supply chain issues associated with conformance to these Directives.

These teams are working with our suppliers to ensure that **compliant**

quality and reliability of our products. In addition, these teams oversee several complex engineering projects to ensure that our manufacturing processes continue to meet our high quality standards after the transition has been made. Material composition data and certification is continuously being collected/updated for all components and parts and are available upon request.

FaitalPRO processes and products fully comply with both the WEEE and the RoHS2 directives.
























If you have any specific questions with reference to WEEE or RoHS2 status for any FaitalPRO product or Faital's efforts with respect to complying with WEEE and RoHS2 compliance, please contact your local representative. A full list is available on the FaitalPRO website www.faitalpro.com.

PRODUCTS INDEX

LF LOUDSPEAKERS

NEODYMIUM

FERRITE



















Type	Max Power	Sensitivity	Freq. Range	XMAX	Voice Coil Diam.	FS	EBP	
 18" SUBWOOFER	3200 W	98 dB	30÷1500 Hz	12.90 mm	100 mm (4 in)	32 Hz	86 Hz	PAG. 15
 18" SUBWOOFER	3200 W	97 dB	30÷1500 Hz	13 mm	100 mm (4 in)	32 Hz	82 Hz	PAG. 16
 18" SUBWOOFER	2400 W	98 dB	35÷1600 Hz	12.45 mm	100 mm (4 in)	35 Hz	92 Hz	PAG. 17
 18" SUBWOOFER	2400 W	98 dB	35÷1600 Hz	12.45 mm	100 mm (4 in)	35 Hz	81 Hz	PAG. 18
 18" SUBWOOFER	2000 W	99 dB	35÷1600 Hz	9.5 mm	100 mm (4 in)	35 Hz	125 Hz	PAG. 19
 18" SUBWOOFER	2000 W	99 dB	38÷2500 Hz	9 mm	100 mm (4 in)	38 Hz	109 Hz	PAG. 19
 18" SUBWOOFER	2000 W	98 dB	35÷1600 Hz	9.5 mm	100 mm (4 in)	35 Hz	113 Hz	PAG. 20
 18" SUBWOOFER	2000 W	98 dB	38÷2500 Hz	9 mm	100 mm (4 in)	38 Hz	88 Hz	PAG. 20
 18" SUBWOOFER	2000 W	98 dB	35÷2000 Hz	9.75 mm	100 mm (4 in)	35 Hz	83 Hz	PAG. 21
 18" SUBWOOFER	1200 W	99 dB	30÷3150 Hz	9.25 mm	77 mm (3 in)	30 Hz	83 Hz	PAG. 22
 18" SUBWOOFER	1200 W	98 dB	30÷2500 Hz	9.25 mm	77 mm (3 in)	30 Hz	100 Hz	PAG. 23
 15" SUBWOOFER	2800 W	96 dB	40÷2500 Hz	12.9 mm	100 mm (4 in)	38 Hz	112 Hz	PAG. 24
 15" SUBWOOFER	2000 W	97 dB	40÷2000 Hz	12.45 mm	100 mm (4 in)	40 Hz	125 Hz	PAG. 25
 15" SUBWOOFER	2000 W	96 dB	40÷2000 Hz	12.45 mm	100 mm (4 in)	40 Hz	114 Hz	PAG. 26
 15" WOOFER	1400 W	98 dB	40÷4000 Hz	9 mm	100 mm (4 in)	40 Hz	143 Hz	PAG. 27
 15" WOOFER	1400 W	96 dB	40÷2500 Hz	9.75 mm	100 mm (4 in)	40 Hz	105 Hz	PAG. 28
 15" MID WOOFER	1400 W	99 dB	40÷4000 Hz	9.42 mm	77 mm (3 in)	38 Hz	123 Hz	PAG. 29
 15" MID WOOFER	1200 W	98 dB	40÷4000 Hz	8.75 mm	77 mm (3 in)	38 Hz	93 Hz	PAG. 30
 15" WOOFER	1000 W	98 dB	35÷3150 Hz	9.25 mm	77 mm (3 in)	35 Hz	109 Hz	PAG. 31
 15" WOOFER	1000 W	98 dB	35÷3150 Hz	9.25 mm	77 mm (3 in)	35 Hz	130 Hz	PAG. 32
 15" MID WOOFER	1000 W	97 dB	40÷3150 Hz	9.25 mm	77 mm (3 in)	39 Hz	108 Hz	PAG. 33

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LF LOUDSPEAKERS

NEODYMIUM

FERRITE

Type	Max Power	Sensitivity	Freq. Range	XMAX	Voice Coil Diam.	FS	EBP	
 15" MID WOOFER	800 W	99 dB	35÷4000 Hz	5.75 mm	77 mm (3 in)	35 Hz	103 Hz	PAG. 34
 12" SUBWOOFER	2000 W	95 dB	45÷2500 Hz	12.45 mm	100 mm (4 in)	45 Hz	155 Hz	PAG. 35
 12" SUBWOOFER	2000 W	95 dB	45÷1600 Hz	12.45 mm	100 mm (4 in)	45 Hz	145 Hz	PAG. 36
 12" WOOFER	1400 W	97 dB	55÷3150 Hz	9 mm	100 mm (4 in)	55 Hz	196 Hz	PAG. 37
 12" WOOFER	1400 W	96 dB	45÷3150 Hz	9.25 mm	100 mm (4 in)	45 Hz	129 Hz	PAG. 38
 12" MID WOOFER	1200 W	98 dB	50÷4000 Hz	7.25 mm	77 mm (3 in)	50 Hz	167 Hz	PAG. 39
 12" WOOFER	1000 W	97 dB	45÷4000 Hz	7.5 mm	77 mm (3 in)	45 Hz	173 Hz	PAG. 40
 12" WOOFER	1000 W	98 dB	45÷3150 Hz	7.5 mm	77 mm (3 in)	45 Hz	180 Hz	PAG. 41
 12" MID WOOFER	1000 W	98 dB	45÷3150 Hz	7.5 mm	77 mm (3 in)	45 Hz	167 Hz	PAG. 42
 12" MID WOOFER	600 W	99 dB	50÷5000 Hz	4.92 mm	65 mm (2.56 in)	50 Hz	135 Hz	PAG. 43
 12" MID WOOFER	600 W	99 dB	50÷4000 Hz	4.92 mm	65 mm (2.56 in)	54 Hz	132 Hz	PAG. 44
 10" WOOFER	1400 W	96 dB	60÷2500 Hz	9 mm	100 mm (4 in)	60 Hz	240 Hz	PAG. 45
 10" MID WOOFER	1200 W	97 dB	60÷4000 Hz	7.25 mm	77 mm (3 in)	60 Hz	200 Hz	PAG. 46
 10" MID WOOFER	1000 W	97 dB	60÷4000 Hz	7.5 mm	77 mm (3 in)	60 Hz	240 Hz	PAG. 47
 10" WOOFER	1000 W	96 dB	60÷4000 Hz	7.5 mm	77 mm (3 in)	60 Hz	214 Hz	PAG. 48
 10" MID WOOFER	600 W	98 dB	60÷5000 Hz	4.92 mm	65 mm (2.56 in)	60 Hz	207 Hz	PAG. 49
 10" MID WOOFER	600 W	98 dB	60÷4000 Hz	4.92 mm	65 mm (2.56 in)	60 Hz	167 Hz	PAG. 50
 10" MID WOOFER	600 W	99 dB	100÷2000 Hz	4.5 mm	65 mm (2.56 in)	60 Hz	273 Hz	PAG. 51
 10" MID WOOFER	300 W	96 dB	50÷4500 Hz	4.67 mm	37 mm (1.46 in)	55 Hz	74 Hz	PAG. 52
 8" WOOFER	400 W	95 dB	70÷5000 Hz	8.15 mm	52 mm (2 in)	58 Hz	153 Hz	PAG. 53
 8" WOOFER	400 W	92 dB	80÷5000 Hz	8.48 mm	52 mm (2 in)	74 Hz	107 Hz	PAG. 54

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LF LOUDSPEAKERS

NEODYMIUM

FERRITE

Type	Max Power	Sensitivity	Freq. Range	XMAX	Voice Coil Diam.	FS	EBP	
 8" MID RANGE	400 W	97 dB	80÷6300 Hz	3.57 mm	52 mm (2 in)	90 Hz	220 Hz	PAG. 55
 8" WOOFER	400 W	95 dB	70÷5000 Hz	6.92 mm	52 mm (2 in)	65 Hz	203 Hz	PAG. 56
W8N8-150  8" MID WOOFER	300 W	94 dB	80÷6300 Hz	5.52 mm	52 mm (2 in)	76 Hz	129 Hz	PAG. 57
 8" MID WOOFER	260 W	95 dB	60÷5000 Hz	4.67 mm	37 mm (1.46 in)	80 Hz	121 Hz	PAG. 58
 6" MID RANGE	300 W	97 dB	100÷5000 Hz	2.65 mm	52 mm (2 in)	100 Hz	286 Hz	PAG. 59
 6" MID RANGE	300 W	96 dB	100÷6000 Hz	2.75 mm	37 mm (1.46 in)	100 Hz	167 Hz	PAG. 60
 6" MID RANGE	240 W	97 dB	125÷10000 Hz	2.75 mm	37 mm (1.46 in)	110 Hz	250 Hz	PAG. 61
W6N8-120  6" MID WOOFER	240 W	95 dB	100÷10000 Hz	5 mm	37 mm (1.46 in)	100 Hz	244 Hz	PAG. 62
 6" MID WOOFER	260 W	95 dB	85÷6000 Hz	4.67 mm	37 mm (1.46 in)	120 Hz	160 Hz	PAG. 63
 6" MID RANGE	200 W	91 dB	63÷5000 Hz	5.25 mm	32 mm (1.26 in)	61 Hz	102 Hz	PAG. 64
M5N8-80  5" MID RANGE	160 W	99 dB	180÷8000 Hz	2.75 mm	32 mm (1.26 in)	180 Hz	400 Hz	PAG. 65
 5" MID RANGE	160 W	88 dB	63÷6300 Hz	5.25 mm	32 mm (1.26 in)	65 Hz	135 Hz	PAG. 66
 5" MID RANGE	160 W	88 dB	63÷6300 Hz	5.25 mm	32 mm (1.26 in)	65 Hz	127 Hz	PAG. 66
 4" FULL RANGE	60 W	91 dB	90÷20000 Hz	2.73 mm	19 mm (0.75 in)	100 Hz	143 Hz	PAG. 67
 4" FULL RANGE	60 W	91 dB	90÷20000 Hz	2.73 mm	19 mm (0.75 in)	100 Hz	96 Hz	PAG. 67
 3" FULL RANGE	40 W	91 dB	100÷20000 Hz	1.83 mm	19 mm (0.75 in)	110 Hz	220 Hz	PAG. 68
 3" FULL RANGE	40 W	91 dB	100÷20000 Hz	1.83 mm	19 mm (0.75 in)	110 Hz	138 Hz	PAG. 68

HF DRIVERS






















Type	Max Power	Sensitivity	Freq. Range	Min. Cross. Freq.	Voice Coil Diam.	Diaphragm Material	Shape	
 2" HF DRIVER	200 W	110 dB	0.5÷18 kHz	0.9 kHz	74 mm (2.91 in)	Titanium	Dome	PAG. 70
 2" HF DRIVER	140 W	109 dB	0.5÷18 kHz	0.9 kHz	74 mm (2.91 in)	Titanium	Dome	PAG. 71

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HF DRIVERS

NEODYMIUM

FERRITE



	Type	Max Power	Sensitivity	Freq. Range	Min. Cross. Freq.	Voice Coil Diam.	Diaphragm Material	Shape		
HF201		2" HF DRIVER	200 W	108 dB	0.5÷18 kHz	0.9 kHz	74 mm (2.91 in)	Titanium	Dome	PAG. 72
HF204		2" HF DRIVER	160 W	108 dB	0.5÷18 kHz	0.9 kHz	65 mm (2.56 in)	Ketone Polymer	Dome	PAG. 73
HF206		2" HF DRIVER	160 W	109 dB	0.5÷18 kHz	0.9 kHz	65 mm (2.56 in)	Ketone Polymer	Dome	PAG. 73
HF1400		1.4" HF DRIVER	200 W	110 dB	0.5÷18 kHz	0.9 kHz	74 mm (2.91 in)	Titanium	Dome	PAG. 74
HF140		1.4" HF DRIVER	140 W	109 dB	0.5÷18 kHz	0.9 kHz	74 mm (2.91 in)	Titanium	Dome	PAG. 75
HF141		1.4" HF DRIVER	200 W	109 dB	0.5÷18 kHz	0.9 kHz	74 mm (2.91 in)	Titanium	Dome	PAG. 76
HF144		1.4" HF DRIVER	160 W	109 dB	0.7÷18 kHz	0.9 kHz	65 mm (2.56 in)	Ketone Polymer	Dome	PAG. 77
HF146		1.4" HF DRIVER	160 W	109 dB	0.7÷18 kHz	0.9 kHz	65 mm (2.56 in)	Ketone Polymer	Dome	PAG. 77
HF10AT		1" HF DRIVER	120 W	109 dB	1÷20 kHz	1.3 kHz	44 mm (1.73 in)	Titanium	Dome	PAG. 78
HF10AK		1" HF DRIVER	120 W	110 dB	0.8÷20 kHz	1.3 kHz	44 mm (1.73 in)	Ketone Polymer	Dome	PAG. 78
HF10RT		1" HF DRIVER	120 W	108 dB	1÷20 kHz	1.3 kHz	44 mm (1.73 in)	Titanium	Dome	PAG. 79
HF10RK		1" HF DRIVER	120 W	109 dB	1÷20 kHz	1.3 kHz	44 mm (1.73 in)	Ketone Polymer	Dome	PAG. 79
HF106		1" HF DRIVER	120 W	110 dB	1.3÷20 kHz	1.3 kHz	44 mm (1.73 in)	Ketone Polymer	Annular	PAG. 80
HF107		1" HF DRIVER	140 W	109 dB	1.3÷20 kHz	1.3 kHz	44 mm (1.73 in)	Ketone Polymer	Annular	PAG. 80
HF108		1" HF DRIVER	120 W	109 dB	1÷20 kHz	1.3 kHz	44 mm (1.73 in)	Ketone Polymer	Dome	PAG. 81
HF109		1" HF DRIVER	120 W	108 dB	1÷20 kHz	1.3 kHz	44 mm (1.73 in)	Ketone Polymer	Dome	PAG. 82
HF103		1" HF DRIVER	120 W	107 dB	1÷20 kHz	1.3 kHz	44 mm (1.73 in)	Ketone Polymer	Dome	PAG. 83
HF104		1" HF DRIVER	80 W	108 dB	1.5÷20 kHz	1.7 kHz	37 mm (1.46 in)	Ketone Polymer	Annular	PAG. 84
HF105		1" HF DRIVER	80 W	107 dB	1.4÷20 kHz	1.7 kHz	37 mm (1.46 in)	Ketone Polymer	Annular	PAG. 84
HF102		1" HF DRIVER	60 W	107 dB	1.8÷20 kHz	2.6 kHz	25 mm (0.98 in)	Ketone Polymer	Dome	PAG. 85
HF100		1" HF DRIVER	60 W	108 dB	1.5÷20 kHz	2 kHz	25 mm (0.98 in)	Ketone Polymer	Dome	PAG. 85

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HF DRIVERS

NEODYMIUM


FERRITE

Type	Max Power	Sensitivity	Freq. Range	Min. Cross. Freq.	Voice Coil Diam.	Diaphragm Material	Shape	
 FD371 FLARED DRIVER	70 W	107 dB	2.6÷20 kHz	2.6 kHz	37 mm (1.46 in)	Ketone Polymer	Annular	PAG. 86
 HMF200 2" HF DRIVER	80 W	109 dB	0.45÷9 kHz	0.45 kHz	37 mm (1.46 in)	Synthetic Fibers	Double Edge Cone	PAG. 87

COAXIAL LOUDSPEAKERS

Type	Max Power	Sensitivity	Freq. Range	Min. Cross. Freq.	Voice Coil Diam.	F5	Dispers. Angle	
 8HX200 8" COAXIAL	LF 500 W HF 60 W	95 dB 107 dB	75÷20000 Hz	1700 Hz	65 mm (2.56 in) 37 mm (1.46 in)	76 Hz	90°	PAG. 89
 8HX150 8" COAXIAL	LF 500 W HF 30 W	94 dB 104 dB	75÷18000 Hz	1700 Hz	65 mm (2.56 in) 25 mm (1 in)	76 Hz	90°	PAG. 90
 6HX150 6" COAXIAL	LF 300 W HF 30 W	93 dB 104 dB	90÷18000 Hz	1700 Hz	52 mm (2 in) 25 mm (1 in)	88 Hz	90°	PAG. 91

HF HORNS

Type	Material	Profile	Coverage	Throat Diameter	Depth	
 LTH142 1.4" TRACTRIX HORN	PC / ABS	Elliptical Tractrix	60°x 50°	35.6 mm (1.4 in)	233 mm (9.2 in)	PAG. 93
 LTH102 1" TRACTRIX HORN	Aluminum	Elliptical Tractrix	60°x 50°	25.4 mm (1 in)	171.6 mm (6.76 in)	PAG. 93
 STH100 1" TRACTRIX HORN	Aluminum	Elliptical Tractrix	80°x 70°	25.4 mm (1 in)	85.9 mm (3.38 in)	PAG. 94
 WG141 1.4" LINEAR WAVE GUIDE	Aluminum	N / A	110°	36.5 mm (1.4 in)	200 mm (7.9 in)	PAG. 94
 WG101 1" LINEAR WAVE GUIDE	Aluminum	N / A	140°	25.4 mm (1 in)	110 mm (4.33 in)	PAG. 95

LF LOUDSPEAKERS



“**Sounds good... Always will** - Rigorous tests in our anechoic chambers are constantly performed during design and quality checks. All driver components are put through continuous visual, mechanical and electrical tests to verify their conformity to the design parameters. This procedure is in place to keep production tolerances within very tight limits, thus ensuring consistency in our driver’s quality and reliability over time.”



18XL1600

18" - 1600 W - 98 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	460 mm (18 in)
Overall Diameter	460 mm (18.11 in)
Bolt Circle Diameter	440 mm (17.32 in)
Baffle Cutout Diameter	422 mm (16.61 in)
Depth	231 mm (9.09 in)
Flange and gasket Thickness	14 mm (0.55 in)
Net Weight	12.2 kg (26.9 lb)
Shipping Box	490 x 485 x 275 mm
(Single Carton Box)	(19.3 x 19.1 x 10.8 in)
Shipping Weight	13.7 kg (30.2 lb)

TECHNICAL PARAMETERS

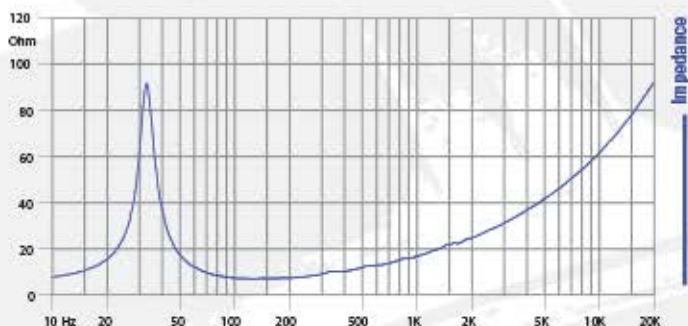
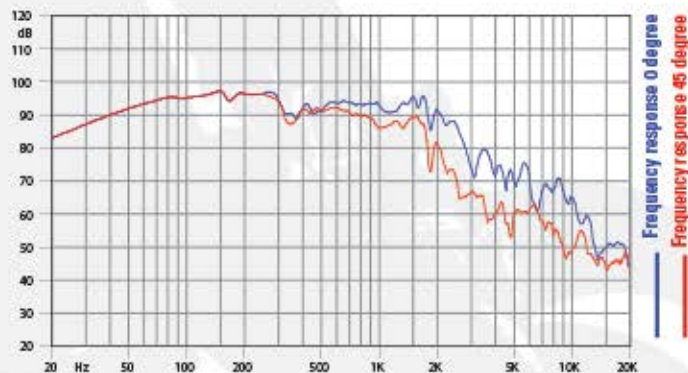
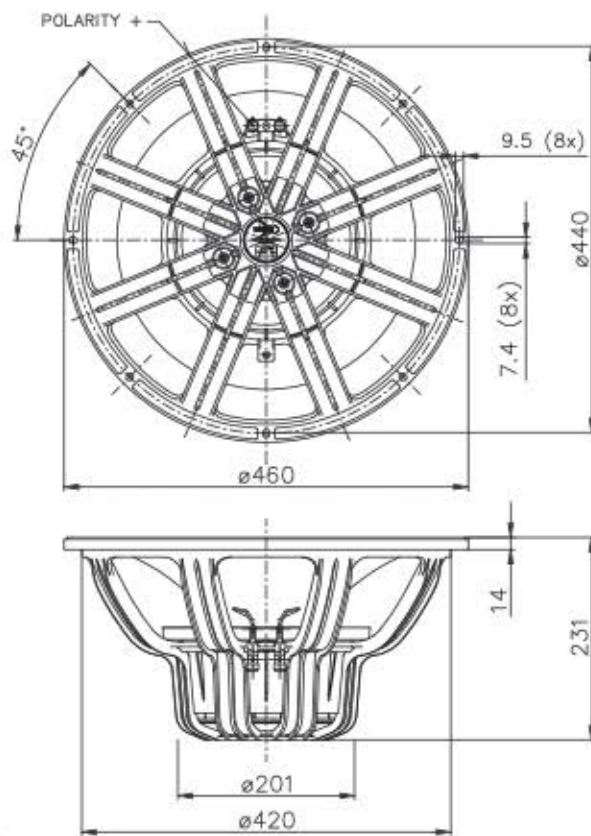
Nominal Impedance	8 Ω
Minimum Impedance	7.4 Ω
AES Power Handling (1)	1600 W
Maximum Power Handling (4)	3200 W
Sensitivity (1W/1m)	98 dB
Frequency Range	30 ÷ 1500 Hz
Voice Coil Diameter	100 mm (4 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	31 mm (1.22 in)
Magnetic Gap Depth	15.5 mm (0.61 in)
Flux Density	1.05 T
Magnet	Neodymium Slug Crown
Basket Material	Aluminum
Demodulation	Triple Al Dem. Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	7.3 dm ³ (0.258 ft ³)
Spider Profile	2x non-adjacent symmetrical constant height waves

THIELE & SMALL PARAMETERS

Fs	32 Hz
Re	5.4 Ω
Qes	0.37
Qms	9.3
Qts	0.36
Vas	184.7 dm ³ (6.52 ft ³)
Sd	1124 cm ² (174.22 in ²)
Xmax (2)	12.92 mm
Xdamage (3)	28 mm
Mms	240.0 g
Bl	26.7 N/A
Le	1.45 mH
Mmd	217.0 g
Cms	0.10 mm/N
Rms	5.2 kg/s
η _e (Eta Zero)	1.61 %
EBP	86 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
 - (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
 - (3) Maximum excursion before permanent damage
 - (4) Maximum power is defined as 3dB greater than nominal power
 - (5) Treated Polycotton
- PATENT PENDING



FERRITE

18HW1070

18" - 1600 W - 97 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	460 mm (18 in)
Overall Diameter	460 mm (18.11 in)
Bolt Circle Diameter	440 mm (17.32 in)
Baffle Cutout Diameter	422 mm (16.61 in)
Depth	223 mm (8.78 in)
Flange and gasket Thickness	14 mm (0.55 in)
Net Weight	14.7 kg (32.4 lb)
Shipping Box	490 x 485 x 275 mm
(Single Carton Box)	(19.3 x 19.1 x 10.8 in)
Shipping Weight	16.2 kg (35.7 lb)

TECHNICAL PARAMETERS

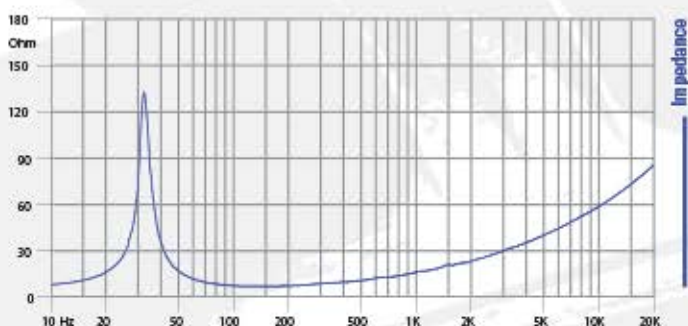
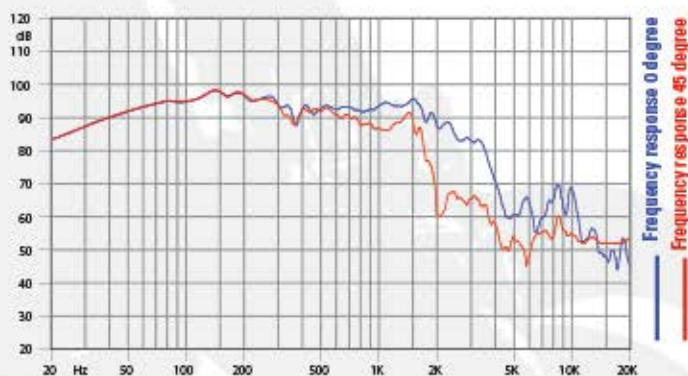
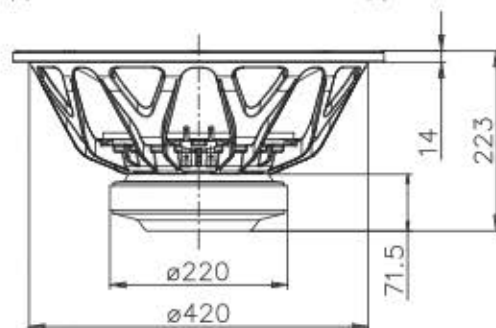
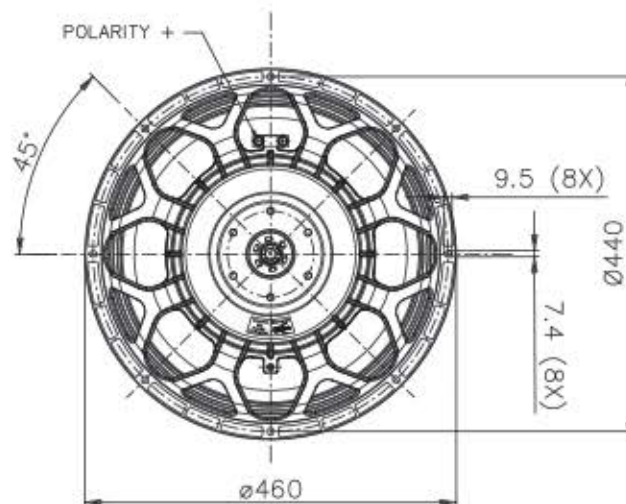
Nominal Impedance	8 Ω
Minimum Impedance	6.5 Ω
AES Power Handling (1)	1600 W
Maximum Power Handling (4)	3200 W
Sensitivity (1W/1m)	97 dB
Frequency Range	30 ÷ 1500 Hz
Voice Coil Diameter	100 mm (4 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	31 mm (1.22 in)
Magnetic Gap Depth	15 mm (0.59 in)
Flux Density	1.1 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	Triple Al Dem. Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	7.4 dm ³ (0.261 ft ³)
Spider Profile	2x non-adjacent symmetrical constant height waves

THIELE & SMALL PARAMETERS

Fs	32 Hz
Re	5.4 Ω
Qes	0.39
Qms	10.0
Qts	0.37
Vas	171.2 dm ³ (6.05 ft ³)
Sd	1124 cm ² (174.22 in ²)
Xmax (2)	13.00 mm
Xdamage (3)	30 mm
Mms	259.0 g
Bl	27 N/A
Le	1.68 mH
Mmd	237.7 g
Cms	0.10 mm/N
Rms	5.2 kg/s
η _e (Eta Zero)	1.41 %
EBP	82 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



18HP1060

18" - 1200 W - 98 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	460 mm (18 in)
Overall Diameter	460 mm (18.11 in)
Bolt Circle Diameter	440 mm (17.32 in)
Baffle Cutout Diameter	422 mm (16.61 in)
Depth	215 mm (8.46 in)
Flange and gasket Thickness	13.9 mm (0.55 in)
Net Weight	7.3 kg (16.1 lb)
Shipping Box	503 x 500 x 258 mm
(Single Carton Box)	(19.8 x 19.7 x 10.2 in)
Shipping Weight	8.7 kg (19.2 lb)

TECHNICAL PARAMETERS

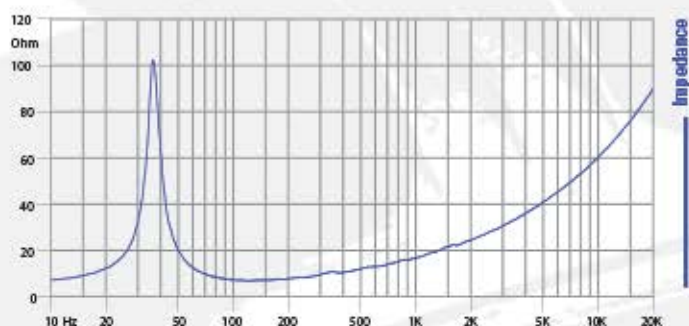
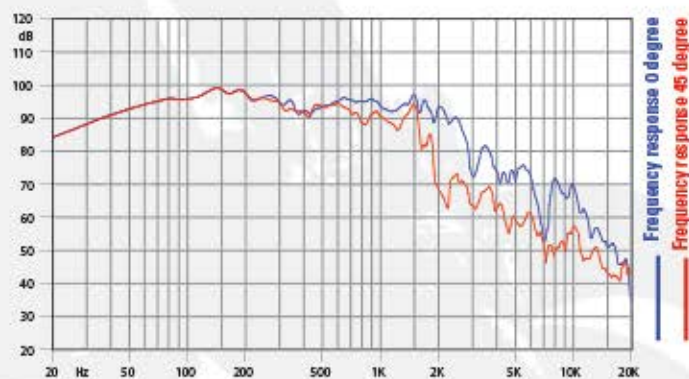
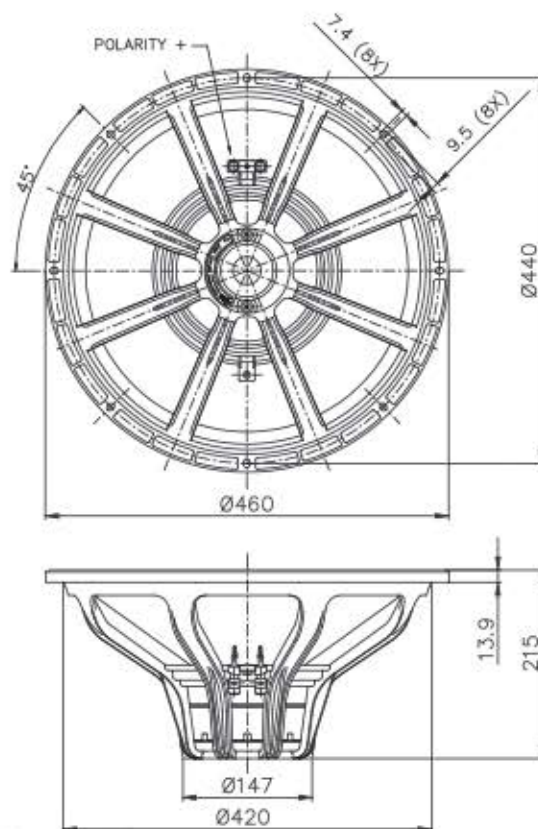
Nominal Impedance	8 Ω
Minimum Impedance	6.3 Ω
AES Power Handling (1)	1200 W
Maximum Power Handling (4)	2400 W
Sensitivity (1W/1m)	98 dB
Frequency Range	35 ÷ 1600 Hz
Voice Coil Diameter	100 mm (4 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	28.9 mm (1.14 in)
Magnetic Gap Depth	12 mm (0.47 in)
Flux Density	1.22 T
Magnet	Neodymium Ring
Basket Material	Aluminum
Demodulation	Aluminum Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	5.3 dm ³ (0.187 ft ³)
Spider Profile	2x non-adjacent symmetrical variable height waves

THIELE & SMALL PARAMETERS

Fs	35 Hz
Re	5 Ω
Qes	0.38
Qms	11.1
Qts	0.37
Vas	175 dm ³ (6.18 ft ³)
Sd	1124 cm ² (174.22 in ²)
Xmax (2)	12.45 mm
Xdamage (3)	21 mm
Mms	211.8 g
Bl	24.8 N/A
Le	1.26 mH
Mmd	189.1 g
Cms	0.10 mm/N
Rms	4.19 kg/s
η _e (Eta Zero)	1.93 %
EBP	92 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



FERRITE

18HP1030

18" - 1200 W - 98 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	460 mm (18 in)
Overall Diameter	460 mm (18.11 in)
Bolt Circle Diameter	440 mm (17.32 in)
Baffle Cutout Diameter	421 mm (16.57 in)
Depth	208.5 mm (8.20 in)
Flange and gasket Thickness	13.7 mm (0.54 in)
Net Weight	12.1 kg (26.7 lb)
Shipping Box	503 x 500 x 258 mm
(Single Carton Box)	(19.8 x 19.7 x 10.2 in)
Shipping Weight	13.5 kg (29.8 lb)

TECHNICAL PARAMETERS

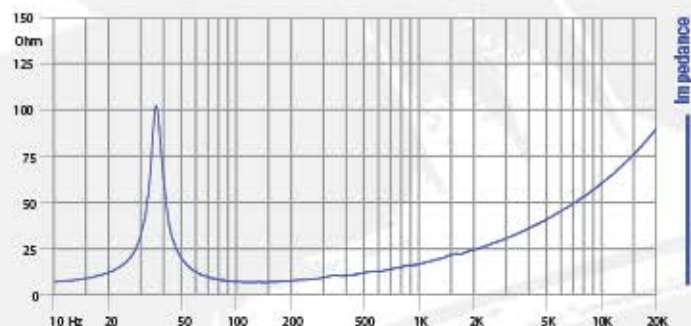
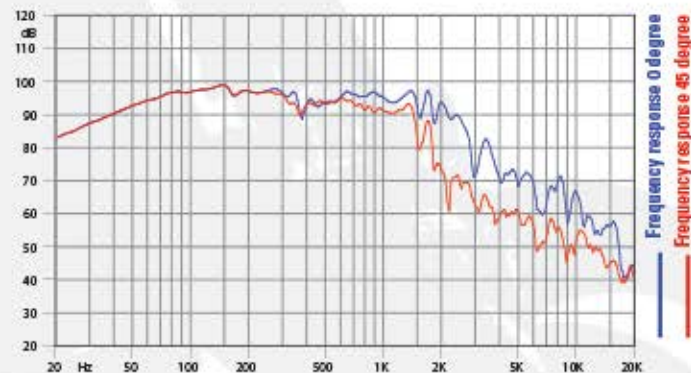
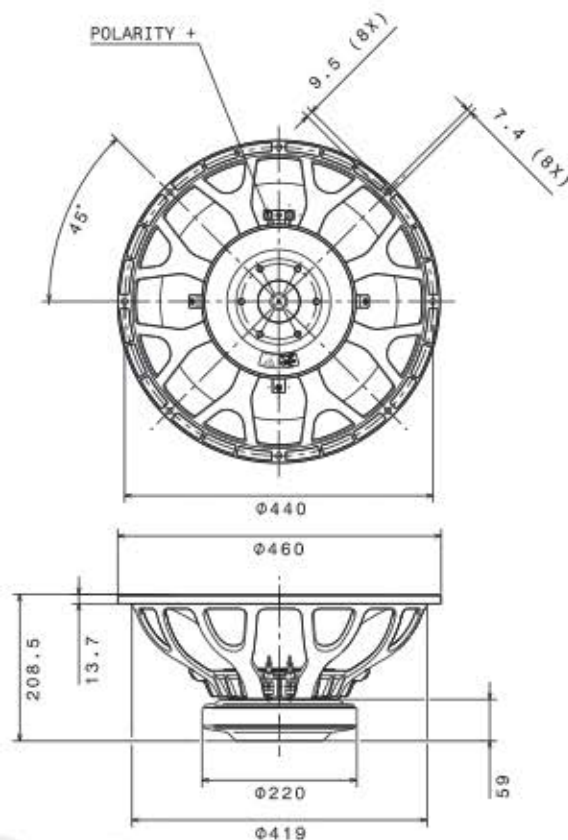
Nominal Impedance	8 Ω
Minimum Impedance	6.5 Ω
AES Power Handling (1)	1200 W
Maximum Power Handling (4)	2400 W
Sensitivity (1W/1m)	98 dB
Frequency Range	35÷1600 Hz
Voice Coil Diameter	100 mm (4 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	28.9 mm (1.14 in)
Magnetic Gap Depth	12 mm (0.47 in)
Flux Density	1.1 T
Magnet	Ferrite Ring
Basket Material	Aluminium
Demodulation	Aluminum Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	6.5 dm ³ (0.230 ft ³)
Spider Profile	2x non-adjacent symmetrical constant height waves

THIELE & SMALL PARAMETERS

Fs	35 Hz
Re	5 Ω
Qes	0.43
Qms	11.6
Qts	0.41
Vas	162.1 dm ³ (5.72 ft ³)
Sd	1124 cm ² (174.22 in ²)
Xmax (2)	12.45 mm
Xdamage (3)	23.1 mm
Mms	228.6 g
Bl	24.3 N/A
Le	1.48 mH
Mmd	205.8 g
Cms	0.09 mm/N
Rms	4.33 kg/s
γ _z (Eta Zero)	1.59 %
EBP	81 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



NEODYMIUM

18HP1020 18HP1040

18" - 1000 W - 99 dB

18" - 1000 W - 99 dB

NOMINAL SPECIFICATIONS

	18HP1020	18HP1040
Nominal Diameter	460 mm (18 in)	460 mm (18 in)
Overall Diameter	460 mm (18.11 in)	460 mm (18.11 in)
Bolt Circle Diameter	440 mm (17.32 in)	440 mm (17.32 in)
Baffle Cutout Diameter	424 mm (16.69 in)	424 mm (16.69 in)
Depth	202 mm (7.95 in)	202 mm (7.95 in)
Flange and gasket Thickness	13.9 mm (0.55 in)	13.9 mm (0.55 in)
Net Weight	6.5 kg (14.2 lb)	6.5 kg (14.2 lb)
Shipping Box	503 x 500 x 258 mm	503 x 500 x 258 mm
(Single Carton Box)	(19.8 x 19.7 x 10.2 in)	(19.8 x 19.7 x 10.2 in)
Shipping Weight	7.8 kg (17.2 lb)	7.8 kg (17.2 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω	8 Ω
Minimum Impedance	6.6 Ω	6.6 Ω
AES Power Handling (1)	1000 W	1000 W
Maximum Power Handling (4)	2000 W	2000 W
Sensitivity (1W/1m)	99 dB	99 dB
Frequency Range	35÷1600 Hz	38÷2500 Hz
Voice Coil Diameter	100 mm (4 in)	100 mm (4 in)
Winding Material	Cu	Al
Former Material	Glass Fiber	Glass Fiber
Winding Depth	23 mm (0.91 in)	22 mm (0.87 in)
Magnetic Gap Depth	12 mm (0.47 in)	12 mm (0.47 in)
Flux Density	1.3 T	1.3 T
Magnet	Neodymium Slug	Neodymium Slug
Basket Material	Aluminum	Aluminum
Demodulation	No	No
Cone Surround (5)	Triple Roll	Triple Roll
NET Air Volume filled by Loudspeaker	6.2 dm ³ (0.219 ft ³)	6.2 dm ³ (0.219 ft ³)
Spider Profile	2x non-adjacent symmetrical constant height waves	

THIELE & SMALL PARAMETERS

Fs	35 Hz	38 Hz
Re	5.4 Ω	5.5 Ω
Qes	0.28	0.35
Qms	9.74	8.75
Qts	0.27	0.34
Vas	207.2 dm ³ (7.32 ft ³)	196.3 dm ³ (6.93 ft ³)
Sd	1134 cm ² (175.77 in ²)	1134 cm ² (175.77 in ²)
Xmax (2)	9.50 mm	9.00 mm
Xdamage (3)	17.5 mm	17.5 mm
Mms	182.0 g	163.0 g
Bl	28 N/A	24.5 N/A
Le	1.7 mH	1.36 mH
Mmd	159.5 g	141.0 g
Cms	0.11 mm/N	0.11 mm/N
Rms	4.1 kg/s	4.44 kg/s
η ₀ (Eta Zero)	3.10 %	2.94 %
EBP	125 Hz	109 Hz

NOTE:

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

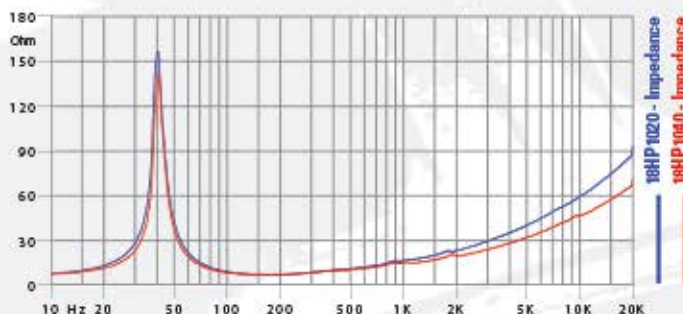
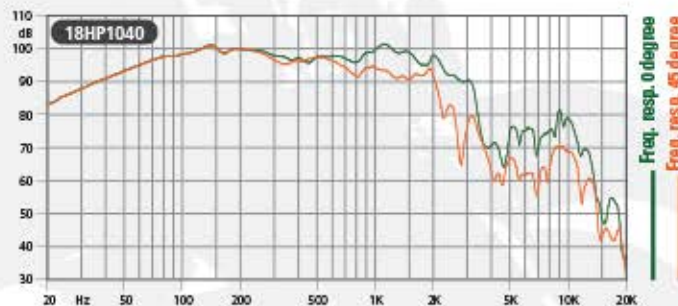
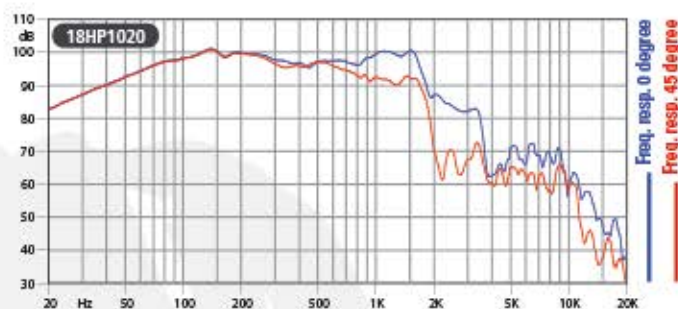
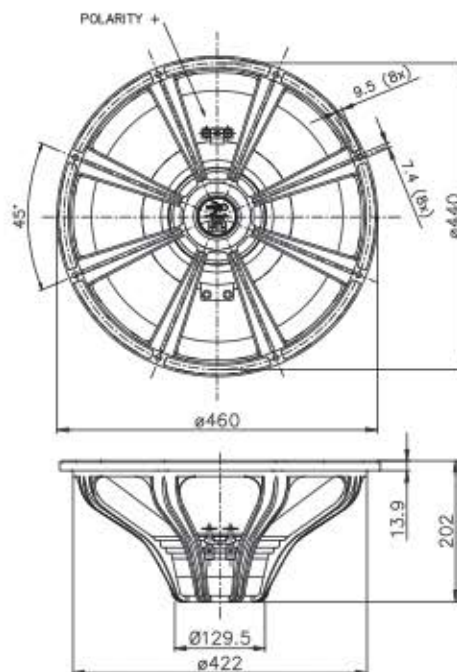
(2) Xmax = [(Winding Depth - magnetic gap depth)/2] + (magnetic gap depth / 3)

(3) Maximum excursion before permanent damage

(4) Maximum power is defined as 3dB greater than nominal power

(5) Treated Polycotton

PATENT IT2006/000327



NEODYMIUM

18HP1022 18HP1042

18" - 1000 W - 98 dB

18" - 1000 W - 98 dB



NOMINAL SPECIFICATIONS

	18HP1022	18HP1042
Nominal Diameter	460 mm (18 in)	460 mm (18 in)
Overall Diameter	460 mm (18.11 in)	460 mm (18.11 in)
Bolt Circle Diameter	440 mm (17.32 in)	440 mm (17.32 in)
Baffle Cutout Diameter	422 mm (16.61 in)	422 mm (16.61 in)
Depth	202 mm (7.95 in)	202 mm (7.95 in)
Flange and gasket Thickness	14 mm (0.55 in)	14 mm (0.55 in)
Net Weight	6.6 kg (14.6 lb)	6.7 kg (14.8 lb)
Shipping Box	503 x 500 x 258 mm	503 x 500 x 258 mm
(Single Carton Box)	(19.8 x 19.7 x 10.2 in)	(19.8 x 19.7 x 10.2 in)
Shipping Weight	7.8 kg (17.2 lb)	7.8 kg (17.2 lb)

TECHNICAL PARAMETERS

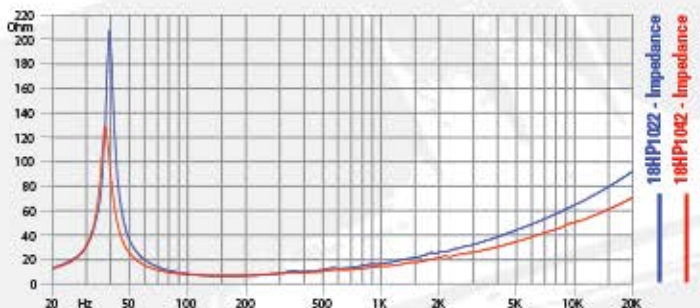
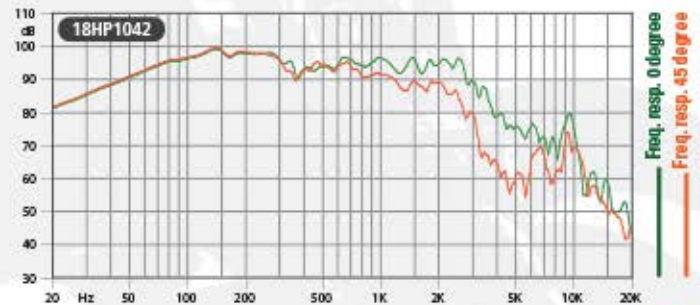
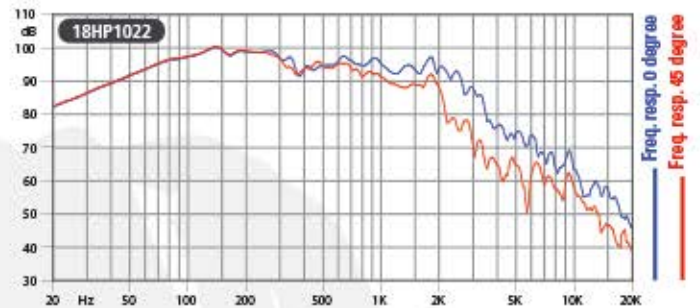
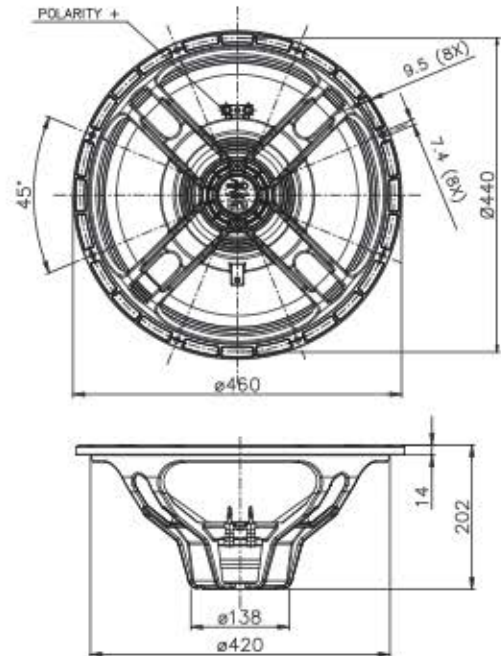
Nominal Impedance	8 Ω	8 Ω
Minimum Impedance	6.5 Ω	6.6 Ω
AES Power Handling (1)	1000 W	1000 W
Maximum Power Handling (4)	2000 W	2000 W
Sensitivity (1W/1m)	98 dB	98 dB
Frequency Range	35÷1600 Hz	38÷2500 Hz
Voice Coil Diameter	100 mm (4 in)	100 mm (4 in)
Winding Material	Cu	Al
Former Material	Glass Fiber	Glass Fiber
Winding Depth	23 mm (0.91 in)	22 mm (0.87 in)
Magnetic Gap Depth	12 mm (0.47 in)	12 mm (0.47 in)
Flux Density	1.3 T	1.3 T
Magnet	Neodymium Slug	Neodymium Slug
Basket Material	Aluminum	Aluminum
Demodulation	No	No
Cone Surround (5)	Triple Roll	Triple Roll
NET Air Volume filled by Loudspeaker	5.8 dm ³ (0.205 ft ³)	5.8 dm ³ (0.205 ft ³)
Spider Profile	2x non-adjacent symmetrical constant height waves	

THIELE & SMALL PARAMETERS

Fs	35 Hz	38 Hz
Re	5.4 Ω	5.5 Ω
Qes	0.31	0.43
Qms	14.4	10.3
Qts	0.3	0.42
Vas	179 dm ³ (6.32 ft ³)	151 dm ³ (5.33 ft ³)
Sd	1124 cm ² (174.22 in ²)	1124 cm ² (174.22 in ²)
Xmax (2)	9.50 mm	9.00 mm
Xdamage (3)	17.5 mm	17.5 mm
Mms	207.0 g	187.5 g
Bl	28 N/A	24.5 N/A
Le	1.75 mH	1.26 mH
Mmd	185.7 g	166.2 g
Cms	0.10 mm/N	0.08 mm/N
Rms	3.67 kg/s	4.58 kg/s
η ₀ (Eta Zero)	2.43 %	2.1 %
EBP	113 Hz	88 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



FERRITE

18HP1010

18" - 1000 W - 98 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	460 mm (18 in)
Overall Diameter	460 mm (18.11 in)
Bolt Circle Diameter	440 mm (17.32 in)
Baffle Cutout Diameter	421 mm (16.57 in)
Depth	203.5 mm (8.01 in)
Flange and gasket Thickness	13.7 mm (0.54 in)
Net Weight	10.1 kg (22.3 lb)
Shipping Box	503 x 500 x 258 mm
(Single Carton Box)	(19.8 x 19.7 x 10.2 in)
Shipping Weight	11.5 kg (25.4 lb)

