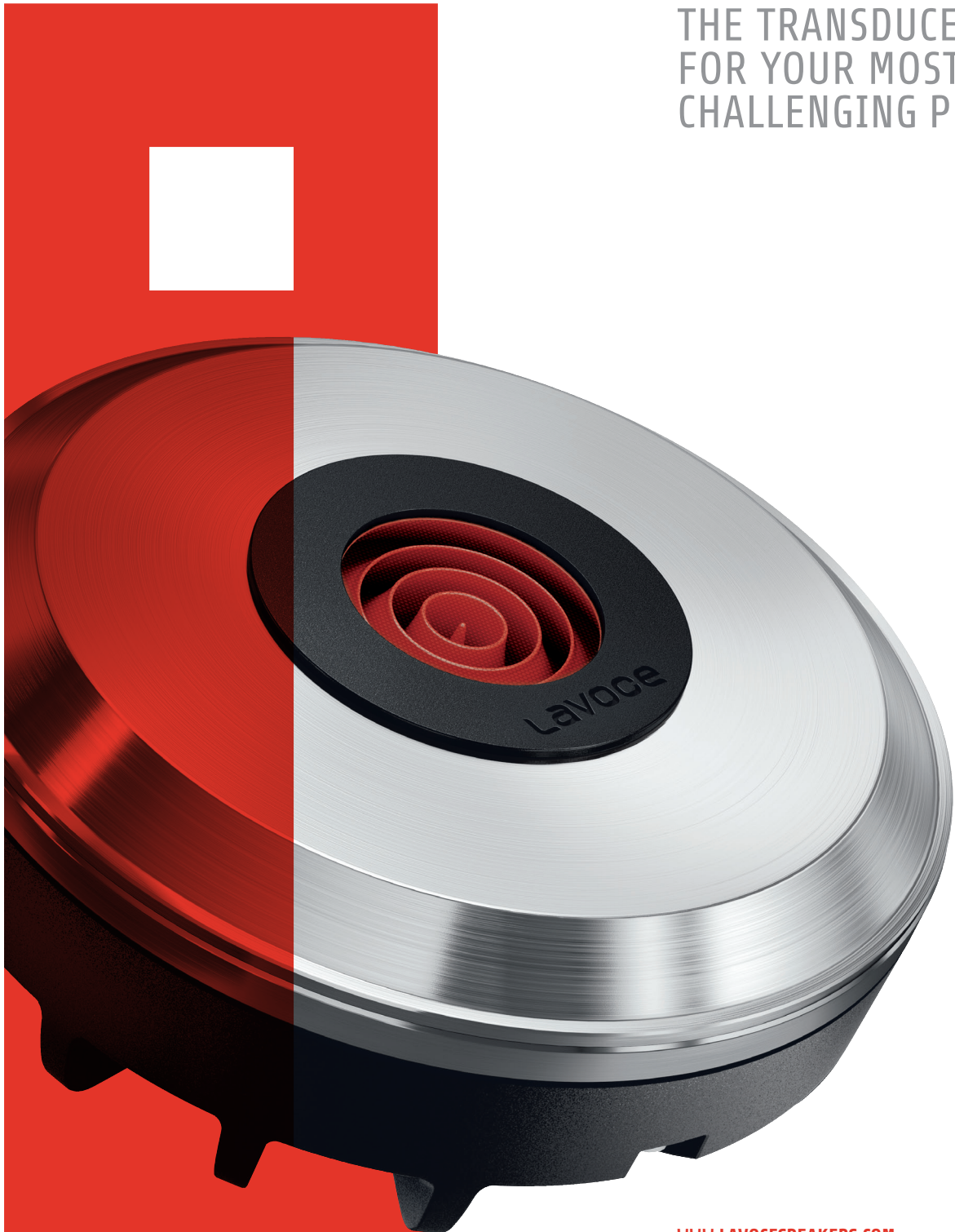


Lavoce

THE TRANSDUCER
FOR YOUR MOST
CHALLENGING PROJECTS



GENERAL CATALOGUE

2019

WWW.LAVOCESPEAKERS.COM



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Lavoce
I T A L I A N A

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PHILOSOPHY

WE BELIEVE THAT SOUND REPRODUCTION IS A REFINED MIX OF TECHNOLOGY AND ART, TO WHICH WE DEVOTE OUR PASSION AND PROFESSIONALISM, TO SATISFY THE REQUIREMENTS AND EXPECTATIONS OF OUR CUSTOMERS

Lavoce Italiana is a dynamic and fast-growing company specialized in **LF/HF transducer design and production for the pro audio market**. It was founded in 2008 by Elettromedia, a world reference in aftermarket car audio. Each of our products is a **masterpiece of electroacoustic excellence with reliability second to none**, coming from the 30 years' experience of our Italian R&D team and our passionate love for music.