TECHNICAL PARAMETERS

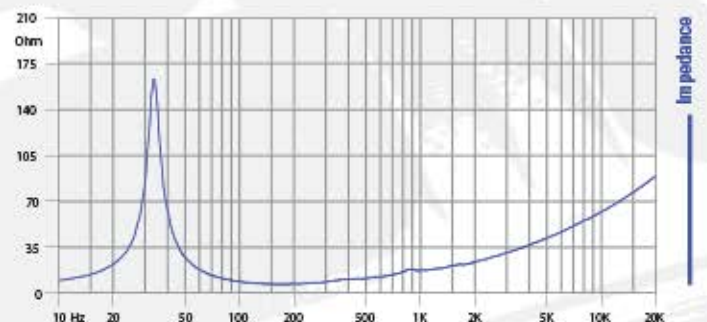
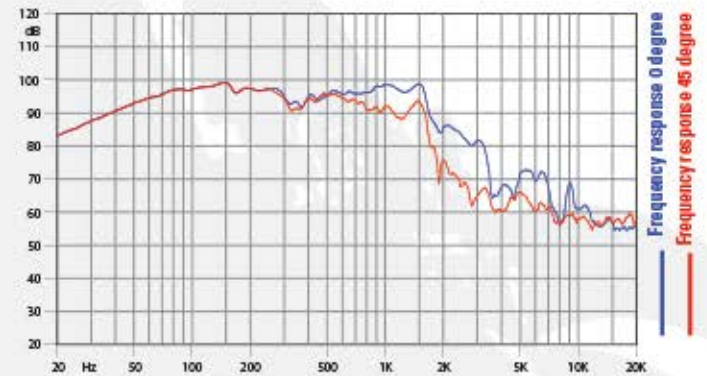
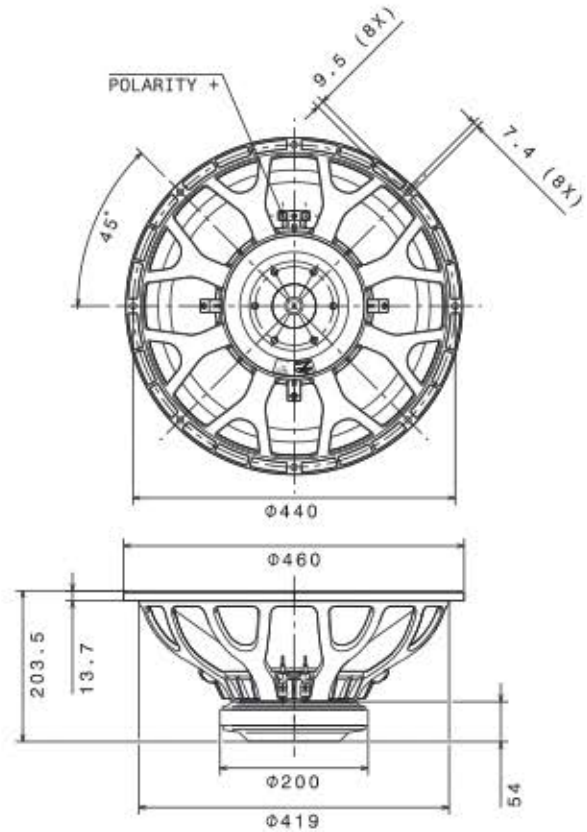
Nominal Impedance	8 Ω
Minimum Impedance	6.9 Ω
AES Power Handling (1)	1000 W
Maximum Power Handling (4)	2000 W
Sensitivity (1W/1m)	98 dB
Frequency Range	35÷2000 Hz
Voice Coil Diameter	100 mm (4 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	23 mm (0.91 in)
Magnetic Gap Depth	10.5 mm (0.41 in)
Flux Density	1.05 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	7.1 dm ³ (0.251 ft ³)
Spider Profile	2x non-adjacent symmetrical constant height waves

THIELE & SMALL PARAMETERS

Fs	35 Hz
Re	5.3 Ω
Qes	0.42
Qms	7.8
Qts	0.40
Vas	215.3 dm ³ (7.60 ft ³)
Sd	1134 cm ² (175.77 in ²)
Xmax (2)	9.75 mm
Xdamage (3)	21.9 mm
Mms	175.2 g
Bl	22 N/A
Le	1.8 mH
Mmd	152.7 g
Cms	0.12 mm/N
Rms	4.94 kg/s
η _e (Eta Zero)	2.13 %
EBP	83 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



18FH500

18" - 600 W - 99 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	460 mm (18 in)
Overall Diameter	460 mm (18.11 in)
Bolt Circle Diameter	440 mm (17.32 in)
Baffle Cutout Diameter	424 mm (16.69 in)
Depth	202 mm (7.95 in)
Flange and gasket Thickness	13.9 mm (0.55 in)
Net Weight	4.6 kg (10.1 lb)
Shipping Box	503 x 500 x 258 mm
(Single Carton Box)	(19.8 x 19.7 x 10.2 in)
Shipping Weight	6 kg (13.2 lb)

TECHNICAL PARAMETERS

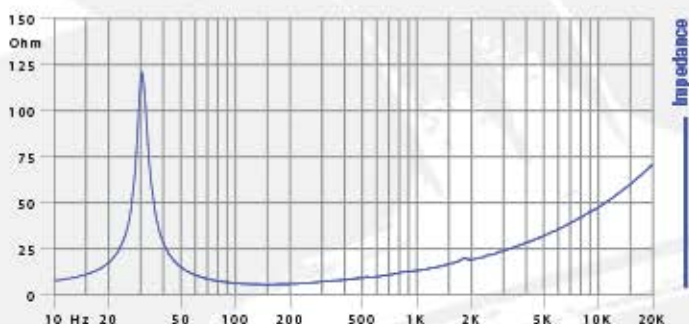
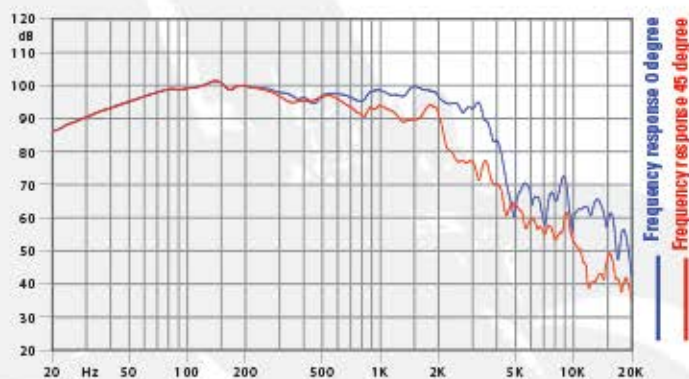
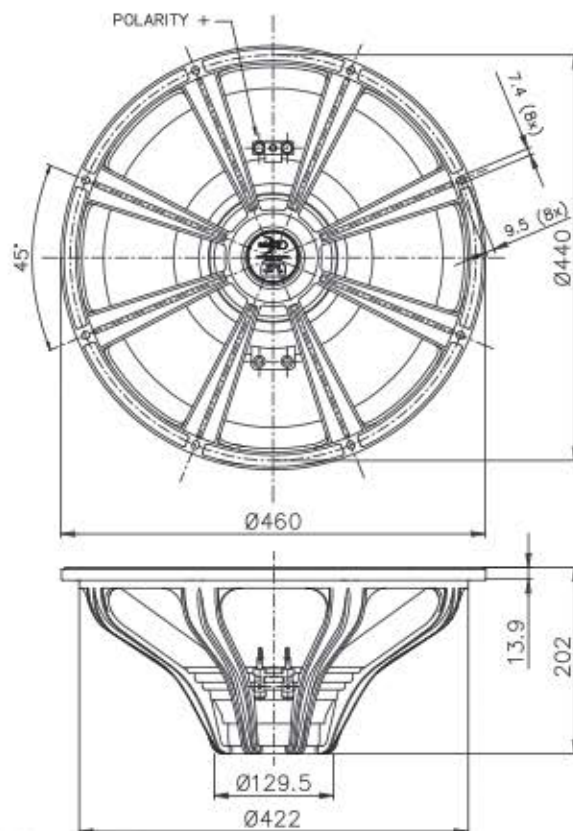
Nominal Impedance	8 Ω
Minimum Impedance	6 Ω
AES Power Handling (1)	600 W
Maximum Power Handling (4)	1200 W
Sensitivity (1W/1m)	99 dB
Frequency Range	30÷3150 Hz
Voice Coil Diameter	77 mm (3 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	22 mm (0.87 in)
Magnetic Gap Depth	10.5 mm (0.41 in)
Flux Density	1.2 T
Magnet	Neodymium Slug
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	5.7 dm ³ (0.201 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	30 Hz
Re	5.1 Ω
Qes	0.36
Qms	12.5
Qts	0.35
Vas	374.8 dm ³ (13.24 ft ³)
Sd	1134 cm ² (175.77 in ²)
Xmax (2)	9.25 mm
Xdamage (3)	17.5 mm
Mms	137.0 g
Bl	19 N/A
Le	1.35 mH
Mmd	114.9 g
Cms	0.21 mm/N
Rms	2.06 kg/s
η _e (Eta Zero)	2.70 %
EBP	83 Hz

NOTE:

- 2 Hours Test According to AES 2-1984 Rev. 2003
 - $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
 - Maximum excursion before permanent damage
 - Maximum power is defined as 3dB greater than nominal power
 - Treated Polycotton
- PATENT IT2006/000327



FERRITE

18FH510

18" - 600 W - 98 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	460 mm (18 in)
Overall Diameter	460 mm (18.11 in)
Bolt Circle Diameter	440 mm (17.32 in)
Baffle Cutout Diameter	421 mm (16.57 in)
Depth	201.5 mm (7.93 in)
Flange and gasket Thickness	13.7 mm (0.54 in)
Net Weight	8.8 kg (19.3 lb)
Shipping Box	503 x 500 x 258 mm
(Single Carton Box)	(19.8 x 19.7 x 10.2 in)
Shipping Weight	10.3 kg (22.7 lb)

TECHNICAL PARAMETERS

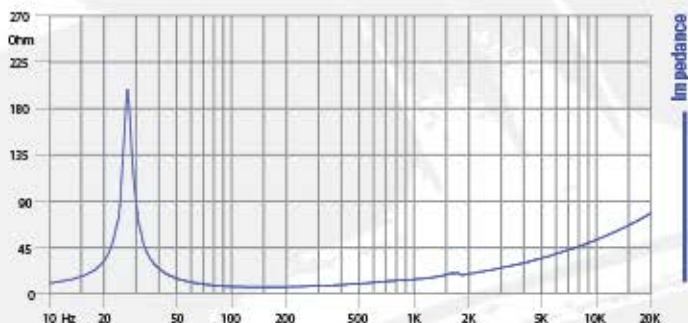
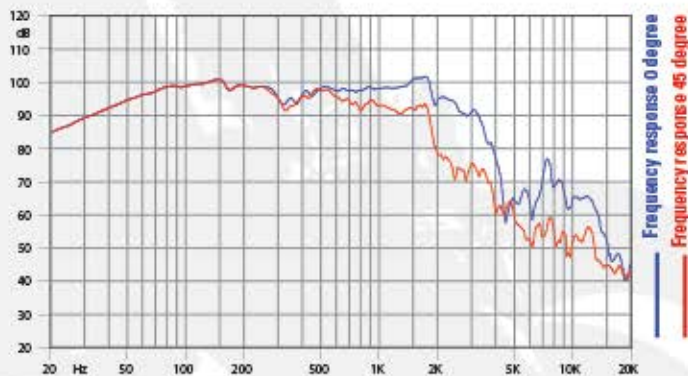
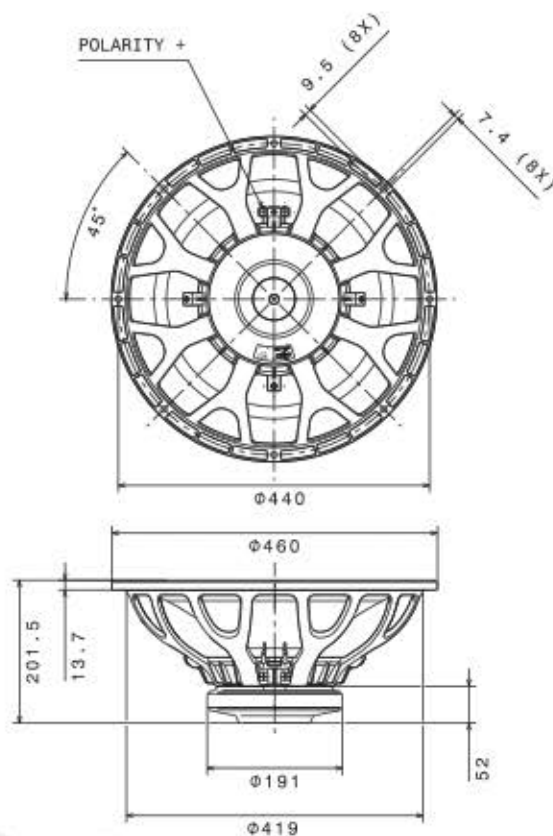
Nominal Impedance	8 Ω
Minimum Impedance	6.5 Ω
AES Power Handling (1)	600 W
Maximum Power Handling (4)	1200 W
Sensitivity (1W/1m)	98 dB
Frequency Range	30÷2500 Hz
Voice Coil Diameter	77 mm (3 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	22 mm (0.87 in)
Magnetic Gap Depth	10.5 mm (0.41 in)
Flux Density	1.2 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	6.1 dm ³ (0.215 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	30 Hz
Re	5.1 Ω
Qes	0.30
Qms	13.6
Qts	0.30
Vas	369.4 dm ³ (13.05 ft ³)
Sd	1134 cm ² (175.77 in ²)
Xmax (2)	9.25 mm
Xdamage (3)	21 mm
Mms	139.0 g
Bl	21 N/A
Le	1.06 mH
Mmd	116.5 g
Cms	0.22 mm/N
Rms	1.92 kg/s
η ₀ (Eta Zero)	3.20 %
EBP	100 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



NEODYMIUM

15XL1400

15" - 1400 W - 96 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Overall Diameter	393 mm (15.47 in)
Bolt Circle Diameter	374 mm (14.72 in)
Baffle Cutout Diameter	354 mm (13.94 in)
Depth	217 mm (8.54 in)
Flange and gasket Thickness	14 mm (0.55 in)
Net Weight	11.8 kg (25.9 lb)
Shipping Box	422 x 417 x 264 mm
(Single Carton Box)	(16.6 x 16.4 x 10.4 in)
Shipping Weight	13.5 kg (29.8 lb)

TECHNICAL PARAMETERS

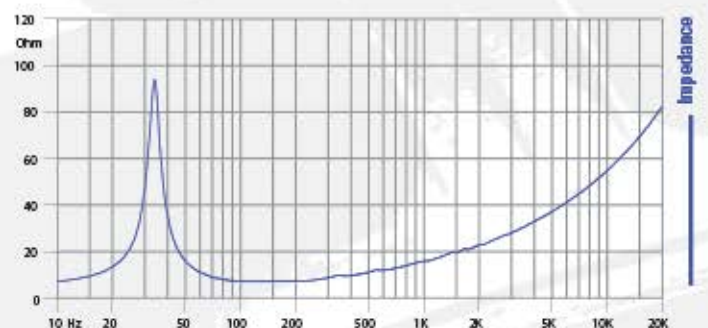
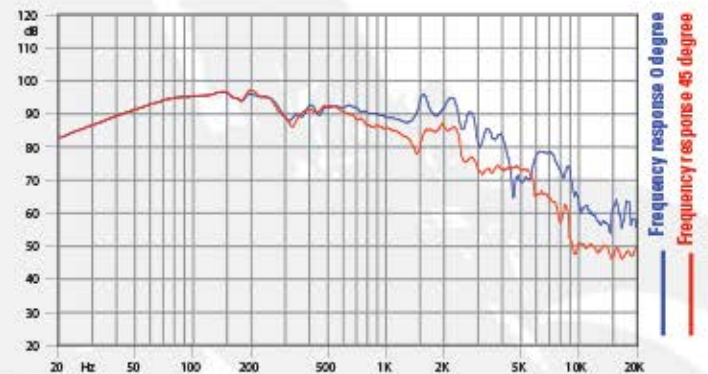
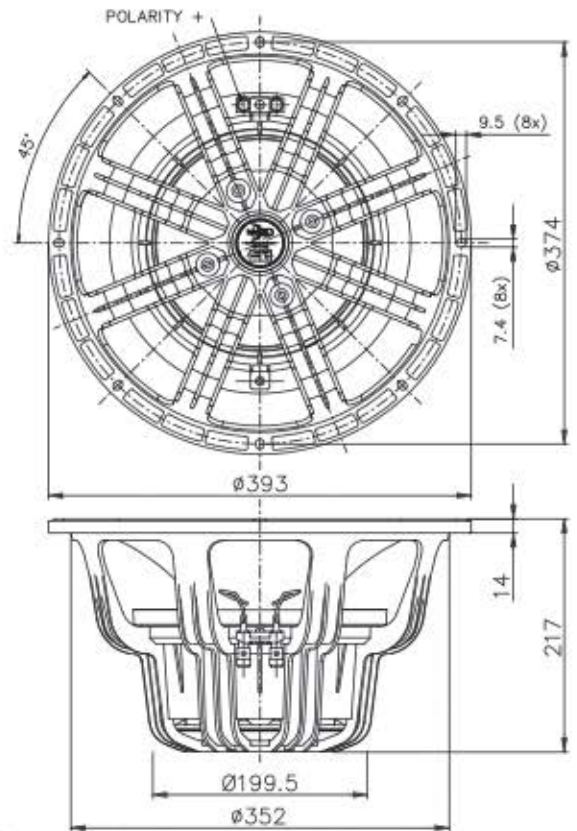
Nominal Impedance	8 Ω
Minimum Impedance	7.4 Ω
AES Power Handling (1)	1400 W
Maximum Power Handling (4)	2800 W
Sensitivity (1W/1m)	96 dB
Frequency Range	40÷2500 Hz
Voice Coil Diameter	100 mm (4 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	31 mm (1.22 in)
Magnetic Gap Depth	15.5 mm (0.61 in)
Flux Density	1.05 T
Magnet	Neodymium Slug Crown
Basket Material	Aluminum
Demodulation	Triple Al Dem.
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	6 dm ³ (0.212 ft ³)
Spider Profile	2x non-adjacent symmetrical constant height waves

THIELE & SMALL PARAMETERS

Fs	38 Hz
Re	5.4 Ω
Qes	0.34
Qms	10.4
Qts	0.33
Vas	79.7 dm ³ (2.81 ft ³)
Sd	780 cm ² (120.90 in ²)
Xmax (2)	12.92 mm
Xdamage (3)	28 mm
Mms	190.0 g
Bl	26.7 N/A
Le	1.6 mH
Mmd	177.7 g
Cms	0.10 mm/N
Rms	4.36 kg/s
η _e (Eta Zero)	1.24 %
EBP	112 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
 - (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
 - (3) Maximum excursion before permanent damage
 - (4) Maximum power is defined as 3dB greater than nominal power
 - (5) Treated Polycotton
- PATENT PENDING



15HP1060

15" - 1000 W - 97 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Overall Diameter	393 mm (15.47 in)
Bolt Circle Diameter	374 mm (14.72 in)
Baffle Cutout Diameter	354 mm (13.94 in)
Depth	194.3 mm (7.65 in)
Flange and gasket Thickness	13.7 mm (0.54 in)
Net Weight	7.1 kg (15.7 lb)
Shipping Box	430 x 427 x 236 mm
(Single Carton Box)	(16.9 x 16.8 x 9.3 in)
Shipping Weight	8.4 kg (18.5 lb)

TECHNICAL PARAMETERS

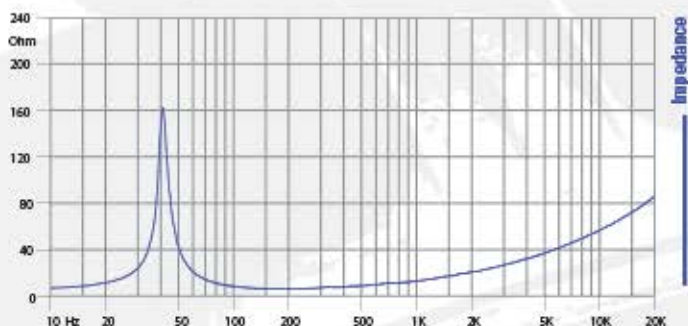
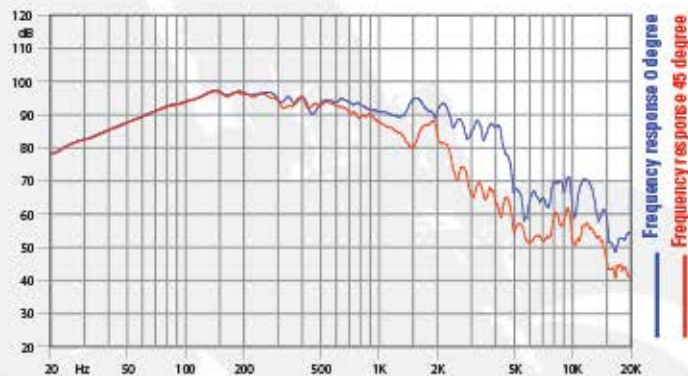
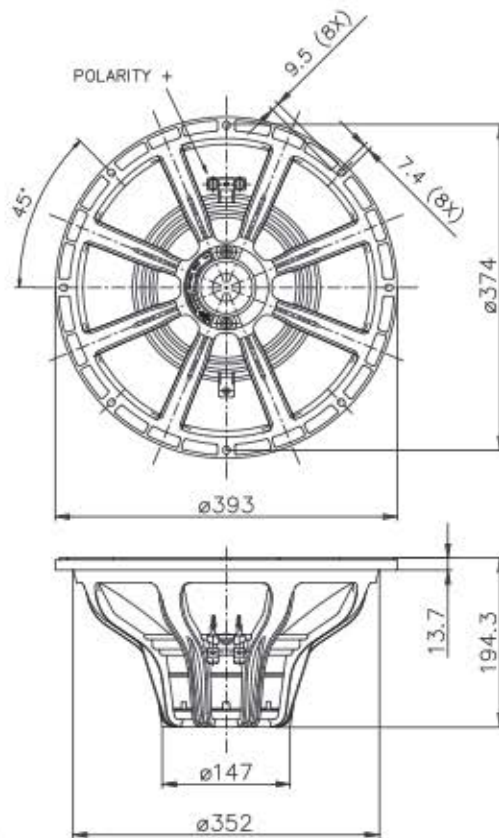
Nominal Impedance	8 Ω
Minimum Impedance	6.4 Ω
AES Power Handling (1)	1000 W
Maximum Power Handling (4)	2000 W
Sensitivity (1W/1m)	97 dB
Frequency Range	40÷2000 Hz
Voice Coil Diameter	100 mm (4 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	28.9 mm (1.14 in)
Magnetic Gap Depth	12 mm (0.47 in)
Flux Density	1.22 T
Magnet	Neodymium Ring
Basket Material	Aluminum
Demodulation	Aluminum Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	4.1 dm ³ (0.145 ft ³)
Spider Profile	2x non-adjacent symmetrical variable height waves

THIELE & SMALL PARAMETERS

Fs	40 Hz
Re	5 Ω
Qes	0.32
Qms	11.4
Qts	0.31
Vas	87.5 dm ³ (3.09 ft ³)
Sd	780 cm ² (120.90 in ²)
Xmax (2)	12.45 mm
Xdamage (3)	21 mm
Mms	156.3 g
Bl	24.8 N/A
Le	1.32 mH
Mmd	143.9 g
Cms	0.10 mm/N
Rms	3.44 kg/s
η _o (Eta Zero)	1.70 %
EBP	125 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



FERRITE

15HP1030

15" - 1000 W - 96 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Overall Diameter	393 mm (15.47 in)
Bolt Circle Diameter	374 mm (14.72 in)
Baffle Cutout Diameter	354 mm (13.94 in)
Depth	188 mm (7.40 in)
Flange and gasket Thickness	14 mm (0.55 in)
Net Weight	11.7 kg (25.8 lb)
Shipping Box	430 x 427 x 236 mm
(Single Carton Box)	(16.9 x 16.8 x 9.3 in)
Shipping Weight	12.8 kg (28.2 lb)

TECHNICAL PARAMETERS

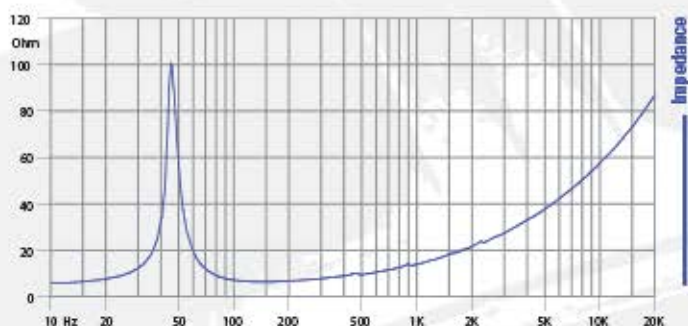
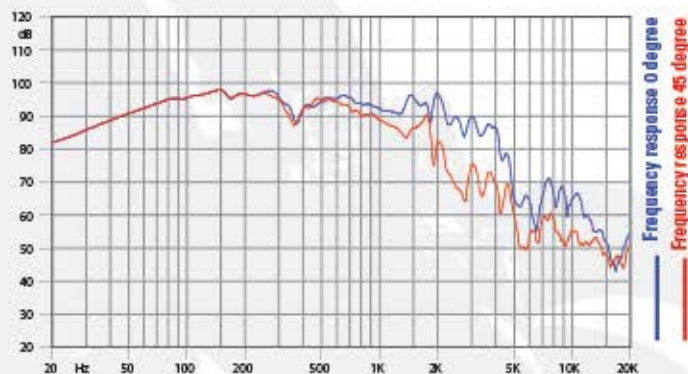
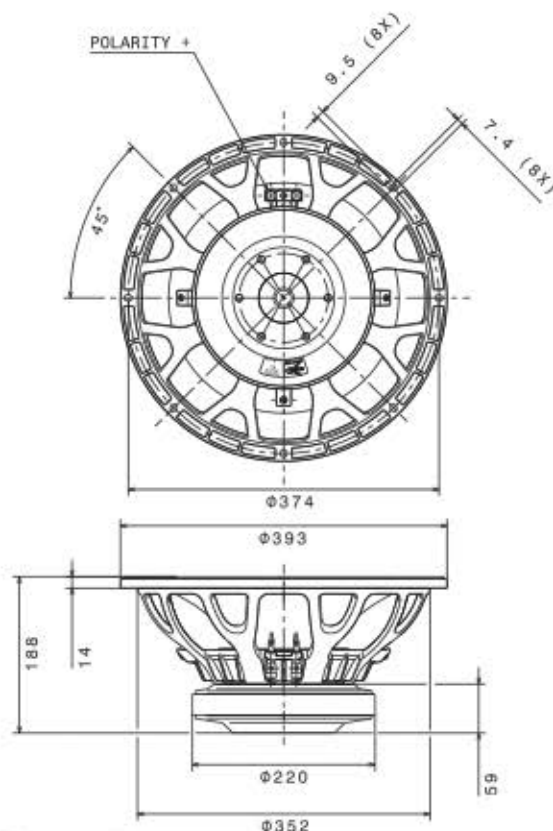
Nominal Impedance	8 Ω
Minimum Impedance	6.7 Ω
AES Power Handling (1)	1000 W
Maximum Power Handling (4)	2000 W
Sensitivity (1W/1m)	96 dB
Frequency Range	40-2000 Hz
Voice Coil Diameter	100 mm (4 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	28.9 mm (1.14 in)
Magnetic Gap Depth	12 mm (0.47 in)
Flux Density	1.1 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	Aluminum Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	5.1 dm ³ (0.180 ft ³)
Spider Profile	2x non-adjacent symmetrical variable height waves

THIELE & SMALL PARAMETERS

Fs	40 Hz
Re	5 Ω
Qes	0.35
Qms	11.8
Qts	0.34
Vas	82.8 dm ³ (2.92 ft ³)
Sd	780 cm ² (120.90 in ²)
Xmax (2)	12.45 mm
Xdamage (3)	23.05 mm
Mms	165.0 g
Bl	24.3 N/A
Le	1.4 mH
Mmd	152.6 g
Cms	0.10 mm/N
Rms	3.5 kg/s
η _z (Eta Zero)	1.46 %
EBP	114 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



15HP1020

15" - 700 W - 98 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Overall Diameter	393 mm (15.47 in)
Bolt Circle Diameter	374 mm (14.72 in)
Baffle Cutout Diameter	356 mm (14.02 in)
Depth	181.3 mm (7.14 in)
Flange and gasket Thickness	13.7 mm (0.54 in)
Net Weight	6.2 kg (13.6 lb)
Shipping Box	430 x 427 x 236 mm
(Single Carton Box)	(16.9 x 16.8 x 9.3 in)
Shipping Weight	7.2 kg (15.9 lb)

TECHNICAL PARAMETERS

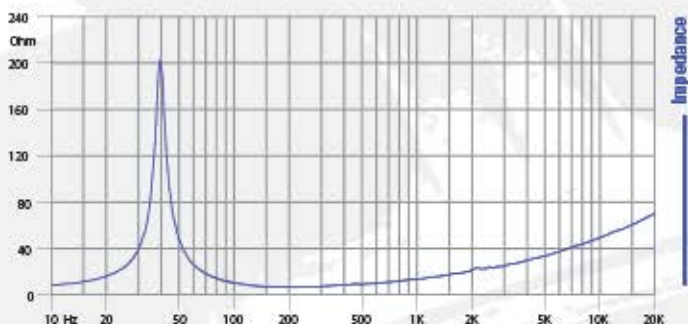
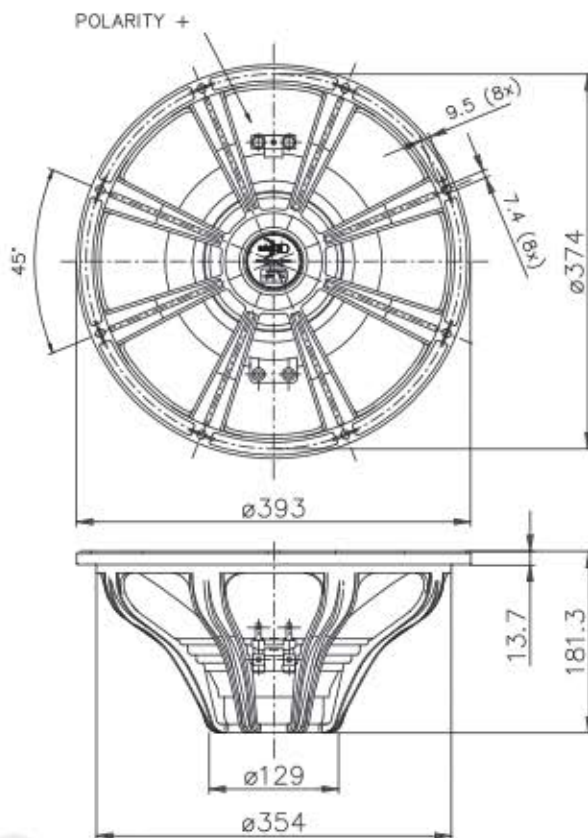
Nominal Impedance	8 Ω
Minimum Impedance	6.9 Ω
AES Power Handling (1)	700 W
Maximum Power Handling (4)	1400 W
Sensitivity (1W/1m)	98 dB
Frequency Range	40÷4000 Hz
Voice Coil Diameter	100 mm (4 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	22 mm (0.87 in)
Magnetic Gap Depth	12 mm (0.47 in)
Flux Density	1.3 T
Magnet	Neodymium Slug
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	3.9 dm ³ (0.138 ft ³)
Spider Profile	2x non-adjacent symmetrical constant height waves

THIELE & SMALL PARAMETERS

Fs	40 Hz
Re	5.5 Ω
Qes	0.28
Qms	10.2
Qts	0.27
Vas	109.6 dm ³ (3.87 ft ³)
Sd	759 cm ² (117.65 in ²)
Xmax (z)	9 mm
Xdamage (3)	16 mm
Mms	118.0 g
Bl	24.2 N/A
Le	1.2 mH
Mmd	106.2 g
Cms	0.13 mm/N
Rms	2.9 kg/s
η _z (Eta Zero)	2.45 %
EBP	143 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
 - (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
 - (3) Maximum excursion before permanent damage
 - (4) Maximum power is defined as 3dB greater than nominal power
 - (5) Treated Polycotton
- PATENT IT2006/000327



FERRITE

15HP1010

15" - 700 W - 96 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Overall Diameter	393 mm (15.47 in)
Bolt Circle Diameter	374 mm (14.72 in)
Baffle Cutout Diameter	354 mm (13.94 in)
Depth	183 mm (7.20 in)
Flange and gasket Thickness	13.3 mm (0.52 in)
Net Weight	9.8 kg (21.5 lb)
Shipping Box	430 x 427 x 236 mm
(Single Carton Box)	(16.9 x 16.8 x 9.3 in)
Shipping Weight	10.8 kg (23.8 lb)

TECHNICAL PARAMETERS

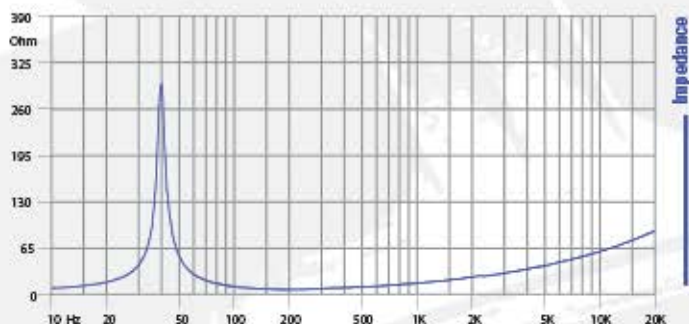
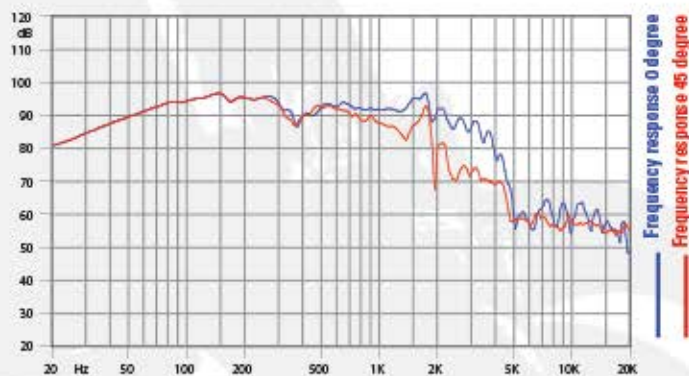
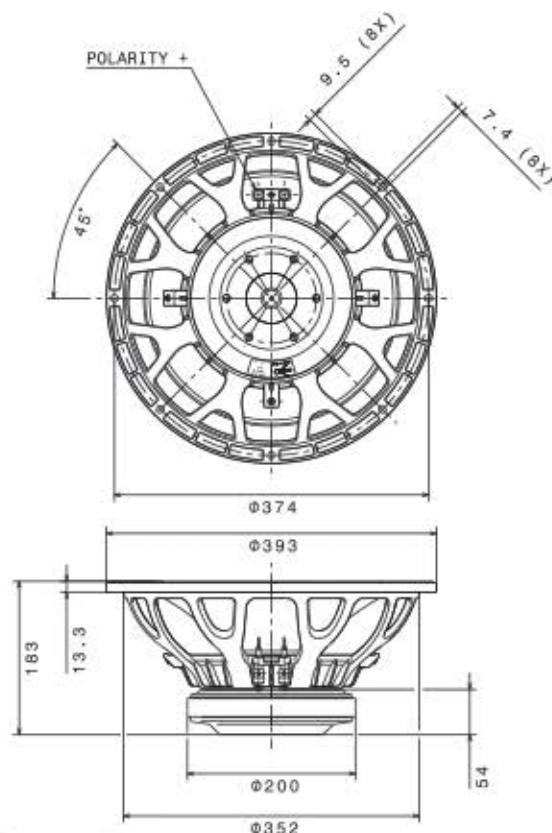
Nominal Impedance	8 Ω
Minimum Impedance	6.9 Ω
AES Power Handling (1)	700 W
Maximum Power Handling (4)	1400 W
Sensitivity (1W/1m)	96 dB
Frequency Range	40-2500 Hz
Voice Coil Diameter	100 mm (4 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	23 mm (0.91 in)
Magnetic Gap Depth	10.5 mm (0.41 in)
Flux Density	1.05 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	4.7 dm ³ (0.166 ft ³)
Spider Profile	2x non-adjacent symmetrical constant height waves

THIELE & SMALL PARAMETERS

Fs	40 Hz
Re	5.3 Ω
Qes	0.38
Qms	10.0
Qts	0.37
Vas	93.1 dm ³ (3.29 ft ³)
Sd	759 cm ² (117.65 in ²)
Xmax (z)	9.75 mm
Xdamage (3)	21.9 mm
Mms	138.9 g
Bl	22 N/A
Le	1.8 mH
Mmd	127.0 g
Cms	0.11 mm/N
Rms	3.49 kg/s
η _o (Eta Zero)	1.50 %
EBP	105 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



NEODYMIUM

15FX560

15" - 700 W - 99 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Overall Diameter	418.4/388 mm (16.46/15.28 in)
Bolt Circle Diameter	374 mm (14.72 in)
Baffle Cutout Diameter	354 mm (13.98 in)
Depth	185 mm (7.28 in)
Flange and gasket Thickness	11.5 mm (0.45 in)
Net Weight	7.5 kg (16.5 lb)
Shipping Box	430 x 427 x 236 mm
(Single Carton Box)	(16.9 x 16.8 x 9.3 in)
Shipping Weight	8.6 kg (19.0 lb)

TECHNICAL PARAMETERS

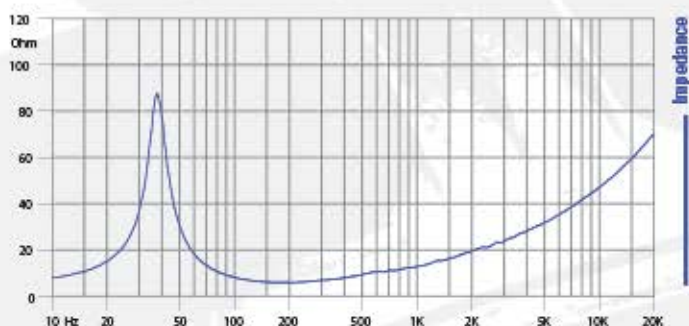
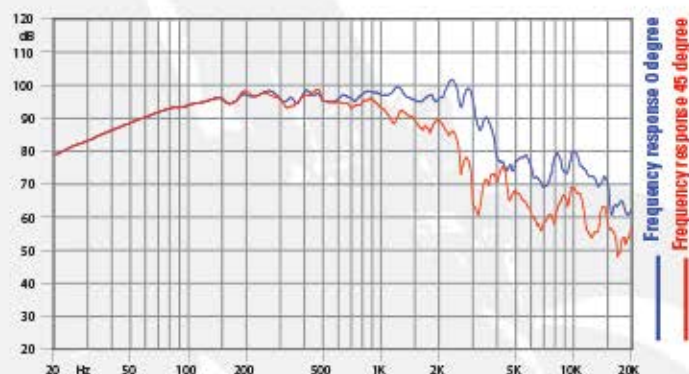
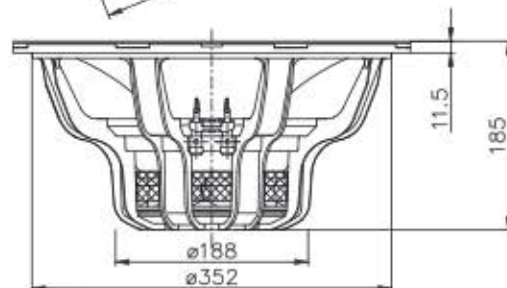
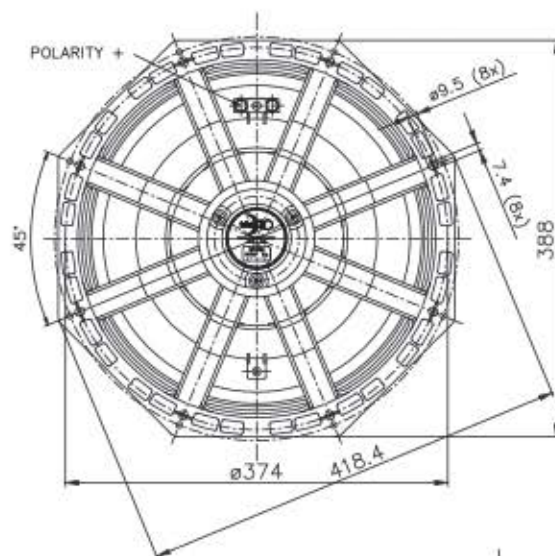
Nominal Impedance	8 Ω
Minimum Impedance	6.5 Ω
AES Power Handling (1)	700 W
Maximum Power Handling (4)	1400 W
Sensitivity (1W/1m)	99 dB
Frequency Range	40-4000 Hz
Voice Coil Diameter	77 mm (3 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	23.5 mm (0.93 in)
Magnetic Gap Depth	14 mm (0.55 in)
Flux Density	1.1 T
Magnet	Neodymium Slug Crown
Basket Material	Aluminum
Demodulation	Aluminum Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	4.1 dm ³ (0.145 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	38 Hz
Re	5.2 Ω
Qes	0.31
Qms	6.8
Qts	0.30
Vas	143 dm ³ (5.05 ft ³)
Sd	813 cm ² (126.02 in ²)
Xmax (2)	9.42 mm
Xdamage (3)	21.8 mm
Mms	115.0 g
Bl	21.5 N/A
Le	0.64 mH
Mmd	100.7 g
Cms	0.15 mm/N
Rms	4.06 kg/s
η ₀ (Eta Zero)	2.47 %
EBP	123 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
 - (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
 - (3) Maximum excursion before permanent damage
 - (4) Maximum power is defined as 3dB greater than nominal power
 - (5) Treated Polycotton
- PATENT PENDING



NEODYMIUM

15FH520

15" - 600 W - 98 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Overall Diameter	393 mm (15.47 in)
Bolt Circle Diameter	374 mm (14.72 in)
Baffle Cutout Diameter	356 mm (14.02 in)
Depth	181.3 mm (7.14 in)
Flange and gasket Thickness	13.7 mm (0.54 in)
Net Weight	4.6 kg (10.1 lb)
Shipping Box	430 x 427 x 236 mm
(Single Carton Box)	(16.9 x 16.8 x 9.3 in)
Shipping Weight	5.7 kg (12.6 lb)

TECHNICAL PARAMETERS

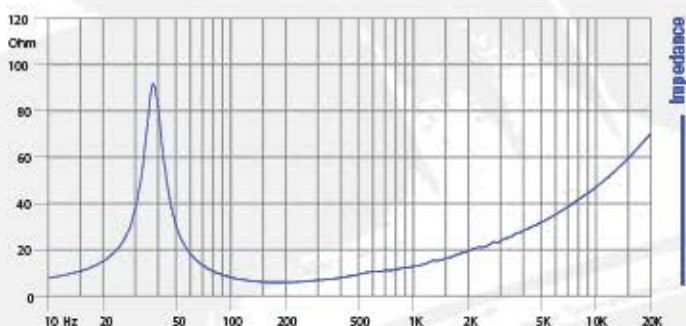
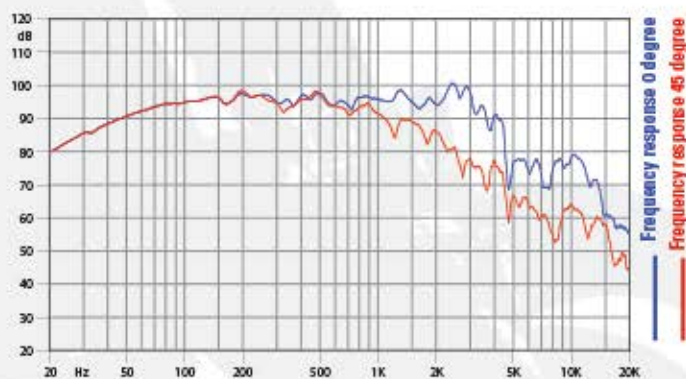
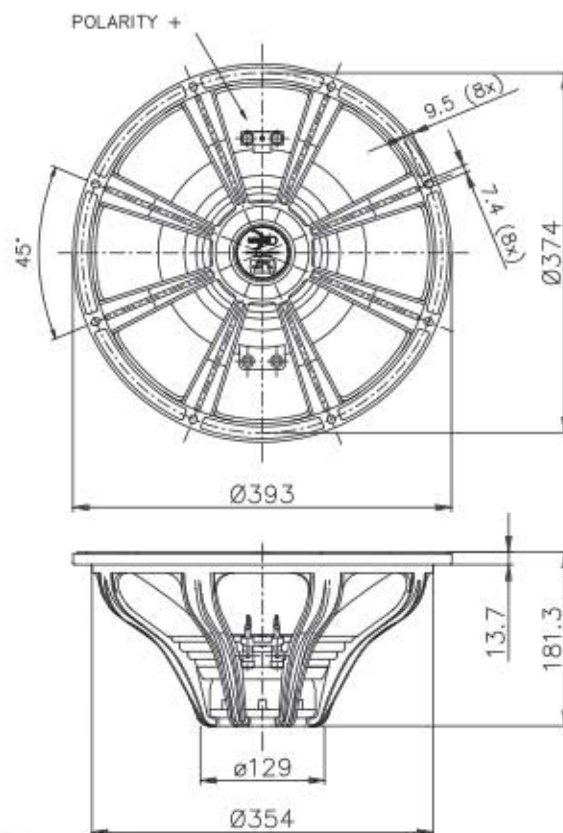
Nominal Impedance	8 Ω
Minimum Impedance	6.9 Ω
AES Power Handling (1)	600 W
Maximum Power Handling (4)	1200 W
Sensitivity (1W/1m)	98 dB
Frequency Range	40-4000 Hz
Voice Coil Diameter	77 mm (3 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	21.5 mm (0.85 in)
Magnetic Gap Depth	12 mm (0.47 in)
Flux Density	1.1 T
Magnet	Neodymium Slug
Basket Material	Aluminum
Demodulation	Aluminum Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	3.4 dm ³ (0.120 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	38 Hz
Re	5.6 Ω
Qes	0.41
Qms	10.1
Qts	0.40
Vas	156.6 dm ³ (5.53 ft ³)
Sd	813 cm ² (126.02 in ²)
Xmax (z)	8.75 mm
Xdamage (3)	16 mm
Mms	105.0 g
Bl	18.4 N/A
Le	0.89 mH
Mmd	92.0 g
Cms	0.16 mm/N
Rms	2.5 kg/s
η _o (Eta Zero)	2.00 %
EBP	93 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



15FH500

15" - 500 W - 98 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Overall Diameter	393 mm (15.47 in)
Bolt Circle Diameter	374 mm (14.72 in)
Baffle Cutout Diameter	356 mm (14.02 in)
Depth	181.3 mm (7.14 in)
Flange and gasket Thickness	13.7 mm (0.54 in)
Net Weight	4.3 kg (9.5 lb)
Shipping Box	430 x 427 x 236 mm
(Single Carton Box)	(16.9 x 16.8 x 9.3 in)
Shipping Weight	5.4 kg (11.9 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω
Minimum Impedance	6 Ω
AES Power Handling (1)	500 W
Maximum Power Handling (4)	1000 W
Sensitivity (1W/1m)	98 dB
Frequency Range	35÷3150 Hz
Voice Coil Diameter	77 mm (3 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	22 mm (0.87 in)
Magnetic Gap Depth	10.5 mm (0.41 in)
Flux Density	1.2 T
Magnet	Neodymium Slug
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	M-Roll
NET Air Volume filled by Loudspeaker	3.4 dm ³ (0.120 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	35 Hz
Re	5.1 Ω
Qes	0.32
Qms	10.4
Qts	0.31
Vas	180.5 dm ³ (6.37 ft ³)
Sd	800 cm ² (124.00 in ²)
Xmax (2)	9.25 mm
Xdamage (3)	16 mm
Mms	104.0 g
Bl	19.2 N/A
Le	1.3 mH
Mmd	89.7 g
Cms	0.20 mm/N
Rms	2.2 kg/s
η ₀ (Eta Zero)	2.38 %
EBP	109 Hz

NOTE:

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

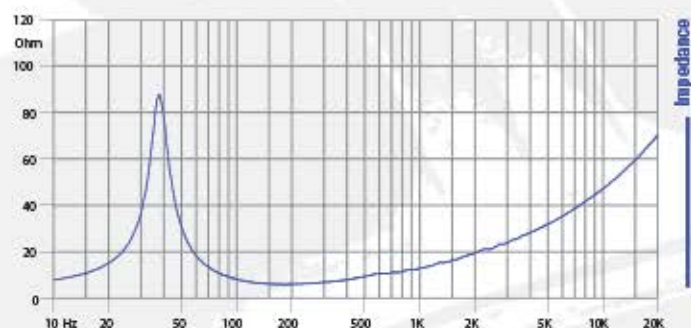
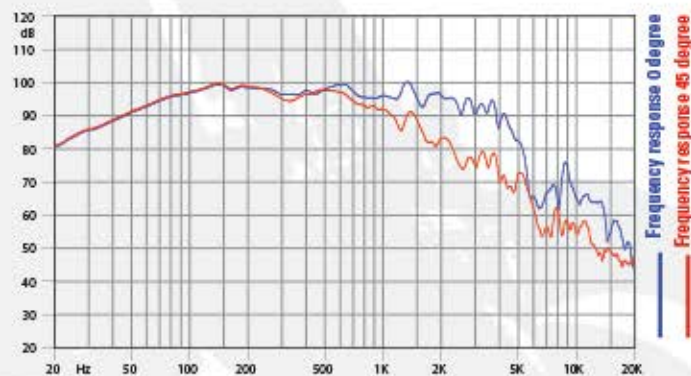
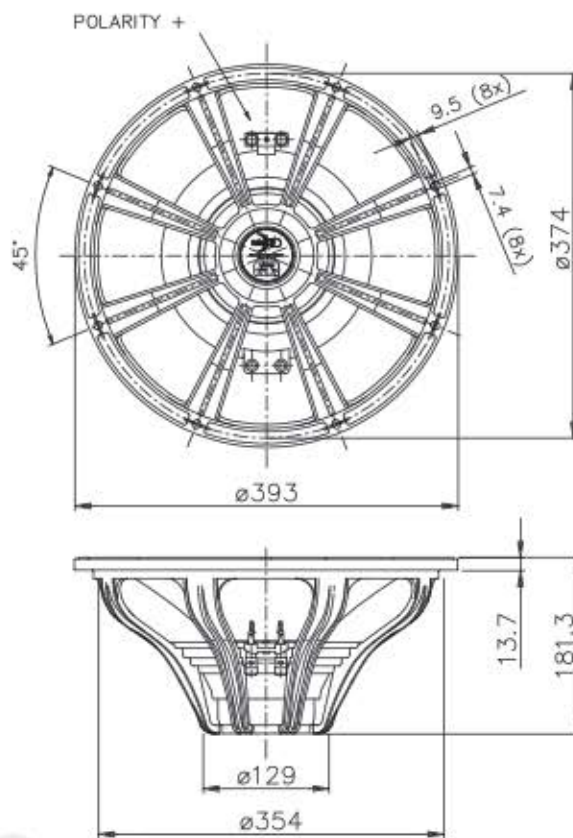
(2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$

(3) Maximum excursion before permanent damage

(4) Maximum power is defined as 3dB greater than nominal power

(5) Treated Polycotton

PATENT IT2006/000327



FERRITE

15FH510

15" - 500 W - 98 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Overall Diameter	393 mm (15.47 in)
Bolt Circle Diameter	374 mm (14.72 in)
Baffle Cutout Diameter	354 mm (13.94 in)
Depth	180 mm (7.09 in)
Flange and gasket Thickness	13.1 mm (0.52 in)
Net Weight	8.4 kg (18.5 lb)
Shipping Box	430 x 427 x 236 mm
(Single Carton Box)	(16.9 x 16.8 x 9.3 in)
Shipping Weight	9.5 kg (20.9 lb)

TECHNICAL PARAMETERS

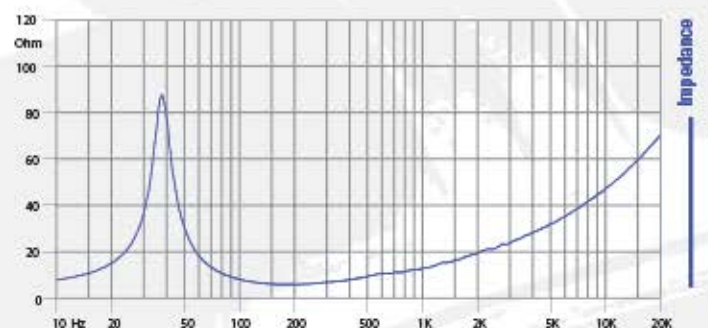
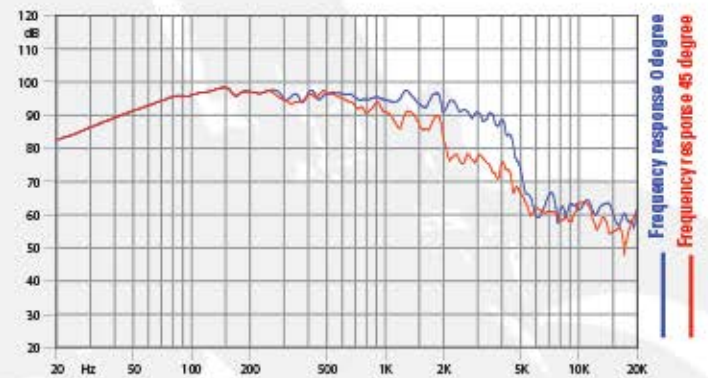
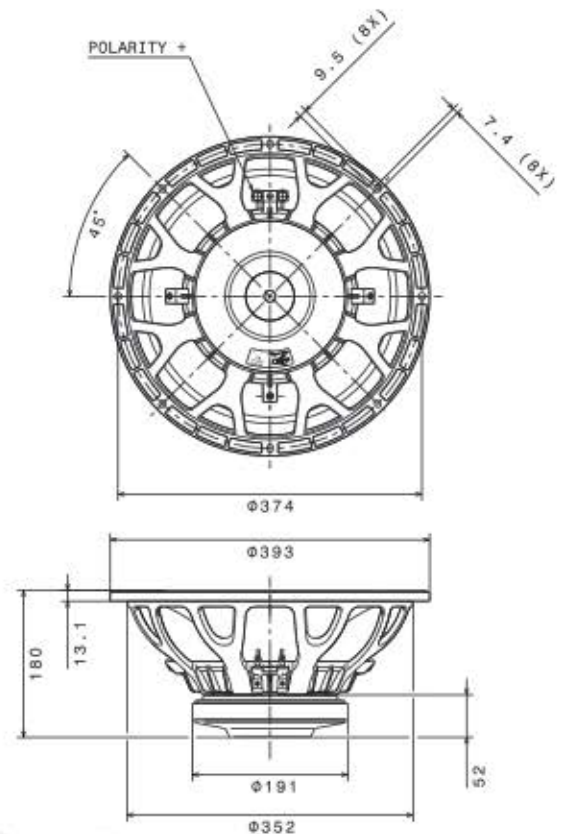
Nominal Impedance	8 Ω
Minimum Impedance	6.3 Ω
AES Power Handling (1)	500 W
Maximum Power Handling (4)	1000 W
Sensitivity (1W/1m)	98 dB
Frequency Range	35-3150 Hz
Voice Coil Diameter	77 mm (3 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	22 mm (0.87 in)
Magnetic Gap Depth	10.5 mm (0.41 in)
Flux Density	1.2 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	M-Roll
NET Air Volume filled by Loudspeaker	4.1 dm ³ (0.145 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	35 Hz
Re	5.1 Ω
Qes	0.27
Qms	10.7
Qts	0.27
Vas	173.8 dm ³ (6.14 ft ³)
Sd	800 cm ² (124.00 in ²)
Xmax (z)	9.25 mm
Xdamage (3)	16 mm
Mms	108.0 g
Bl	21 N/A
Le	1.4 mH
Mmd	95.2 g
Cms	0.19 mm/N
Rms	2.2 kg/s
η _o (Eta Zero)	2.60 %
EBP	130 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



FERRITE

15FH530

15" - 500 W - 97 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Overall Diameter	393 mm (15.47 in)
Bolt Circle Diameter	374 mm (14.72 in)
Baffle Cutout Diameter	354 mm (13.94 in)
Depth	180 mm (7.09 in)
Flange and gasket Thickness	13.1 mm (0.52 in)
Net Weight	8.5 kg (18.7 lb)
Shipping Box	430 x 427 x 236 mm
(Single Carton Box)	(16.9 x 16.8 x 9.3 in)
Shipping Weight	9.6 kg (21.2 lb)

TECHNICAL PARAMETERS

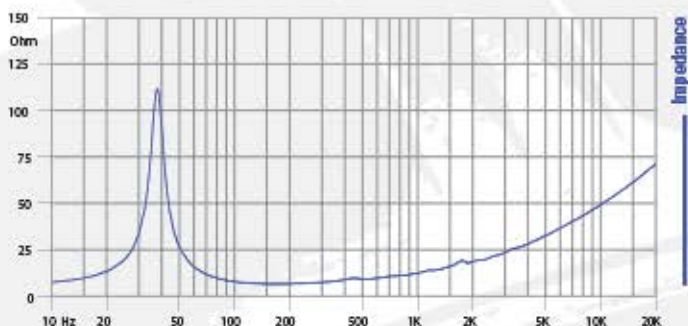
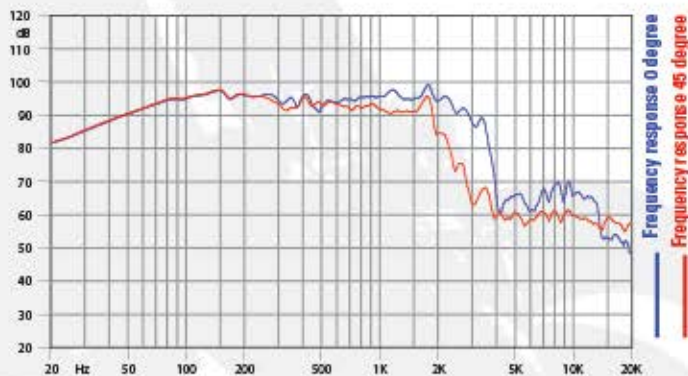
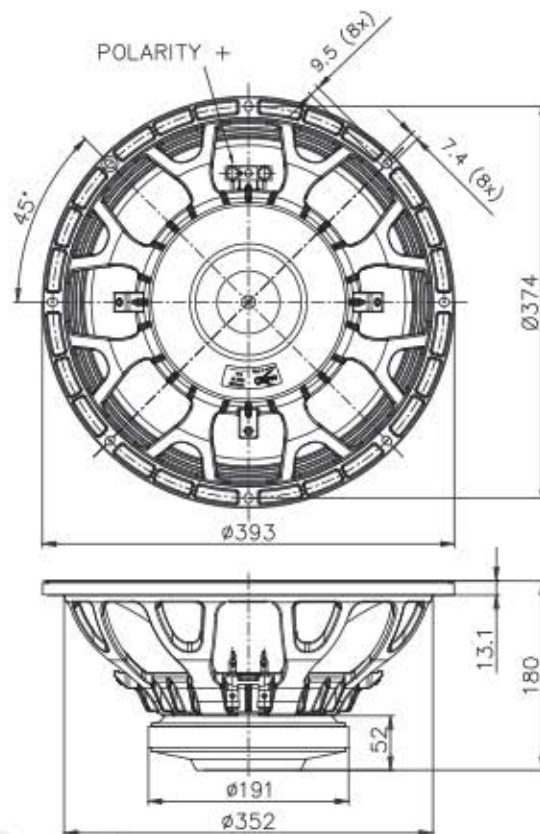
Nominal Impedance	8 Ω
Minimum Impedance	6.7 Ω
AES Power Handling (1)	500 W
Maximum Power Handling (4)	1000 W
Sensitivity (1W/1m)	97 dB
Frequency Range	40÷3150 Hz
Voice Coil Diameter	77 mm (3 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	22 mm (0.87 in)
Magnetic Gap Depth	10.5 mm (0.41 in)
Flux Density	1.2 T
Magnet	Ferrite Ring
Basket Material	Aluminium
Demodulation	Aluminium Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	4.1 dm ³ (0.145 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	39 Hz
Re	5.1 Ω
Qes	0.36
Qms	8.9
Qts	0.35
Vas	126.4 dm ³ (4.46 ft ³)
Sd	813 cm ² (126.02 in ²)
Xmax (z)	9.25 mm
Xdamage (3)	16 mm
Mms	123.5 g
Bl	20.7 N/A
Le	1.1 mH
Mmd	110.7 g
Cms	0.13 mm/N
Rms	3.4 kg/s
η _o (Eta Zero)	2.02 %
EBP	108 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



15PR400

15" - 400 W - 99 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Overall Diameter	393 mm (15.47 in)
Bolt Circle Diameter	374 mm (14.72 in)
Baffle Cutout Diameter	356 mm (14.02 in)
Depth	165 mm (6.50 in)
Flange and gasket Thickness	13.1 mm (0.52 in)
Net Weight	3.6 kg (7.9 lb)
Shipping Box	430 x 427 x 236 mm
(Single Carton Box)	(16.9 x 16.8 x 9.3 in)
Shipping Weight	4.7 kg (10.4 lb)

TECHNICAL PARAMETERS

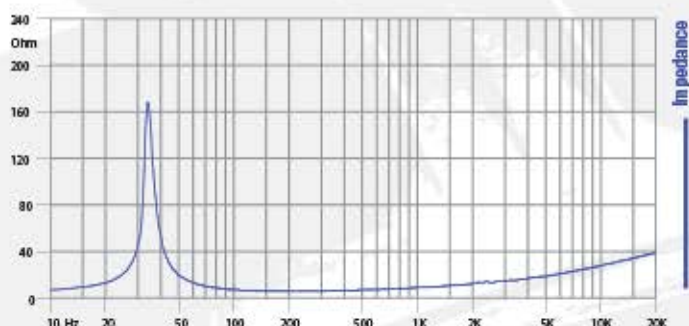
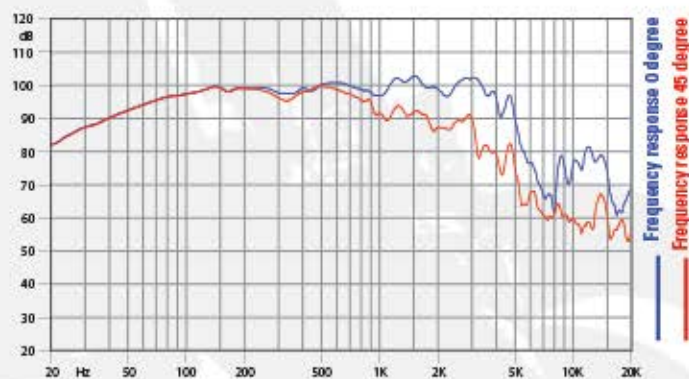
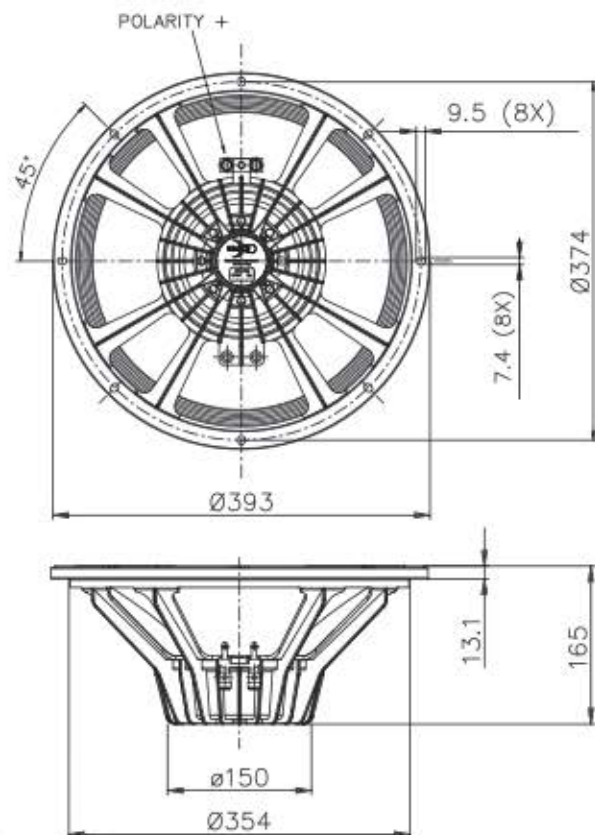
Nominal Impedance	8 Ω
Minimum Impedance	5.9 Ω
AES Power Handling (1)	400 W
Maximum Power Handling (4)	800 W
Sensitivity (1W/1m)	99 dB
Frequency Range	35-4000 Hz
Voice Coil Diameter	77 mm (3 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	15 mm (0.59 in)
Magnetic Gap Depth	10.5 mm (0.41 in)
Flux Density	1.15 T
Magnet	Neodymium Slug
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	Accordion (4 waves)
NET Air Volume filled by Loudspeaker	3.7 dm ³ (0.131 ft ³)
Spider Profile	1x constant height waves

THIELE & SMALL PARAMETERS

Fs	35 Hz
Re	5.1 Ω
Qes	0.34
Qms	6.0
Qts	0.32
Vas	223 dm ³ (7.88 ft ³)
Sd	805 cm ² (124.78 in ²)
Xmax (z)	5.75 mm
Xdamage (3)	15.5 mm
Mms	85.2 g
Bl	16.7 N/A
Le	0.75 mH
Mmd	72.5 g
Cms	0.24 mm/N
Rms	3.11 kg/s
η_c (Eta Zero)	2.71 %
EBP	103 Hz

NOTE:

- 2 Hours Test According to AES 2-1984 Rev. 2003
- $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- Maximum excursion before permanent damage
- Maximum power is defined as 3dB greater than nominal power
- Treated Polycotton



12HP1060

12" - 1000 W - 95 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	300 mm (12 in)
Overall Diameter	316 mm (12.44 in)
Bolt Circle Diameter	298.5 mm (11.75 in)
Baffle Cutout Diameter	282 mm (11.10 in)
Depth	168.75 mm (6.64 in)
Flange and gasket Thickness	12.45 mm (0.49 in)
Net Weight	6.6 kg (14.6 lb)
Shipping Box	350 x 346 x 216 mm
(Single Carton Box)	(13.8 x 13.6 x 8.5 in)
Shipping Weight	7.3 kg (16.1 lb)

TECHNICAL PARAMETERS

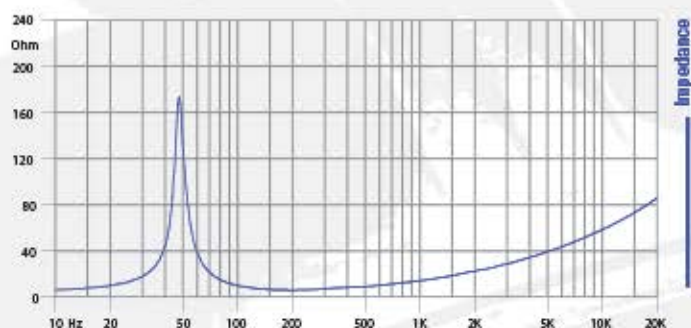
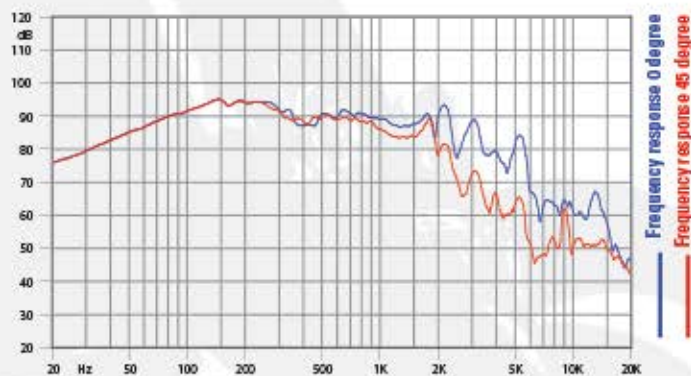
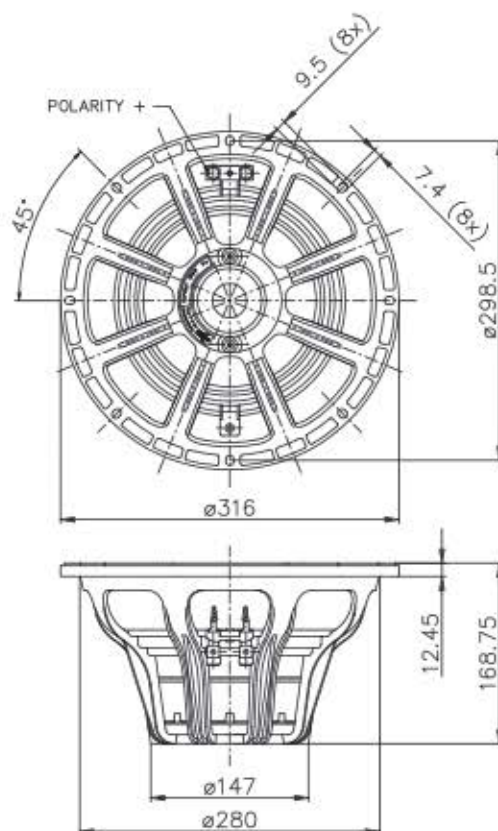
Nominal Impedance	8 Ω
Minimum Impedance	6.5 Ω
AES Power Handling (1)	1000 W
Maximum Power Handling (4)	2000 W
Sensitivity (1W/1m)	95 dB
Frequency Range	45 ÷ 2500 Hz
Voice Coil Diameter	100 mm (4 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	28.9 mm (1.14 in)
Magnetic Gap Depth	12 mm (0.47 in)
Flux Density	1.22 T
Magnet	Neodymium Ring
Basket Material	Aluminum
Demodulation	Aluminum Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	2.9 dm ³ (0.102 ft ³)
Spider Profile	2x non-adjacent symmetrical variable height waves

THIELE & SMALL PARAMETERS

Fs	45 Hz
Re	5 Ω
Qes	0.29
Qms	12.1
Qts	0.28
Vas	30.8 dm ³ (1.09 ft ³)
Sd	469 cm ² (72.70 in ²)
Xmax (2)	12.45 mm
Xdamage (3)	21 mm
Mms	126.9 g
Bl	24.8 N/A
Le	1.38 mH
Mmd	121.1 g
Cms	0.10 mm/N
Rms	2.96 kg/s
η _o (Eta Zero)	0.93 %
EBP	155 Hz

NOTE:

- 2 Hours Test According to AES 2-1984 Rev. 2003
- $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- Maximum excursion before permanent damage
- Maximum power is defined as 3dB greater than nominal power
- Treated Polycotton



FERRITE

12HP1030

12" - 1000 W - 95 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	300 mm (12 in)
Overall Diameter	316 mm (12.44 in)
Bolt Circle Diameter	298.5 mm (11.75 in)
Baffle Cutout Diameter	282 mm (11.10 in)
Depth	147 mm (5.79 in)
Flange and gasket Thickness	12 mm (0.47 in)
Net Weight	11.1 kg (24.5 lb)
Shipping Box	350 x 346 x 190 mm
(Single Carton Box)	(13.8 x 13.6 x 7.5 in)
Shipping Weight	11.8 kg (26.0 lb)

TECHNICAL PARAMETERS

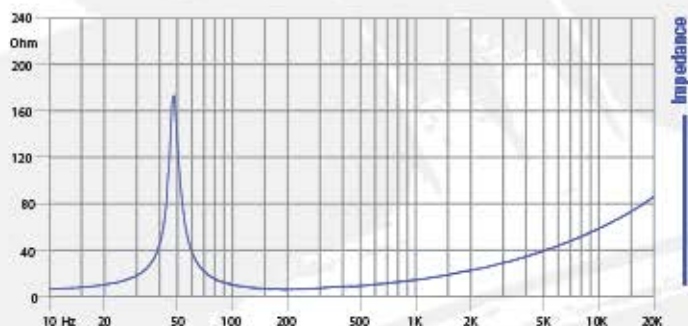
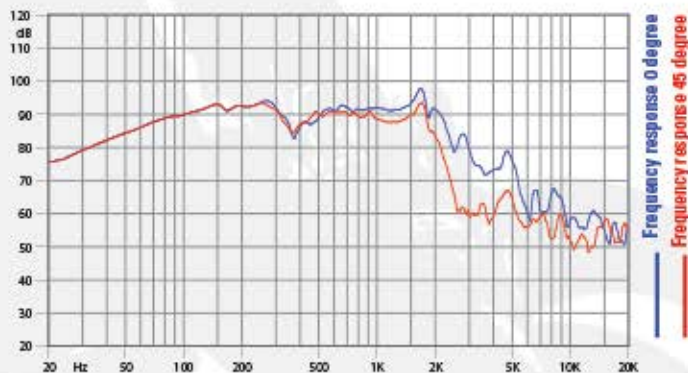
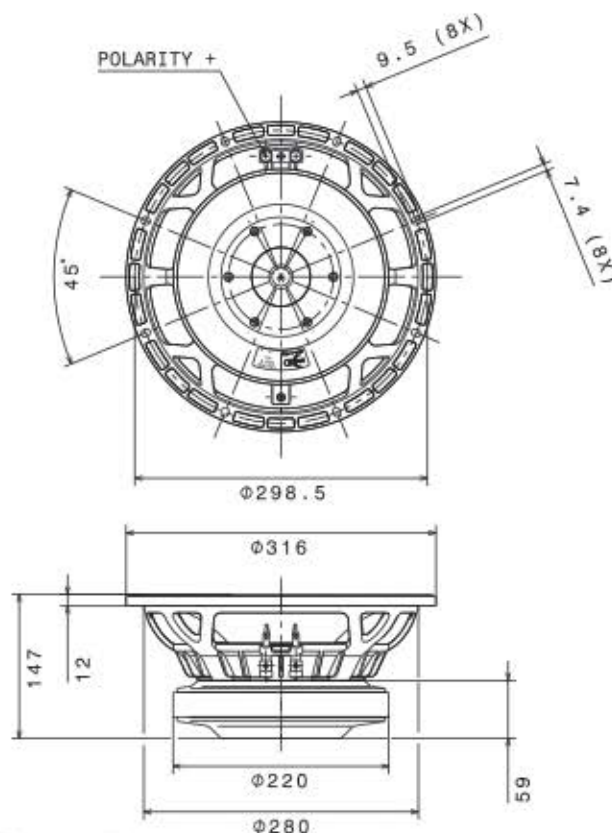
Nominal Impedance	8 Ω
Minimum Impedance	6.7 Ω
AES Power Handling (1)	1000 W
Maximum Power Handling (4)	2000 W
Sensitivity (1W/1m)	95 dB
Frequency Range	45-1600 Hz
Voice Coil Diameter	100 mm (4 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	28.9 mm (1.14 in)
Magnetic Gap Depth	12 mm (0.47 in)
Flux Density	1.1 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	Aluminum Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	3.7 dm ³ (0.131 ft ³)
Spider Profile	2x non-adjacent symmetrical variable height waves

THIELE & SMALL PARAMETERS

Fs	45 Hz
Re	5 Ω
Qes	0.31
Qms	13.8
Qts	0.30
Vas	29.9 dm ³ (1.06 ft ³)
Sd	469 cm ² (72.70 in ²)
Xmax (2)	12.45 mm
Xdamage (3)	20.5 mm
Mms	130.5 g
Bl	24.3 N/A
Le	1.35 mH
Mmd	124.7 g
Cms	0.09 mm/N
Rms	2.7 kg/s
η _o (Eta Zero)	0.85 %
EBP	145 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



12HP1020

12" - 700 W - 97 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	300 mm (12 in)
Overall Diameter	316 mm (12.44 in)
Bolt Circle Diameter	298.5 mm (11.75 in)
Baffle Cutout Diameter	284 mm (11.18 in)
Depth	155.75 mm (6.13 in)
Flange and gasket Thickness	12.45 mm (0.49 in)
Net Weight	5.8 kg (12.8 lb)
Shipping Box	350 x 346 x 216 mm
(Single Carton Box)	(13.8 x 13.6 x 8.5 in)
Shipping Weight	6.5 kg (14.3 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω
Minimum Impedance	7.1 Ω
AES Power Handling (1)	700 W
Maximum Power Handling (4)	1400 W
Sensitivity (1W/1m)	97 dB
Frequency Range	55-3150 Hz
Voice Coil Diameter	100 mm (4 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	22 mm (0.87 in)
Magnetic Gap Depth	12 mm (0.47 in)
Flux Density	1.3 T
Magnet	Neodymium Slug
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	M-Roll
NET Air Volume filled by Loudspeaker	2.8 dm ³ (0.099 ft ³)
Spider Profile	2x non-adjacent symmetrical constant height waves

THIELE & SMALL PARAMETERS

Fs	55 Hz
Re	5.5 Ω
Qes	0.28
Qms	9.4
Qts	0.27
Vas	33.7 dm ³ (1.19 ft ³)
Sd	494 cm ² (76.57 in ²)
Xmax (2)	9.00 mm
Xdamage (3)	16 mm
Mms	86.0 g
Bl	24.3 N/A
Le	1.1 mH
Mmd	79.3 g
Cms	0.09 mm/N
Rms	3.16 kg/s
η _e (Eta Zero)	1.97 %
EBP	196 Hz

NOTE:

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

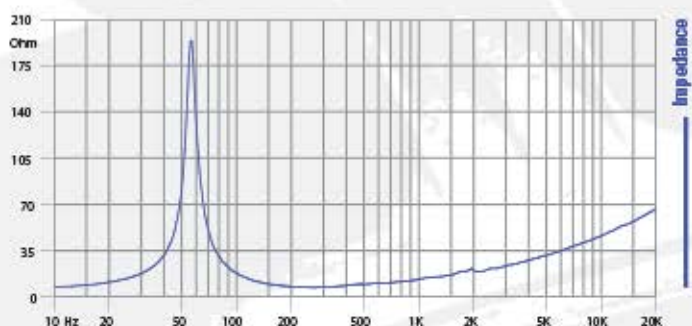
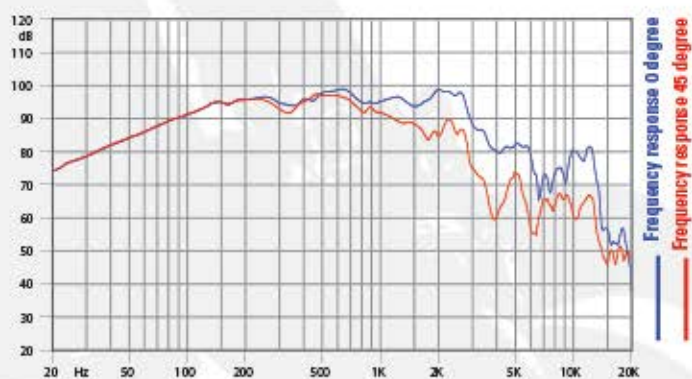
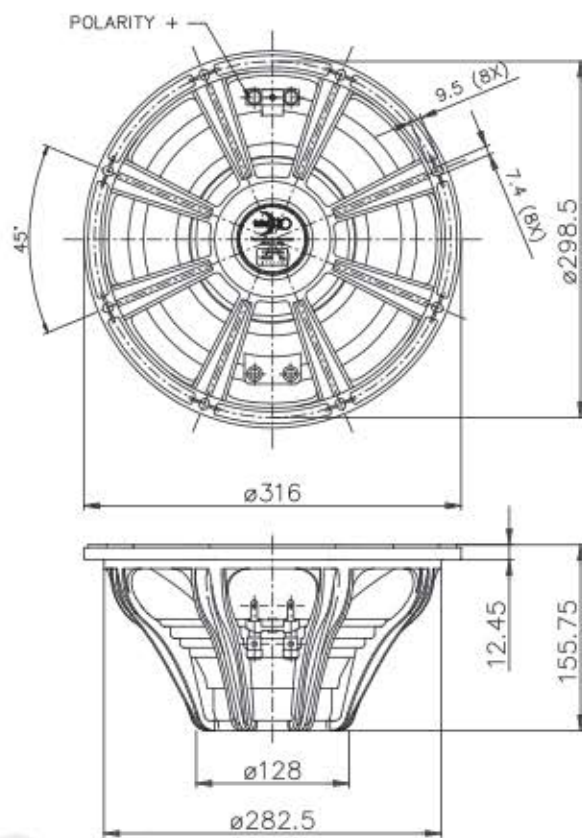
(2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$

(3) Maximum excursion before permanent damage

(4) Maximum power is defined as 3dB greater than nominal power

(5) Treated Poly cotton

PATENT IT2006/000327



FERRITE

12HP1010

12" - 700 W - 96 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	300 mm (12 in)
Overall Diameter	316 mm (12.44 in)
Bolt Circle Diameter	298.5 mm (11.75 in)
Baffle Cutout Diameter	282 mm (11.10 in)
Depth	142 mm (5.59 in)
Flange and gasket Thickness	12 mm (0.47 in)
Net Weight	9.2 kg (20.3 lb)
Shipping Box	350 x 346 x 190 mm
(Single Carton Box)	(13.8 x 13.6 x 7.5 in)
Shipping Weight	10 kg (22.0 lb)

TECHNICAL PARAMETERS

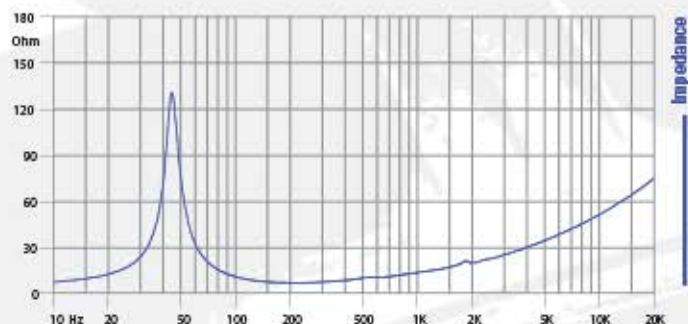
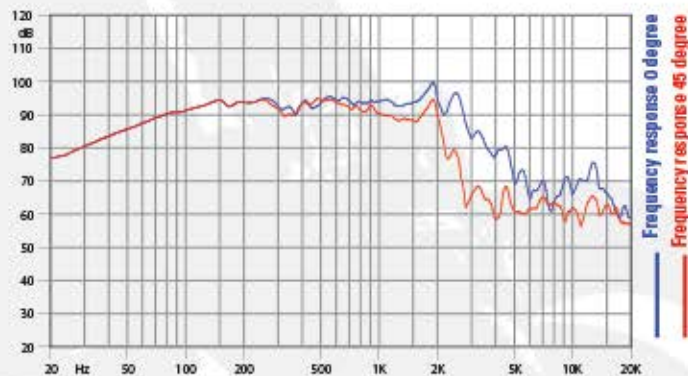
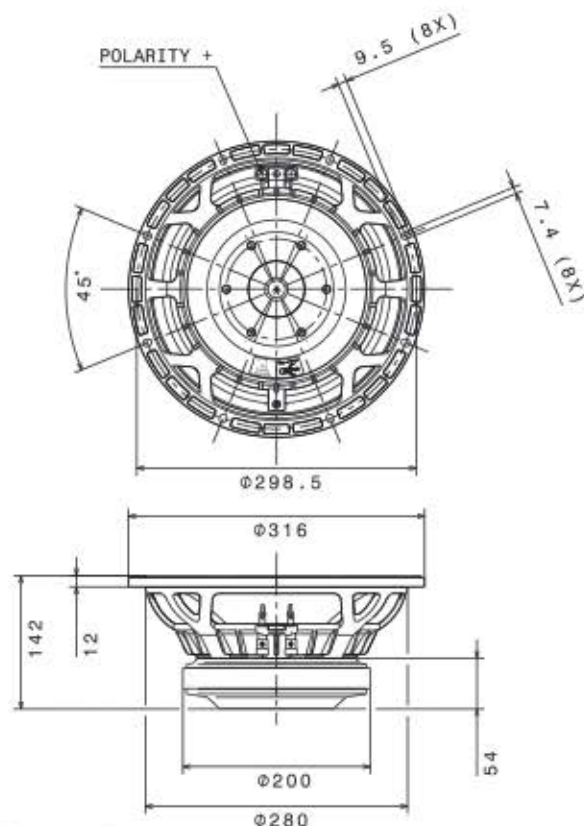
Nominal Impedance	8 Ω
Minimum Impedance	7 Ω
AES Power Handling (1)	700 W
Maximum Power Handling (4)	1400 W
Sensitivity (1W/1m)	96 dB
Frequency Range	45-3150 Hz
Voice Coil Diameter	100 mm (4 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	22 mm (0.87 in)
Magnetic Gap Depth	10.5 mm (0.41 in)
Flux Density	1.05 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	M-Roll
NET Air Volume filled by Loudspeaker	3.3 dm ³ (0.117 ft ³)
Spider Profile	2x non-adjacent symmetrical constant height waves

THIELE & SMALL PARAMETERS

Fs	45 Hz
Re	5.5 Ω
Qes	0.35
Qms	9.4
Qts	0.33
Vas	50 dm ³ (1.77 ft ³)
Sd	496 cm ² (76.88 in ²)
Xmax (2)	9.25 mm
Xdamage (3)	21.9 mm
Mms	87.2 g
Bl	19.8 N/A
Le	1.33 mH
Mmd	80.5 g
Cms	0.14 mm/N
Rms	2.62 kg/s
η _o (Eta Zero)	1.28 %
EBP	129 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



12FH520

12" - 600 W - 98 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	300 mm (12 in)
Overall Diameter	316 mm (12.44 in)
Bolt Circle Diameter	298.5 mm (11.75 in)
Baffle Cutout Diameter	284 mm (11.18 in)
Depth	155.75 mm (6.13 in)
Flange and gasket Thickness	12.45 mm (0.49 in)
Net Weight	4.2 kg (9.3 lb)
Shipping Box	350 x 346 x 216 mm
(Single Carton Box)	(13.8 x 13.6 x 8.5 in)
Shipping Weight	5 kg (11.0 lb)

TECHNICAL PARAMETERS

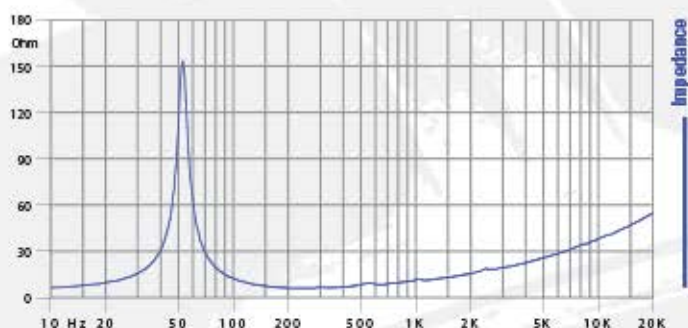
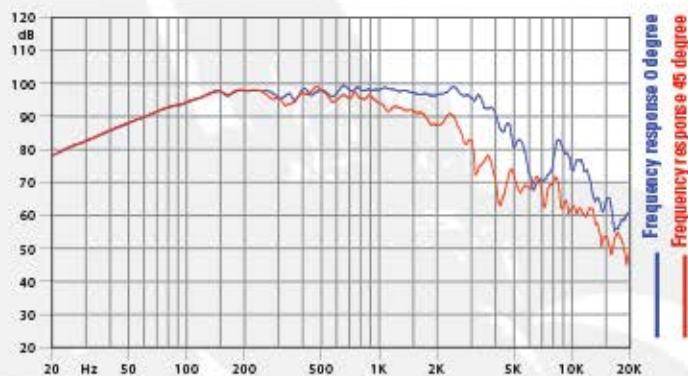
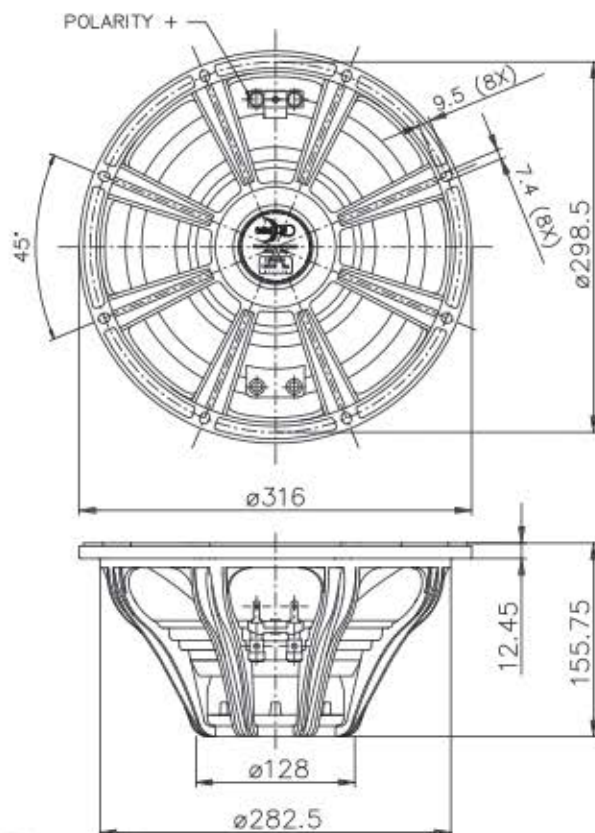
Nominal Impedance	8 Ω
Minimum Impedance	6.3 Ω
AES Power Handling (1)	600 W
Maximum Power Handling (4)	1200 W
Sensitivity (1W/1m)	98 dB
Frequency Range	50 ÷ 4000 Hz
Voice Coil Diameter	77 mm (3 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	18.5 mm (0.71 in)
Magnetic Gap Depth	12 mm (0.47 in)
Flux Density	1.1 T
Magnet	Neodymium Slug
Basket Material	Aluminum
Demodulation	Aluminum Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	2.4 dm ³ (0.085 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	50 Hz
Re	5.1 Ω
Qes	0.30
Qms	11.1
Qts	0.29
Vas	64.2 dm ³ (2.27 ft ³)
Sd	500 cm ² (77.5 in ²)
Xmax (2)	7.25 mm
Xdamage (3)	19.5 mm
Mms	56.0 g
Bl	17.3 N/A
Le	0.74 mH
Mmd	49.7 g
Cms	0.18 mm/N
Rms	1.58 kg/s
η _l (Eta Zero)	2.60 %
EBP	167 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



NEODYMIUM

12FH500

12" - 500 W - 97 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	300 mm (12 in)
Overall Diameter	316 mm (12.44 in)
Bolt Circle Diameter	298.5 mm (11.75 in)
Baffle Cutout Diameter	284 mm (11.18 in)
Depth	155.75 mm (6.13 in)
Flange and gasket Thickness	12.45 mm (0.49 in)
Net Weight	3.9 kg (8.6 lb)
Shipping Box	350 x 346 x 216 mm
(Single Carton Box)	(13.8 x 13.6 x 8.5 in)
Shipping Weight	5 kg (11.0 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω
Minimum Impedance	6.4 Ω
AES Power Handling (1)	500 W
Maximum Power Handling (4)	1000 W
Sensitivity (1W/1m)	97 dB
Frequency Range	45÷4000 Hz
Voice Coil Diameter	77 mm (3 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	18.5 mm (0.73 in)
Magnetic Gap Depth	10.5 mm (0.41 in)
Flux Density	1.2 T
Magnet	Neodymium Slug
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	M-Roll
NET Air Volume filled by Loudspeaker	2.3 dm ³ (0.081 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	45 Hz
Re	5.1 Ω
Qes	0.26
Qms	6.9
Qts	0.25
Vas	75.1 dm ³ (2.65 ft ³)
Sd	487 cm ² (75.49 in ²)
Xmax (2)	7.50 mm
Xdamage (3)	21.55 mm
Mms	56.0 g
Bl	17.5 N/A
Le	0.83 mH
Mmd	50.0 g
Cms	0.22 mm/N
Rms	2.29 kg/s
η ₀ (Eta Zero)	2.50 %
EBP	173 Hz

NOTE:

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

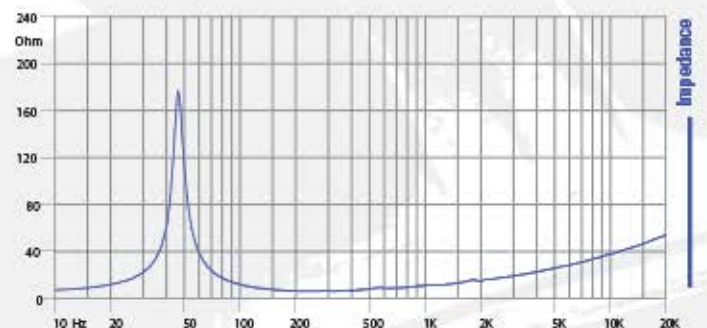
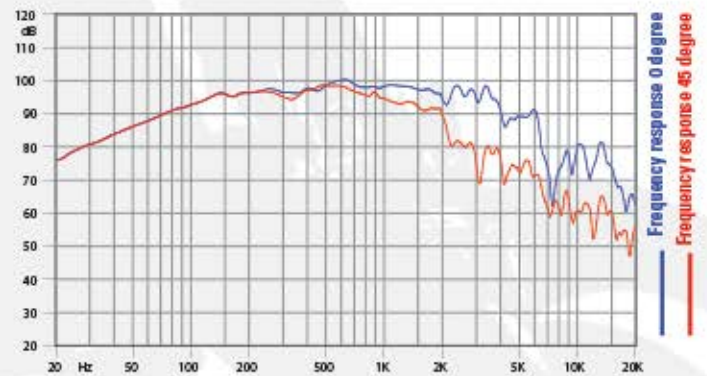
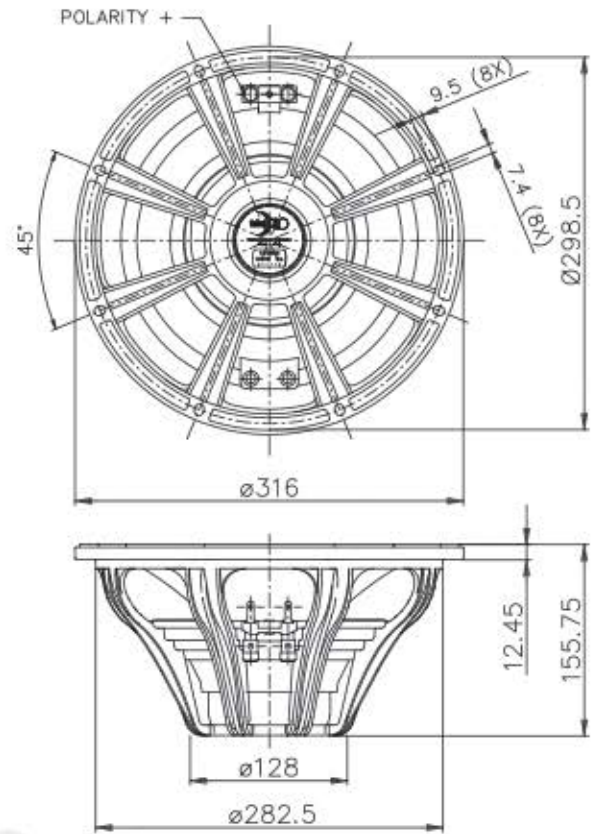
(2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$

(3) Maximum excursion before permanent damage

(4) Maximum power is defined as 3dB greater than nominal power

(5) Treated Polycotton

PATENT IT2006/000327



FERRITE

12FH510

12" - 500 W - 98 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	300 mm (12 in)
Overall Diameter	316 mm (12.44 in)
Bolt Circle Diameter	298.5 mm (11.75 in)
Baffle Cutout Diameter	282 mm (11.10 in)
Depth	140 mm (5.51 in)
Flange and gasket Thickness	12 mm (0.47 in)
Net Weight	7.8 kg (17.2 lb)
Shipping Box	350 x 346 x 190 mm
(Single Carton Box)	(13.8 x 13.6 x 7.5 in)
Shipping Weight	8.7 kg (19.2 lb)

TECHNICAL PARAMETERS

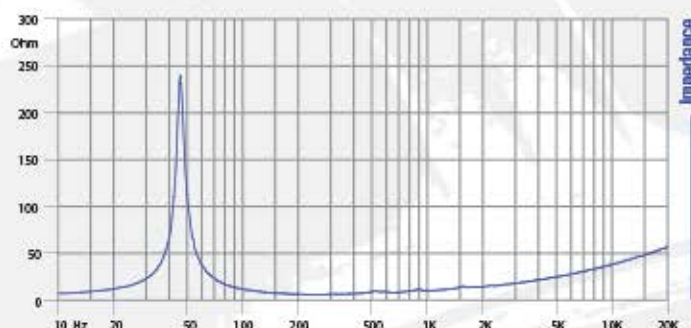
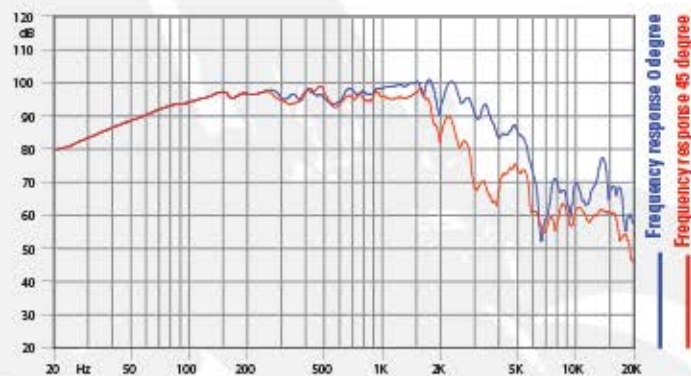
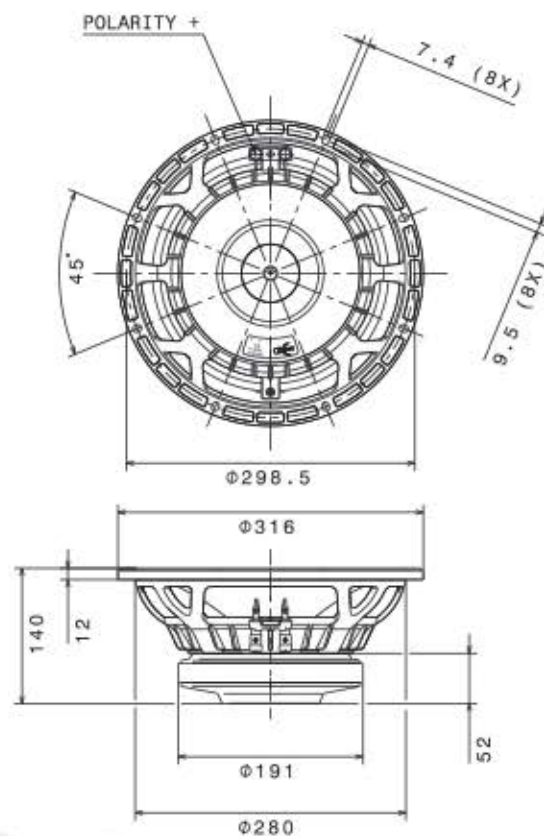
Nominal Impedance	8 Ω
Minimum Impedance	6.4 Ω
AES Power Handling (1)	500 W
Maximum Power Handling (4)	1000 W
Sensitivity (1W/1m)	98 dB
Frequency Range	45÷3150 Hz
Voice Coil Diameter	77 mm (3 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	18.5 mm (0.73 in)
Magnetic Gap Depth	10.5 mm (0.41 in)
Flux Density	1.2 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	M-Roll
NET Air Volume filled by Loudspeaker	2.9 dm ³ (0.102 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	45 Hz
Re	5.1 Ω
Qes	0.25
Qms	10.9
Qts	0.24
Vas	69.6 dm ³ (2.46 ft ³)
Sd	489 cm ² (75.80 in ²)
Xmax (2)	7.50 mm
Xdamage (3)	21.5 mm
Mms	61.0 g
Bl	18.9 N/A
Le	0.9 mH
Mmd	54.9 g
Cms	0.20 mm/N
Rms	1.58 kg/s
η _o (Eta Zero)	2.50 %
EBP	180 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Poly cotton



FERRITE

12FH530

12" - 500 W - 98 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	300 mm (12 in)
Overall Diameter	316 mm (12.44 in)
Bolt Circle Diameter	298.5 mm (11.75 in)
Baffle Cutout Diameter	282 mm (11.10 in)
Depth	140 mm (5.51 in)
Flange and gasket Thickness	12 mm (0.47 in)
Net Weight	7.9 kg (17.4 lb)
Shipping Box	350 x 346 x 190 mm
(Single Carton Box)	(13.8 x 13.6 x 7.5 in)
Shipping Weight	8.7 kg (19.2 lb)

TECHNICAL PARAMETERS

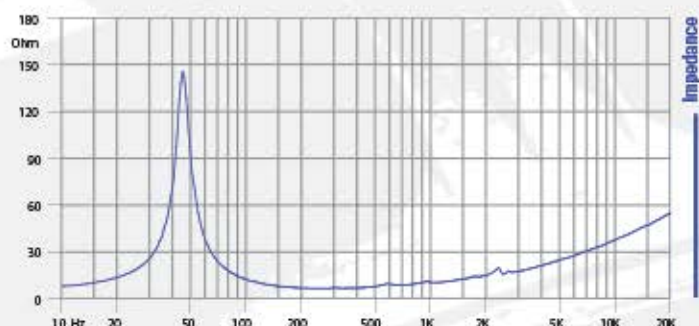
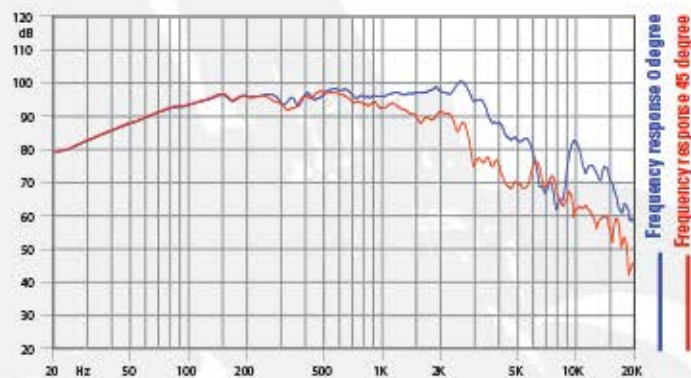
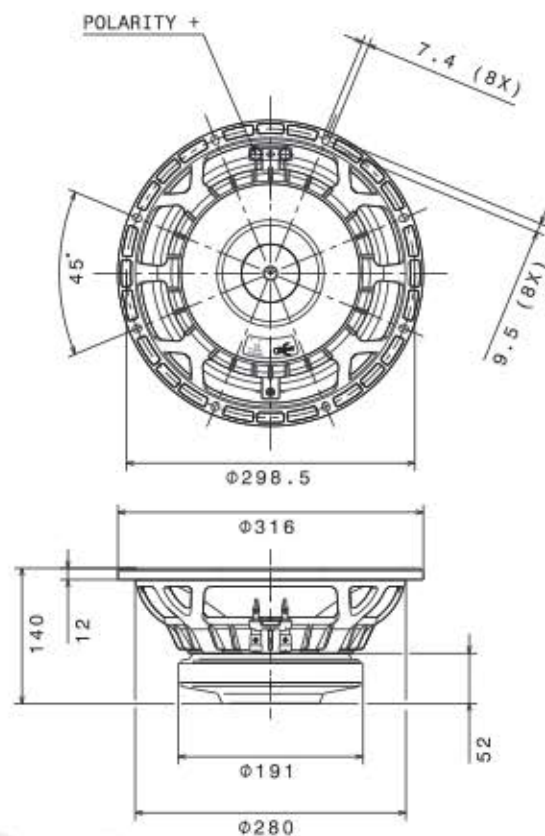
Nominal Impedance	8 Ω
Minimum Impedance	6.4 Ω
AES Power Handling (1)	500 W
Maximum Power Handling (4)	1000 W
Sensitivity (1W/1m)	98 dB
Frequency Range	45÷3150 Hz
Voice Coil Diameter	77 mm (3 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	18.5 mm (0.73 in)
Magnetic Gap Depth	10.5 mm (0.41 in)
Flux Density	1.2 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	Aluminum Ring
Cone Surround (5)	M-Roll
NET Air Volume filled by Loudspeaker	2.9 dm ³ (0.102 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	45 Hz
Re	5.1 Ω
Qes	0.27
Qms	6.4
Qts	0.26
Vas	63 dm ³ (2.22 ft ³)
Sd	489 cm ² (75.80 in ²)
Xmax (2)	7.50 mm
Xdamage (3)	21.5 mm
Mms	67.0 g
Bl	18.9 N/A
Le	0.8 mH
Mmd	55.3 g
Cms	0.19 mm/N
Rms	2.9 kg/s
η _o (Eta Zero)	2.10 %
EBP	167 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