We have built a **fully integrated design and manufacturing system** for transducers which sets us apart in the Industry: **our global and flexible organization** together with our modern **production facility** ensures the cost-effective edge and efficiency that is required to stay competitive in today's global economy.

YOUR GLOBAL PARTNER FOR TRANSDUCERS, FROM CONCEPT TO DELIVERY

With the same high level of professionalism used in creating our LAVOCE transducers, our engineering team works together with each Pro Audio partner for developing their tailor-made programs, from the ground up. **Lavoce Italiana is the one-stop source for OEM/ODM transducers:** flexibility in engineering, outstanding quality, cost-effective manufacturing, complete support and after-sales service on a global basis. We know what it takes to be a trusted partner.

OUR STRENGTHS AT A GLANCE

- Experienced Italian R&D team with outstanding technical know-how
- Innovation-driven culture
- 100% made in Italy electroacoustic excellence
- Superb and elegant Italian mechanical & aesthetical design
- Strictest standards and tools in testing and validation
- Modern and efficient production system with a carefully balanced level of automation
- Total Quality Management system
- Efficient logistics
- ISO 9001 Certification



INNOVATORS BY TRADITION

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R&D: INNOVATION IS IN OUR GENES!

LAVOCE transducers are based on our Italian technical excellence and our continuous research in sound quality, product reliability and consistency of electro-acoustic performances, combined with distinctive design elegance.

IN OEM/ODM SOLUTIONS WE ARE ABLE TO PRODUCE A SPEAKER TO THE EXACT DESIRABLE SPECIFICATIONS, THROUGH CUSTOMIZATION OF LAVOCE MODELS OR BY DEVELOPING UNIQUE PRODUCTS, TAILOR-MADE TO MEET OUR PARTNER'S NEEDS.

PRODUCT PLANNING

The Lavoce product planning team regularly reviews new products and trends from the pro-audio industry, in order to propose new and innovative products for our R&D and sales department to validate, and then approve for development. This careful process has delivered an enviable range of high-performance products which offers our customers creative solutions for their most demanding projects and inspiration for products that push the market forward.



DESIGN

Our Italian team of engineers boasts **over 30 years of experience** in HF and LF driver design and is constantly focused on innovation in every aspect, such as testing new raw materials, design geometries or production processes. Our **rigorous design validation process** is based on Finite Element Modeling techniques (FEM and FEA) and the use of 3D-CAD systems ensures an efficient development of the project.



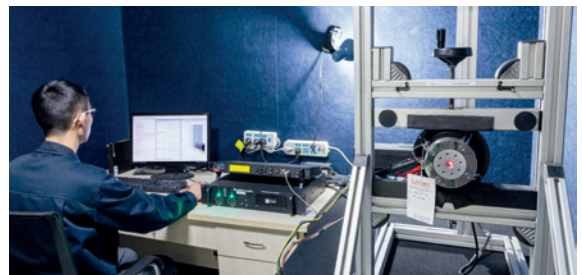
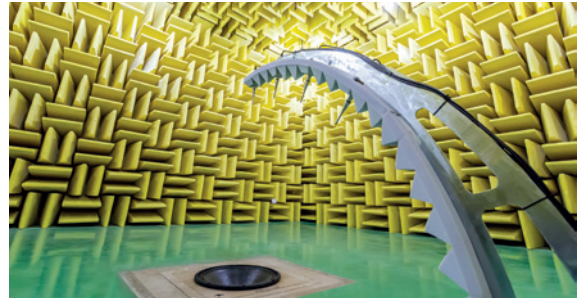
R&D: INNOVATION IS IN OUR GENES!

PROTOTYPING

We check prototypes using absolutely excellent tools, such as:

- **KLIPPEL R&D System** and **Distortion Analyzer**, to verify LPM and LSI parameters and frequency response, and to check and validate motor design, suspension geometries and voice coil position alignment.
- **Scanning Vibrometer**, to define and optimize the behavior of mobile parts.
- **Power Monitor 8**, to verify long term power handling, thermal dissipation and reliability.

Our anechoic room provides a reflection-free environment, ideal for precision measurement of the main transducer physical properties, frequency response and sound pressure level.