12PR300

12" - 300 W - 99 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	300 mm (12 in)
Overall Diameter	315.2 mm (12.4 in)
Bolt Circle Diameter	298.5 mm (11.75 in)
Baffle Cutout Diameter	283 mm (11.14 in)
Depth	140.6 mm (5.54 in)
Flange and gasket Thickness	12.1 mm (0.48 in)
Net Weight	2.5 kg (5.5 lb)
Shipping Box	350 x 346 x 216 mm
(Single Carton Box)	(13.8 x 13.6 x 8.5 in)
Shipping Weight	3.25 kg (7.2 lb)

TECHNICAL PARAMETERS

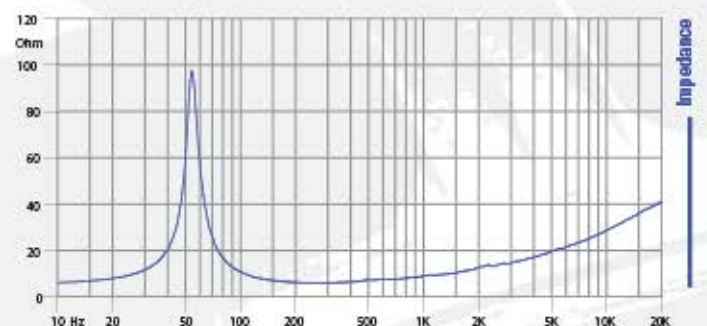
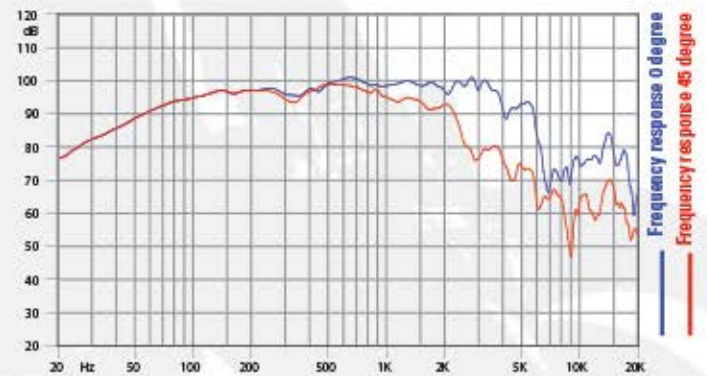
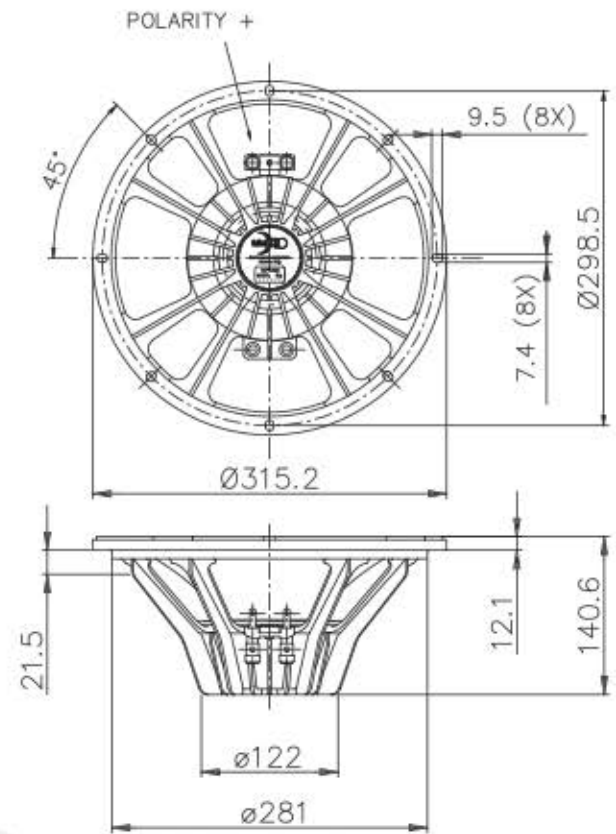
Nominal Impedance	8 Ω
Minimum Impedance	6.2 Ω
AES Power Handling (1)	300 W
Maximum Power Handling (4)	600 W
Sensitivity (1W/1m)	99 dB
Frequency Range	50-5000 Hz
Voice Coil Diameter	65 mm (2.56 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	12.5 mm (0.49 in)
Magnetic Gap Depth	8 mm (0.31 in)
Flux Density	1.25 T
Magnet	Neodymium Slug
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	M-Roll
NET Air Volume filled by Loudspeaker	1.9 dm ³ (0.067 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	50 Hz
Re	5.4 Ω
Qes	0.37
Qms	9.9
Qts	0.36
Vas	79.2 dm ³ (2.8 ft ³)
Sd	489 cm ² (75.80 in ²)
Xmax (2)	4.92 mm
Xdamage (3)	14 mm
Mms	43.4 g
Bl	14.1 N/A
Le	0.42 mH
Mmd	36.6 g
Cms	0.23 mm/N
Rms	1.37 kg/s
η _l (Eta Zero)	2.60 %
EBP	135 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Poly cotton



FERRITE

12PR310

12" - 300 W - 99 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	300 mm (12 in)
Overall Diameter	316 mm (12.44 in)
Bolt Circle Diameter	298.5 mm (11.75 in)
Baffle Cutout Diameter	282 mm (11.10 in)
Depth	135 mm (5.31 in)
Flange and gasket Thickness	12 mm (0.47 in)
Net Weight	4.3 kg (9.5 lb)
Shipping Box	350 x 346 x 190 mm
(Single Carton Box)	(13.8 x 13.6 x 7.5 in)
Shipping Weight	5 kg (11.0 lb)

TECHNICAL PARAMETERS

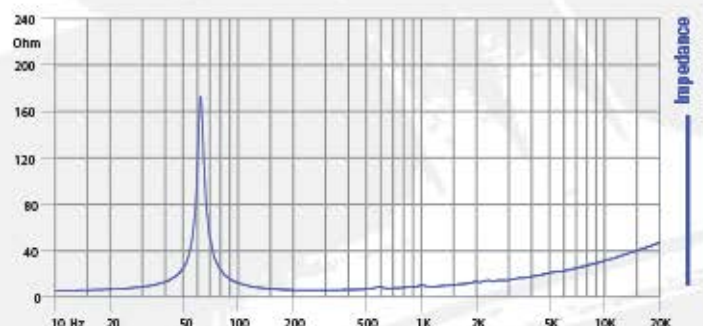
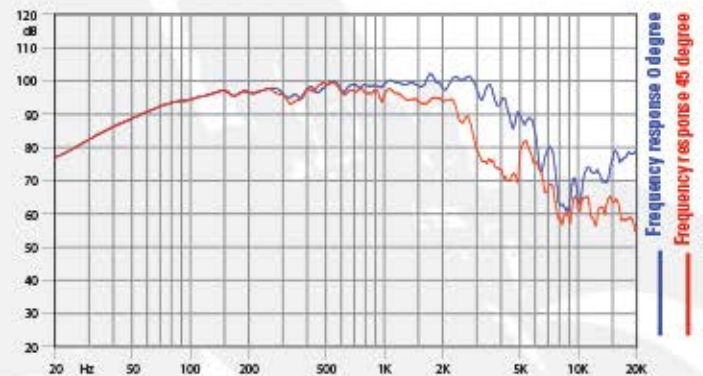
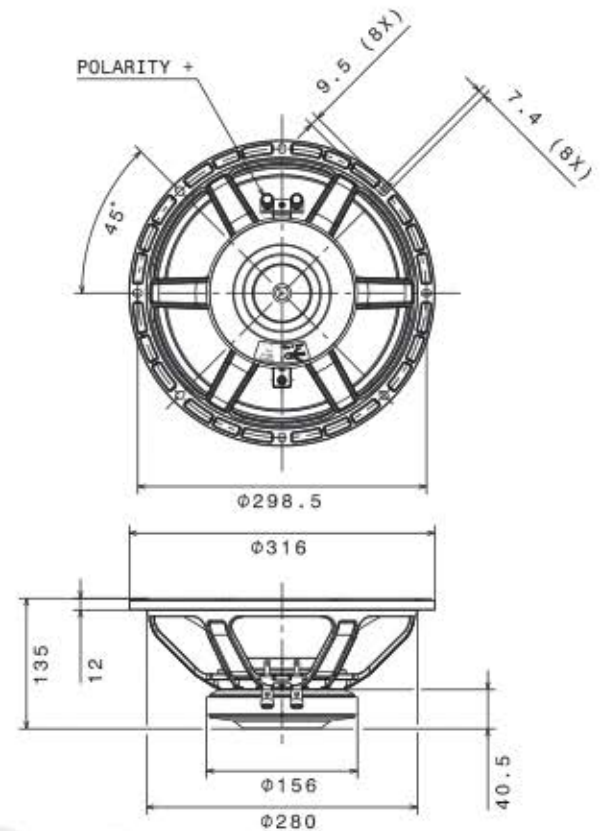
Nominal Impedance	8 Ω
Minimum Impedance	6.7 Ω
AES Power Handling (1)	300 W
Maximum Power Handling (4)	600 W
Sensitivity (1W/1m)	99 dB
Frequency Range	50 ÷ 4000 Hz
Voice Coil Diameter	65 mm (2.56 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	12.5 mm (0.49 in)
Magnetic Gap Depth	8 mm (0.31 in)
Flux Density	1.2 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	M-Roll
NET Air Volume filled by Loudspeaker	1.9 dm ³ (0.067 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	54 Hz
Re	5.4 Ω
Qes	0.41
Qms	11.6
Qts	0.40
Vas	62.8 dm ³ (2.22 ft ³)
Sd	489 cm ² (75.80 in ²)
Xmax (2)	4.92 mm
Xdamage (3)	15.25 mm
Mms	46.9 g
Bl	14.4 N/A
Le	0.61 mH
Mmd	40.1 g
Cms	0.18 mm/N
Rms	1.37 kg/s
η _o (Eta Zero)	2.32 %
EBP	132 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



10HP1020

10" - 700 W - 96 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	250 mm (10 in)
Overall Diameter	261 mm (10.28 in)
Bolt Circle Diameter	246 mm (9.69 in)
Baffle Cutout Diameter	232 mm (9.13 in)
Depth	141.3 mm (5.56 in)
Flange and gasket Thickness	12.5 mm (0.49 in)
Net Weight	5.2 kg (11.5 lb)
Shipping Box	294 x 290 x 203 mm
(Single Carton Box)	(11.6 x 11.4 x 8.0 in)
Shipping Weight	5.8 kg (12.8 lb)

TECHNICAL PARAMETERS

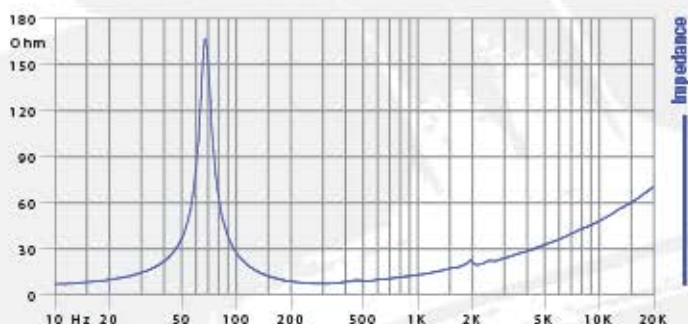
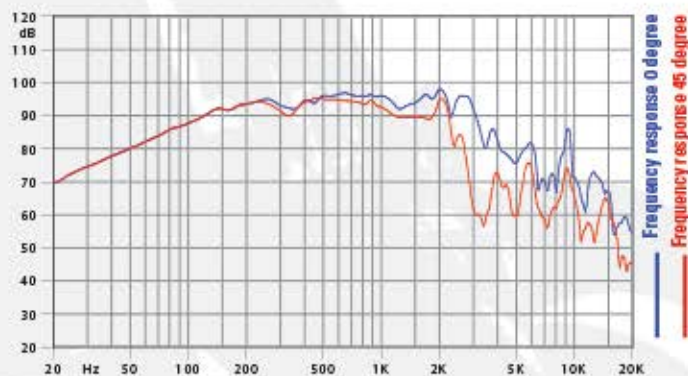
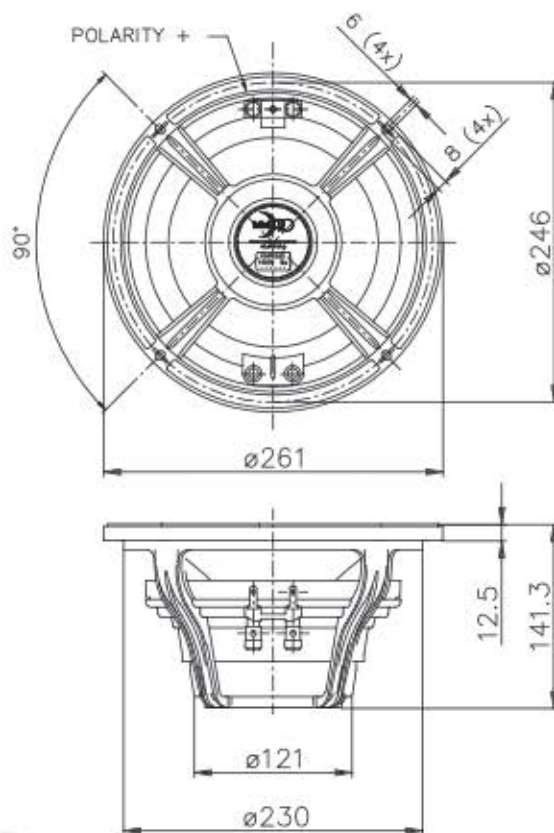
Nominal Impedance	8 Ω
Minimum Impedance	7.3 Ω
AES Power Handling (1)	700 W
Maximum Power Handling (4)	1400 W
Sensitivity (1W/1m)	96 dB
Frequency Range	60 ÷ 2500 Hz
Voice Coil Diameter	100 mm (4 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	22 mm (0.87 in)
Magnetic Gap Depth	12 mm (0.47 in)
Flux Density	1.3 T
Magnet	Neodymium Slug
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	M-Roll
NET Air Volume filled by Loudspeaker	2.2 dm ³ (0.078 ft ³)
Spider Profile	2x non-adjacent symmetrical constant height waves

THIELE & SMALL PARAMETERS

Fs	60 Hz
Re	5.5 Ω
Qes	0.25
Qms	6.5
Qts	0.24
Vas	13.7 dm ³ (0.48 ft ³)
Sd	315 cm ² (48.83 in ²)
Xmax (2)	9.00 mm
Xdamage (3)	12.5 mm
Mms	72.5 g
Bl	24.5 N/A
Le	0.85 mH
Mmd	69.0 g
Cms	0.10 mm/N
Rms	4.2 kg/s
η _l (Eta Zero)	1.14 %
EBP	240 Hz

NOTE:

- 2 Hours Test According to AES 2-1984 Rev. 2003
 - $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
 - Maximum excursion before permanent damage
 - Maximum power is defined as 3dB greater than nominal power
 - Treated Poly cotton
- PATENT IT2006/000327



10FH520

10" - 600 W - 97 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	250 mm (10 in)
Overall Diameter	261 mm (10.28 in)
Bolt Circle Diameter	246 mm (9.69 in)
Baffle Cutout Diameter	232 mm (9.13 in)
Depth	141.3 mm (5.56 in)
Flange and gasket Thickness	12.5 mm (0.49 in)
Net Weight	3.7 kg (8.2 lb)
Shipping Box	294 x 290 x 203 mm
(Single Carton Box)	(11.6 x 11.4 x 8.0 in)
Shipping Weight	4.3 kg (9.5 lb)

TECHNICAL PARAMETERS

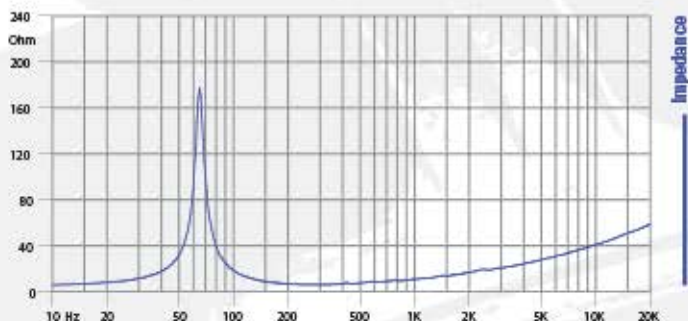
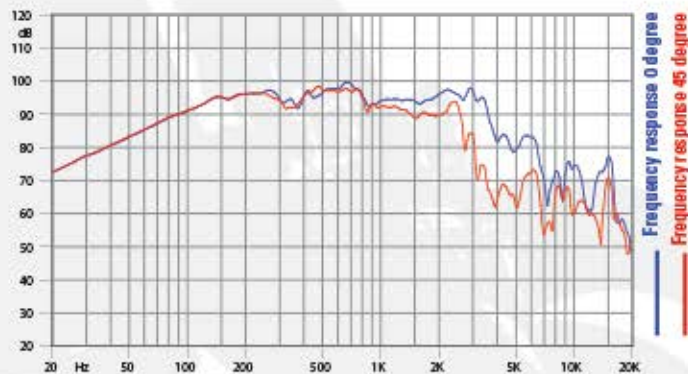
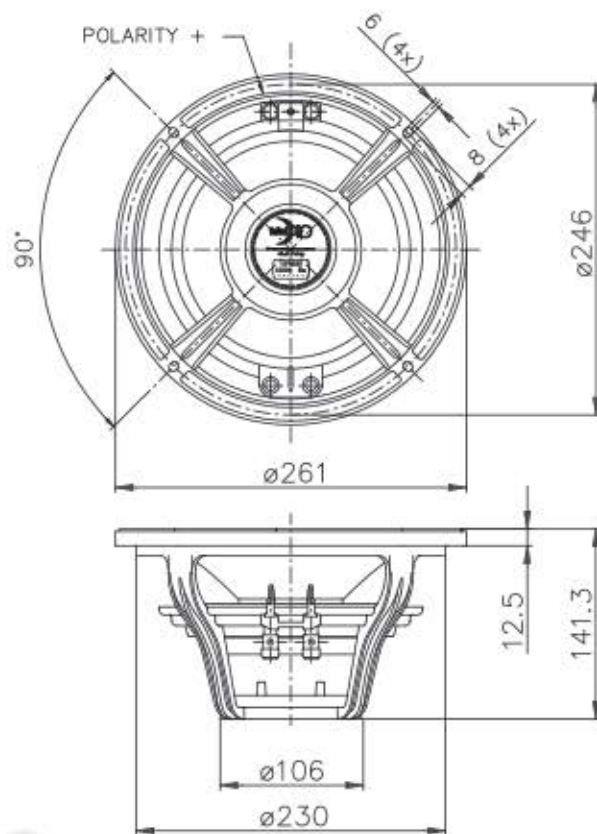
Nominal Impedance	8 Ω
Minimum Impedance	6 Ω
AES Power Handling (1)	600 W
Maximum Power Handling (4)	1200 W
Sensitivity (1W/1m)	97 dB
Frequency Range	60÷4000 Hz
Voice Coil Diameter	77 mm (3 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	18.5 mm (0.71 in)
Magnetic Gap Depth	12 mm (0.47 in)
Flux Density	1.1 T
Magnet	Neodymium Slug
Basket Material	Aluminum
Demodulation	Aluminum Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	1.7 dm ³ (0.060 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	60 Hz
Re	5.1 Ω
Qes	0.30
Qms	11.1
Qts	0.29
Vas	20.5 dm ³ (0.72 ft ³)
Sd	321 cm ² (49.75 in ²)
Xmax (2)	7.25 mm
Xdamage (3)	19.5 mm
Mms	50.3 g
Bl	18 N/A
Le	0.9 mH
Mmd	47.0 g
Cms	0.14 mm/N
Rms	1.7 kg/s
η _l (Eta Zero)	1.44 %
EBP	200 Hz

NOTE:

- 2 Hours Test According to AES 2-1984 Rev. 2003
- $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- Maximum excursion before permanent damage
- Maximum power is defined as 3dB greater than nominal power
- Treated Poly cotton



FERRITE

10FH530

10" - 500 W - 97 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	250 mm (10 in)
Overall Diameter	261 mm (10.28 in)
Bolt Circle Diameter	246 mm (9.69 in)
Baffle Cutout Diameter	230 mm (9.06 in)
Depth	130 mm (5.12 in)
Flange and gasket Thickness	11.5 mm (0.45 in)
Net Weight	7.5 kg (16.5 lb)
Shipping Box	294 x 290 x 203 mm
(Single Carton Box)	(11.6 x 11.4 x 8.0 in)
Shipping Weight	8 kg (17.6 lb)

TECHNICAL PARAMETERS

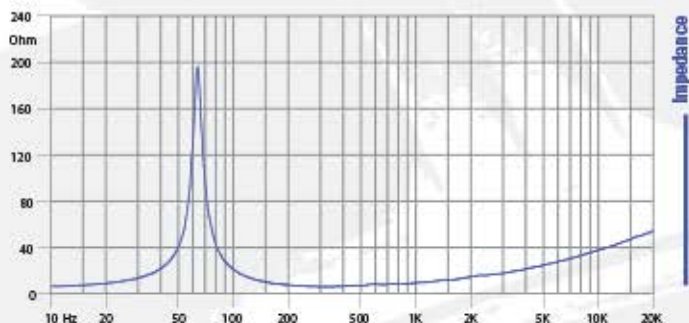
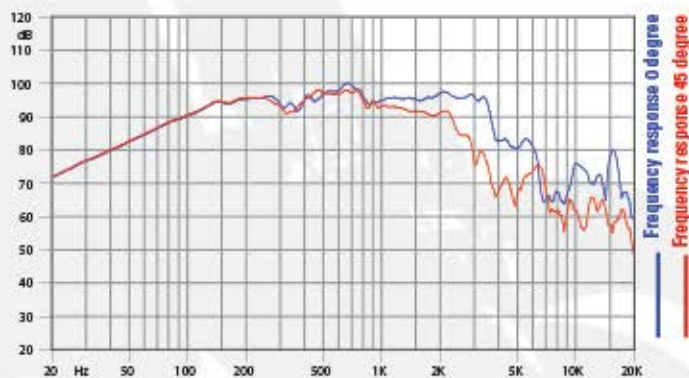
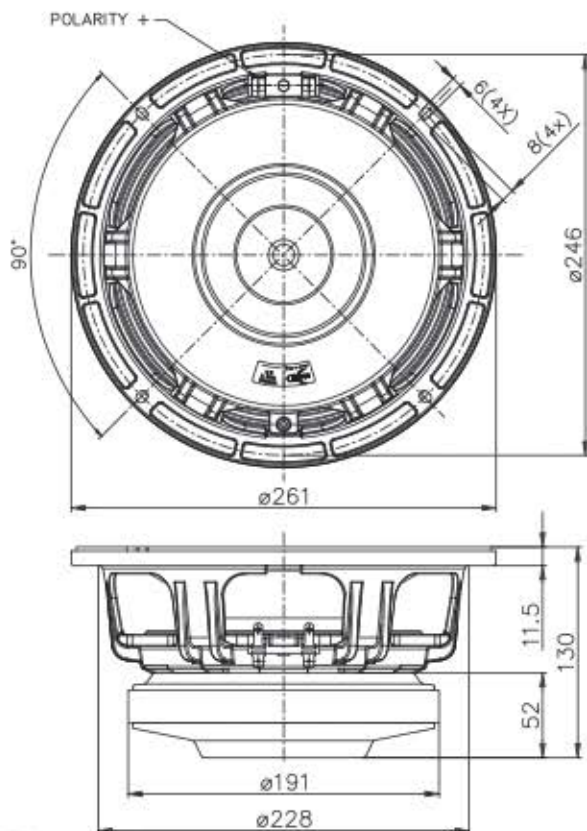
Nominal Impedance	8 Ω
Minimum Impedance	6.4 Ω
AES Power Handling (1)	500 W
Maximum Power Handling (4)	1000 W
Sensitivity (1W/1m)	97 dB
Frequency Range	60÷4000 Hz
Voice Coil Diameter	77 mm (3 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	18.5 mm (0.73 in)
Magnetic Gap Depth	10.5 mm (0.41 in)
Flux Density	1.2 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	Aluminum Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	2 dm ³ (0.071 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	60 Hz
Re	5.1 Ω
Qes	0.25
Qms	12.4
Qts	0.25
Vas	20.4 dm ³ (0.72 ft ³)
Sd	321 cm ² (49.76 in ²)
Xmax (2)	7.50 mm
Xdamage (3)	18.8 mm
Mms	50.3 g
Bl	19.5 N/A
Le	0.8 mH
Mmd	47.0 g
Cms	0.14 mm/N
Rms	1.53 kg/s
η _l (Eta Zero)	1.70 %
EBP	240 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



10FH500

10" - 500 W - 96 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	250 mm (10 in)
Overall Diameter	261 mm (10.28 in)
Bolt Circle Diameter	246 mm (9.69 in)
Baffle Cutout Diameter	232 mm (9.13 in)
Depth	141.3 mm (5.56 in)
Flange and gasket Thickness	12.5 mm (0.49 in)
Net Weight	3.4 kg (7.5 lb)
Shipping Box	294 x 290 x 203 mm
(Single Carton Box)	(11.6 x 11.4 x 8.0 in)
Shipping Weight	4 kg (8.8 lb)

TECHNICAL PARAMETERS

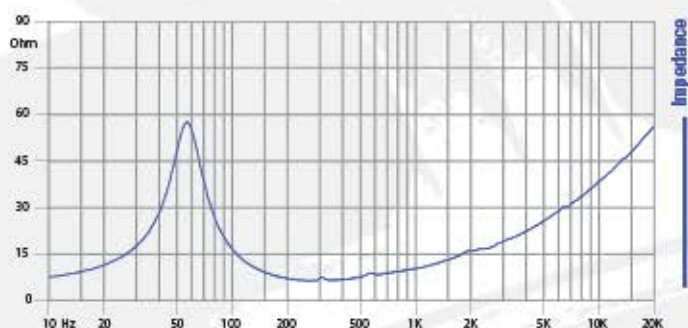
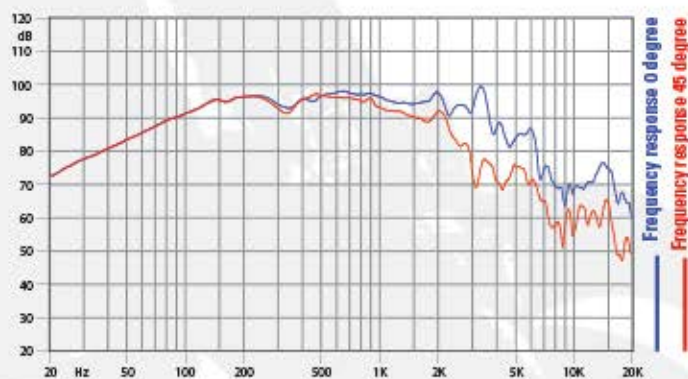
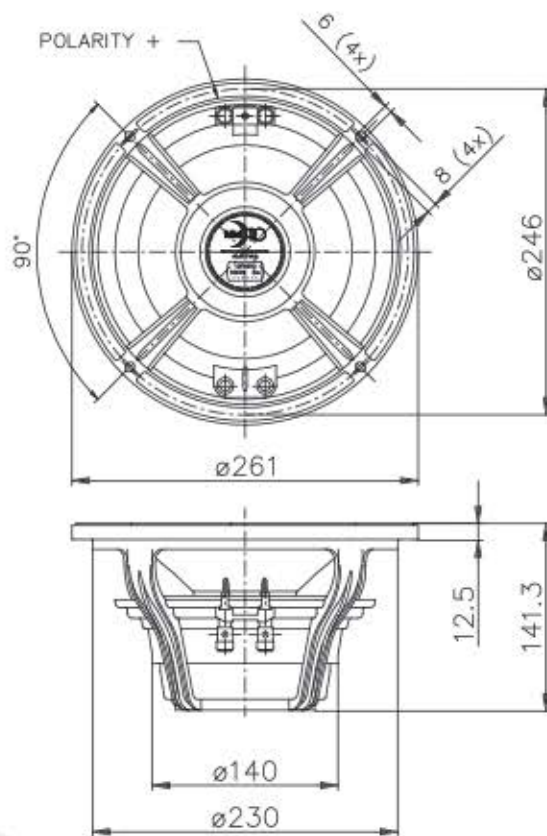
Nominal Impedance	8 Ω
Minimum Impedance	6.4 Ω
AES Power Handling (1)	500 W
Maximum Power Handling (4)	1000 W
Sensitivity (1W/1m)	96 dB
Frequency Range	60÷4000 Hz
Voice Coil Diameter	77 mm (3 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	18.5 mm (0.73 in)
Magnetic Gap Depth	10.5 mm (0.41 in)
Flux Density	1.2 T
Magnet	Neodymium Slug
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	1.6 dm ³ (0.057 ft ³)
Spider Profile	1x constant height waves

THIELE & SMALL PARAMETERS

Fs	60 Hz
Re	5.1 Ω
Qes	0.28
Qms	3.3
Qts	0.26
Vas	22.9 dm ³ (0.81 ft ³)
Sd	328 cm ² (50.84 in ²)
Xmax (2)	7.50 mm
Xdamage (3)	12.5 mm
Mms	47.0 g
Bl	17.9 N/A
Le	0.85 mH
Mmd	44.8 g
Cms	0.15 mm/N
Rms	5.4 kg/s
η ₀ (Eta Zero)	1.70 %
EBP	214 Hz

NOTE:

- 2 Hours Test According to AES 2-1984 Rev. 2003
 - $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth) / 2] + (magnetic\ gap\ depth / 3)$
 - Maximum excursion before permanent damage
 - Maximum power is defined as 3dB greater than nominal power
 - Treated Polycotton
- PATENT IT2006/000327



10PR300

10" - 300 W - 98 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	250 mm (10 in)
Overall Diameter	261 mm (10.28 in)
Bolt Circle Diameter	246 mm (9.69 in)
Baffle Cutout Diameter	232 mm (9.13 in)
Depth	115.3 mm (4.54 in)
Flange and gasket Thickness	12.2 mm (0.48 in)
Net Weight	2.3 kg (5.1 lb)
Shipping Box	294 x 290 x 203 mm
(Single Carton Box)	(11.6 x 11.4 x 8.0 in)
Shipping Weight	2.8 kg (6.16 lb)

TECHNICAL PARAMETERS

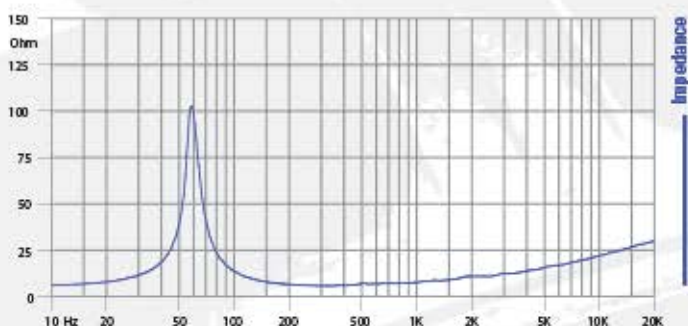
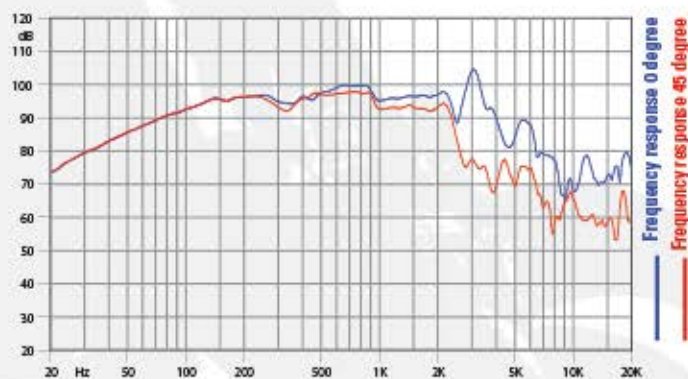
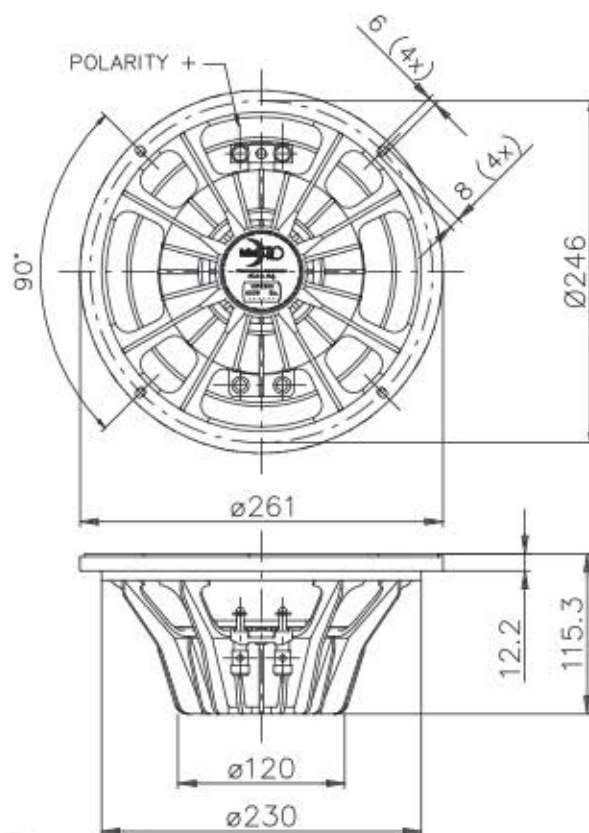
Nominal Impedance	8 Ω
Minimum Impedance	6.4 Ω
AES Power Handling (1)	300 W
Maximum Power Handling (4)	600 W
Sensitivity (1W/1m)	98 dB
Frequency Range	60-5000 Hz
Voice Coil Diameter	65 mm (2.5 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	12.5 mm (0.49 in)
Magnetic Gap Depth	8 mm (0.31 in)
Flux Density	1.25 T
Magnet	Neodymium Slug
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	M-Roll
NET Air Volume filled by Loudspeaker	1.3 dm ³ (0.046 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	60 Hz
Re	5.4 Ω
Qes	0.29
Qms	5.8
Qts	0.27
Vas	36.7 dm ³ (1.30 ft ³)
Sd	322 cm ² (49.91 in ²)
Xmax (2)	4.92 mm
Xdamage (3)	14 mm
Mms	28.2 g
Bl	14.1 N/A
Le	0.6 mH
Mmd	24.9 g
Cms	0.25 mm/N
Rms	1.83 kg/s
η ₀ (Eta Zero)	2.67 %
EBP	207 Hz

NOTE:

- 2 Hours Test According to AES 2-1984 Rev. 2003
- $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- Maximum excursion before permanent damage
- Maximum power is defined as 3dB greater than nominal power
- Treated Polycotton



FERRITE

10PR310

10" - 300 W - 98 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	250 mm (10 in)
Overall Diameter	261 mm (10.28 in)
Bolt Circle Diameter	246 mm (9.69 in)
Baffle Cutout Diameter	230 mm (9.06 in)
Depth	109 mm (4.29 in)
Flange and gasket Thickness	12 mm (0.47 in)
Net Weight	4.1 kg (9.0 lb)
Shipping Box	282 x 280 x 140 mm
(Single Carton Box)	(11.1 x 11.0 x 5.5 in)
Shipping Weight	4.7 kg (10.4 lb)

TECHNICAL PARAMETERS

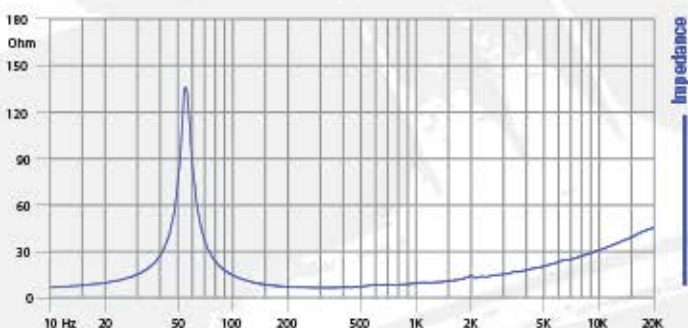
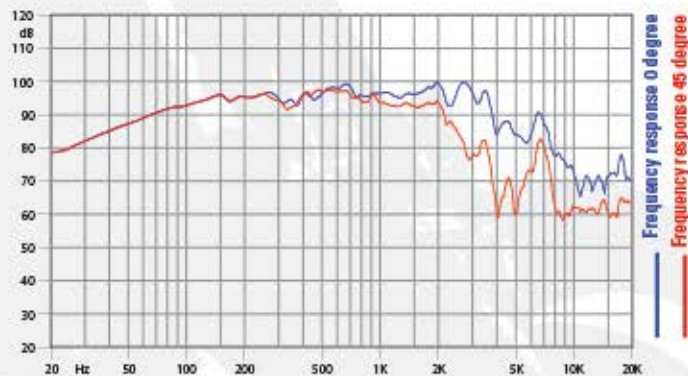
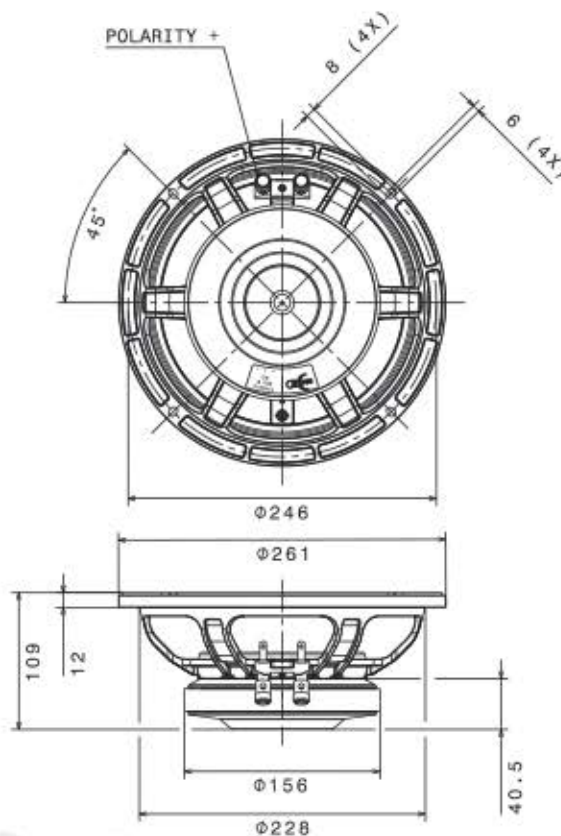
Nominal Impedance	8 Ω
Minimum Impedance	6.6 Ω
AES Power Handling (1)	300 W
Maximum Power Handling (4)	600 W
Sensitivity (1W/1m)	98 dB
Frequency Range	60÷4000 Hz
Voice Coil Diameter	65 mm (2.56 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	12.5 mm (0.49 in)
Magnetic Gap Depth	8 mm (0.31 in)
Flux Density	1.2 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	M-Roll
NET Air Volume filled by Loudspeaker	1.3 dm ³ (0.046 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	60 Hz
Re	5.4 Ω
Qes	0.36
Qms	5.7
Qts	0.34
Vas	28 dm ³ (0.99 ft ³)
Sd	322 cm ² (49.91 in ²)
Xmax (2)	4.92 mm
Xdamage (3)	15.25 mm
Mms	36.9 g
Bl	14.4 N/A
Le	0.64 mH
Mmd	33.6 g
Cms	0.19 mm/N
Rms	2.44 kg/s
η ₀ (Eta Zero)	1.63 %
EBP	167 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



FERRITE

10PR410

10" - 300 W - 99 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	250 mm (10 in)
Overall Diameter	261 mm (10.28 in)
Bolt Circle Diameter	246 mm (9.69 in)
Baffle Cutout Diameter	230 mm (9.06 in)
Depth	131 mm (5.16 in)
Flange and gasket Thickness	11.5 mm (0.45 in)
Net Weight	7.5 kg (16.6 lb)
Shipping Box	294 x 290 x 203 mm
(Single Carton Box)	(11.6 x 11.4 x 8.0 in)
Shipping Weight	8.1 kg (17.9 lb)

TECHNICAL PARAMETERS

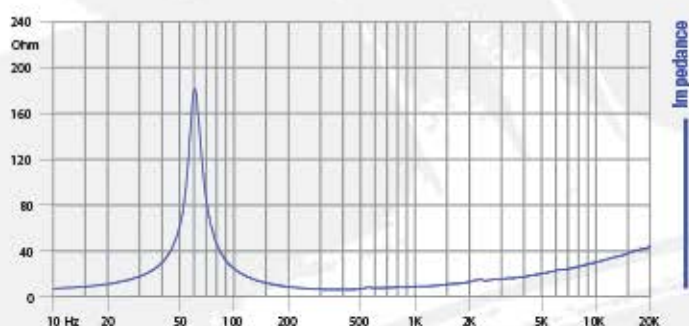
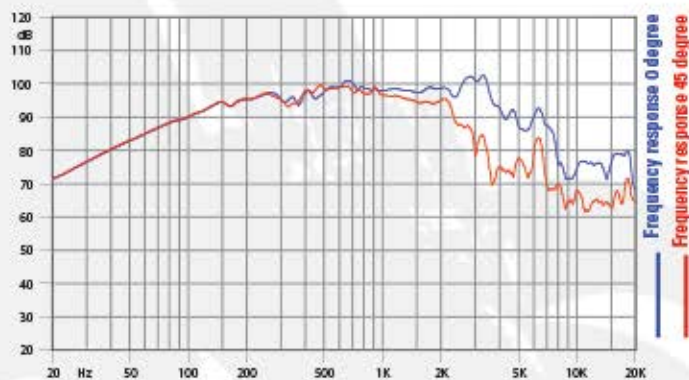
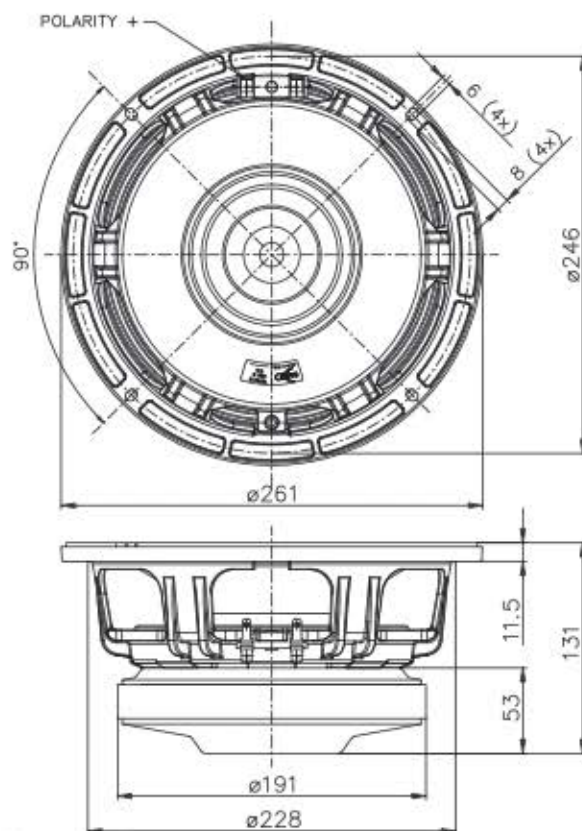
Nominal Impedance	8 Ω
Minimum Impedance	6.8 Ω
AES Power Handling (1)	300 W
Maximum Power Handling (4)	600 W
Sensitivity (1W/1m)	99 dB
Frequency Range	100÷2000 Hz
Voice Coil Diameter	65 mm (2.56 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	12.5 mm (0.49 in)
Magnetic Gap Depth	10.5 mm (0.41 in)
Flux Density	1.3 T
Magnet	Ferrite Ring
Basket Material	Aluminium
Demodulation	Aluminium Ring
Cone Surround (5)	Accordion (4 Waves)
NET Air Volume filled by Loudspeaker	2 dm ³ (0.070 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	60 Hz
Re	5.4 Ω
Qes	0.22
Qms	8.7
Qts	0.21
Vas	27.6 dm ³ (0.97 ft ³)
Sd	317.8 cm ² (49.26 in ²)
Xmax (2)	4.50 mm
Xdamage (3)	12.2 mm
Mms	36.5 g
Bl	18.5 N/A
Le	0.6 mH
Mmd	33.3 g
Cms	0.19 mm/N
Rms	1.59 kg/s
η _o (Eta Zero)	2.67 %
EBP	273 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



FERRITE

10FE200

10" - 150 W - 96 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	250 mm (10 in)
Overall Diameter	256.8 mm (10.11 in)
Bolt Circle Diameter	243.8 mm (9.60 in)
Baffle Cutout Diameter	233.8 mm (9.20 in)
Depth	102 mm (4.02 in)
Flange and gasket Thickness	8 mm (0.31 in)
Net Weight	2.2 kg (4.9 lb)
Shipping Box	282 x 280 x 140 mm
(Single Carton Box)	(11.1 x 11.0 x 5.5 in)
Shipping Weight	2.6 kg (5.7 lb)

TECHNICAL PARAMETERS

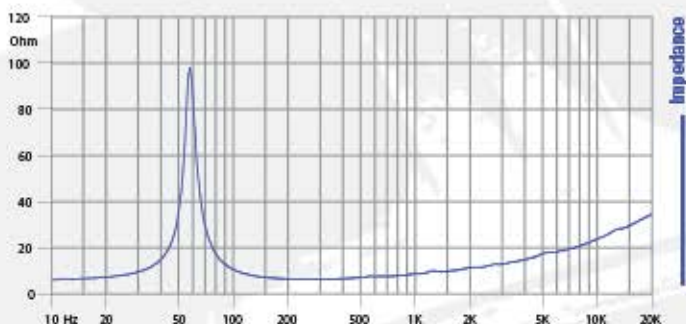
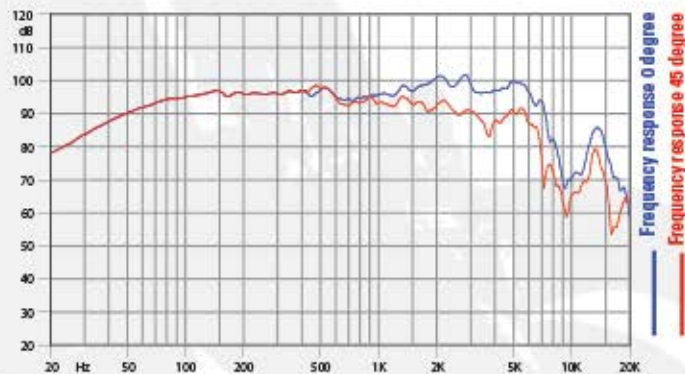
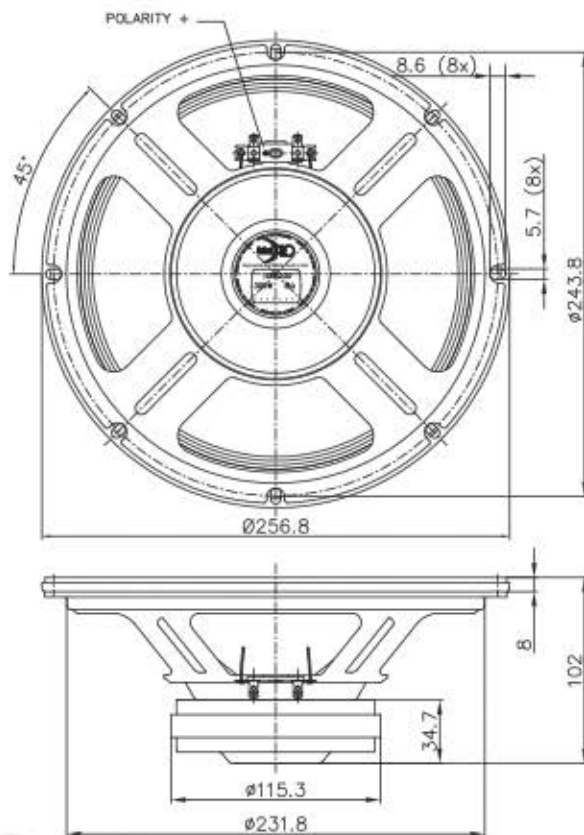
Nominal Impedance	8 Ω
Minimum Impedance	6.2 Ω
AES Power Handling (1)	150 W
Maximum Power Handling (4)	300 W
Sensitivity (1W/1m)	96 dB
Frequency Range	50 ÷ 4500 Hz
Voice Coil Diameter	37 mm (1.46 in)
Winding Material	Al
Former Material	Kapton
Winding Depth	12 mm (0.47 in)
Magnetic Gap Depth	8 mm (0.31 in)
Flux Density	1 T
Magnet	Ferrite Ring
Basket Material	Steel
Demodulation	No
Cone Surround (5)	Accordion (4 waves)
NET Air Volume filled by Loudspeaker	0.6 dm ³ (0.021 ft ³)
Spider Profile	1x constant height waves

THIELE & SMALL PARAMETERS

Fs	55 Hz
Re	5.9 Ω
Qes	0.74
Qms	11.3
Qts	0.70
Vas	53.4 dm ³ (1.89 ft ³)
Sd	332 cm ² (51.46 in ²)
Xmax (2)	4.67 mm
Xdamage (3)	10.4 mm
Mms	24.5 g
Bl	8.2 N/A
Le	0.42 mH
Mmd	21.2 g
Cms	0.34 mm/N
Rms	0.75 kg/s
η _e (Eta Zero)	1.16 %
EBP	74 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



8PR200

8" - 200 W - 95 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	200 mm (8 in)
Overall Diameter	223.75/207.9 mm (8.81/8.18 in)
Bolt Circle Diameter	210 mm (8.27 in)
Baffle Cutout Diameter	183 mm (7.20 in)
Depth	116.7 mm (4.59 in)
Flange and gasket Thickness	10.7 mm (0.42 in)
Net Weight	2.1 kg (4.6 lb)
Shipping Box	235 x 235 x 155 mm
(Single Carton Box)	(9.3 x 9.3 x 6.1 in)
Shipping Weight	2.5 kg (5.5 lb)

TECHNICAL PARAMETERS

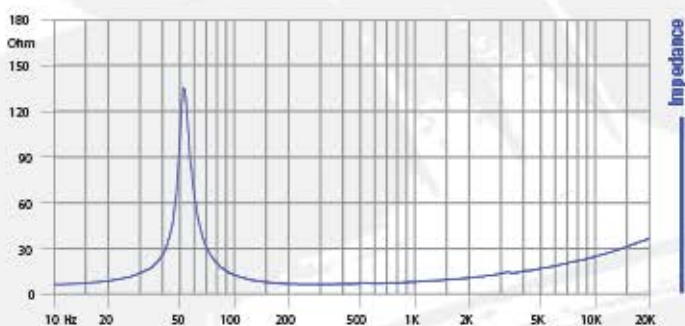
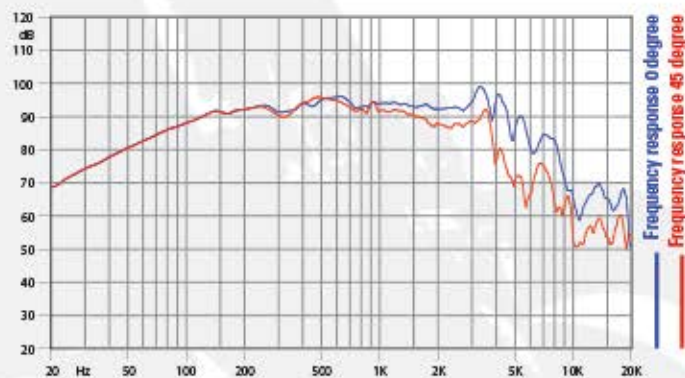
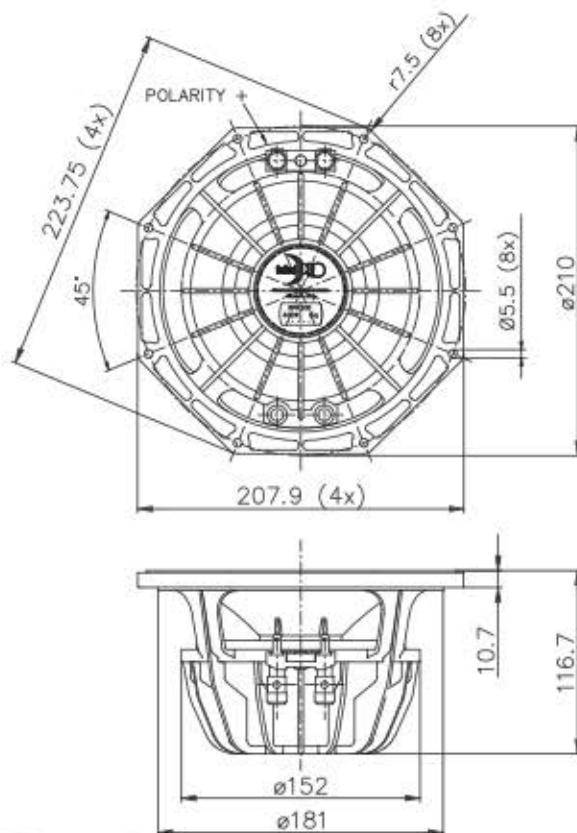
Nominal Impedance	8 Ω
Minimum Impedance	6.4 Ω
AES Power Handling (1)	200 W
Maximum Power Handling (4)	400 W
Sensitivity (1W/1m)	95 dB
Frequency Range	70-5000 Hz
Voice Coil Diameter	52 mm (2 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	19.3 mm (0.76 in)
Magnetic Gap Depth	9 mm (0.35 in)
Flux Density	1.15 T
Magnet	Neodymium Ring
Basket Material	Aluminum
Demodulation	Aluminum Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	1 dm ³ (0.035 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	58 Hz
Re	5.1 Ω
Qes	0.38
Qms	9.4
Qts	0.36
Vas	15.1 dm ³ (0.53 ft ³)
Sd	196 cm ² (30.88 in ²)
Xmax (2)	8.15 mm
Xdamage (3)	13.5 mm
Mms	27.2 g
Bl	11.5 N/A
Le	0.55 mH
Mmd	25.6 g
Cms	0.28 mm/N
Rms	1.04 kg/s
η _l (Eta Zero)	0.76 %
EBP	153 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



W8N8-200

8" - 200 W - 92 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	200 mm (8 in)
Overall Diameter	223.75/207.9 mm (8.81/8.18 in)
Bolt Circle Diameter	210 mm (8.27 in)
Baffle Cutout Diameter	183 mm (7.20 in)
Depth	116.7 mm (4.59 in)
Flange and gasket Thickness	10.7 mm (0.42 in)
Net Weight	1.8 kg (4.0 lb)
Shipping Box	235 x 235 x 155 mm
(Single Carton Box)	(9.3 x 9.3 x 6.1 in)
Shipping Weight	2.6 kg (5.7 lb)

TECHNICAL PARAMETERS

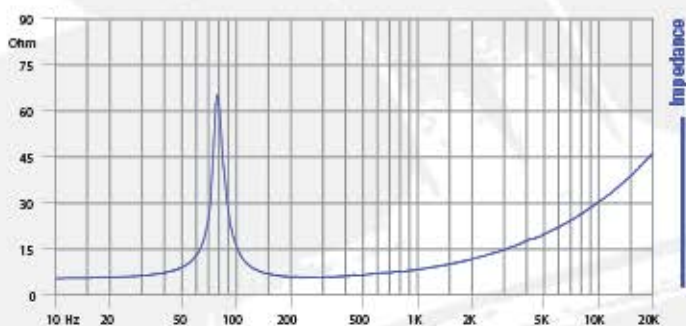
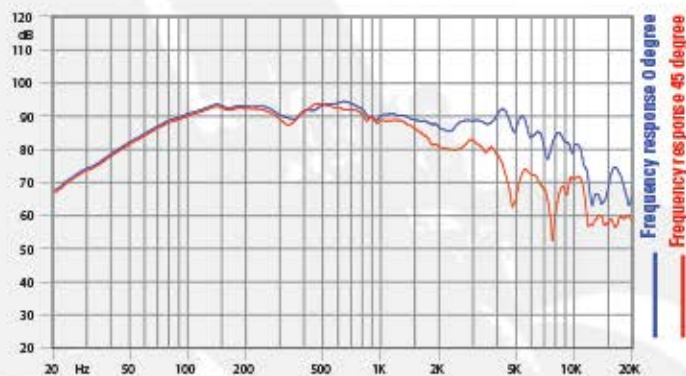
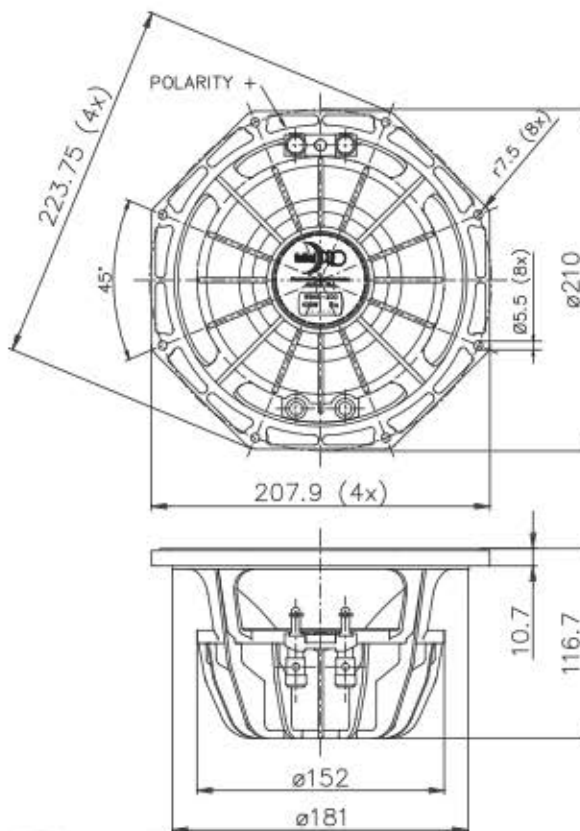
Nominal Impedance	8 Ω
Minimum Impedance	5.9 Ω
AES Power Handling (1)	200 W
Maximum Power Handling (4)	400 W
Sensitivity (1W/1m)	92 dB
Frequency Range	80-5000 Hz
Voice Coil Diameter	52 mm (2 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	19.3 mm (0.76 in)
Magnetic Gap Depth	7 mm (0.27 in)
Flux Density	1.05 T
Magnet	Neodymium Ring
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	1 dm ³ (0.035 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	74 Hz
Re	5.1 Ω
Qes	0.69
Qms	5.3
Qts	0.61
Vas	9 dm ³ (0.32 ft ³)
Sd	177 cm ² (27.44 in ²)
Xmax (2)	8.48 mm
Xdamage (3)	12.9 mm
Mms	23.0 g
Bl	8.9 N/A
Le	0.6 mH
Mmd	21.6 g
Cms	0.20 mm/N
Rms	2 kg/s
η _l (Eta Zero)	0.50 %
EBP	107 Hz

NOTE:

- 2 Hours Test According to AES 2-1984 Rev. 2003
- $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- Maximum excursion before permanent damage
- Maximum power is defined as 3dB greater than nominal power
- Treated Polycotton



FERRITE

8PR155

8" - 200 W - 97 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	200 mm (8 in)
Overall Diameter	223.7/207.9 mm (8.81/8.18 in)
Bolt Circle Diameter	210 mm (8.27 in)
Baffle Cutout Diameter	183 mm (7.20 in)
Depth	98.5 mm (3.88 in)
Flange and gasket Thickness	10.8 mm (0.43 in)
Net Weight	4.3 kg (9.5 lb)
Shipping Box	235 x 235 x 155 mm
(Single Carton Box)	(9.3 x 9.3 x 6.1 in)
Shipping Weight	4.6 kg (10.1 lb)

TECHNICAL PARAMETERS

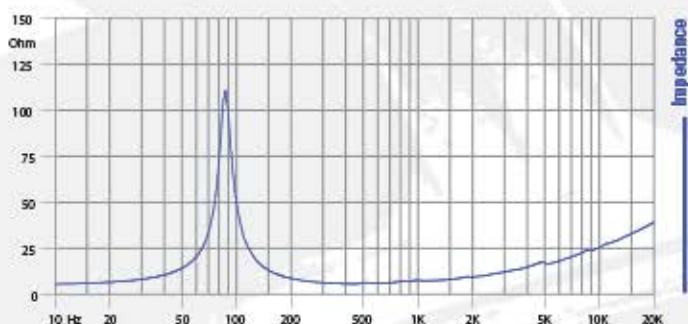
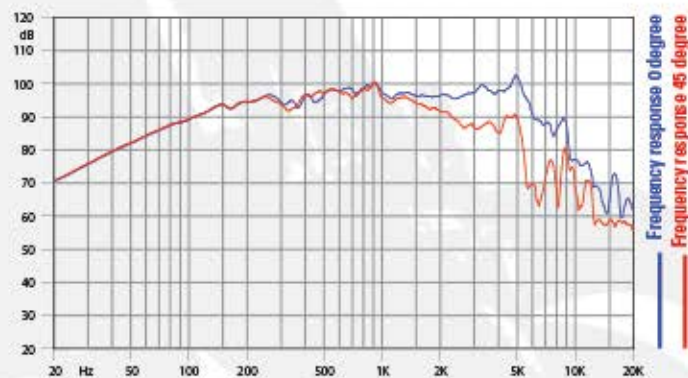
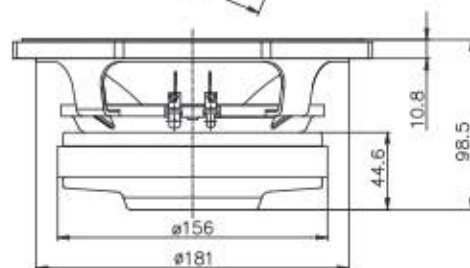
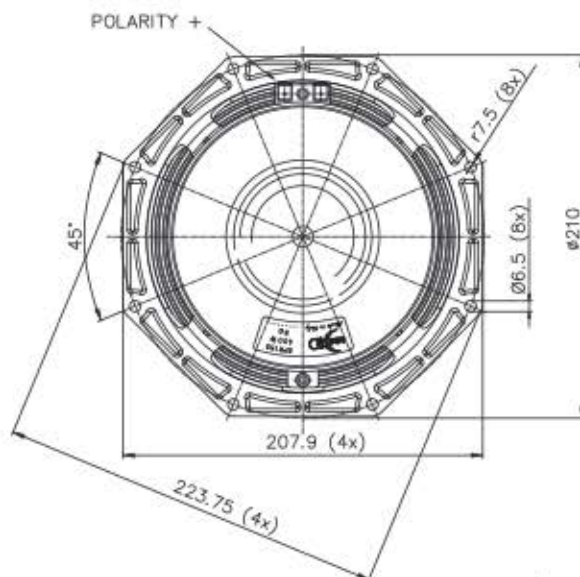
Nominal Impedance	8 Ω
Minimum Impedance	6.4 Ω
AES Power Handling (1)	200 W
Maximum Power Handling (4)	400 W
Sensitivity (1W/1m)	97 dB
Frequency Range	80-6300 Hz
Voice Coil Diameter	52 mm (2 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	9.8 mm (0.39 in)
Magnetic Gap Depth	8 mm (0.31 in)
Flux Density	1.3 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	Aluminum Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	1.06 dm ³ (0.037 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	90 Hz
Re	5.3 Ω
Qes	0.41
Qms	8.5
Qts	0.39
Vas	8.3 dm ³ (0.29 ft ³)
Sd	207 cm ² (32.09 in ²)
Xmax (2)	3.57 mm
Xdamage (3)	10.65 mm
Mms	23.0 g
Bl	13 N/A
Le	0.41 mH
Mmd	21.2 g
Cms	0.14 mm/N
Rms	1.53 kg/s
η _l (Eta Zero)	1.44 %
EBP	220 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



FERRITE

8PR210

8" - 200 W - 95 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	200 mm (8 in)
Overall Diameter	223.7/207.9 mm (8.81/8.18 in)
Bolt Circle Diameter	210 mm (8.27 in)
Baffle Cutout Diameter	183 mm (7.20 in)
Depth	98.5 mm (3.88 in)
Flange and gasket Thickness	10.8 mm (0.43 in)
Net Weight	4.3 kg (9.5 lb)
Shipping Box	235 x 235 x 155 mm
(Single Carton Box)	(9.3 x 9.3 x 6.1 in)
Shipping Weight	4.6 kg (10.1 lb)

TECHNICAL PARAMETERS

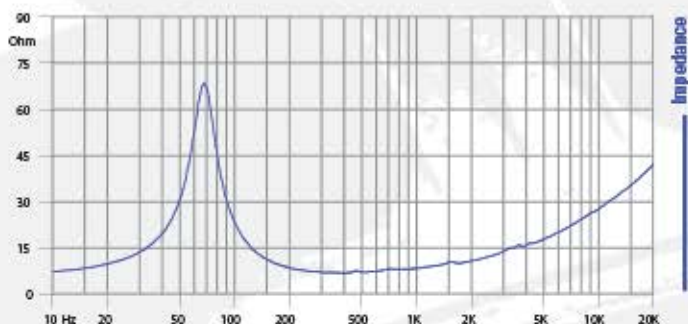
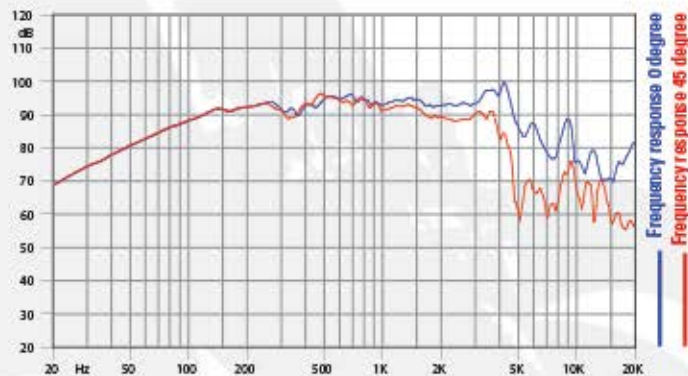
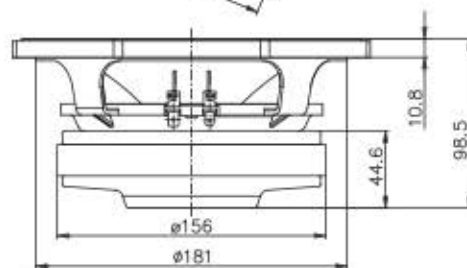
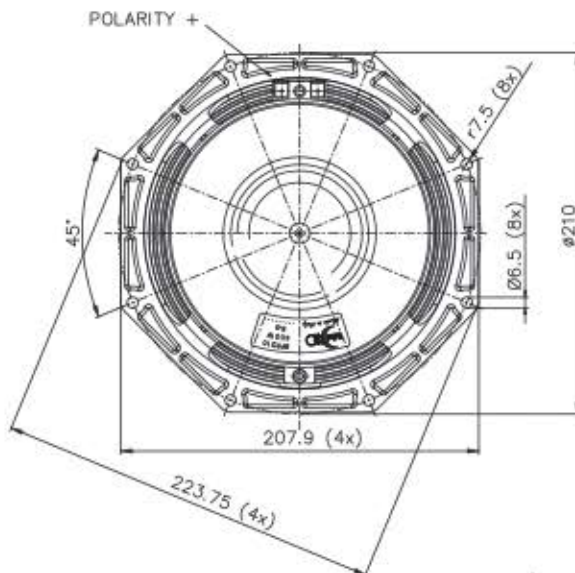
Nominal Impedance	8 Ω
Minimum Impedance	7 Ω
AES Power Handling (1)	200 W
Maximum Power Handling (4)	400 W
Sensitivity (1W/1m)	95 dB
Frequency Range	70-5000 Hz
Voice Coil Diameter	52 mm (2 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	16.5 mm (0.65 in)
Magnetic Gap Depth	8 mm (0.31 in)
Flux Density	1.3 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	Aluminum Ring
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	1.06 dm ³ (0.037 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	65 Hz
Re	5.7 Ω
Qes	0.32
Qms	3.1
Qts	0.29
Vas	12.9 dm ³ (0.46 ft ³)
Sd	196 cm ² (30.38 in ²)
Xmax (2)	6.92 mm
Xdamage (3)	15.7 mm
Mms	25.3 g
Bl	13.5 N/A
Le	0.46 mH
Mmd	23.7 g
Cms	0.24 mm/N
Rms	3.38 kg/s
η _l (Eta Zero)	1.06 %
EBP	203 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



W8N8-150

8" - 150 W - 94 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	200 mm (8 in)
Overall Diameter	223.75/207.9 mm (8.81/8.18 in)
Bolt Circle Diameter	210 mm (8.27 in)
Baffle Cutout Diameter	183 mm (7.20 in)
Depth	116.7 mm (4.59 in)
Flange and gasket Thickness	10.7 mm (0.42 in)
Net Weight	1.7 kg (3.7 lb)
Shipping Box	235 x 235 x 155 mm
(Single Carton Box)	(9.3 x 9.3 x 6.1 in)
Shipping Weight	2.6 kg (5.7 lb)

TECHNICAL PARAMETERS

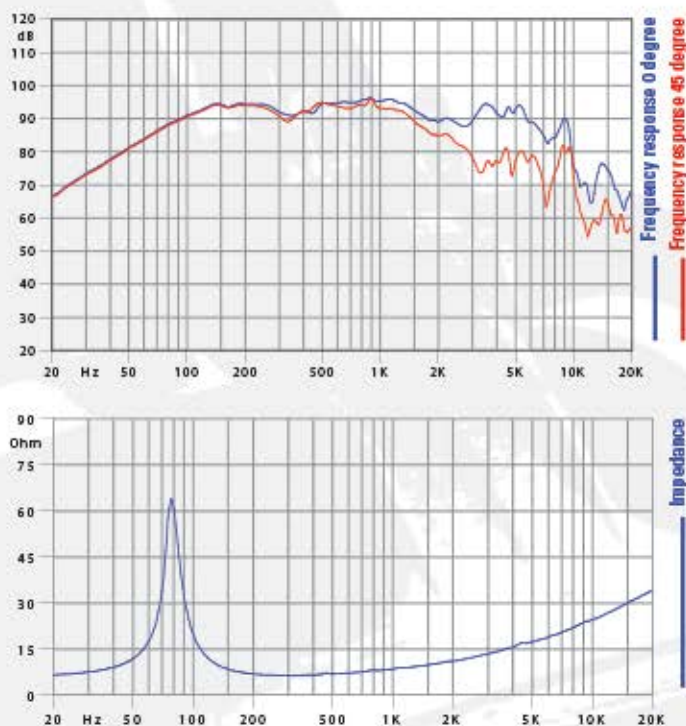
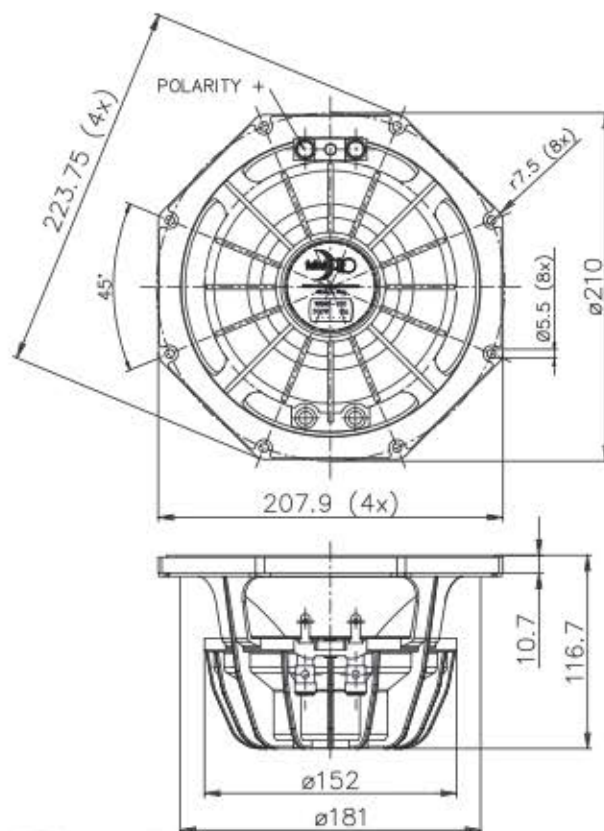
Nominal Impedance	8 Ω
Minimum Impedance	6.5 Ω
AES Power Handling (1)	150 W
Maximum Power Handling (4)	300 W
Sensitivity (1W/1m)	94 dB
Frequency Range	80-6300 Hz
Voice Coil Diameter	52 mm (2 in)
Winding Material	Al
Former Material	Glass Fiber
Winding Depth	13.7 mm (0.54 in)
Magnetic Gap Depth	8 mm (0.31 in)
Flux Density	1 T
Magnet	Neodymium Slug
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	M-Roll
NET Air Volume filled by Loudspeaker	1 dm ³ (0.035 ft ³)
Spider Profile	1x variable height waves

THIELE & SMALL PARAMETERS

Fs	76 Hz
Re	5.8 Ω
Qes	0.59
Qms	4.7
Qts	0.53
Vas	12.6 dm ³ (0.44 ft ³)
Sd	206 cm ² (31.93 in ²)
Xmax (2)	5.52 mm
Xdamage (3)	12 mm
Mms	20.9 g
Bl	9.9 N/A
Le	0.55 mH
Mmd	19.4 g
Cms	0.20 mm/N
Rms	2.11 kg/s
η _o (Eta Zero)	0.91 %
EBP	129 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



FERRITE

8FE200

8" - 130 W - 95 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	200 mm (8 in)
Overall Diameter	209.2 mm (8.24 in)
Bolt Circle Diameter	196.9 mm (7.75 in)
Baffle Cutout Diameter	178 mm (7.01 in)
Depth	89 mm (3.50 in)
Flange and gasket Thickness	8 mm (0.31 in)
Net Weight	2.2 kg (4.7 lb)
Shipping Box	227 x 224 x 113 mm
(Single Carton Box)	(8.9 x 8.8 x 4.4 in)
Shipping Weight	3 kg (6.6 lb)

TECHNICAL PARAMETERS

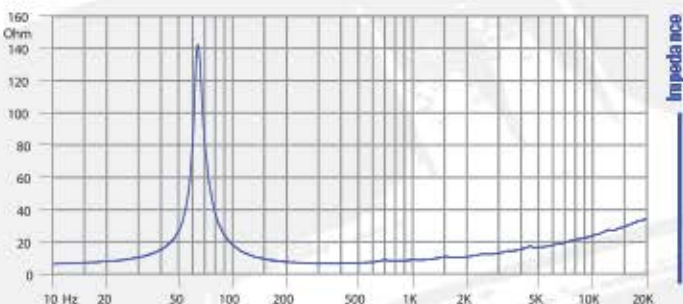
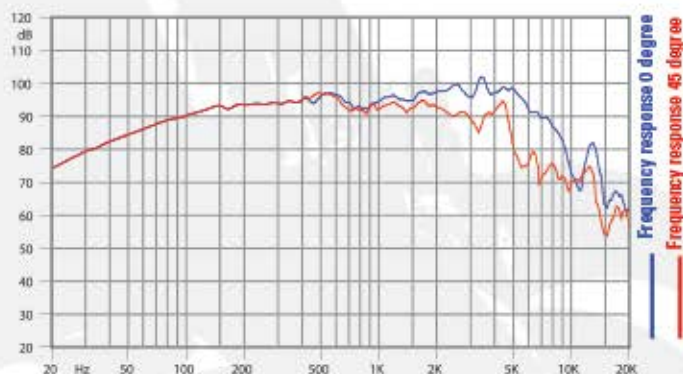
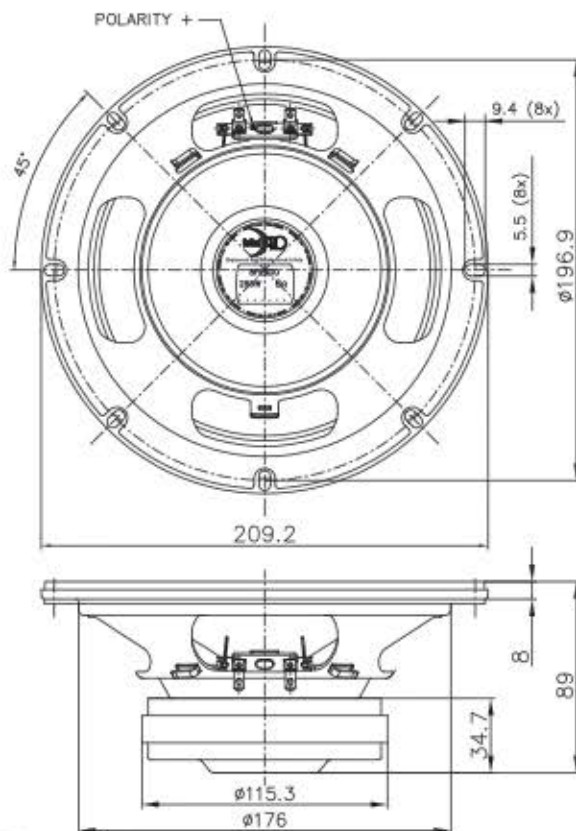
Nominal Impedance	8 Ω
Minimum Impedance	6.8 Ω
AES Power Handling (1)	130 W
Maximum Power Handling (4)	260 W
Sensitivity (1W/1m)	95 dB
Frequency Range	60-5000 Hz
Voice Coil Diameter	37 mm (1.46 in)
Winding Material	Al
Former Material	Kapton
Winding Depth	12 mm (0.47 in)
Magnetic Gap Depth	8 mm (0.31 in)
Flux Density	1 T
Magnet	Ferrite Ring
Basket Material	Steel
Demodulation	No
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	0.6 dm ³ (0.021 ft ³)
Spider Profile	1x constant height waves

THIELE & SMALL PARAMETERS

Fs	80 Hz
Re	5.9 Ω
Qes	0.66
Qms	13.0
Qts	0.63
Vas	13.6 dm ³ (0.48 ft ³)
Sd	191 cm ² (29.61 in ²)
Xmax (2)	4.67 mm
Xdamage (3)	10.4 mm
Mms	15.0 g
Bl	8.2 N/A
Le	0.44 mH
Mmd	13.5 g
Cms	0.26 mm/N
Rms	0.6 kg/s
η _o (Eta Zero)	1.02 %
EBP	121 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



6PR150

6" - 150 W - 97 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	160 mm (6 in)
Overall Diameter	186.5/162 mm (7.34/6.37 in)
Bolt Circle Diameter	172 mm (6.77 in)
Baffle Cutout Diameter	147 mm (5.78 in)
Depth	89 mm (3.50 in)
Flange and gasket Thickness	9.3 mm (0.37 in)
Net Weight	1.4 kg (3.1 lb)
Shipping Box	195 x 195 x 141 mm
(Single Carton Box)	(7.7 x 7.7 x 5.6 in)
Shipping Weight	1.6 kg (3.5 lb)

TECHNICAL PARAMETERS

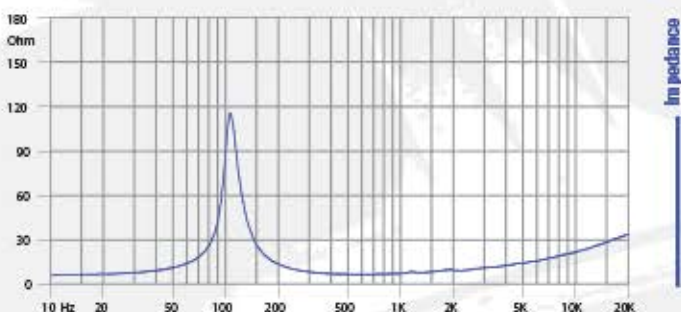
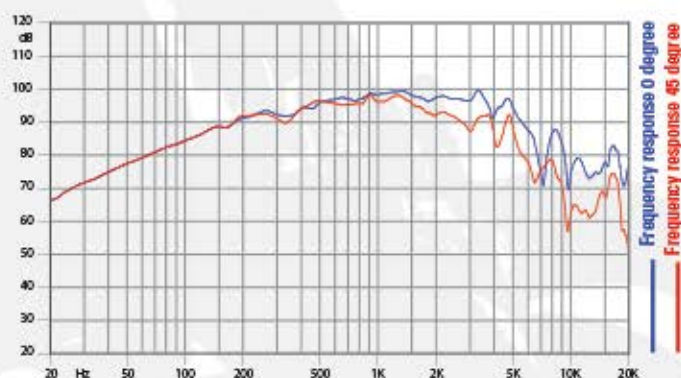
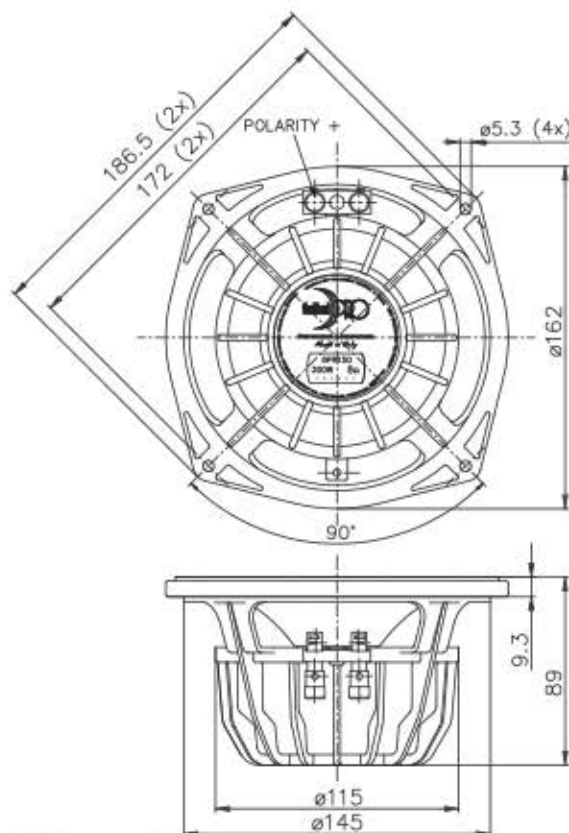
Nominal Impedance	8 Ω
Minimum Impedance	6.6 Ω
AES Power Handling (1)	150 W
Maximum Power Handling (4)	300 W
Sensitivity (1W/1m)	97 dB
Frequency Range	100÷5000 Hz
Voice Coil Diameter	52 mm (2 in)
Winding Material	Cu
Former Material	Glass Fiber
Winding Depth	7.3 mm (0.29 in)
Magnetic Gap Depth	6 mm (0.24 in)
Flux Density	1.35 T
Magnet	Neodymium Ring
Basket Material	Aluminum
Demodulation	Aluminum Ring
Cone Surround (5)	Half Roll
NET Air Volume filled by Loudspeaker	0.6 dm ³ (0.021 ft ³)
Spider Profile	1x constant height waves

THIELE & SMALL PARAMETERS

Fs	100 Hz
Re	5.5 Ω
Qes	0.35
Qms	8.8
Qts	0.33
Vas	4.4 dm ³ (0.16 ft ³)
Sd	129 cm ² (20.00 in ²)
Xmax (2)	2.65 mm
Xdamage (3)	11.6 mm
Mms	13.5 g
Bl	11.6 N/A
Le	0.28 mH
Mmd	12.7 g
Cms	0.19 mm/N
Rms	0.96 kg/s
η _L (Eta Zero)	1.24 %
EBP	286 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



6PR110

6" - 150 W - 96 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	160 mm (6 in)
Overall Diameter	186.5/162 mm (7.34/6.37 in)
Bolt Circle Diameter	172 mm (6.77 in)
Baffle Cutout Diameter	147 mm (5.79 in)
Depth	80 mm (3.15 in)
Flange and gasket Thickness	9.5 mm (0.37 in)
Net Weight	2.2 kg (4.9 lb)
Shipping Box	190 x 185 x 103 mm
(Single Carton Box)	(7.5 x 7.3 x 4.1 in)
Shipping Weight	2.4 kg (5.3 lb)

TECHNICAL PARAMETERS

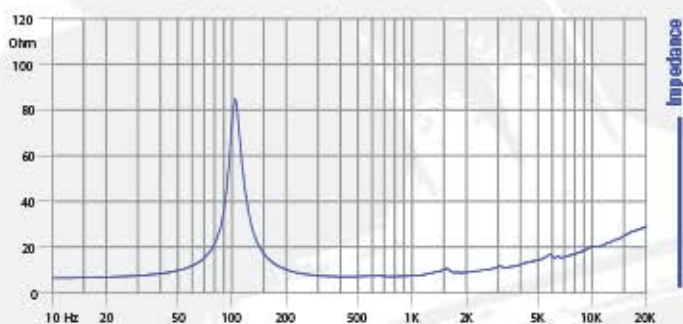
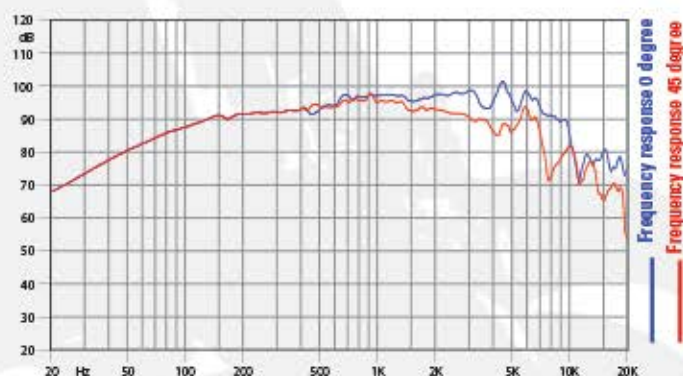
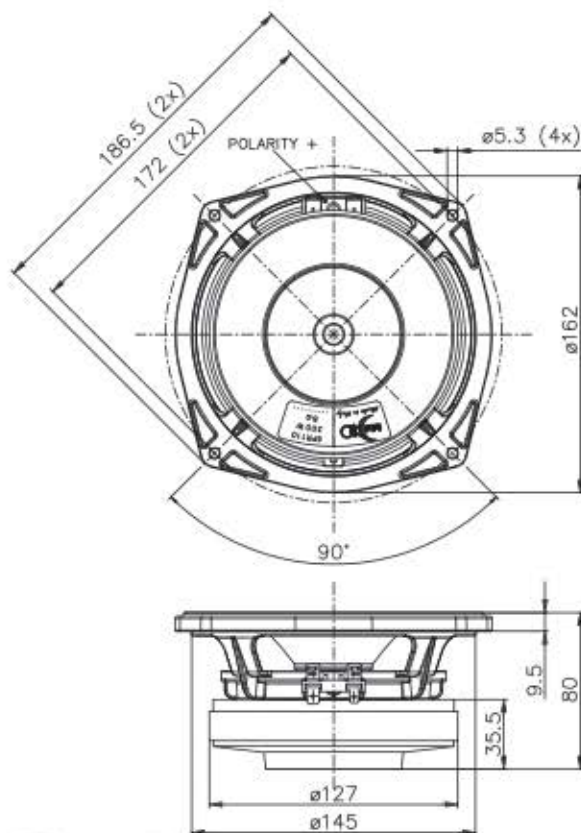
Nominal Impedance	8 Ω
Minimum Impedance	7 Ω
AES Power Handling (1)	150 W
Maximum Power Handling (4)	300 W
Sensitivity (1W/1m)	96 dB
Frequency Range	100-6000 Hz
Voice Coil Diameter	37 mm (1.46 in)
Winding Material	Al
Former Material	Kapton
Winding Depth	7.5 mm (0.30 in)
Magnetic Gap Depth	6 mm (0.24 in)
Flux Density	1.35 T
Magnet	Ferrite Ring
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	Half Roll
NET Air Volume filled by Loudspeaker	0.7 dm ³ (0.025 ft ³)
Spider Profile	1x constant height waves

THIELE & SMALL PARAMETERS

Fs	100 Hz
Re	6 Ω
Qes	0.60
Qms	4.2
Qts	0.50
Vas	5 dm ³ (0.18 ft ³)
Sd	129 cm ² (20.00 in ²)
Xmax (2)	2.75 mm
Xdamage (3)	11.6 mm
Mms	12.0 g
Bl	8.5 N/A
Le	0.22 mH
Mmd	11.2 g
Cms	0.20 mm/N
Rms	1.8 kg/s
η _l (Eta Zero)	0.80 %
EBP	167 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



6PR122

6" - 120 W - 97 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	160 mm (6 in)
Overall Diameter	186.5/162 mm (7.34/6.37 in)
Bolt Circle Diameter	172 mm (6.77 in)
Baffle Cutout Diameter	147 mm (5.79 in)
Depth	78 mm (3.07 in)
Flange and gasket Thickness	9.5 mm (0.37 in)
Net Weight	1.3 kg (2.8 lb)
Shipping Box	190 x 185 x 103 mm
(Single Carton Box)	(7.5 x 7.3 x 4.1 in)
Shipping Weight	1.5 kg (3.2 lb)

TECHNICAL PARAMETERS

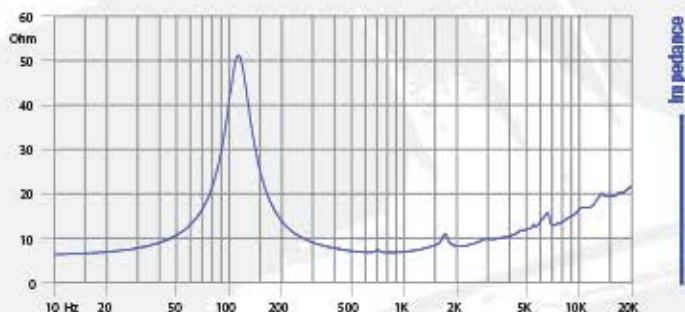
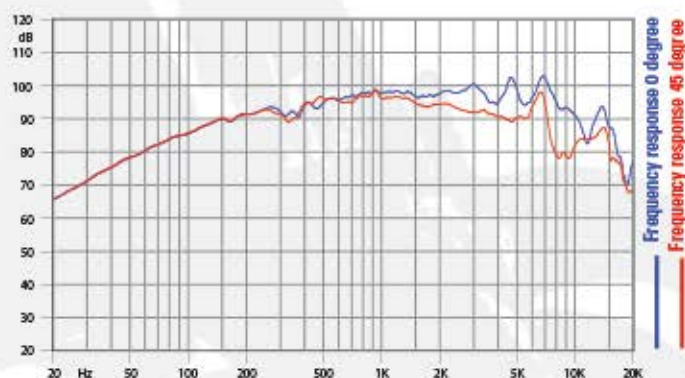
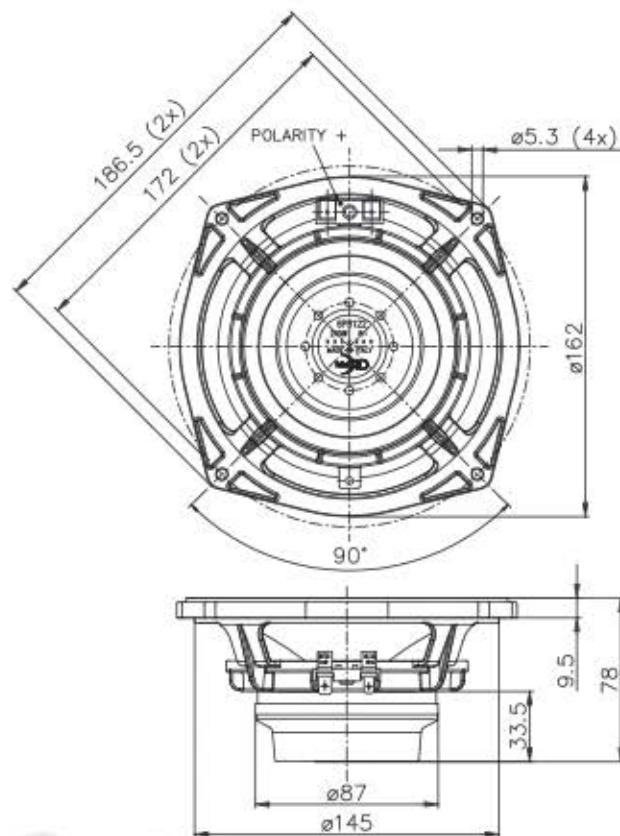
Nominal Impedance	8 Ω
Minimum Impedance	6.8 Ω
AES Power Handling (1)	120 W
Maximum Power Handling (4)	240 W
Sensitivity (1W/1m)	97 dB
Frequency Range	125÷10000 Hz
Voice Coil Diameter	37 mm (1.46 in)
Winding Material	Al
Former Material	Kapton
Winding Depth	7.5 mm (0.30 in)
Magnetic Gap Depth	6 mm (0.24 in)
Flux Density	1.6 T
Magnet	Neodymium Ring
Basket Material	Aluminium
Demodulation	Aluminium Ring
Cone Surround (5)	Half Roll
NET Air Volume filled by Loudspeaker	0.54 dm ³ (0.019 ft ³)
Spider Profile	1x constant height waves

THIELE & SMALL PARAMETERS

Fs	110 Hz
Re	6 Ω
Qes	0.44
Qms	3.3
Qts	0.39
Vas	4.2 dm ³ (0.15 ft ³)
Sd	129 cm ² (20.00 in ²)
Xmax (2)	2.75 mm
Xdamage (3)	11.6 mm
Mms	11.7 g
Bl	10.5 N/A
Le	0.15 mH
Mmd	10.9 g
Cms	0.18 mm/N
Rms	2.42 kg/s
η _L (Eta Zero)	1.22 %
EBP	250 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



W6N8-120

6" - 120 W - 95 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	160 mm (6 in)
Overall Diameter	186.5/162 mm (7.34/6.37 in)
Bolt Circle Diameter	172 mm (6.77 in)
Baffle Cutout Diameter	147 mm (5.79 in)
Depth	88.5 mm (3.48 in)
Flange and gasket Thickness	8.8 mm (0.35 in)
Net Weight	1.3 kg (2.9 lb)
Shipping Box	195 x 195 x 141 mm
(Single Carton Box)	(7.7 x 7.7 x 5.6 in)
Shipping Weight	1.5 kg (3.3 lb)

TECHNICAL PARAMETERS

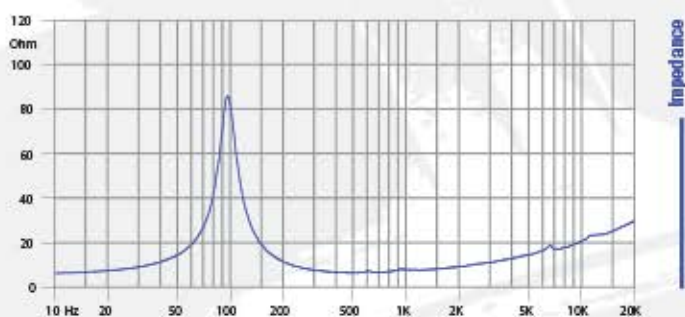
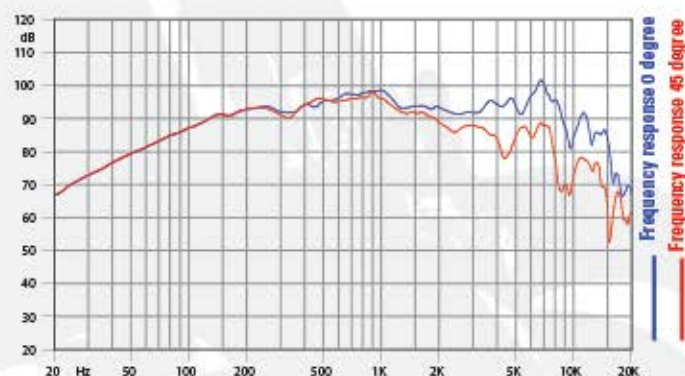
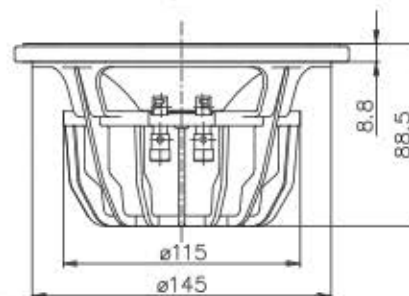
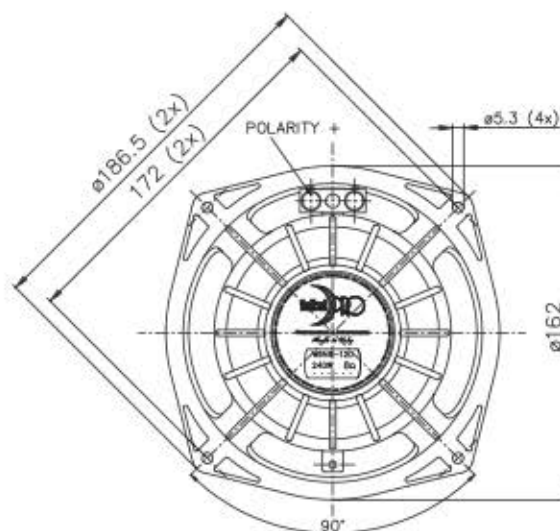
Nominal Impedance	8 Ω
Minimum Impedance	6.6 Ω
AES Power Handling (1)	120 W
Maximum Power Handling (4)	240 W
Sensitivity (1W/1m)	95 dB
Frequency Range	100 ÷ 10000 Hz
Voice Coil Diameter	37 mm (1.46 in)
Winding Material	Al
Former Material	Kapton
Winding Depth	12 mm (0.47 in)
Magnetic Gap Depth	6 mm (0.24 in)
Flux Density	1.4 T
Magnet	Neodymium Ring
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	Triple Roll
NET Air Volume filled by Loudspeaker	0.6 dm ³ (0.021 ft ³)
Spider Profile	1x constant height waves

THIELE & SMALL PARAMETERS

Fs	100 Hz
Re	5.9 Ω
Qes	0.41
Qms	6.8
Qts	0.38
Vas	3.9 dm ³ (0.14 ft ³)
Sd	113 cm ² (17.52 in ²)
Xmax (2)	5.00 mm
Xdamage (3)	11.6 mm
Mms	11.7 g
Bl	10.3 N/A
Le	0.35 mH
Mmd	11.0 g
Cms	0.22 mm/N
Rms	1.08 kg/s
η _l (Eta Zero)	0.93 %
EBP	244 Hz

NOTE:

- 2 Hours Test According to AES 2-1984 Rev. 2003
- $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- Maximum excursion before permanent damage
- Maximum power is defined as 3dB greater than nominal power
- Treated Polycotton



FERRITE

6FE200

6" - 130 W - 95 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	160 mm (6 in)
Overall Diameter	167.4 mm (6.59 in)
Bolt Circle Diameter	154 mm (6.06 in)
Baffle Cutout Diameter	144 mm (5.67 in)
Depth	77 mm (3.03 in)
Flange and gasket Thickness	8 mm (0.31 in)
Net Weight	2 kg (4.4 lb)
Shipping Box	190 x 185 x 103 mm
(Single Carton Box)	(7.5 x 7.3 x 4.1 in)
Shipping Weight	2.2 kg (4.9 lb)

TECHNICAL PARAMETERS

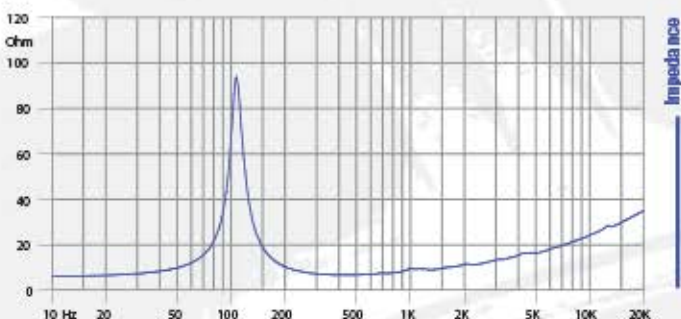
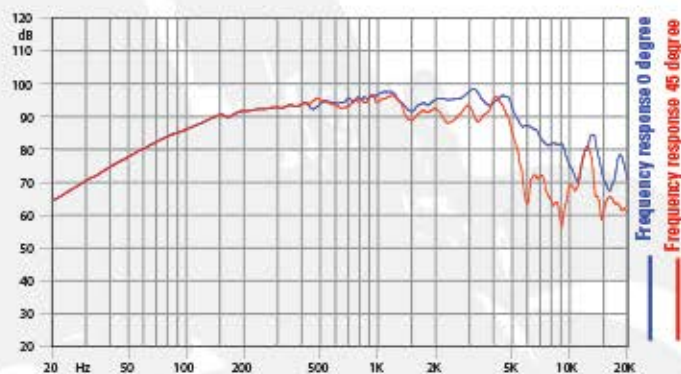
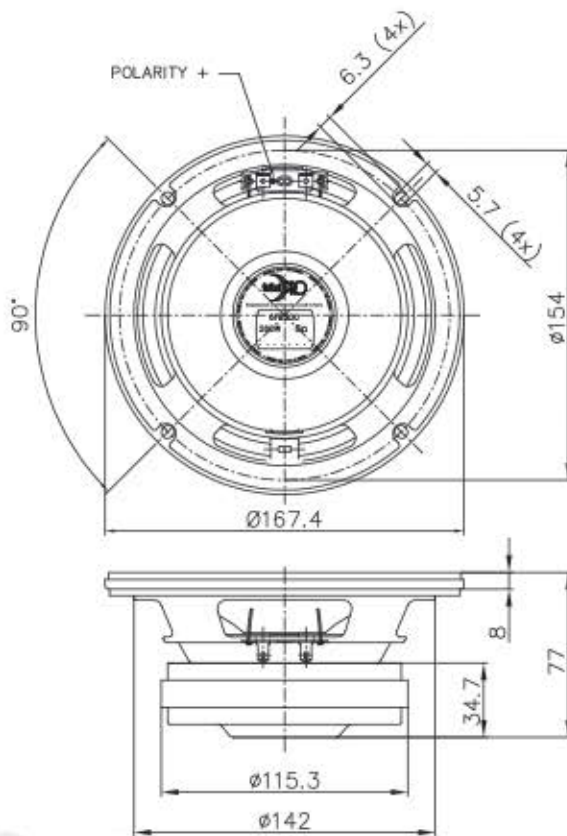
Nominal Impedance	8 Ω
Minimum Impedance	6.8 Ω
AES Power Handling (1)	130 W
Maximum Power Handling (4)	260 W
Sensitivity (1W/1m)	95 dB
Frequency Range	85-6000 Hz
Voice Coil Diameter	37 mm (1.46 in)
Winding Material	Al
Former Material	Kapton
Winding Depth	12 mm (0.47 in)
Magnetic Gap Depth	8 mm (0.31 in)
Flux Density	1 T
Magnet	Ferrite Ring
Basket Material	Steel
Demodulation	No
Cone Surround (5)	M-Roll
NET Air Volume filled by Loudspeaker	0.45 dm ³ (0.016 ft ³)
Spider Profile	1x constant height waves

THIELE & SMALL PARAMETERS

Fs	120 Hz
Re	5.9 Ω
Qes	0.75
Qms	6.2
Qts	0.67
Vas	3.0 dm ³ (0.11 ft ³)
Sd	118 cm ² (18.29 in ²)
Xmax (2)	4.67 mm
Xdamage (3)	10.4 mm
Mms	11.5 g
Bl	8.2 N/A
Le	0.4 mH
Mmd	11.1 g
Cms	0.15 mm/N
Rms	1.4 kg/s
η _e (Eta Zero)	0.67 %
EBP	160 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



6FE100

6" - 100 W - 91 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	160 mm (6 in)
Overall Diameter	181.2/164 mm (7.13/6.46 in)
Bolt Circle Diameter	167 mm (6.57 in)
Baffle Cutout Diameter	147 mm (5.79 in)
Depth	84.5 mm (3.33 in)
Flange and gasket Thickness	8 mm (0.31 in)
Net Weight	1.2 kg (2.6 lb)
Shipping Box	393 x 380 x 128 mm
(Single Carton Box - 4 units)	(15.5 x 15.0 x 5.0 in)
Shipping Weight (4 units)	5.6 kg (12.3 lb)

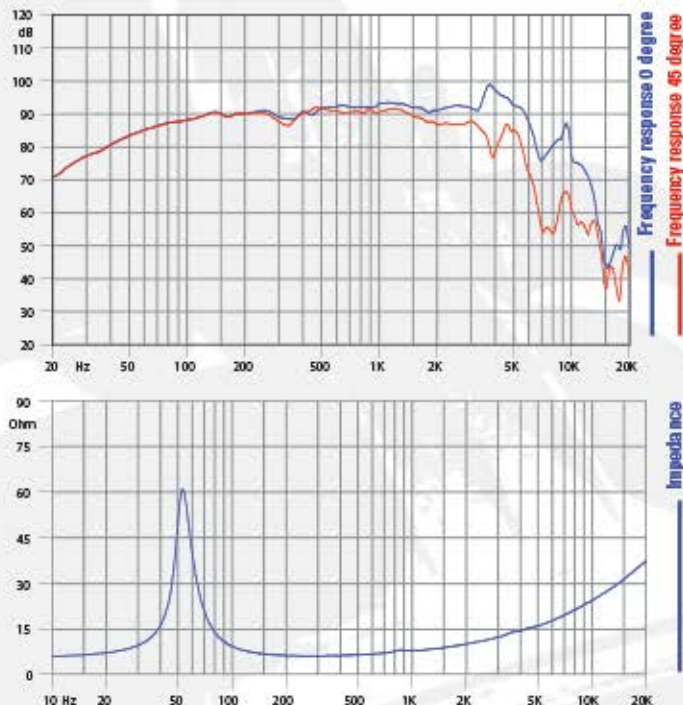
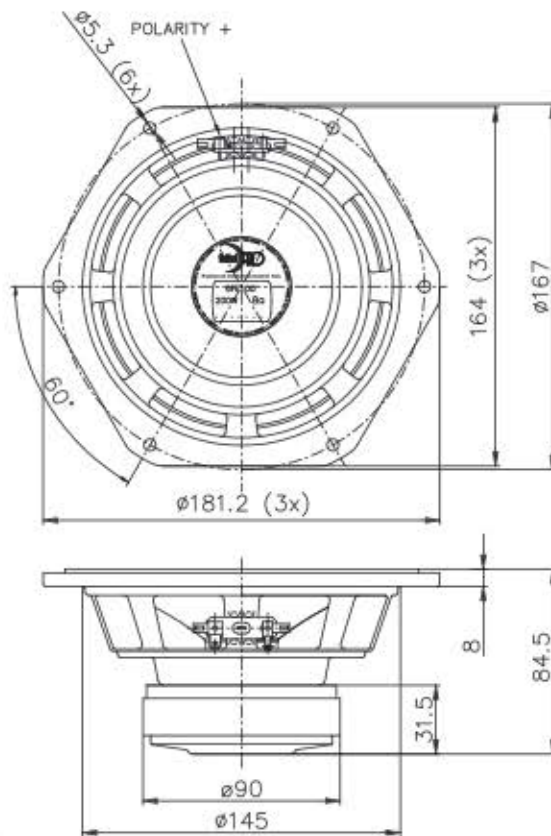
TECHNICAL PARAMETERS

Nominal Impedance	8 Ω
Minimum Impedance	5.9 Ω
AES Power Handling (1)	100 W
Maximum Power Handling (4)	200 W
Sensitivity (1W/1m)	91 dB
Frequency Range	63÷5000 Hz
Voice Coil Diameter	32 mm (1.26 in)
Winding Material	Cu
Former Material	Kapton
Winding Depth	12.5 mm (0.49 in)
Magnetic Gap Depth	6 mm (0.24 in)
Flux Density	1 T
Magnet	Ferrite Ring
Basket Material	Steel
Demodulation	Aluminum Ring
Cone Surround (5)	Half Roll
NET Air Volume filled by Loudspeaker	0.4 dm ³ (0.014 ft ³)
Spider Profile	1x constant height waves

THIELE & SMALL PARAMETERS

Fs	61 Hz
Re	5.4 Ω
Qes	0.60
Qms	6.0
Qts	0.54
Vas	14.1 dm ³ (0.50 ft ³)
Sd	143 cm ² (22.16 in ²)
Xmax (2)	5.25 mm
Xdamage (3)	13.15 mm
Mms	14.0 g
Bl	6.8 N/A
Le	0.5 mH
Mmd	13.0 g
Cms	0.48 mm/N
Rms	0.90 kg/s
η _e (Eta Zero)	0.50 %
EBP	102 Hz

NOTE:
 (1) 2 Hours Test According to AES 2-1984 Rev. 2003
 (2) Xmax = [(Winding Depth - magnetic gap depth)/2] + (magnetic gap depth / 3)
 (3) Maximum excursion before permanent damage
 (4) Maximum power is defined as 3dB greater than nominal power
 (5) NBR
 Packaged and sold in multiples of 4 units



M5N8-80

5" - 80 W - 99 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	130 mm (5 in)
Overall Diameter	153/140 mm (6.02/5.51 in)
Bolt Circle Diameter	139 mm (5.47 in)
Baffle Cutout Diameter	129 mm (5.08 in)
Depth	80.2 mm (3.16 in)
Flange and gasket Thickness	8.8 mm (0.35 in)
Net Weight	950 g (2.1 lb)
Shipping Box	165 x 160 x 103 mm
(Single Carton Box)	(6.5 x 6.3 x 4.1 in)
Shipping Weight	1.2 kg (2.7 lb)

TECHNICAL PARAMETERS

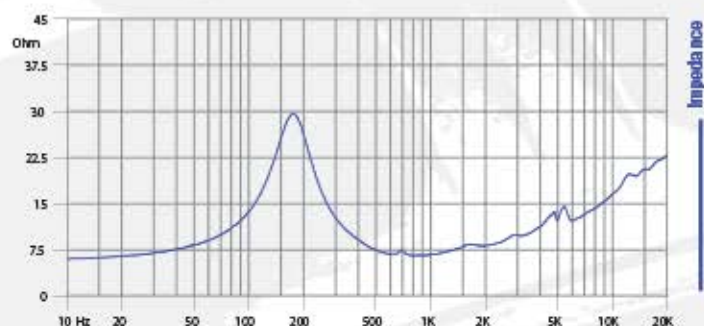
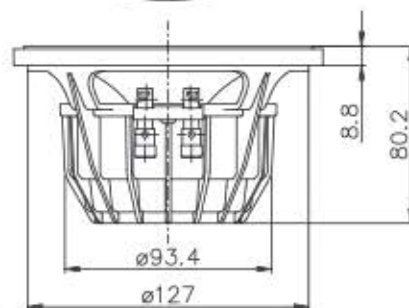
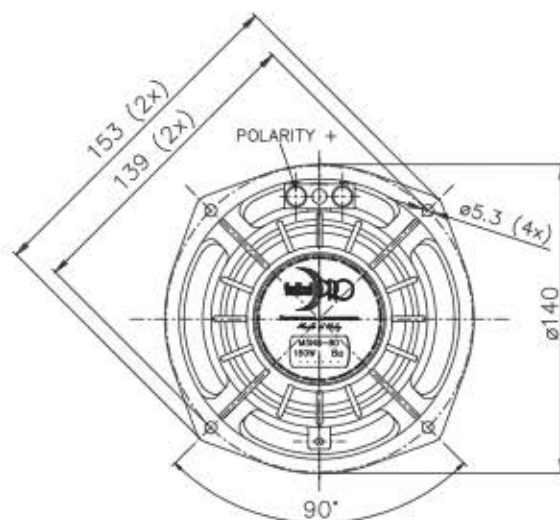
Nominal Impedance	8 Ω
Minimum Impedance	6.5 Ω
AES Power Handling (1)	80 W
Maximum Power Handling (4)	160 W
Sensitivity (1W/1m)	99 dB
Frequency Range	180-8000 Hz
Voice Coil Diameter	32 mm (1.26 in)
Winding Material	Al
Former Material	Kapton
Winding Depth	7.5 mm (0.30 in)
Magnetic Gap Depth	6 mm (0.24 in)
Flux Density	1.65 T
Magnet	Neodymium Ring
Basket Material	Aluminum
Demodulation	No
Cone Surround (5)	M-Roll
NET Air Volume filled by Loudspeaker	0.6 dm ³ (0.021 ft ³)
Spider Profile	1x constant height waves

THIELE & SMALL PARAMETERS

Fs	180 Hz
Re	5.5 Ω
Qes	0.45
Qms	1.9
Qts	0.45
Vas	0.4 dm ³ (0.01 ft ³)
Sd	94.2 cm ² (14.6 in ²)
Xmax (2)	2.75 mm
Xdamage (3)	15.2 mm
Mms	6.8 g
Bl	9.6 N/A
Le	0.22 mH
Mmd	6.3 g
Cms	0.11 mm/N
Rms	4 kg/s
η _e (Eta Zero)	1.83 %
EBP	400 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton



FERRITE

5FE100

5" - 80 W - 88 dB

5FE120

5" - 80 W - 88 dB

NOMINAL SPECIFICATIONS

	5FE100	5FE120
Nominal Diameter	130 mm (5 in)	130 mm (5 in)
Overall Diameter	144.8/124.5 mm (5.7/4.9 in)	144.8/124.5 mm (5.7/4.9 in)
Bolt Circle Diameter	133 mm (5.24 in)	133 mm (5.24 in)
Baffle Cutout Diameter	114 mm (4.49 in)	114 mm (4.49 in)
Depth	71.5 mm (2.81 in)	71.5 mm (2.81 in)
Flange and gasket Thickness	6.5 mm (0.25 in)	6.5 mm (0.25 in)
Net Weight	1.12 kg (2.5 lb)	1.13 kg (2.5 lb)
Shipping Box	302 x 275 x 186 mm	302 x 275 x 186 mm
(Single Carton Box - 8 units)	(11.9 x 10.8 x 7.3 in)	(11.9 x 10.8 x 7.3 in)
Shipping Weight (8 units)	10.1 kg (22.3 lb)	10.2 kg (22.5 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω	8 Ω
Minimum Impedance	6.3 Ω	6.2 Ω
AES Power Handling (1)	80 W	80 W
Maximum Power Handling (4)	160 W	160 W
Sensitivity (1W/1m)	88 dB	88 dB
Frequency Range	63÷6300 Hz	63÷6300 Hz
Voice Coil Diameter	32 mm (1.26 in)	32 mm (1.26 in)
Winding Material	Cu	Cu
Former Material	Kapton	Kapton
Winding Depth	12.5 mm (0.49 in)	12.5 mm (0.49 in)
Magnetic Gap Depth	6 mm (0.24 in)	6 mm (0.24 in)
Flux Density	1 T	1 T
Magnet	Ferrite Ring	Ferrite Ring
Basket Material	Steel	Steel
Demodulation	No	Aluminum Ring
Cone Surround (5)	Half Roll	Half Roll
NET Air Volume filled by Loudspeaker	0.3 dm ³ (0.011 ft ³)	0.3 dm ³ (0.011 ft ³)
Spider Profile	1x constant height waves	1x constant height waves

THIELE & SMALL PARAMETERS

Fs	65 Hz	65 Hz
Re	5.4 Ω	5.4 Ω
Qes	0.48	0.51
Qms	8.2	7.4
Qts	0.46	0.47
Vas	5.2 dm ³ (0.18 ft ³)	4.9 dm ³ (0.17 ft ³)
Sd	79.8 cm ² (12.37 in ²)	79.8 cm ² (12.37 in ²)
Xmax (2)	5.25 mm	5.25 mm
Xdamage (3)	9.5 mm	9.5 mm
Mms	10.5 g	11.0 g
Bl	6.9 N/A	6.9 N/A
Le	0.53 mH	0.41 mH
Mmd	10.1 g	10.9 g
Cms	0.57 mm/N	0.55 mm/N
Rms	0.52 kg/s	0.6 kg/s
η _e (Eta Zero)	0.28 %	0.25 %
EBP	135 Hz	127 Hz

NOTE:

(1) 2 Hz Test According to AES 2-1984 Rev. 2003

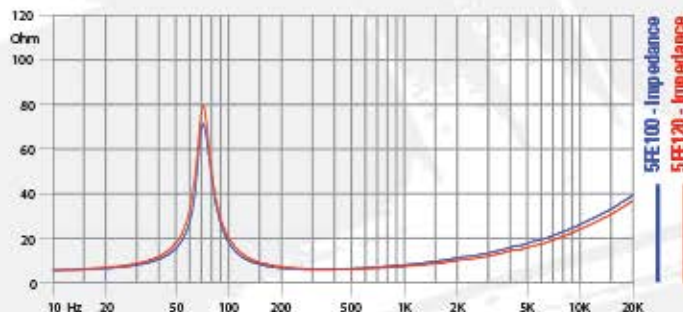
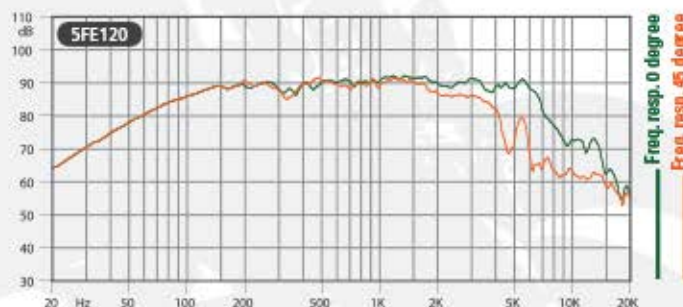
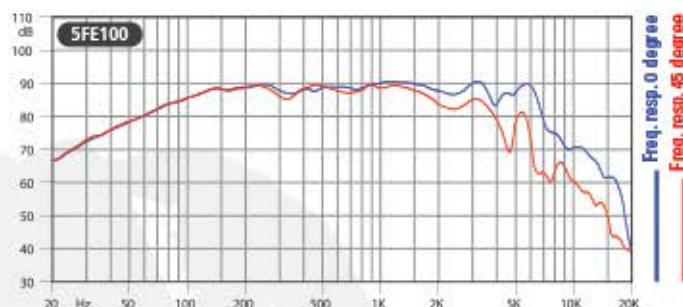
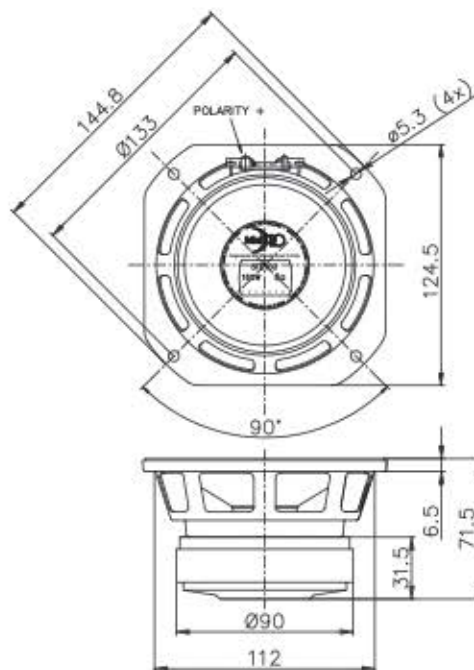
(2) Xmax = [(Winding Depth - magnetic gap depth)/2] + (magnetic gap depth / 3)

(3) Maximum excursion before permanent damage

(4) Maximum power is defined as 3dB greater than nominal power

(5) NBR

Packaged and sold in multiples of 8 units



4FE32

4" - 30 W - 91 dB

4FE35

4" - 30 W - 91 dB



NOMINAL SPECIFICATIONS

	4FE32	4FE35
Nominal Diameter	100 mm (4 in)	100 mm (4 in)
Overall Diameter	129.85/100.5 mm (5.11/3.96 in)	129.85/100.5 mm (5.11/3.96 in)
Bolt Circle Diameter	115.26 mm (4.54 in)	115.26 mm (4.54 in)
Baffle Cutout Diameter	91.5 mm (3.60 in)	91.5 mm (3.60 in)
Depth	49.8 mm (1.96 in)	58.3 mm (2.30 in)
Flange and gasket Thickness	7.2 mm (0.28 in)	7.2 mm (0.28 in)
Net Weight	270 g (0.6 lb)	570 g (1.3 lb)
Shipping Box	225 x 225 x 150 mm	225 x 225 x 150 mm
(Single Carton Box - 8 units)	(8.9 x 8.9 x 5.9 in)	(8.9 x 8.9 x 5.9 in)
Shipping Weight (8 units)	2.8 kg (6.2 lb)	5 kg (11.0 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω	8 Ω
Minimum Impedance	7 Ω	7.2 Ω
AES Power Handling (1)	30 W	30 W
Maximum Power Handling (4)	60 W	60 W
Sensitivity (1W/1m)	91 dB	91 dB
Frequency Range	90÷20000 Hz	90÷20000 Hz
Voice Coil Diameter	19 mm (0.75 in)	19 mm (0.75 in)
Winding Material	Al	Al
Former Material	Kapton	Kapton
Winding Depth	6.8 mm (0.27 in)	6.8 mm (0.27 in)
Magnetic Gap Depth	4 mm (0.16 in)	4 mm (0.16 in)
Flux Density	1.4 T	1.1 T
Magnet	Neodymium Ring	Ferrite Ring
Basket Material	Steel	Steel
Demodulation	No	Copper Cap
Cone Surround (5)	Half Roll	Half Roll
NET Air Volume filled by Loudspeaker	0.075 dm ³ (0.003 ft ³)	0.150 dm ³ (0.005 ft ³)
Spider Profile	1x constant height waves	1x constant height waves

THIELE & SMALL PARAMETERS

Fs	100 Hz	100 Hz
Re	6.5 Ω	6.5 Ω
Qes	0.70	1.04
Qms	4.9	4.2
Qts	0.60	0.84
Vas	2 dm ³ (0.07 ft ³)	2 dm ³ (0.07 ft ³)
Sd	48 cm ² (7.44 in ²)	48 cm ² (7.44 in ²)
Xmax (2)	2.73 mm	2.73 mm
Xdamage (3)	6.8 mm	6.8 mm
Mms	4.2 g	3.9 g
Bl	4.8 N/A	3.9 N/A
Le	0.18 mH	0.1 mH
Mmd	3.9 g	3.7 g
Cms	0.60 mm/N	0.65 mm/N
Rms	0.5 kg/s	0.6 kg/s
η _s (Eta Zero)	0.25 %	0.19 %
EBP	143 Hz	96 Hz

NOTE:

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

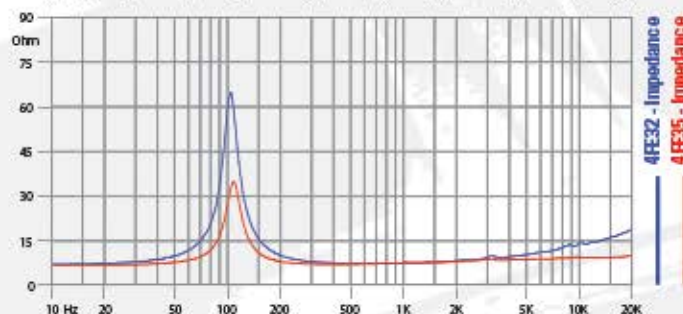
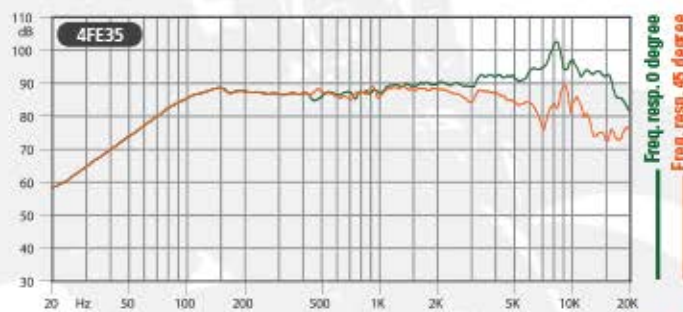
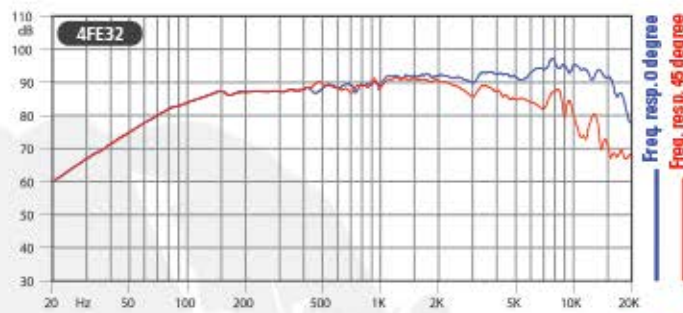
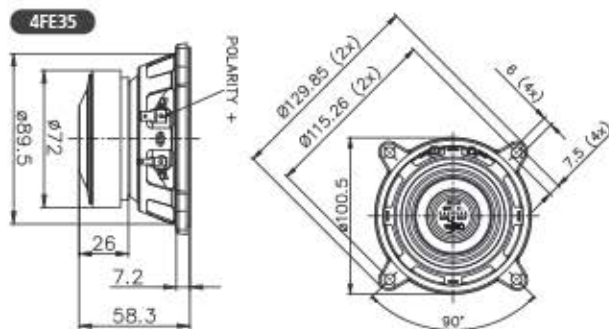
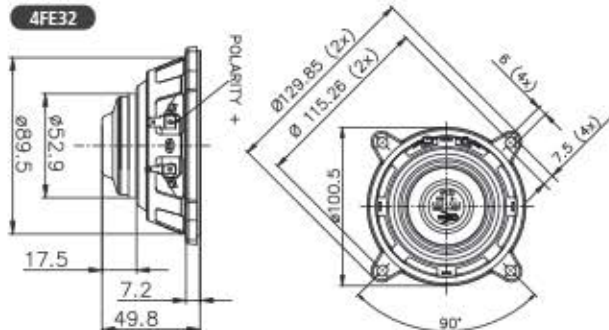
(2) Xmax = [(Winding Depth - magnetic gap depth)/2] + (magnetic gap depth / 3)

(3) Maximum excursion before permanent damage

(4) Maximum power is defined as 3dB greater than nominal power

(5) NBR

Packaged and sold in multiples of 8 units



3FE22

3" - 20 W - 91 dB

3FE25

3" - 20 W - 91 dB

**NOMINAL SPECIFICATIONS**

	3FE22	3FE25
Nominal Diameter	80 mm (3 in)	80 mm (3 in)
Overall Diameter	105.6/81 mm (4.16/3.19 in)	105.6/81 mm (4.16/3.19 in)
Bolt Circle Diameter	92 mm (3.62 in)	92 mm (3.62 in)
Baffle Cutout Diameter	73.6 mm (2.90 in)	73.6 mm (2.90 in)
Depth	46 mm (1.81 in)	54.5 mm (2.15 in)
Flange and gasket Thickness	6.5 mm (0.26 in)	6.5 mm (0.26 in)
Net Weight	240 g (0.53 lb)	545 g (1.20 lb)
Shipping Box	285 x 285 x 255 mm	285 x 285 x 255 mm
(Single Carton Box - 36 units)	(11.2 x 11.2 x 10.0 in)	(11.2 x 11.2 x 10.0 in)
Shipping Weight (36 units)	10 kg (22.0 lb)	20.8 kg (45.9 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω	8 Ω
Minimum Impedance	6.7 Ω	6.2 Ω
AES Power Handling (1)	20 W	20 W
Maximum Power Handling (4)	40 W	40 W
Sensitivity (1W/1m)	91 dB	91 dB
Frequency Range	100÷20000 Hz	100÷20000 Hz
Voice Coil Diameter	19 mm (0.75 in)	19 mm (0.75 in)
Winding Material	Al	Al
Former Material	Kapton	Kapton
Winding Depth	5 mm (0.20 in)	5 mm (0.20 in)
Magnetic Gap Depth	4 mm (0.16 in)	4 mm (0.16 in)
Flux Density	1.4 T	1.1 T
Magnet	Neodymium Ring	Ferrite Ring
Basket Material	Steel	Steel
Demodulation	No	Copper Cap
Cone Surround (5)	Half Roll	Half Roll
NET Air Volume filled by Loudspeaker	0.060 dm ³ (0.002 ft ³)	0.125 dm ³ (0.004 ft ³)
Spider Profile	1x constant height waves	1x constant height waves

THIELE & SMALL PARAMETERS

Fs	110 Hz	110 Hz
Re	6.2 Ω	6.2 Ω
Qes	0.50	0.80
Qms	5.0	4.1
Qts	0.47	0.7
Vas	1.10 dm ³ (0.04 ft ³)	1.13 dm ³ (0.04 ft ³)
Sd	30.2 cm ² (4.68 in ²)	30.2 cm ² (4.68 in ²)
Xmax (2)	1.83 mm	1.83 mm
Xdamage (3)	7.3 mm	7.9 mm
Mms	2.5 g	2.4 g
Bl	4.5 N/A	3.6 N/A
Le	0.15 mH	0.07 mH
Mmd	2.4 g	2.3 g
Cms	0.85 mm/N	0.87 mm/N
Rms	0.35 kg/s	0.4 kg/s
η ₀ (Eta Zero)	0.28 %	0.18 %
EBP	220 Hz	138 Hz

NOTE:

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

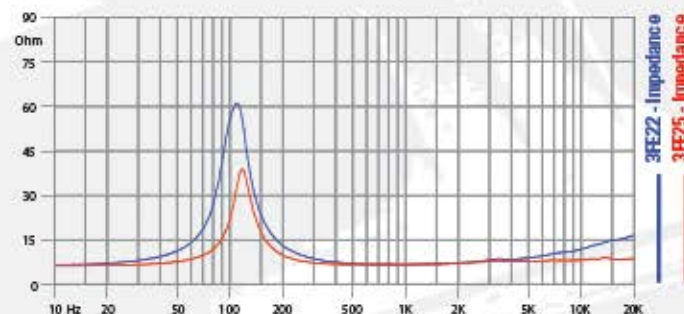
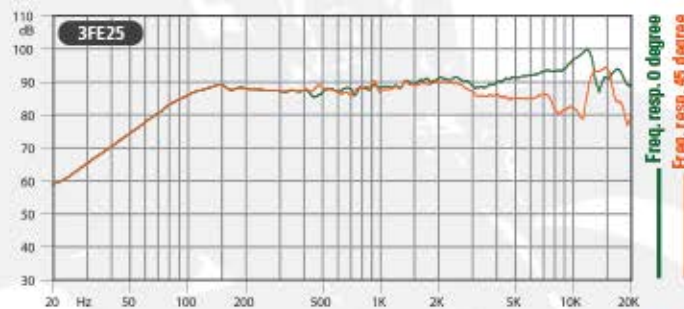
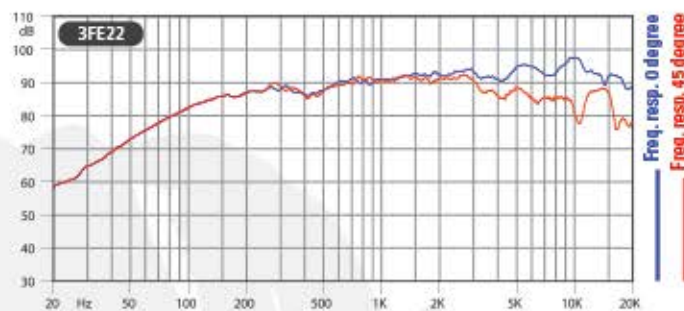
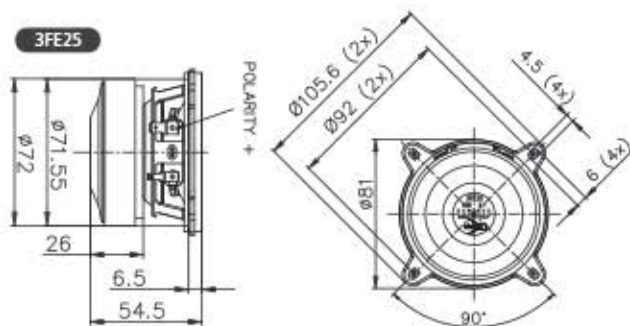
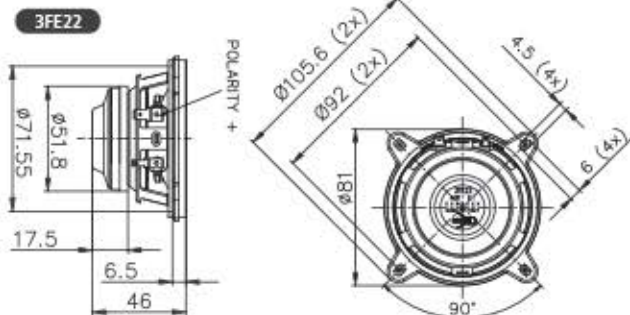
(2) Xmax = [(Winding Depth - magnetic gap depth)/2] + (magnetic gap depth / 3)

(3) Maximum excursion before permanent damage

(4) Maximum power is defined as 3dB greater than nominal power

(5) NBR

Packaged and sold in multiples of 36 units



HF DRIVERS



“ **Technology and Passion** - Every FaitalPRO driver is meticulously designed using the latest CAD, 3D and FEA modelling techniques. Every electro-acoustic and mechanical performance is simulated and then carefully designed by a team of engineers whose only passion is sound. We put the most advanced technologies and materials at your service.”



HF2000

2" - 100 W - 110 dB

NOMINAL SPECIFICATIONS

Throat Diameter	50.8 mm (2 in)
Overall Diameter	130.5 mm (5.14 in)
90° Mounting Holes Diameter (4xM6)	102 mm (4.02 in)
Depth	83.5 mm (3.29 in)
Net Weight	2.75 kg (6.1 lb)
Shipping Box	185 x 170 x 122 mm
(Single Carton Box)	(7.3 x 6.7 x 4.8 in)
Shipping Weight	2.9 kg (6.4 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω
Minimum Impedance	7 Ω
AES Power above 0.9 kHz (1)	100 W
AES Power above 0.65 kHz (1)	50 W
Maximum Power above 0.9 kHz (2)	200 W
Maximum Power above 0.65 kHz (2)	100 W
Minimum Crossover Frequency (3)	0.9 kHz
Sensitivity (1W/1m) (4)	110 dB
Frequency Range	0.5-18 kHz
Voice Coil Diameter	74 mm (2.91 in)
Winding Material	Al
Former Material	Kapton
Diaphragm Material	Titanium
Diaphragm Shape	Dome
Winding Depth	2.35 mm (0.09 in)
Magnetic Gap Depth	3.2 mm (0.13 in)
Flux Density	1.95 T
Magnet	Neodymium Ring
Re	5.6 Ω
Phase Plug Design	Annular
NET Air Volume filled by HF Driver	0.6 dm ³ (0.021 ft ³)

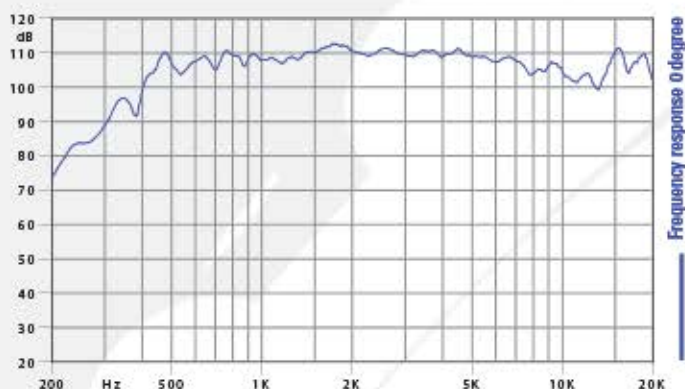
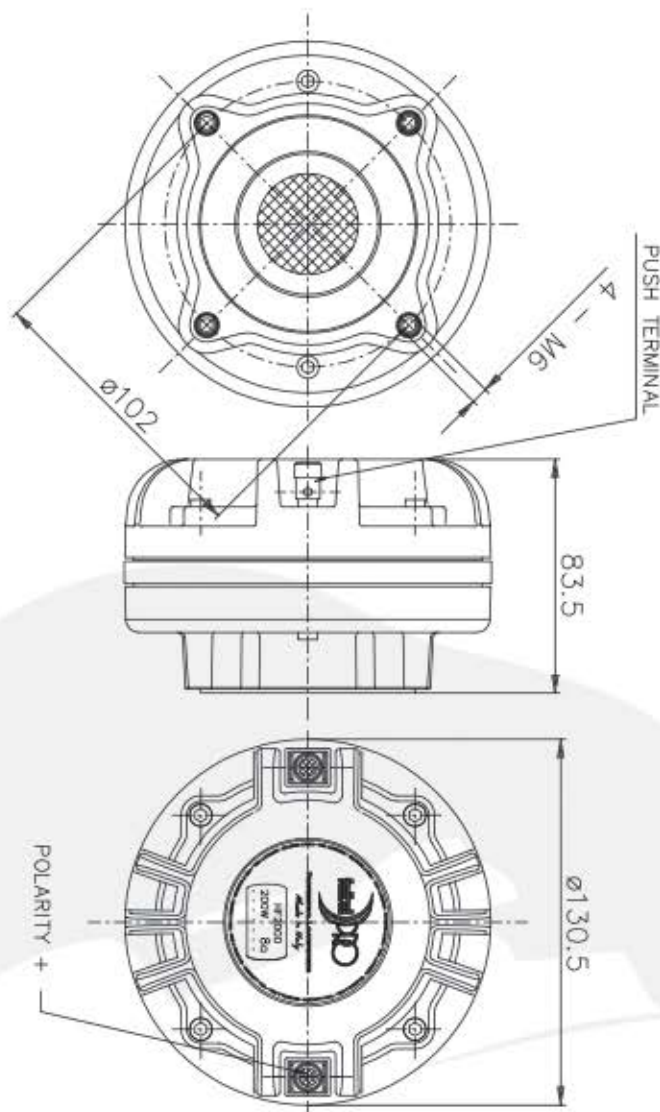
NOTE: Driver Mounted on a 2" 90° x 40° Al horn

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.



HF200

2" - 70 W - 109 dB



NOMINAL SPECIFICATIONS

Throat Diameter	50.8 mm (2 in)
Overall Diameter	130.5 mm (5.14 in)
90° Mounting Holes Diameter (4xM6)	102 mm (4.02 in)
Depth	95 mm (3.74 in)
Net Weight	3.2 kg (7.1 lb)
Shipping Box	185 x 170 x 122 mm
(Single Carton Box)	(7.3 x 6.7 x 4.8 in)
Shipping Weight	3.4 kg (7.5 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω
Minimum Impedance	5.8 Ω
AES Power above 0.9 kHz (1)	70 W
AES Power above 0.65 kHz (1)	50 W
Maximum Power above 0.9 kHz (2)	140 W
Maximum Power above 0.65 kHz (4)	100 W
Minimum Crossover Frequency (3)	0.9 kHz
Sensitivity (1W/1m) (4)	109 dB
Frequency Range	0.5-18 kHz
Voice Coil Diameter	74 mm (2.91 in)
Winding Material	Al
Former Material	Kapton
Diaphragm Material	Titanium
Diaphragm Shape	Dome
Winding Depth	2.35 mm (0.09 in)
Magnetic Gap Depth	2.8 mm (0.11 in)
Flux Density	1.8 T
Magnet	Neodymium Slug Crown
Re	5.6 Ω
Phase Plug Design	Annular
NET Air Volume filled by HF Driver	1.10 dm ³ (0.039 ft ³)

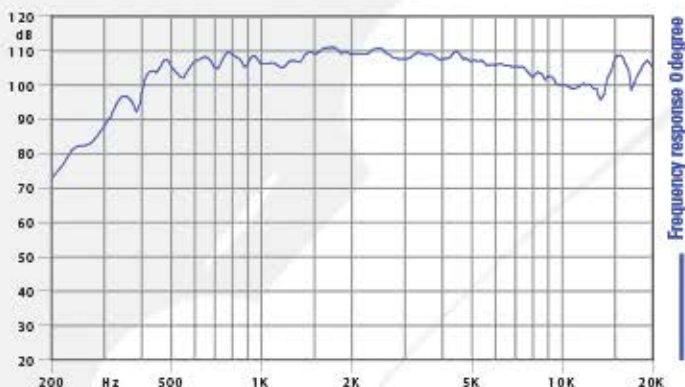
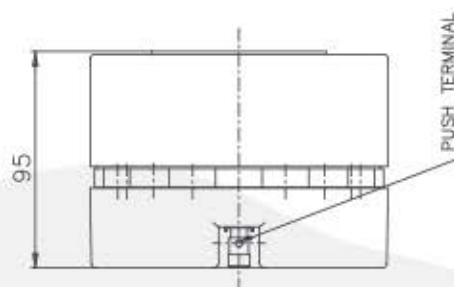
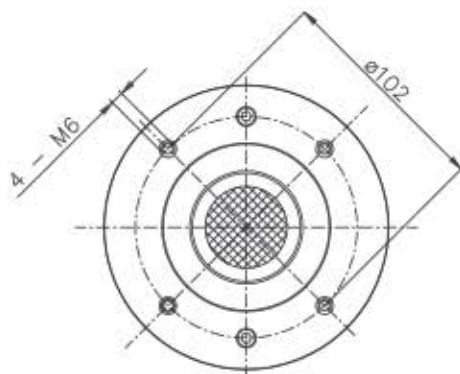
NOTE: Driver Mounted on a 2" 90° x 40° Al horn

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.



FERRITE

HF201

2" - 100 W - 108 dB



NOMINAL SPECIFICATIONS

Throat Diameter	50.8 mm (2 in)
Overall Diameter	170 mm (6.69 in)
90° Mounting Holes Diameter (4xM6)	102 mm (4.02 in)
Depth	66 mm (2.60 in)
Net Weight	4.6 kg (10.2 lb)
Shipping Box	195 x 195 x 141 mm
(Single Carton Box)	(7.7 x 7.7 x 5.6 in)
Shipping Weight	4.8 kg (10.6 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω
Minimum Impedance	7.2 Ω
AES Power above 0.9 kHz (1)	100 W
AES Power above 0.65 kHz (1)	50 W
Maximum Power above 0.9 kHz (2)	200 W
Maximum Power above 0.65 kHz (4)	100 W
Minimum Crossover Frequency (3)	0.9 kHz
Sensitivity (1W/1m) (4)	108 dB
Frequency Range	0.5-18 kHz
Voice Coil Diameter	74 mm (2.91 in)
Winding Material	Al
Former Material	Kapton
Diaphragm Material	Titanium
Diaphragm Shape	Dome
Winding Depth	2.35 mm (0.09 in)
Magnetic Gap Depth	3.2 mm (0.13 in)
Flux Density	1.7 T
Magnet	Ferrite Ring
Re	5.6 Ω
Phase Plug Design	Annular
NET Air Volume filled by HF Driver	1.05 dm ³ (0.037 ft ³)

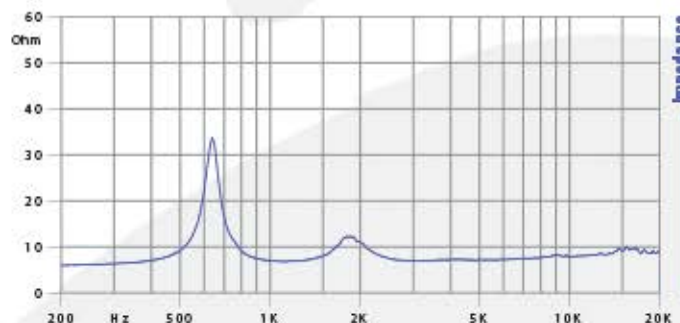
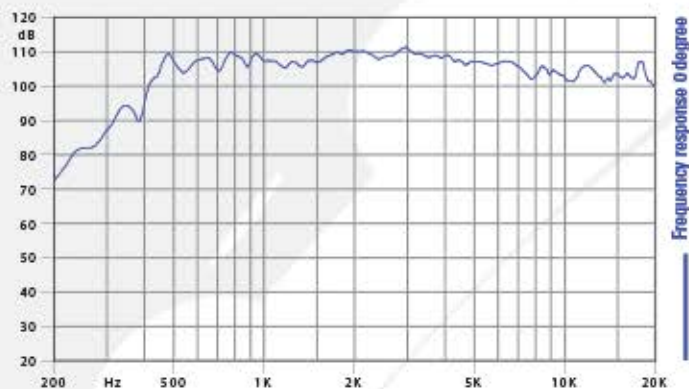
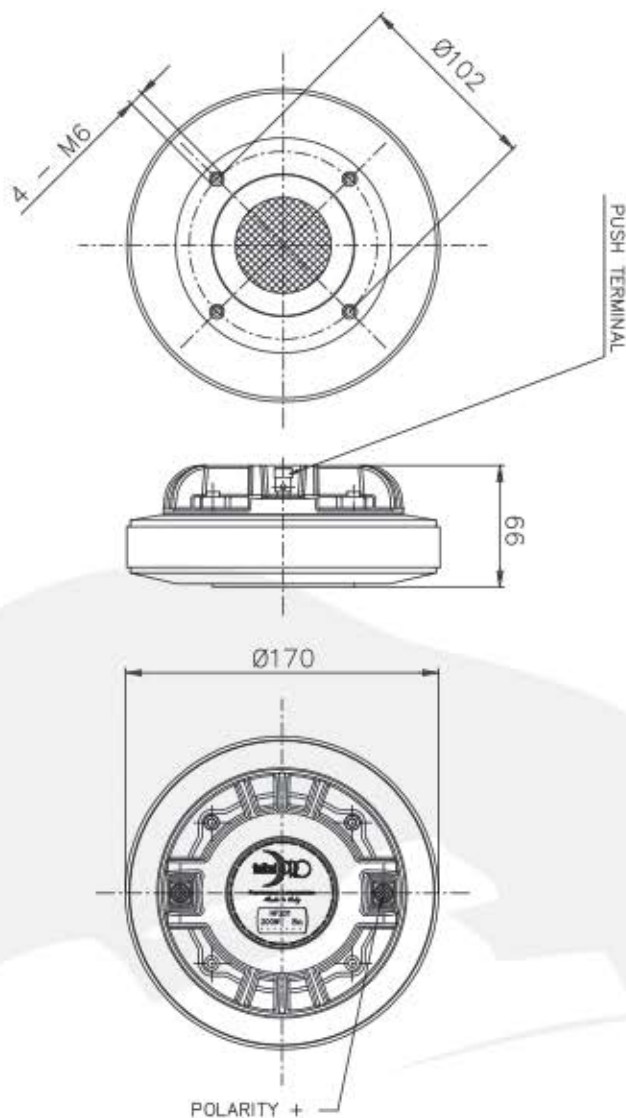
NOTE: Driver Mounted on a 2" 90° x 40° Al horn

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.



NEODYMIUM

HF204

2" - 80 W - 108 dB

HF206

2" - 80 W - 109 dB



NOMINAL SPECIFICATIONS

	HF204	HF206
Throat Diameter	50.8 mm (2 in)	50.8 mm (2 in)
Overall Diameter	130.5 mm (5.14 in)	130.5 mm (5.14 in)
90° Mounting Holes Diameter (4xM6)	102 mm (4.02 in)	102 mm (4.02 in)
Depth	91.5 mm (3.60 in)	91.5 mm (3.60 in)
Net Weight	2.3 kg (5.1 lb)	2.3 kg (5.1 lb)
Shipping Box	185 x 170 x 122 mm	185 x 170 x 122 mm
(Single Carton Box)	(7.3 x 6.7 x 4.8 in)	(7.3 x 6.7 x 4.8 in)
Shipping Weight	2.6 kg (5.7 lb)	2.6 kg (5.7 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω	8 Ω
Minimum Impedance	7.2 Ω	7.4 Ω
AES Power above 0.9 kHz (1)	80 W	80 W
AES Power above 0.65 kHz (1)	40 W	40 W
Maximum Power above 0.9 kHz (2)	160 W	160 W
Maximum Power above 0.65 kHz (2)	80 W	80 W
Minimum Crossover Frequency (3)	0.9 kHz	0.9 kHz
Sensitivity (1W/1m) (4)	108 dB	109 dB
Frequency Range	0.5÷18 kHz	0.5÷18 kHz
Voice Coil Diameter	65 mm (2.56 in)	65 mm (2.56 in)
Winding Material	Al	Al
Former Material	Kapton	Kapton
Diaphragm Material	Ketone Polymer	Ketone Polymer
Diaphragm Shape	Dome	Dome
Winding Depth	3 mm (0.12 in)	3 mm (0.12 in)
Magnetic Gap Depth	4.2 mm (0.17 in)	4.2 mm (0.17 in)
Flux Density	1.7 T	1.7 T
Magnet	Neodymium Slug Crown	Neodymium Slug Crown
Re	5.5 Ω	5.5 Ω
Phase Plug Design	Annular	Annular
NET Air Volume filled by HF Driver	0.75 dm ³ (0.026 ft ³)	0.75 dm ³ (0.026 ft ³)

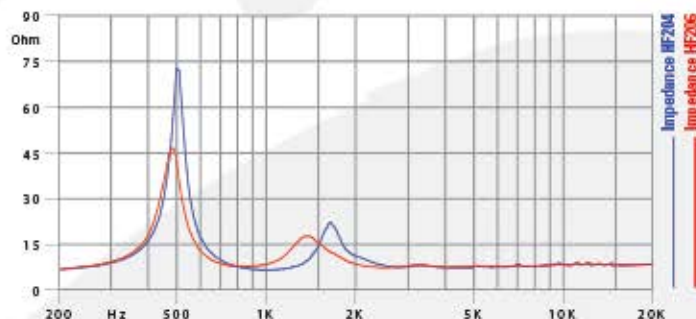
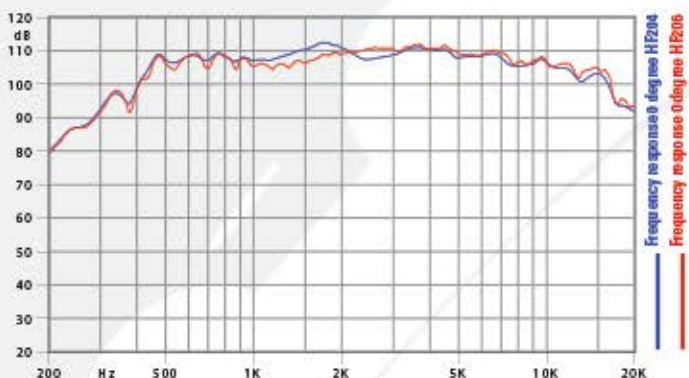
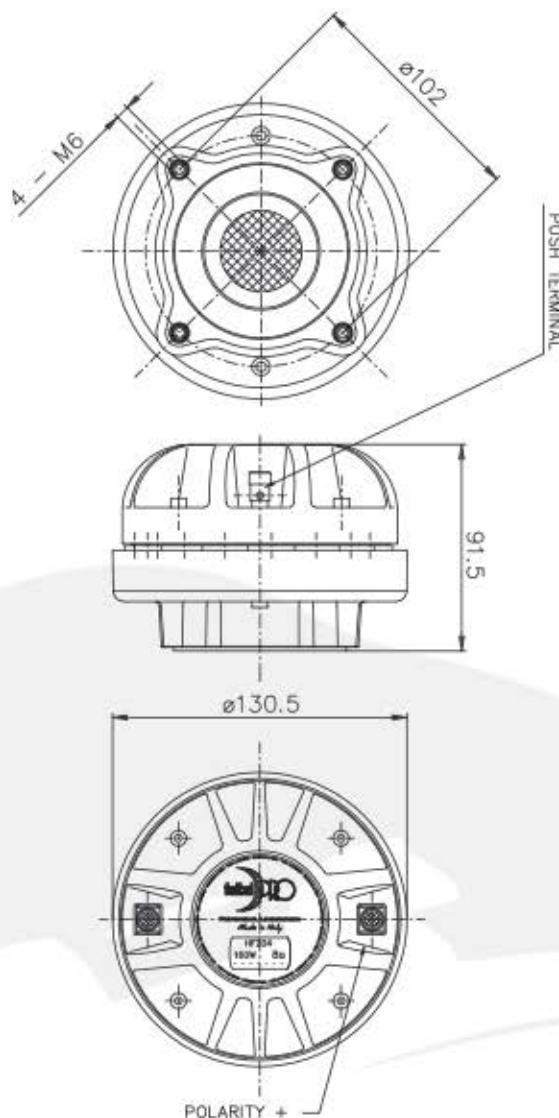
NOTE: Driver Mounted on a 2" 90° x 40° Al horn

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.



HF1400

1.4" - 100 W - 110 dB



NOMINAL SPECIFICATIONS

Throat Diameter	35.6 mm (1.4 in)
Overall Diameter	130.5 mm (5.14 in)
90° Mounting Holes Diameter (4xM6)	102 mm (4.02 in)
Depth	55 mm (2.17 in)
Net Weight	2.5 kg (5.5 lb)
Shipping Box	185 x 170 x 122 mm
(Single Carton Box)	(7.3 x 6.7 x 4.8 in)
Shipping Weight	2.7 kg (6.0 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω
Minimum Impedance	7 Ω
AES Power above 0.9 kHz (1)	100 W
AES Power above 0.65 kHz (1)	50 W
Maximum Power above 0.9 kHz (2)	200 W
Maximum Power above 0.65 kHz (2)	100 W
Minimum Crossover Frequency (3)	0.9 kHz
Sensitivity (1W/1m) (4)	110 dB
Frequency Range	0.5-18 kHz
Voice Coil Diameter	74 mm (2.91 in)
Winding Material	Al
Former Material	Kapton
Diaphragm Material	Titanium
Diaphragm Shape	Dome
Winding Depth	2.35 mm (0.09 in)
Magnetic Gap Depth	3.2 mm (0.13 in)
Flux Density	1.95 T
Magnet	Neodymium Ring
Re	5.6 Ω
Phase Plug Design	Annular
NET Air Volume filled by HF Driver	0.45 dm ³ (0.016 ft ³)

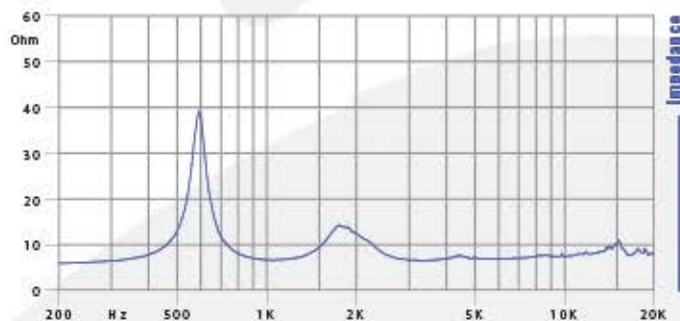
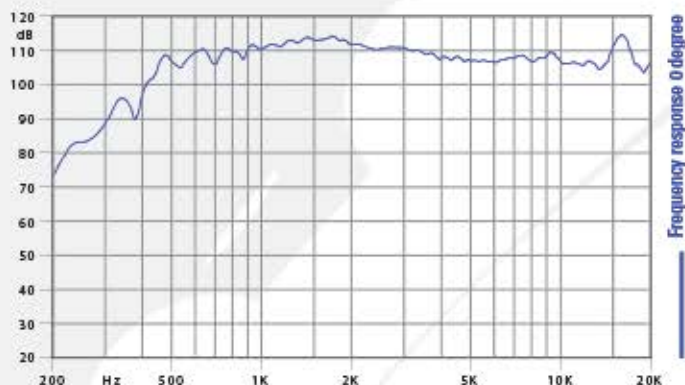
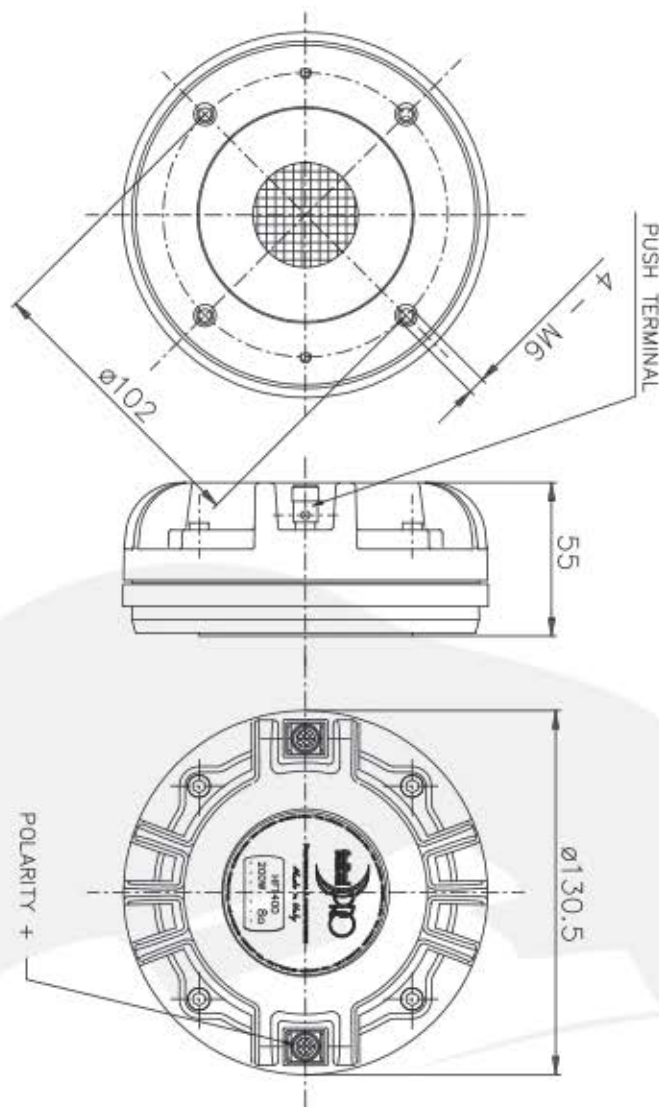
NOTE: Driver Mounted on FataiPRO LTH142 horn

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.



HF140

1.4" - 70 W - 109 dB



NOMINAL SPECIFICATIONS

Throat Diameter	35.6 mm (1.4 in)
Overall Diameter	130.5 mm (5.14 in)
90° Mounting Holes Diameter (4xM6)	102 mm (4.02 in)
Depth	62 mm (2.44 in)
Net Weight	2.9 kg (6.4 lb)
Shipping Box	185 x 170 x 122 mm
(Single Carton Box)	(7.3 x 6.7 x 4.8 in)
Shipping Weight	3.1 kg (6.8 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω
Minimum Impedance	6.3 Ω
AES Power above 0.9 kHz (1)	70 W
AES Power above 0.65 kHz (1)	50 W
Maximum Power above 0.9 kHz (2)	140 W
Maximum Power above 0.65 kHz (2)	100 W
Minimum Crossover Frequency (3)	0.9 kHz
Sensitivity (1W/1m) (4)	109 dB
Frequency Range	0.5-18 kHz
Voice Coil Diameter	74 mm (2.91 in)
Winding Material	Al
Former Material	Kapton
Diaphragm Material	Titanium
Diaphragm Shape	Dome
Winding Depth	2.35 mm (0.09 in)
Magnetic Gap Depth	2.8 mm (0.11 in)
Flux Density	1.8 T
Magnet	Neodymium Slug Crown
Re	5.6 Ω
Phase Plug Design	Annular
NET Air Volume filled by HF Driver	0.7 dm ³ (0.025 ft ³)

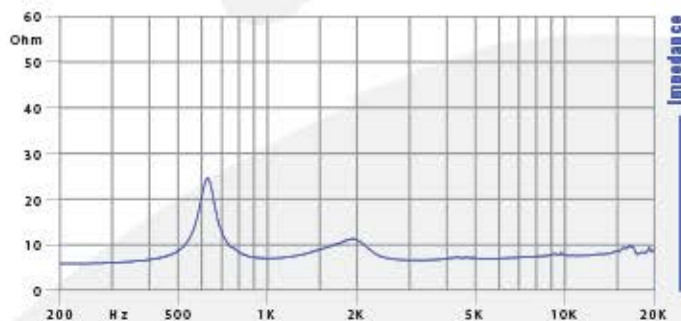
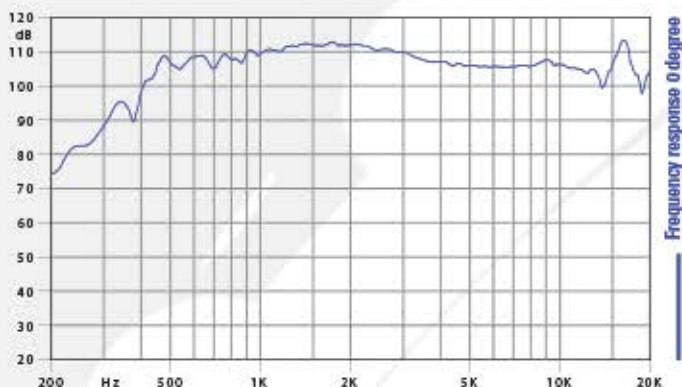
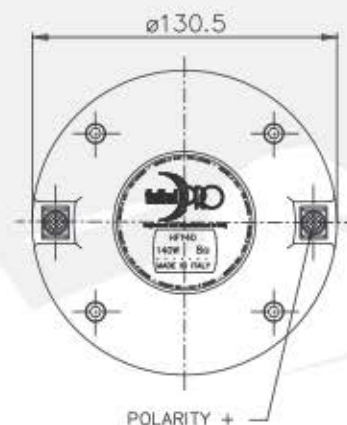
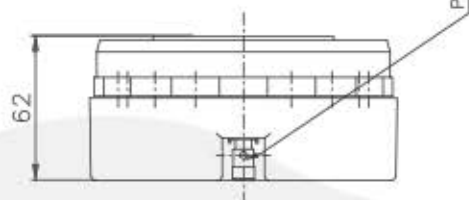
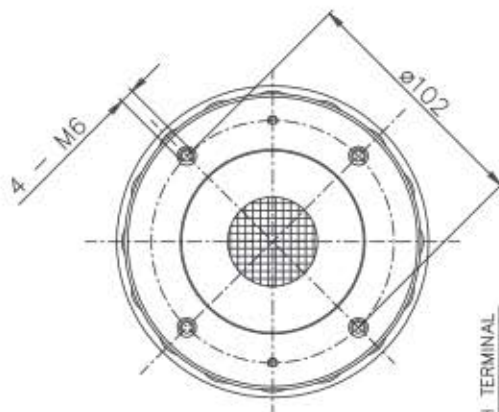
NOTE: Driver Mounted on FaitalPRO LTH142 horn

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.



FERRITE



HF141

1.4" - 100 W - 109 dB

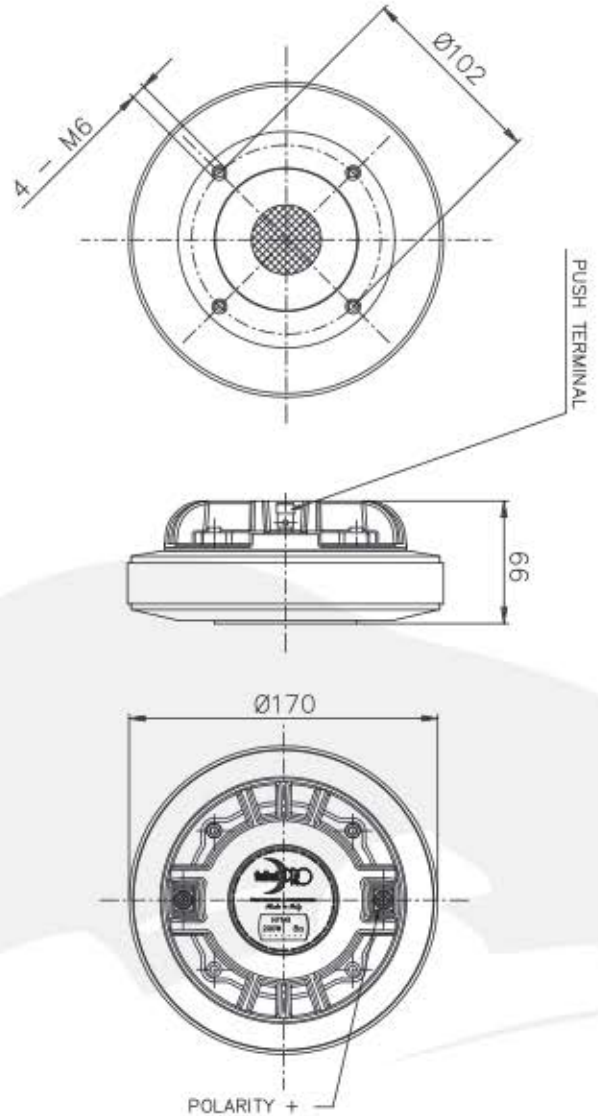


NOMINAL SPECIFICATIONS

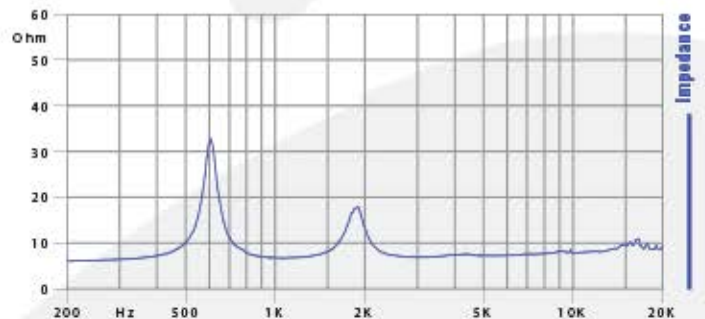
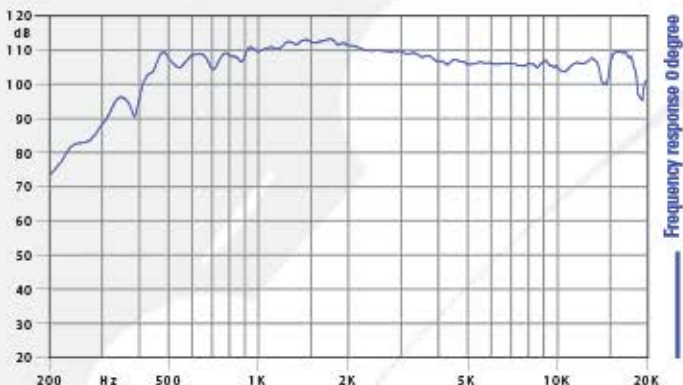
Throat Diameter	35.6 mm (1.4 in)
Overall Diameter	170 mm (6.69 in)
90° Mounting Holes Diameter (4xM6)	102 mm (4.02 in)
Depth	66 mm (2.60 in)
Net Weight	4.7 kg (10.4 lb)
Shipping Box	195 x 195 x 141 mm
(Single Carton Box)	(7.7 x 7.7 x 5.6 in)
Shipping Weight	4.9 kg (10.8 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω
Minimum Impedance	7.2 Ω
AES Power above 0.9 kHz (1)	100 W
AES Power above 0.65 kHz (1)	50 W
Maximum Power above 0.9 kHz (2)	200 W
Maximum Power above 0.65 kHz (2)	100 W
Minimum Crossover Frequency (3)	0.9 kHz
Sensitivity (1W/1m) (4)	109 dB
Frequency Range	0.5-18 kHz
Voice Coil Diameter	74 mm (2.91 in)
Winding Material	Al
Former Material	Kapton
Diaphragm Material	Titanium
Diaphragm Shape	Dome
Winding Depth	2.35 mm (0.09 in)
Magnetic Gap Depth	3.2 mm (0.13 in)
Flux Density	1.7 T
Magnet	Ferrite Ring
Re	5.6 Ω
Phase Plug Design	Annular
NET Air Volume filled by HF Driver	1.05 dm ³ (0.037 ft ³)



NOTE: Driver Mounted on FaitalPRO LTH142 horn
 (1) 2 Hours Test According to AES 2-1984 Rev. 2003
 (2) Maximum power is defined as 3 dB greater than nominal power.
 (3) 12 dB/oct or higher slope high-pass filter.
 (4) Averaged within the frequency range.



NEODYMIUM



HF144

1.4" - 80 W - 109 dB

HF146

1.4" - 80 W - 109 dB



NOMINAL SPECIFICATIONS

	HF144	HF146
Throat Diameter	35.6 mm (1.4 in)	35.6 mm (1.4 in)
Overall Diameter	123 mm (4.84 in)	123 mm (4.84 in)
90° Mounting Holes Diameter (4xM6)	102 mm (4.02 in)	102 mm (4.02 in)
Depth	63.5 mm (2.5 in)	63.5 mm (2.5 in)
Net Weight	2 kg (4.4 lb)	2 kg (4.4 lb)
Shipping Box	185 x 170 x 122 mm	185 x 170 x 122 mm
(Single Carton Box)	(7.3 x 6.7 x 4.8 in)	(7.3 x 6.7 x 4.8 in)
Shipping Weight	2.3 kg (5.1 lb)	2.3 kg (5.1 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω	8 Ω
Minimum Impedance	6.8 Ω	6.8 Ω
AES Power above 0.9 kHz (1)	80 W	80 W
AES Power above 0.65 kHz (1)	40 W	40 W
Maximum Power above 0.9 kHz (2)	160 W	160 W
Maximum Power above 0.65 kHz (2)	80 W	80 W
Minimum Crossover Frequency (3)	0.9 kHz	0.9 kHz
Sensitivity (1W/1m) (4)	109 dB	109 dB
Frequency Range	0.7÷18 kHz	0.7÷18 kHz
Voice Coil Diameter	65 mm (2.56 in)	65 mm (2.56 in)
Winding Material	Al	Al
Former Material	Kapton	Kapton
Diaphragm Material	Ketone Polymer	Ketone Polymer
Diaphragm Shape	Dome	Dome
Winding Depth	3 mm (0.12 in)	3 mm (0.12 in)
Magnetic Gap Depth	4.2 mm (0.17 in)	4.2 mm (0.17 in)
Flux Density	1.7 T	1.7 T
Magnet	Neodymium Slug Crown	Neodymium Slug Crown
Re	5.5 Ω	5.5 Ω
Phase Plug Design	Annular	Annular
NET Air Volume filled by HF Driver	0.55 dm ³ (0.019 ft ³)	0.55 dm ³ (0.019 ft ³)

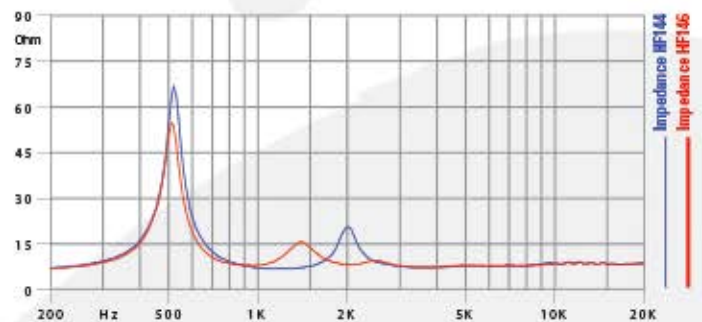
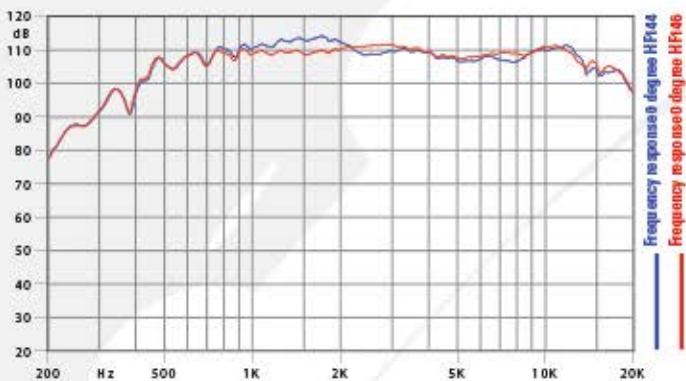
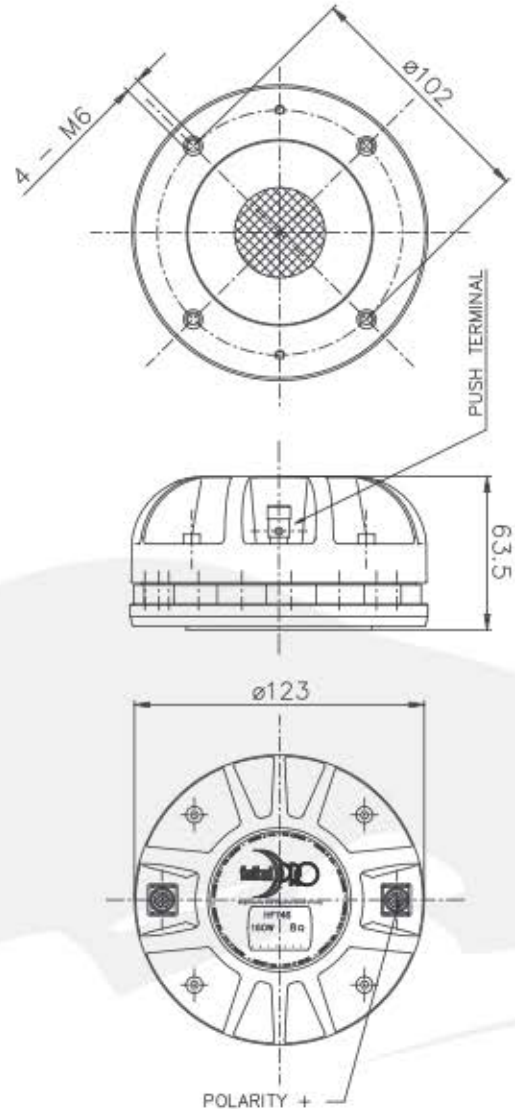
NOTE: Driver Mounted on FaitalPRO LTH142 horn

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.



HF10AT

1" - 60 W - 109 dB

HF10AK

1" - 60 W - 110 dB



NOMINAL SPECIFICATIONS

	HF10AT	HF10AK
Throat Diameter	25.4 mm (1 in)	25.4 mm (1 in)
Overall Diameter	102 mm (4.02 in)	102 mm (4.02 in)
180° Mounting Holes Diameter (2xM6)	76 mm (2.99 in)	76 mm (2.99 in)
120° Mounting Holes Diameter (3xM6)	57 mm (2.24 in)	57 mm (2.24 in)
Depth	54 mm (2.13 in)	54 mm (2.13 in)
Net Weight	1.4 kg (3.1 lb)	1.4 kg (3.1 lb)
Shipping Box	147 x 130 x 82 mm	147 x 130 x 82 mm
(Single Carton Box)	(5.8 x 5.1 x 3.2 in)	(5.8 x 5.1 x 3.2 in)
Shipping Weight	1.5 kg (3.3 lb)	1.5 kg (3.3 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω	8 Ω
Minimum Impedance	6.9 Ω	6.6 Ω
AES Power Handling (1)	60 W	60 W
Maximum Power Handling (2)	120 W	120 W
Minimum Crossover Frequency (3)	1.3 kHz	1.3 kHz
Sensitivity (1W/1m) (4)	109 dB	110 dB
Frequency Range	1÷20 kHz	0.8÷20 kHz
Voice Coil Diameter	44 mm (1.73 in)	44 mm (1.73 in)
Winding Material	Al	Al
Former Material	Kapton	Kapton
Diaphragm Material	Titanium	Ketone Polymer
Diaphragm Shape	Dome	Dome
Winding Depth	1.9 mm (0.07 in)	1.9 mm (0.07 in)
Magnetic Gap Depth	2.65 mm (0.10 in)	2.65 mm (0.10 in)
Flux Density	1.9 T	1.9 T
Magnet	Neodymium Ring	Neodymium Ring
Re	5.8 Ω	5.8 Ω
Phase Plug Design	Annular	Annular
NET Air Volume filled by HF Driver	0.35 dm ³ (0.012 ft ³)	0.35 dm ³ (0.012 ft ³)

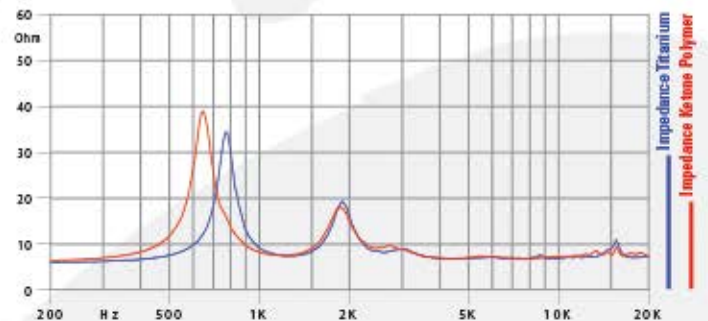
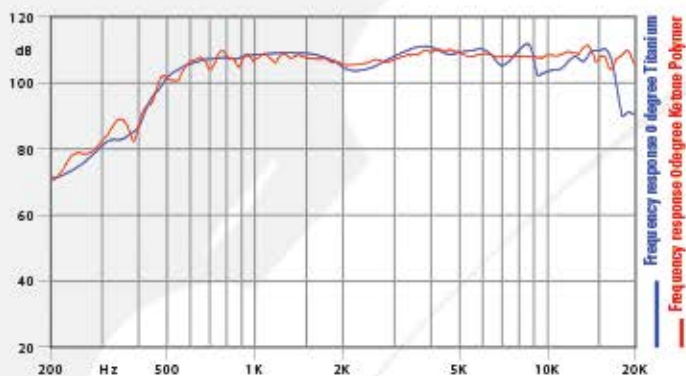
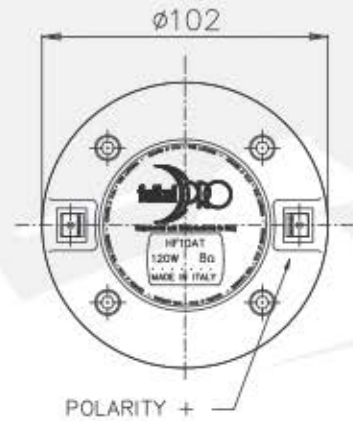
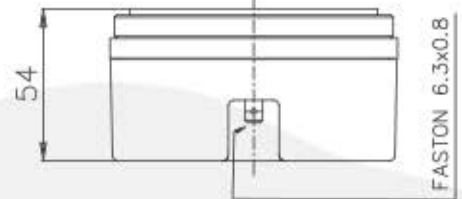
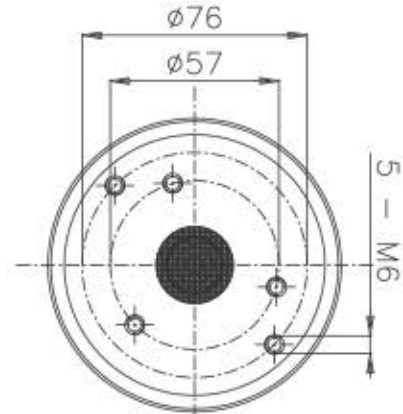
NOTE: Driver Mounted on a 1" 50° x 40° Al horn

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.



HF10RT

1" - 60 W - 108 dB

HF10RK

1" - 60 W - 109 dB



NOMINAL SPECIFICATIONS

	HF10RT	HF10RK
Throat Diameter	25.4 mm (1 in)	25.4 mm (1 in)
Overall Diameter	102 mm (4.02 in)	102 mm (4.02 in)
180° Mounting Holes Diameter (2xM6)	76 mm (2.99 in)	76 mm (2.99 in)
120° Mounting Holes Diameter (3xM6)	57 mm (2.24 in)	57 mm (2.24 in)
Depth	54 mm (2.13 in)	54 mm (2.13 in)
Net Weight	1.4 kg (3.1 lb)	1.4 kg (3.1 lb)
Shipping Box	147 x 130 x 82 mm	147 x 130 x 82 mm
(Single Carton Box)	(5.8 x 5.1 x 3.2 in)	(5.8 x 5.1 x 3.2 in)
Shipping Weight	1.5 kg (3.3 lb)	1.5 kg (3.3 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω	8 Ω
Minimum Impedance	6.9 Ω	6.7 Ω
AES Power Handling (1)	60 W	60 W
Maximum Power Handling (2)	120 W	120 W
Minimum Crossover Frequency (3)	1.3 kHz	1.3 kHz
Sensitivity (1W/1m) (4)	108 dB	109 dB
Frequency Range	1÷20 kHz	1÷20 kHz
Voice Coil Diameter	44 mm (1.73 in)	44 mm (1.73 in)
Winding Material	Al	Al
Former Material	Kapton	Kapton
Diaphragm Material	Titanium	Ketone Polymer
Diaphragm Shape	Dome	Dome
Winding Depth	1.9 mm (0.07 in)	1.9 mm (0.07 in)
Magnetic Gap Depth	2.65 mm (0.10 in)	2.65 mm (0.10 in)
Flux Density	1.9 T	1.9 T
Magnet	Neodymium Ring	Neodymium Ring
Re	5.8 Ω	5.8 Ω
Phase Plug Design	Radial	Radial
NET Air Volume filled by HF Driver	0.35 dm ³ (0.012 ft ³)	0.35 dm ³ (0.012 ft ³)

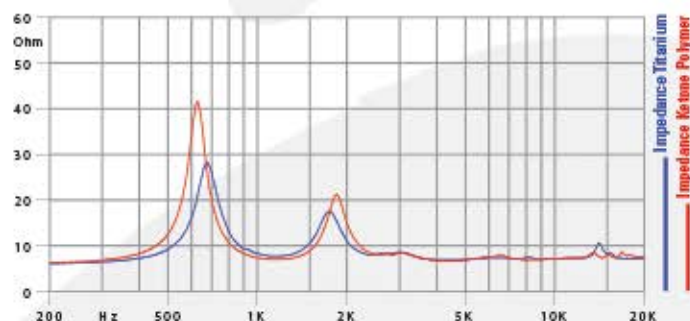
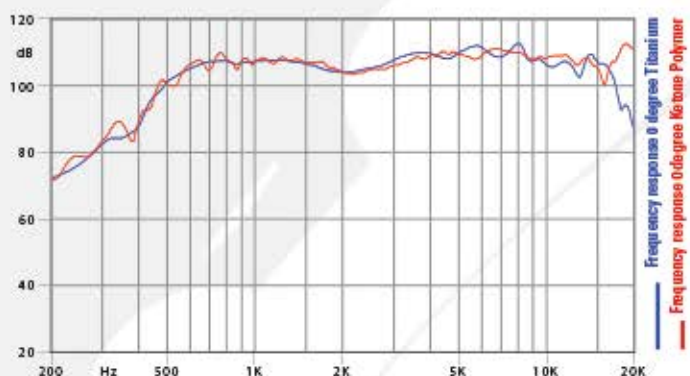
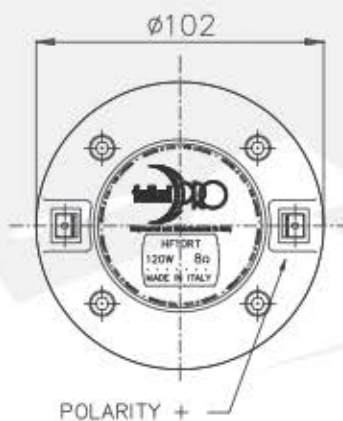
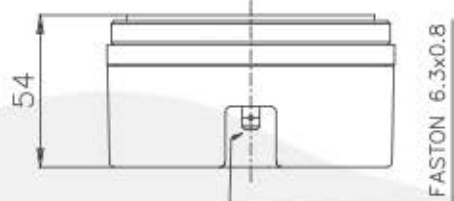
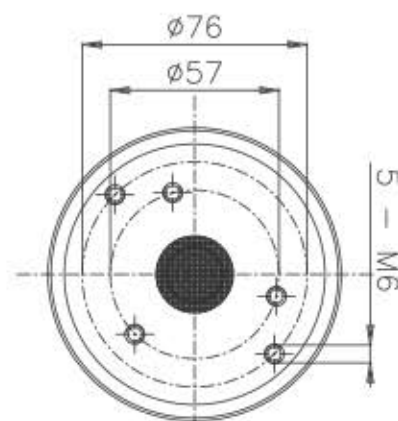
NOTE: Driver Mounted on a 1" 50° x 40° Al horn

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.



HF106

1" - 60 W - 110 dB

HF107

1" - 70 W - 109 dB

NOMINAL SPECIFICATIONS

	HF106	HF107
Throat Diameter	25.4 mm (1 in)	25.4 mm (1 in)
Overall Diameter	95.7 mm (3.77 in)	121 mm (4.76 in)
180° Mounting Holes Diameter (2xM6)	76 mm (2.99 in)	76 mm (2.99 in)
Depth	58.8 mm (2.31 in)	75.4 mm (2.97 in)
Net Weight	1.1 kg (2.3 lb)	2.5 kg (5.5 lb)
Shipping Box	147 x 130 x 82 mm	185 x 170 x 122 mm
(Single Carton Box)	(5.8 x 5.1 x 3.2 in)	(7.3 x 6.7 x 4.8 in)
Shipping Weight	1.4 kg (3.1 lb)	2.7 kg (5.8 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω	8 Ω
Minimum Impedance	7 Ω	6.8 Ω
AES Power Handling (1)	60 W	70 W
Maximum Power Handling (2)	120 W	140 W
Minimum Crossover Frequency (3)	1.3 kHz	1.3 kHz
Sensitivity (1W/1m) (4)	110 dB	109 dB
Frequency Range	1.3÷20 kHz	1.3÷20 kHz
Voice Coil Diameter	44 mm (1.73 in)	44 mm (1.73 in)
Winding Material	Al	Al
Former Material	Kapton	Kapton
Diaphragm Material	Ketone Polymer	Ketone Polymer
Diaphragm Shape	Annular	Annular
Winding Depth	2.3 mm (0.09 in)	2.3 mm (0.09 in)
Magnetic Gap Depth	2.6 mm (0.10 in)	2.6 mm (0.10 in)
Flux Density	2.1 T	1.9 T
Magnet	Neodymium Ring	Ferrite Ring
Re	5.4 Ω	5.4 Ω
Phase Plug Design	Annular	Annular
NET Air Volume filled by HF Driver	0.25 dm ³ (0.009 ft ³)	0.5 dm ³ (0.018 ft ³)

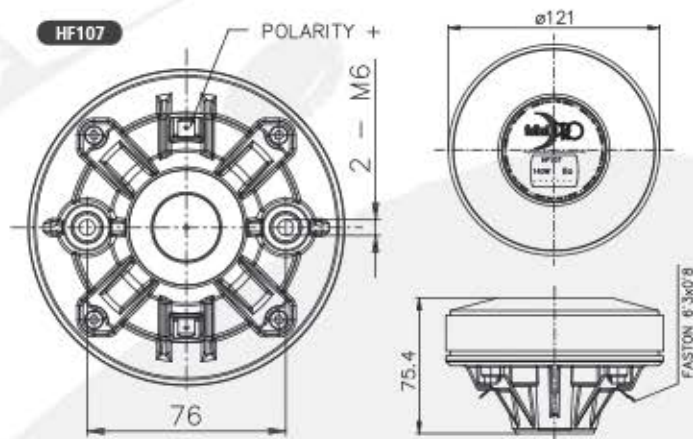
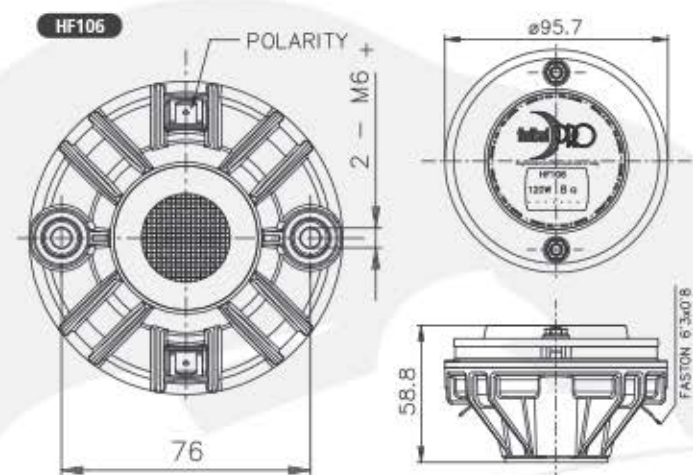
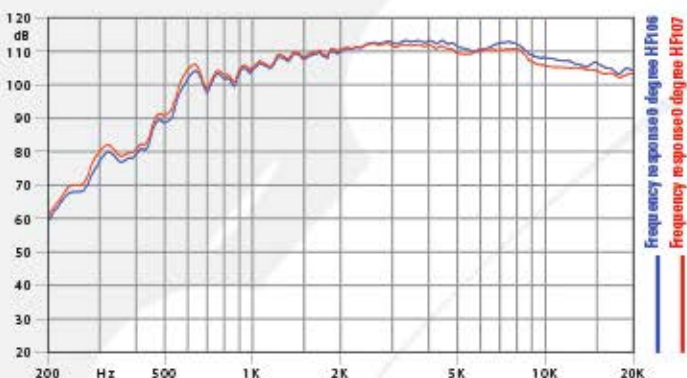
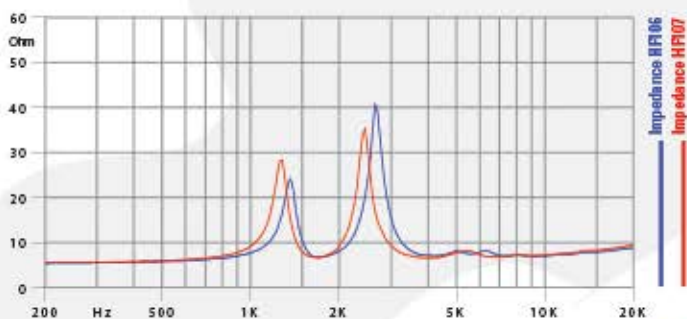
NOTE: Driver Mounted on a 1" 50° x 40° Horn

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.



HF108

1" - 60 W - 109 dB



NOMINAL SPECIFICATIONS

Throat Diameter	25.4 mm (1 in)
Overall Diameter	87 mm (3.43 in)
180° Mounting Holes Diameter (2xM6)	76 mm (2.99 in)
Depth	41 mm (1.61 in)
Net Weight	800 g (1.8 lb)
Shipping Box	147 x 130 x 82 mm
(Single Carton Box)	(5.8 x 5.1 x 3.2 in)
Shipping Weight	1.2 kg (2.6 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω
Minimum Impedance	6.8 Ω
AES Power Handling (1)	60 W
Maximum Power Handling (2)	120 W
Minimum Crossover Frequency (3)	1.3 kHz
Sensitivity (1W/1m) (4)	109 dB
Frequency Range	1-20 kHz
Voice Coil Diameter	44 mm (1.73 in)
Winding Material	Al
Former Material	Kapton
Diaphragm Material	Ketone Polymer
Diaphragm Shape	Dome
Winding Depth	2.3 mm (0.09 in)
Magnetic Gap Depth	2.85 mm (0.11 in)
Flux Density	2.1 T
Magnet	Neodymium Ring
Re	5.8 Ω
Phase Plug Design	Annular
NET Air Volume filled by HF Driver	0.195 dm ³ (0.007 ft ³)

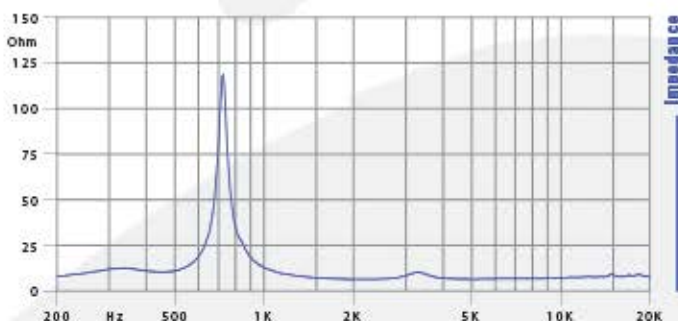
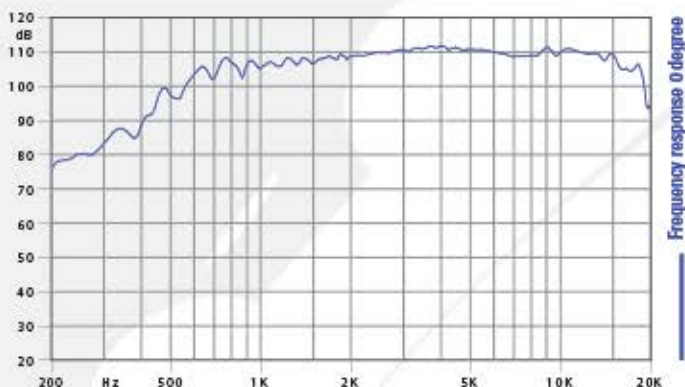
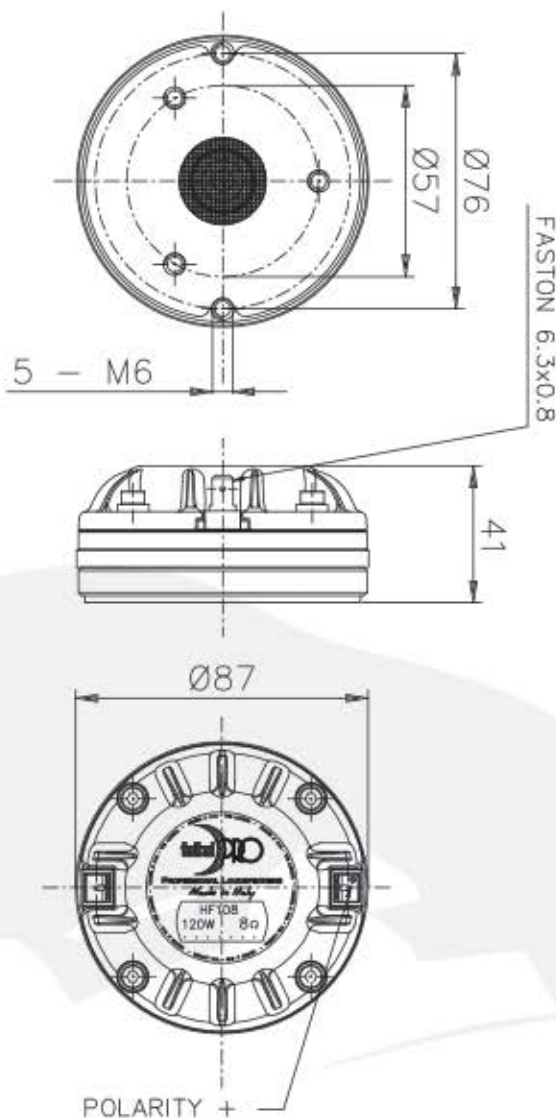
NOTE: Driver Mounted on a 1" 50° x 40° horn

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.



FERRITE

HF109

1" - 60 W - 108 dB



NOMINAL SPECIFICATIONS

Throat Diameter	25.4 mm (1 in)
Overall Diameter	121 mm (4.76 in)
180° Mounting Holes Diameter (2xM6)	76 mm (2.99 in)
Depth	55 mm (2.17 in)
Net Weight	2.2 kg (4.9 lb)
Shipping Box	185 x 170 x 102 mm
(Single Carton Box)	(7.3 x 6.7 x 4.0 in)
Shipping Weight	2.5 kg (5.5 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω
Minimum Impedance	6.8 Ω
AES Power above 0.65 kHz (1)	60 W
Maximum Power above 0.9 kHz (2)	120 W
Minimum Crossover Frequency (3)	1.3 kHz
Sensitivity (1W/1m) (4)	108 dB
Frequency Range	1-20 kHz
Voice Coil Diameter	44 mm (1.73 in)
Winding Material	Al
Former Material	Kapton
Diaphragm Material	Ketone Polymer
Diaphragm Shape	Dome
Winding Depth	2.3 mm (0.09 in)
Magnetic Gap Depth	2.85 mm (0.11 in)
Flux Density	1.8 T
Magnet	Ferrite Ring
Re	5.8 Ω
Phase Plug Design	Annular
NET Air Volume filled by HF Driver	0.43 dm ³ (0.015 ft ³)

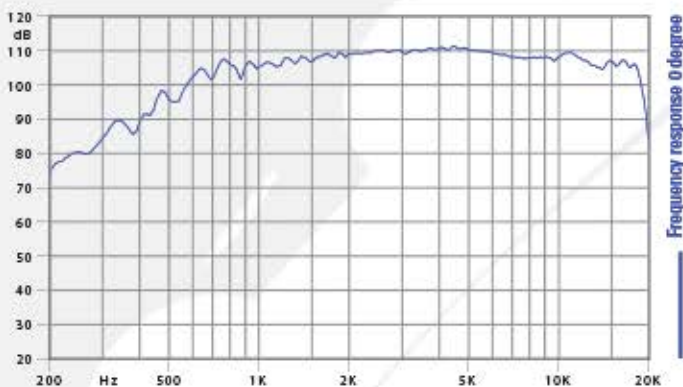
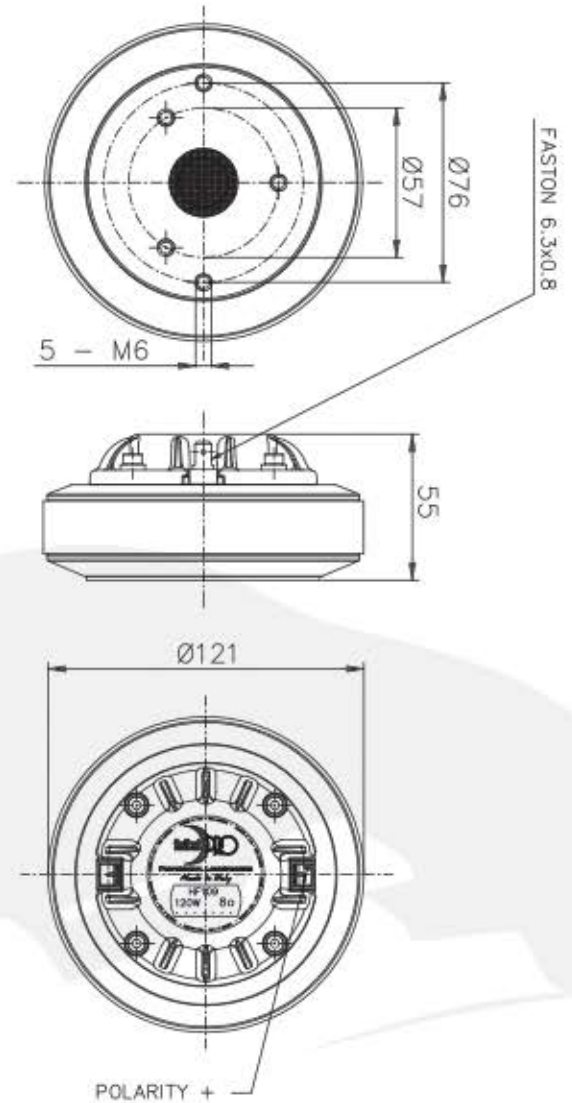
NOTE: Driver Mounted on a 1" 50° x 40° Al horn

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.



FERRITE

HF103

1" - 60 W - 107 dB



NOMINAL SPECIFICATIONS

Throat Diameter	25.4 mm (1 in)
Overall Diameter	100 mm (3.94 in)
180° Mounting Holes Diameter (2xM6)	76 mm (2.99 in)
Depth	55 mm (2.17 in)
Net Weight	1.3 kg (2.9 lb)
Shipping Box	147 x 130 x 82 mm
(Single Carton Box)	(5.8 x 5.1 x 3.2 in)
Shipping Weight	1.6 kg (3.5 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω
Minimum Impedance	6.8 Ω
AES Power above 0.65 kHz (1)	60 W
Maximum Power above 0.9 kHz (2)	120 W
Minimum Crossover Frequency (3)	1.3 kHz
Sensitivity (1W/1m) (4)	107 dB
Frequency Range	1-20 kHz
Voice Coil Diameter	44 mm (1.73 in)
Winding Material	Al
Former Material	Kapton
Diaphragm Material	Ketone Polymer
Diaphragm Shape	Dome
Winding Depth	2.3 mm (0.09 in)
Magnetic Gap Depth	2.85 mm (0.11 in)
Flux Density	1.5 T
Magnet	Ferrite Ring
Re	5.8 Ω
Phase Plug Design	Annular
NET Air Volume filled by HF Driver	0.33 dm ³ (0.011 ft ³)

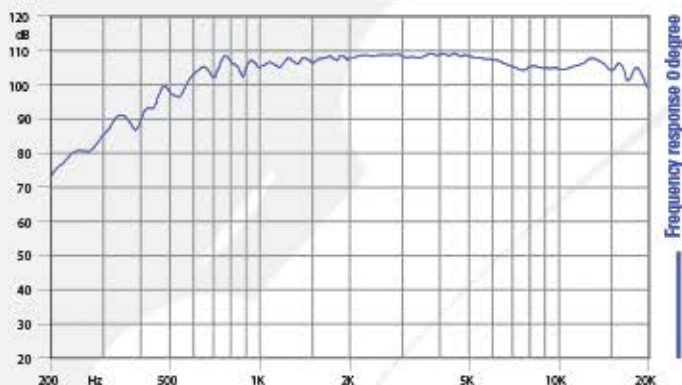
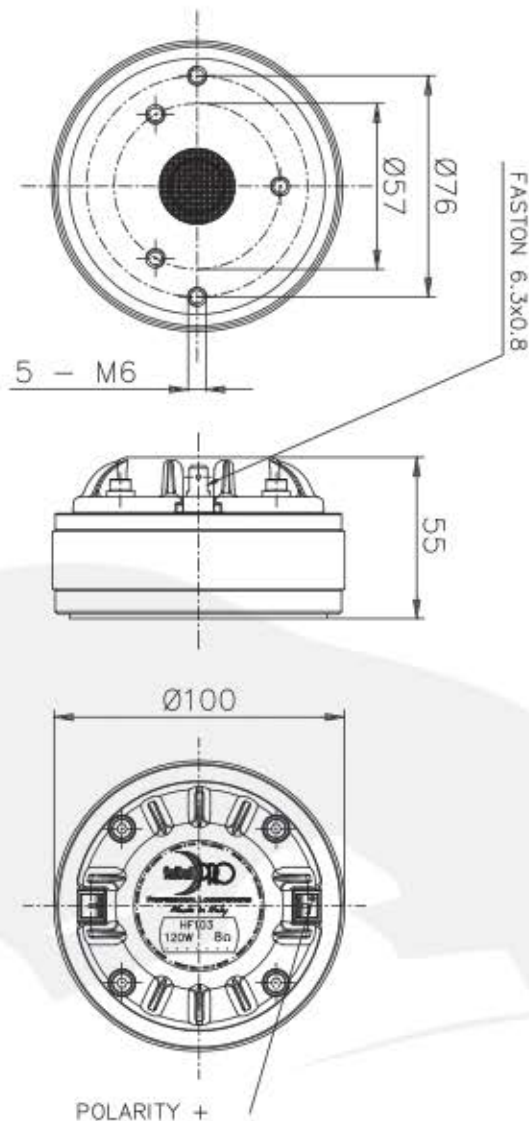
NOTE: Driver Mounted on a 1" 50° x 40° Al horn

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.



HF104

1" - 40 W - 108 dB

HF105

1" - 40 W - 107 dB

NOMINAL SPECIFICATIONS

	HF104	HF105
Throat Diameter	25.4 mm (1 in)	25.4 mm (1 in)
Overall Diameter	91 mm (3.58 in)	91 mm (3.58 in)
180° Mounting Holes Diameter (2xM5)	76 mm (2.99 in)	76 mm (2.99 in)
Depth	51 mm (2.01 in)	61 mm (2.40 in)
Net Weight	670 g (1.5 lb)	1.1 kg (2.4 lb)
Shipping Box	98 x 90 x 64 mm	147 x 130 x 82 mm
(Single Carton Box)	(3.9 x 3.5 x 2.5 in)	(5.8 x 5.1 x 3.2 in)
Shipping Weight	700 g (1.5 lb)	1.2 kg (2.7 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω	8 Ω
Minimum Impedance	6.9 Ω	6.7 Ω
AES Power Handling (1)	40 W	40 W
Maximum Power Handling (2)	80 W	80 W
Minimum Crossover Frequency (3)	1.7 kHz	1.7 kHz
Sensitivity (1W/1m) (4)	108 dB	107 dB
Frequency Range	1.5÷20 kHz	1.4÷20 kHz
Voice Coil Diameter	37 mm (1.46 in)	37 mm (1.46 in)
Winding Material	Al	Al
Former Material	Kapton	Kapton
Diaphragm Material	Ketone Polymer	Ketone Polymer
Diaphragm Shape	Annular	Annular
Winding Depth	2.1 mm (0.08 in)	2.1 mm (0.08 in)
Magnetic Gap Depth	2.6 mm (0.10 in)	2.6 mm (0.10 in)
Flux Density	1.85 T	1.5 T
Magnet	Neodymium Ring	Ferrite Ring
Re	5.5 Ω	5.5 Ω
Phase Plug Design	Radial	Radial
NET Air Volume filled by HF Driver	0.16 dm ³ (0.006 ft ³)	0.26 dm ³ (0.009 ft ³)

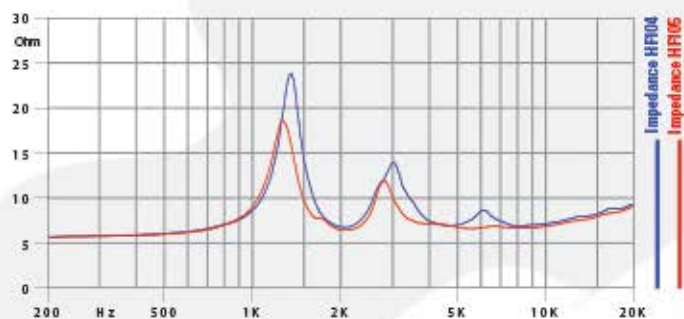
NOTE: Driver Mounted on a 1" 50° x 40° Al horn

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.



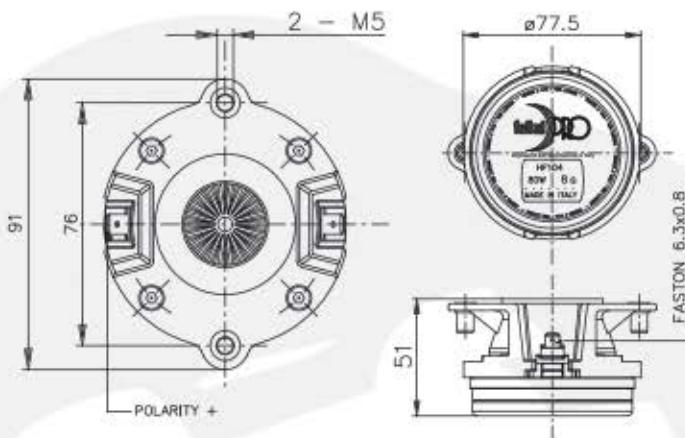
HF104



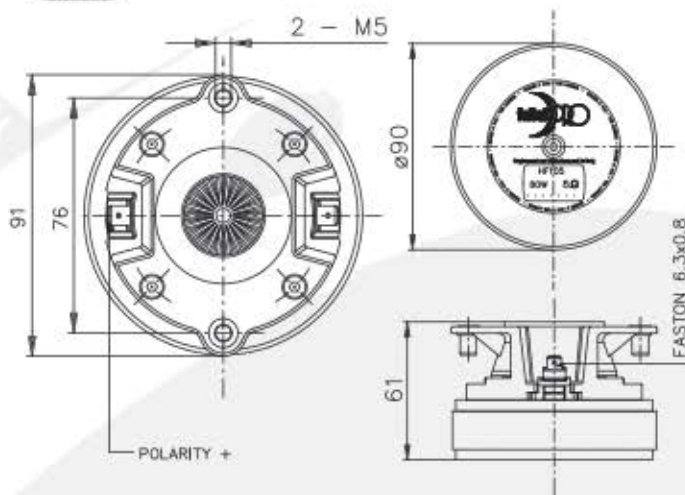
HF105



HF104



HF105



HF102

1" - 30 W - 107 dB

HF100

1" - 30 W - 108 dB

NOMINAL SPECIFICATIONS

	(5) HF102	HF100
Throat Diameter	25.4 mm (1 in)	25.4 mm (1 in)
Overall Diameter	91 mm (3.58 in)	108 mm (4.02 in)
180° Mounting Holes Diameter (2xM6)	76 mm (2.99 in)	76 mm (2.99 in)
Depth	43 mm (1.69 in)	55 mm (2.17 in)
Net Weight	300 g (0.7 lb)	830 g (1.8 lb)
Shipping Box	98 x 90 x 64 mm	147 x 130 x 82 mm
(Single Carton Box)	(3.9 x 3.5 x 2.5 in)	(5.8 x 5.1 x 3.2 in)
Shipping Weight	330 g (0.72 lb)	862 g (1.90 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω	8 Ω
Minimum Impedance	6.6 Ω	7 Ω
AES Power Handling (1)	30 W	30 W
Maximum Power Handling (2)	60 W	60 W
Minimum Crossover Frequency (3)	2.6 kHz	2 kHz
Sensitivity (1W/1m) (4)	107 dB	108 dB
Frequency Range	1.8÷20 kHz	1.5÷20 kHz
Voice Coil Diameter	25 mm (0.98 in)	25 mm (0.98 in)
Winding Material	Al	Al
Former Material	Kapton	Kapton
Diaphragm Material	Ketone Polymer	Ketone Polymer
Diaphragm Shape	Dome	Dome
Winding Depth	1.7 mm (0.07 in)	1.7 mm (0.07 in)
Magnetic Gap Depth	2 mm (0.08 in)	2 mm (0.08 in)
Flux Density	1.3 T	1.7 T
Magnet	Neodymium Ring	Ferrite Ring
Re	6 Ω	6 Ω
Phase Plug Design	Annular	Radial
NET Air Volume filled by HF Driver	0.1 dm ³ (0.004 ft ³)	0.25 dm ³ (0.009 ft ³)

NOTE: Driver Mounted on a 1" 50° x 40° Al horn

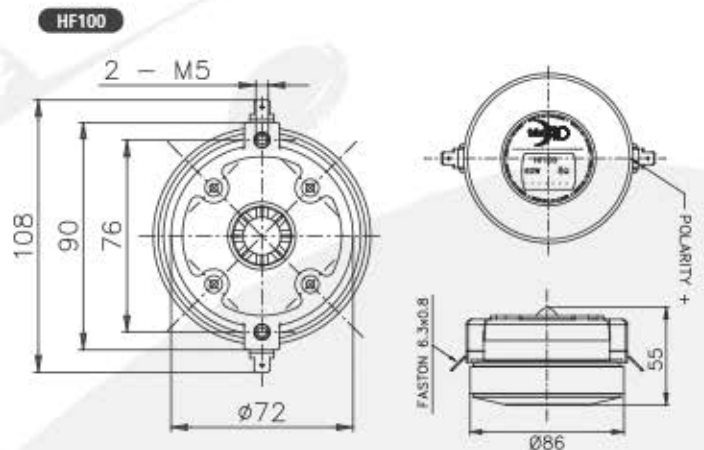
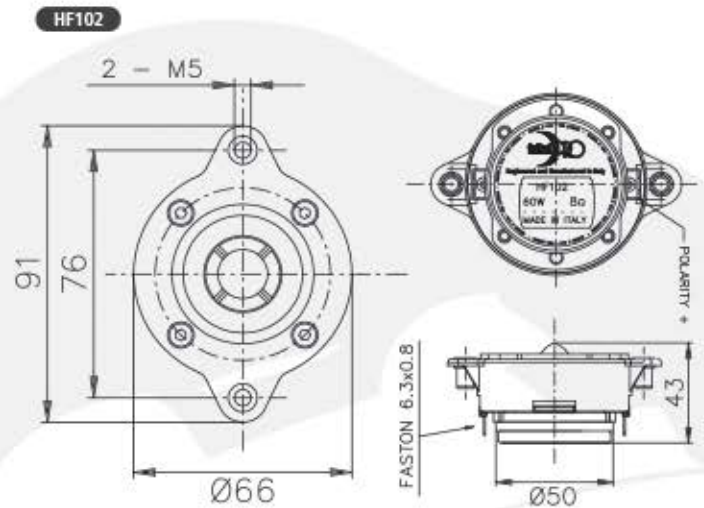
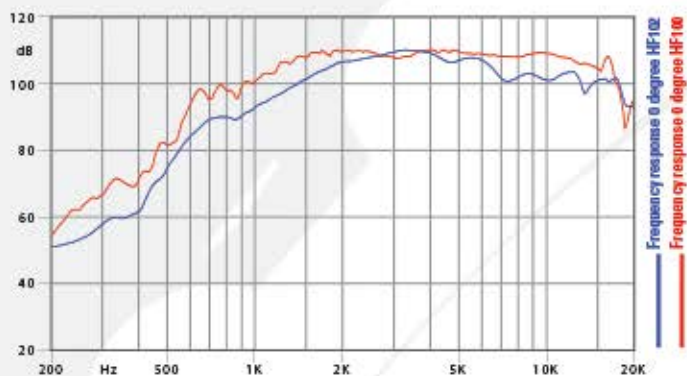
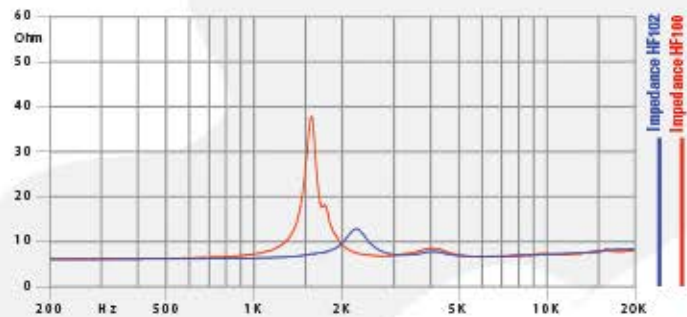
(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.

(5) Ferrofluid added in air gap.



FERRITE

FD371

37 mm - 35 W - 107 dB

NOMINAL SPECIFICATIONS

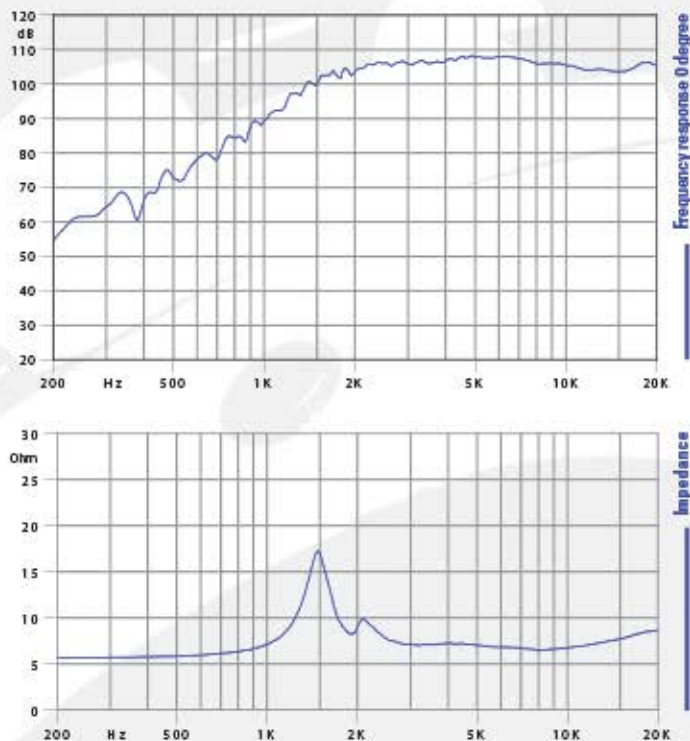
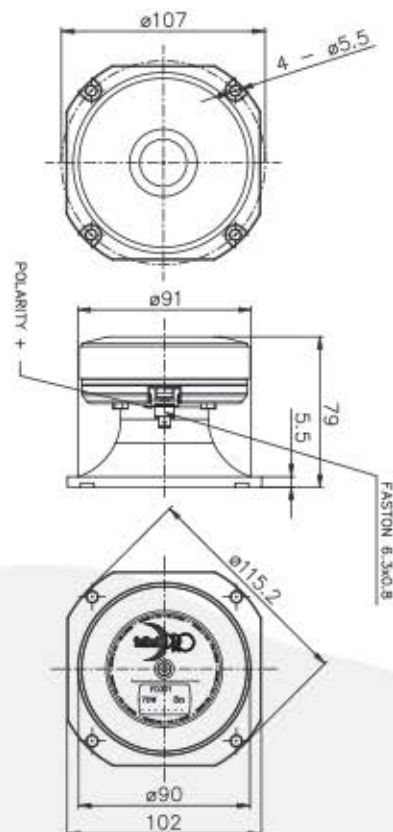
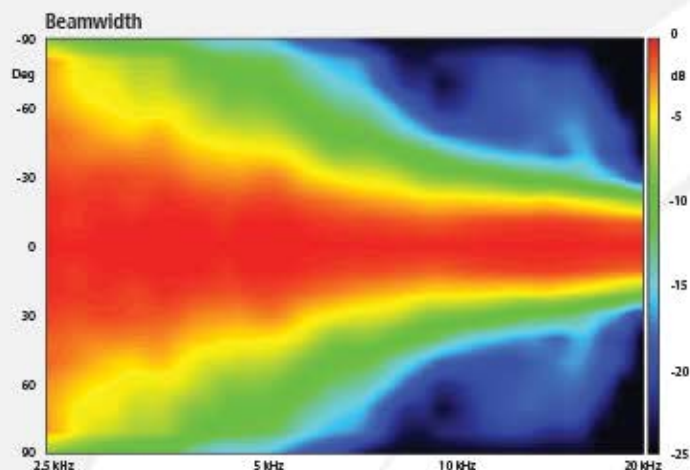
Overall Diameter	115.2 / 102 mm (4.54 / 4.0 in)
Bolt Circle Diameter	107 mm (4.21 in)
Baffle Cutout Diameter	91 mm (3.58 in)
Depth	79 mm (3.11 in)
Flange and gasket Thickness	5.5 mm (0.22 in)
Net Weight	1.3 kg (2.8 lb)
Shipping Box	150 x 123 x 102 mm
(Single Carton Box)	(5.9 x 4.8 x 4.0 in)
Shipping Weight	1.3 kg (2.9 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω
Minimum Impedance	6.6 Ω
AES Power Handling (1)	35 W
Maximum Power Handling (2)	70 W
Minimum Crossover Frequency (3)	2.6 kHz
Sensitivity (1W/1m) (4)	107 dB
Frequency Range	2.6-20 kHz
Dispersion Angle	40°
Voice Coil Diameter	37 mm (1.46 in)
Winding Material	Al
Former Material	Kapton
Diaphragm Material	Ketone Polymer
Diaphragm Shape	Annular
Winding Depth	2.1 mm (0.08 in)
Magnetic Gap Depth	2.6 mm (0.10 in)
Flux Density	1.5 T
Magnet	Ferrite Ring
Re	5.5 Ω
NET Air Volume filled by HF Driver	0.3 dm ³ (0.011 ft ³)

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) Maximum power is defined as 3 dB greater than nominal power.
- (3) 12 dB/oct or higher slope high-pass filter.
- (4) Averaged within the frequency range.



HMF200

2" - 40 W - 109 dB



NOMINAL SPECIFICATIONS

Throat Diameter	50.8 mm (2 in)
Overall Diameter	144 mm (5.67 in)
90° Mounting Holes Diameter (4xM6)	102 mm (4.02 in)
Depth	77 mm (3.03 in)
Net Weight	1.65 kg (3.6 lb)
Shipping Box	185 x 170 x 122 mm
(Single Carton Box)	(7.3 x 6.7 x 4.8 in)
Shipping Weight	1.9 kg (4.2 lb)

TECHNICAL PARAMETERS

Nominal Impedance	8 Ω
Minimum Impedance	7 Ω
AES Power Handling (1)	40 W
Maximum Power Handling (2)	80 W
Minimum Crossover Frequency (3)	0.45 kHz
Sensitivity (1W/1m) (4)	109 dB
Frequency Range	0.45÷9 kHz
Voice Coil Diameter	37 mm (1.46 in)
Winding Material	Al
Former Material	Kapton
Diaphragm Material	Synthetic Fibers
Diaphragm Shape	Double Edge Cone
Winding Depth	2.6 mm (0.10 in)
Magnetic Gap Depth	3.6 mm (0.14 in)
Flux Density	2.1 T
Magnet	Neodymium Ring
Re	5.5 Ω
Phase Plug Design	Annular
NET Air Volume filled by HF Driver	1.25 dm ³ (0.044 ft ³)

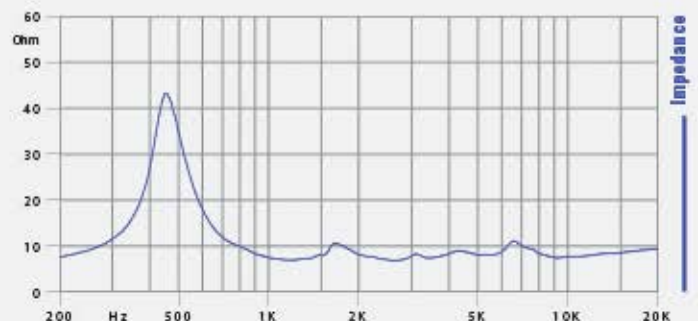
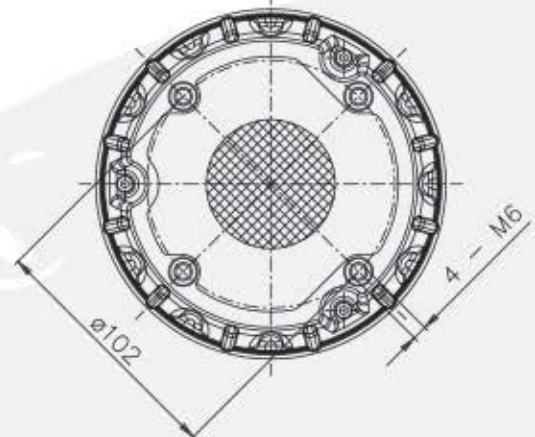
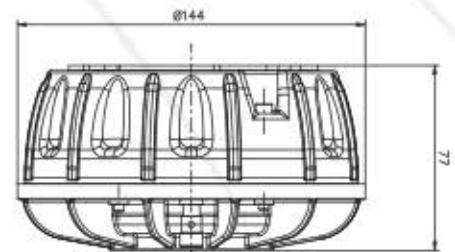
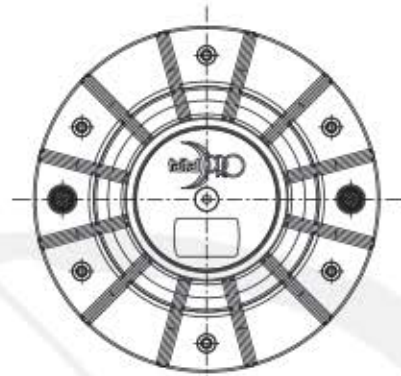
NOTE: Driver Mounted on a 2" 90° x 40° Al horn

(1) 2 Hours Test According to AES 2-1984 Rev. 2003

(2) Maximum power is defined as 3 dB greater than nominal power.

(3) 12 dB/oct or higher slope high-pass filter.

(4) Averaged within the frequency range.



COAXIAL LOUDSPEAKERS



“ Quality and Reliability - FaitalPRO is a complete line of high power neodymium drivers suitable for use in heavy duty applications. Our products are specifically engineered for professional applications and are industrialized and manufactured to the highest standards of components’ quality, reliability, high power handling, sturdiness and acoustic quality. FaitalPRO won’t settle for less. **”**



NEODYMIUM



8HX200

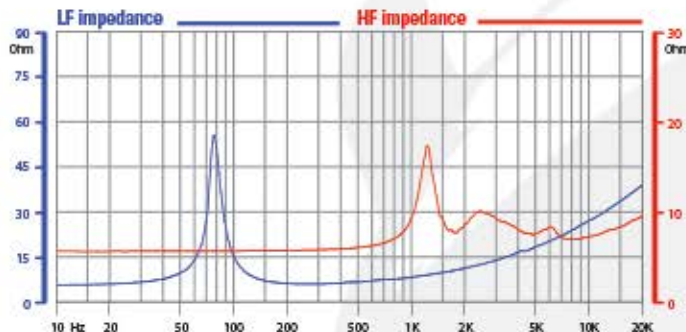
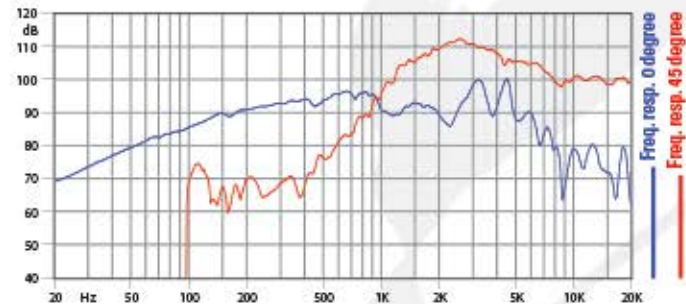
LF 8" - 250 W - 95 dB

HF 30 W - 107 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	200 mm (8 in)	
Overall Diameter	223.75/207.9 mm (8.81/8.18 in)	
Bolt Circle Diameter	210 mm (8.27 in)	
Baffle Cutout Diameter	183 mm (7.20 in)	
Depth	110.7 mm (4.36 in)	
Flange and gasket Thickness	10.7 mm (0.42 in)	
Net Weight	2.7 kg (6.0 lb)	
Shipping Box	246 x 246 x 150 mm	
(Single Carton Box)	(9.7 x 9.7 x 5.9 in)	
Shipping Weight	3.4 kg (7.5 lb)	

TECHNICAL PARAMETERS	[LF]	[HF]
Nominal Impedance	8 Ω	8 Ω
Minimum Impedance	6.6 Ω	6.9 Ω
AES Power Handling (1)	250 W	30 W
Maximum Power Handling (4)	500 W	60 W
Sensitivity (1W/1m) (7)	95 dB	107 dB
Frequency Range	75÷4000 Hz	1500÷20000 Hz
Voice Coil Diameter	65 mm (2.56 in)	37 mm (1.46 in)
Winding Material	Al	Al
Former Material	Glass Fiber	Kapton
Winding Depth	12.5 mm (0.49 in)	2.1 mm (0.08 in)
Magnetic Gap Depth	8 mm (0.31 in)	2.6 mm (0.10 in)
Flux Density	1.2 T	1.85 T
Minimum Crossover Frequency (6)	-	1.7 kHz
Dispersion Angle	-	90°
Diaphragm Material	-	Ketone Polymer
Diaphragm Shape	-	Annular
Magnet	Neodymium Ring	-
Basket Material	Aluminum	-
Demodulation	Aluminum Ring	-
Cone Surround (5)	Triple Roll	-
NET Air Volume filled by Loudspeaker	0.8 dm ³ (0.028 ft ³)	-
Spider Profile	1x constant height waves	-

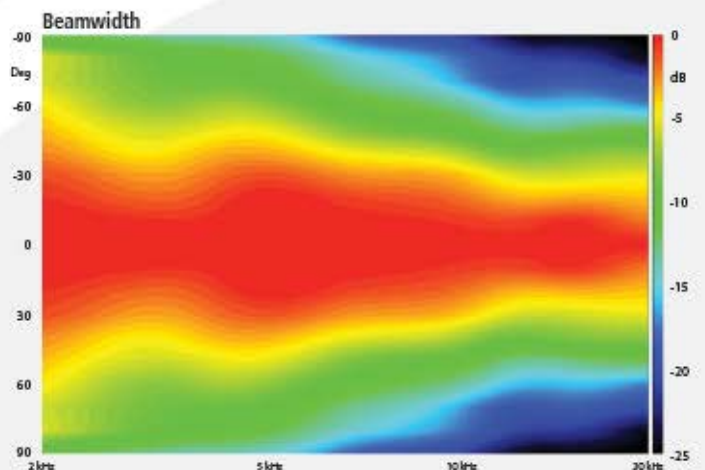
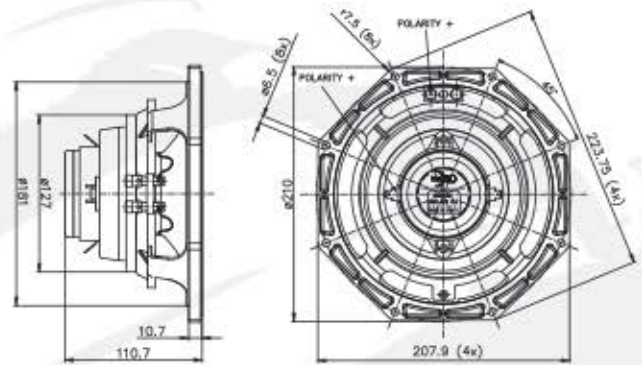


THIELE & SMALL PARAMETERS [LF]

Fs	76 Hz
Re [LF]	5.5 Ω
Re [HF]	5.5 Ω
Qes	0.31
Qms	10.5
Qts	0.30
Vas	11.9 dm ³ (0.42 ft ³)
Sd	205 cm ² (31.8 in ²)
Xmax (2)	4.92 mm
Xdamage (3)	10.2 mm
Mms	22.0 g
Bl	13.8 N/A
Le	0.51 mH
Mmd	20.3 g
Cms	0.20 mm/N
Rms	1 kg/s
η _L (Eta Zero)	1.67 %
EBP	245 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) Xmax = [(Winding Depth - magnetic gap depth)/2] + (magnetic gap depth / 3)
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton
- (6) 12 dB/oct or higher slope high-pass filter
- (7) HF Sensitivity averaged within the frequency range



8HX150

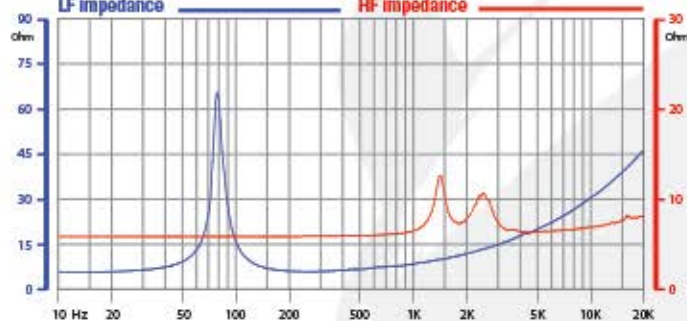
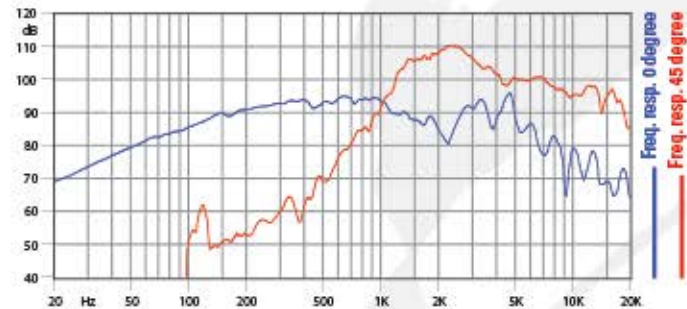
LF 8" - 250 W - 94 dB

HF 15 W - 104 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	200 mm (8 in)	
Overall Diameter	223.75/207.9 mm (8.81/8.18 in)	
Bolt Circle Diameter	210 mm (8.27 in)	
Baffle Cutout Diameter	183 mm (7.20 in)	
Depth	111.7 mm (4.40 in)	
Flange and gasket Thickness	10.7 mm (0.42 in)	
Net Weight	3.6 kg (7.9 lb)	
Shipping Box	246 x 246 x 150 mm	
(Single Carton Box)	(9.7 x 9.7 x 5.9 in)	
Shipping Weight	4.3 kg (9.5 lb)	

TECHNICAL PARAMETERS	[LF]	[HF]
Nominal Impedance	8 Ω	8 Ω
Minimum Impedance	6.6 Ω	6.3 Ω
AES Power Handling (1)	250 W	15 W
Maximum Power Handling (4)	500 W	30 W
Sensitivity (1W/1m) (7)	94 dB	104 dB
Frequency Range	75÷4000 Hz	1500÷18000 Hz
Voice Coil Diameter	65 mm (2.56 in)	25 mm (1 in)
Winding Material	Al	Al
Former Material	Glass Fiber	Kapton
Winding Depth	12.5 mm (0.49 in)	1.7 mm (0.07 in)
Magnetic Gap Depth	8 mm (0.31 in)	2 mm (0.08 in)
Flux Density	1 T	1.3 T
Minimum Crossover Frequency (6)	-	1.7 kHz
Dispersion Angle	-	90°
Diaphragm Material	-	Ketone Polymer
Diaphragm Shape	-	Dome
Magnet	Ferrite Ring	-
Basket Material	Aluminum	-
Demodulation	No	-
Cone Surround (5)	Triple Roll	-
NET Air Volume filled by Loudspeaker	0.96 dm ³ (0.034 ft ³)	-
Spider Profile	1x constant height waves	-

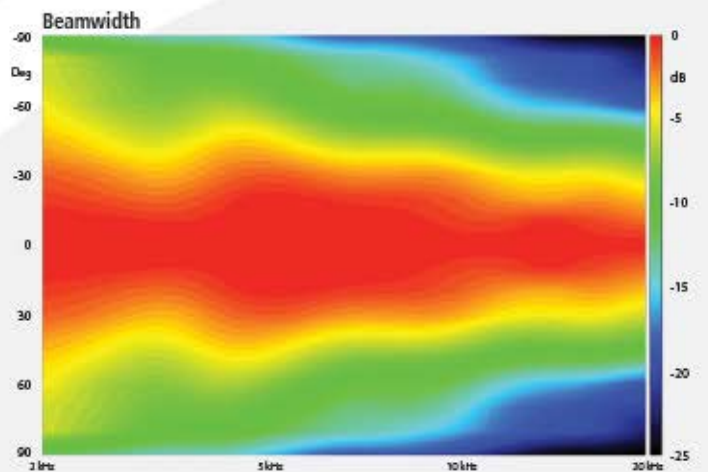
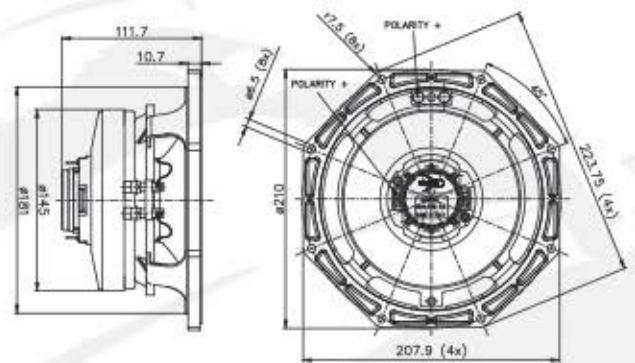


THIELE & SMALL PARAMETERS [LF]

Fs	76 Hz
Re [LF]	5.5 Ω
Re [HF]	6 Ω
Qes	0.43
Qms	9.5
Qts	0.42
Vas	11.7 dm ³ (0.41 ft ³)
Sd	205 cm ² (31.8 in ²)
Xmax (2)	4.92 mm
Xdamage (3)	10.2 mm
Mms	22.3 g
Bl	11.6 N/A
Le	0.51 mH
Mmd	20.6 g
Cms	0.20 mm/N
Rms	1.1 kg/s
η _l (Eta Zero)	1.15 %
EBP	177 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton
- (6) 12 dB/oct or higher slope high-pass filter
- (7) HF Sensitivity averaged within the frequency range



NEODYMIUM

6HX150

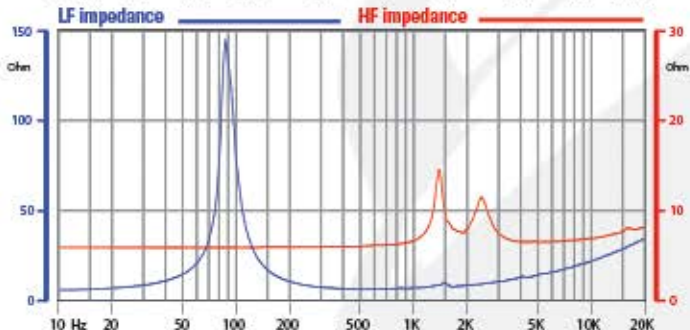
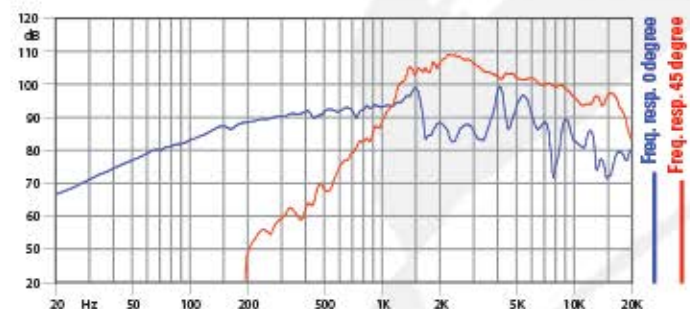
LF 6" - 150 W - 93 dB

HF 15 W - 104 dB

NOMINAL SPECIFICATIONS

Nominal Diameter	160 mm (6 in)
Overall Diameter	186.5/162 mm (7.34/6.37 in)
Bolt Circle Diameter	172 mm (6.77 in)
Baffle Cutout Diameter	147 mm (5.79 in)
Depth	95 mm (3.74 in)
Flange and gasket Thickness	9.3 mm (0.37 in)
Net Weight	1.3 kg (2.9 lb)
Shipping Box	202 x 202 x 134 mm
(Single Carton Box)	(8.0 x 8.0 x 5.3 in)
Shipping Weight	2.8 kg (6.2 lb)

TECHNICAL PARAMETERS	[LF]	[HF]
Nominal Impedance	8 Ω	8 Ω
Minimum Impedance	6 Ω	6.3 Ω
AES Power Handling (1)	150 W	15 W
Maximum Power Handling (4)	300 W	30 W
Sensitivity (1W/1m) (7)	93 dB	104 dB
Frequency Range	90÷5000 Hz	1500÷18000 Hz
Voice Coil Diameter	52 mm (2 in)	25 mm (1 in)
Winding Material	Cu	Al
Former Material	Glass Fiber	Kapton
Winding Depth	10.7 mm (0.42 in)	1.7 mm (0.07 in)
Magnetic Gap Depth	6 mm (0.24 in)	2 mm (0.08 in)
Flux Density	1.35 T	1.3 T
Minimum Crossover Frequency (6)	-	1.7 kHz
Dispersion Angle	-	90°
Diaphragm Material	-	Ketone Polymer
Diaphragm Shape	-	Dome
Magnet	Neodymium Ring	-
Basket Material	Aluminum	-
Demodulation	Aluminum Ring	-
Cone Surround (5)	Half Roll	-
NET Air Volume filled by Loudspeaker	0.6 dm ³ (0.021 ft ³)	-
Spider Profile	1x constant height waves	-

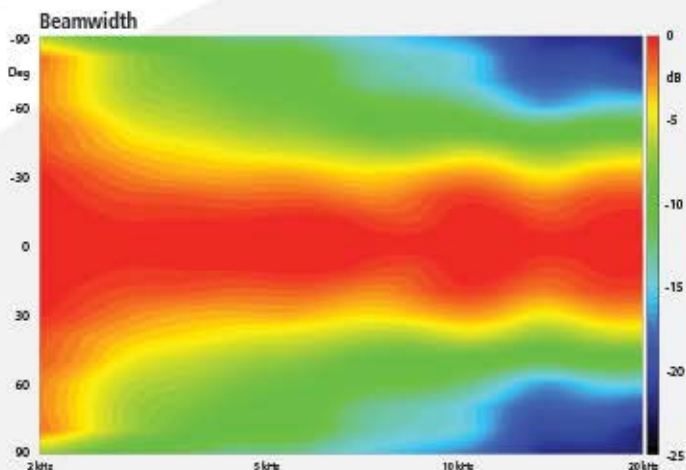
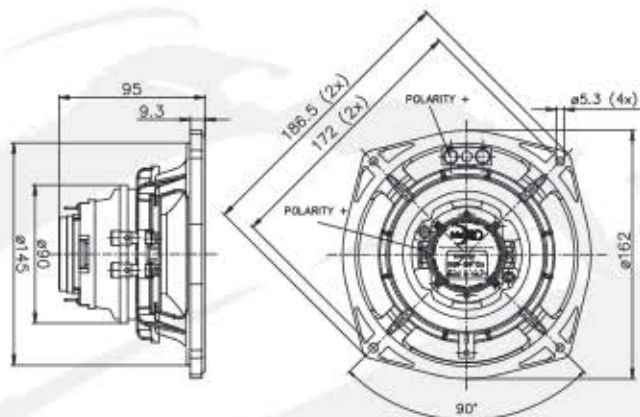


THIELE & SMALL PARAMETERS [LF]

Fs	88 Hz
Re [LF]	5.5 Ω
Re [HF]	6 Ω
Qes	0.35
Qms	8.3
Qts	0.33
Vas	5.60 dm ³ (0.20 ft ³)
Sd	130 cm ² (20.15 in ²)
Xmax (2)	4.35 mm
Xdamage (3)	10.15 mm
Mms	14 g
Bl	12 N/A
Le	0.64 mH
Mmd	13.3 g
Cms	0.20 mm/N
Rms	1 kg/s
η _l (Eta Zero)	1.22 %
EBP	251 Hz

NOTE:

- (1) 2 Hours Test According to AES 2-1984 Rev. 2003
- (2) $X_{max} = [(Winding\ Depth - magnetic\ gap\ depth)/2] + (magnetic\ gap\ depth / 3)$
- (3) Maximum excursion before permanent damage
- (4) Maximum power is defined as 3dB greater than nominal power
- (5) Treated Polycotton
- (6) 12 dB/oct or higher slope high-pass filter
- (7) HF Sensitivity averaged within the frequency range



HF HORNS



“ **Production and Availability** - Faital’s 50 years experience in loudspeaker manufacturing means that every FaitalPRO driver is manufactured combining superb craftsmanship with the latest automation and industrial technologies. All our products are completely designed and manufactured in Italy. Quality and on time delivery are top priorities for our team.”



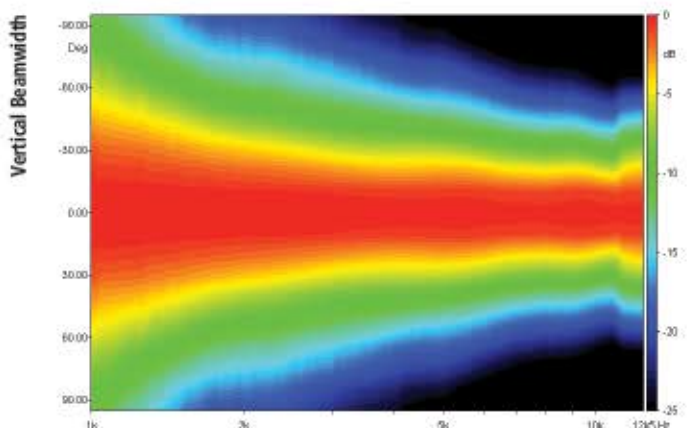
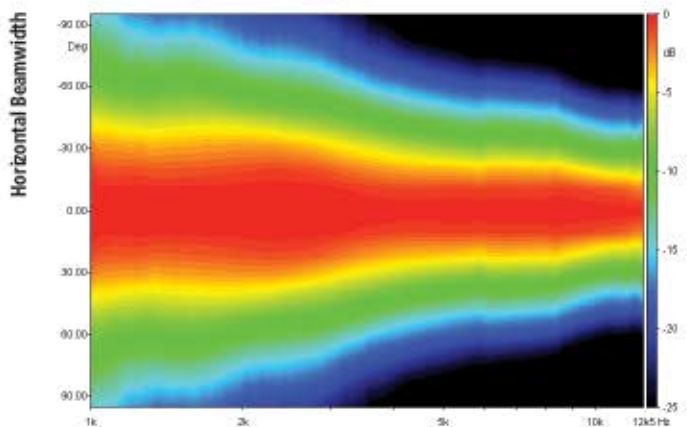
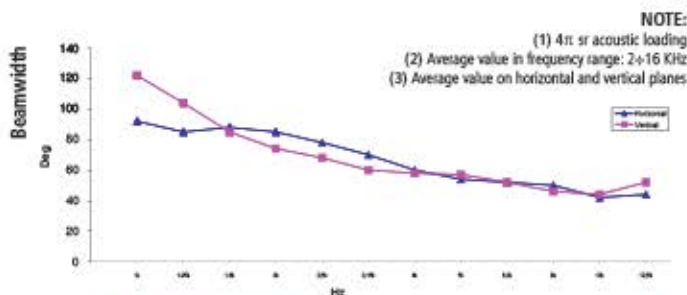
LTH142

1.4" - Tractrix



NOMINAL SPECIFICATIONS

Throat Diameter	35.6 mm (1.4 in)
Frequency Range	0.5-18 kHz
Recommended Crossover Frequency (1)	0.8 kHz
Horizontal Nominal Coverage (-6 dB) (2)	60°
Vertical Nominal Coverage (-6 dB) (2)	50°
Directivity Index (2) (3)	9.5 dB
Material	PC/ABS
Mouth Height	240 mm (9.5 in)
Mouth Width	350 mm (13.8 in)
Depth	233 mm (9.2 in)
Mouth Mounting Holes (4x)	6.5 mm (0.26 in)
Net Weight	890 g (1.96 lb)
Shipping Box	380 x 255 x 245 mm
(Single Carton Box)	(15.0 x 10.0 x 9.6 in)
Shipping Weight	1.44 kg (3.17 lb)
NET Air Volume filled by HF Horn	2.5 dm ³ (0.088 ft ³)



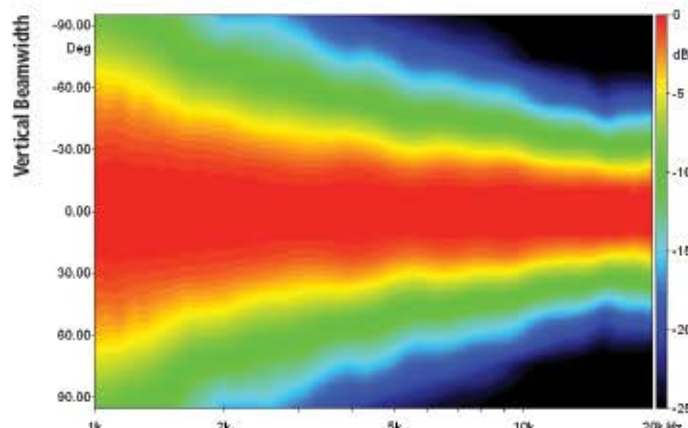
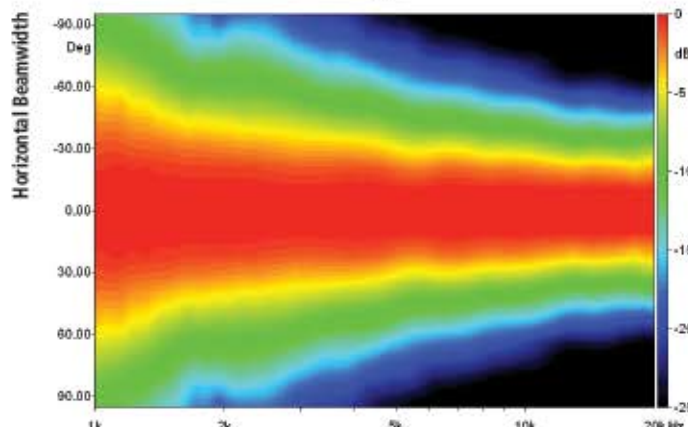
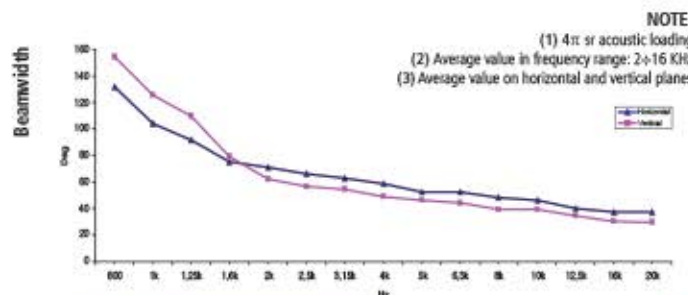
LTH102

1" - Tractrix



NOMINAL SPECIFICATIONS

Throat Diameter	25.4 mm (1 in)
Frequency Range	0.8-20 kHz
Recommended Crossover Frequency (1)	1 kHz
Horizontal Nominal Coverage (-6 dB) (2)	60°
Vertical Nominal Coverage (-6 dB) (2)	50°
Directivity Index (2) (3)	9.5 dB
Material	Al
Mouth Height	189 mm (7.44 in)
Mouth Width	235 mm (9.25 in)
Depth	171.6 mm (6.76 in)
Mouth Mounting Holes (4x)	6.5 mm (0.26 in)
Net Weight	1.2 kg (2.65 lb)
Shipping Box	268 x 207 x 185 mm
(Single Carton Box)	(10.6 x 8.2 x 7.3 in)
Shipping Weight	1.45 kg (3.20 lb)
NET Air Volume filled by HF Horn	1.1 dm ³ (0.039 ft ³)



ALUMINUM

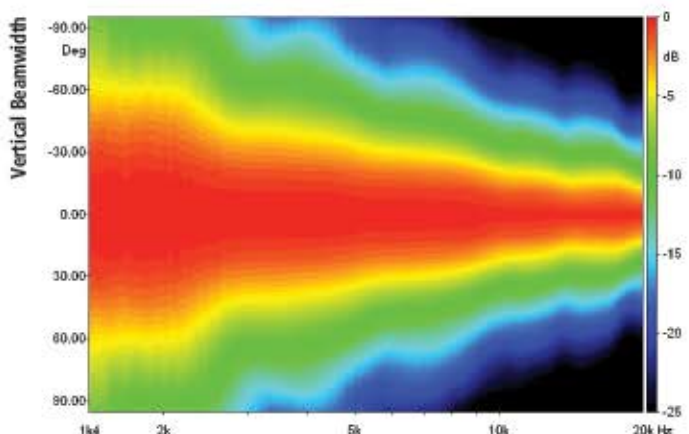
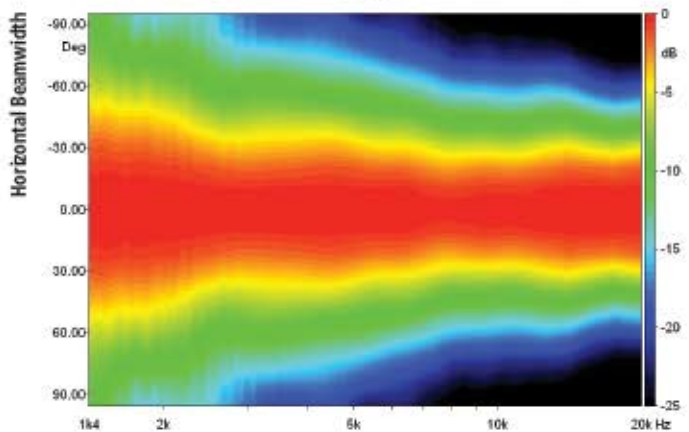
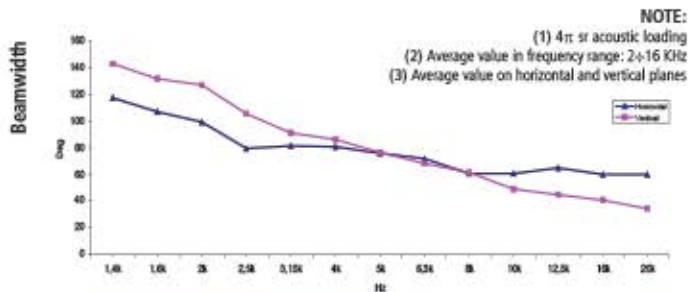
STH100

1" - Tractrix



NOMINAL SPECIFICATIONS

Throat Diameter	25.4 mm (1 in)
Frequency Range	1÷20 kHz
Recommended Crossover Frequency (1)	1.4 kHz
Horizontal Nominal Coverage (-6 dB) (2)	80°
Vertical Nominal Coverage (-6 dB) (2)	70°
Directivity Index (2) (3)	8 dB
Material	Al
Mouth Height	120 mm (4.72 in)
Mouth Width	180 mm (7.09 in)
Depth	85.9 mm (3.38 in)
Mouth Mounting Holes (4x)	6.5 mm (0.26 in)
Net Weight	460 g (1.01 lb)
Shipping Box	208 x 135 x 107 mm
(Single Carton Box)	(8.2 x 5.3 x 4.2 in)
Shipping Weight	567 g (1.25 lb)
NET Air Volume filled by HF Horn	0.4 dm ³ (0.014 ft ³)



ALUMINUM

WG141

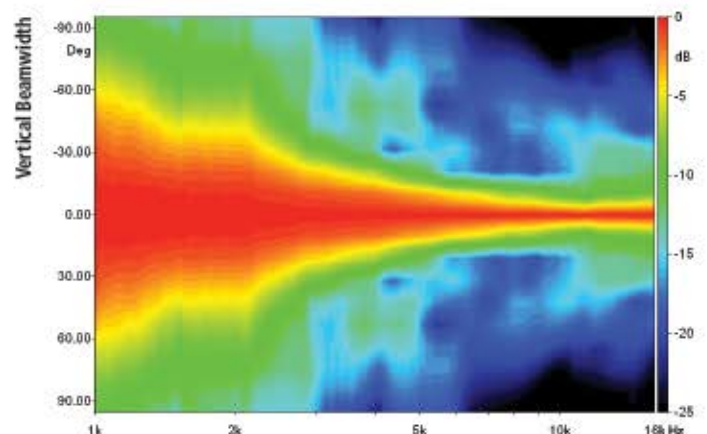
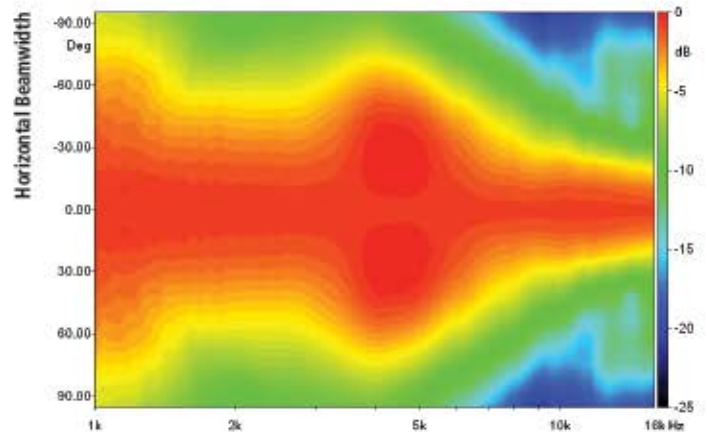
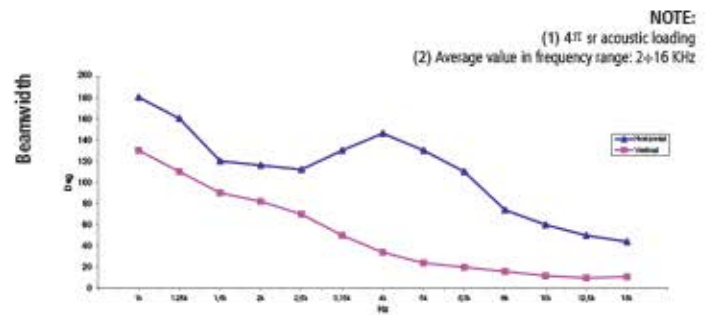
1.4" - Wave Guide



NOMINAL SPECIFICATIONS

Throat Diameter	36.5 mm (1.4 in)
Frequency Range	0.8÷20 kHz
Recommended Crossover Frequency (1)	0.8 kHz
Horizontal Nominal Coverage (-6 dB) (2)	110°
Material	Al
Mouth Height	163 mm (6.4 in)
Mouth Width	130 mm (5.1 in)
Depth	200 mm (7.9 in)
Mouth Mounting Holes (4x)	7 mm (0.28 in)
Net Weight	1.4 kg (3.1 lb)
Shipping Box	232 x 179 x 142 mm
(Single Carton Box)	(9.1 x 7.0 x 5.6 in)
Shipping Weight	1.65 kg (3.6 lb)
NET Air Volume filled by HF Horn	1.0 dm ³ (0,035 ft ³)

Sold only in combination with a FaitalPRO 1.4" HF Driver



NOTES





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