VALIDATION

All LAVOCE and OEM drivers are tested in our dedicated state-of-the-art validation department using Klippel R&D and are validated by performing an AES power test, and a continuous musical life test, in our fully automated and completely monitored power test container equipped with Klippel **Power Monitor 8**. Approved prototypes are then subjected to **listening tests** with our acoustic engineers and experienced audiophiles.

SAMPLING

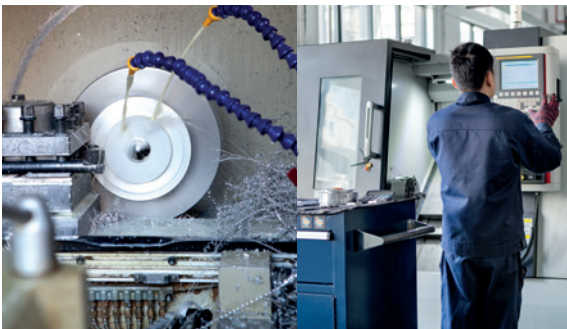
All samples are assembled with **finalized parts** to ensure the accuracy of our electro-acoustic measurements, life tests and power tests. Through specific equipment we perform **reliability tests** and **drop tests** both on the product and on the packaging.



MANUFACTURING

Lavoce Italiana production plant is located in Jiashan, China (one hour drive from Shanghai Pudong International Airport) and has over 200 employees trained and specialized in speaker assembly.

THE 31,000 SQM FACILITY WITH ITS MODERN PRODUCTION CAPABILITIES WAS ESTABLISHED IN 2008 AND IS ISO 9001 CERTIFIED.



PRE-PRODUCTION PROCESS

For each project we run a **three-step pre-production cycle** to identify any potential concern before the mass production process; verifying documentation, equipment, parts and procedures.

After quality inspections on all products for all pre-production batches, randomly selected speakers are also subjected to a series of stringent reliability tests, such as Salt Spray tests, Product Life tests and Thermal Shock tests. Once our technicians have given the pre-production batch the green light, we are 100% sure that a product is ready to go into final mass production.



PRODUCTION PROCESS

A wisely balanced automation in the production line maximizes the use of the most advanced machinery and technology, while enhancing the skilled work of our employees during phases that require manual procedures. This sensible combination guarantees maximum precision, care and quality of the final production. Each Lavoce Italiana production line is designed and dedicated to assembling specific types of transducers, such as woofers, compression drivers and soft dome tweeters.

Our manufacturing facilities are climate-controlled and adhesives are stored in a safety area with stable temperature and humidity. For achieving absolute control on critical assembly parameters and maximizing productivity, the production lines are equipped with state-of-the-art tools, such as high voltage magnetizers and automated 2D to 5D adhesives application machines, which are rigorously monitored and serviced. Our specialized compression driver membrane molding line, the automated woofer cone treatment process, and the stringent preparation procedures of our precise glue and adhesives formulas, are just another few examples of the excellence in our production process.



WAREHOUSE

Finished products are stored in our humidity controlled warehouse facilities.

Through radio frequency identification (RFID) and optical scanning system we obtain full product traceability, and efficient warehouse management with a FIFO system; optimizing operations and logistics, ensuring fast and accurate shipments, delivering a perfect service to our customers.



COMMITTED TO TOTAL QUALITY

Total Quality surrounds every process and the whole corporate culture, and our commitment is reflected in our ISO 9001 certification. It means ensuring our customers' complete satisfaction by guaranteeing Product Reliability, Consistent Performance and Excellent Sound, and by providing them with the second-to-none communication and co-operation experiences.

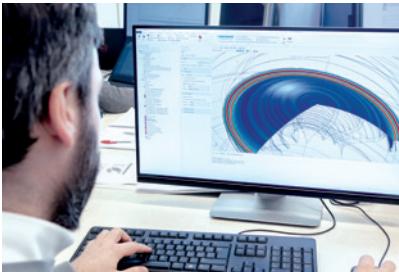
QUALITY IS BUILT INTO EVERY STAGE: FROM THE PLANNING, DESIGNING, ENGINEERING AND INSPECTION PROCESSES THAT VERIFY AND ENSURE THE OPTIMUM FINAL RESULTS.



COMMITTED TO TOTAL QUALITY

DESIGNING TOTAL QUALITY

We focus on quality from concept to delivery adopting a cross-functional perspective, also including project management, customer service, warranty, etc.



PRODUCING QUALITY

Besides scrupulous care in R&D, we thoroughly evaluate our suppliers compliance and implement quality measures and audits through all our internal processes.

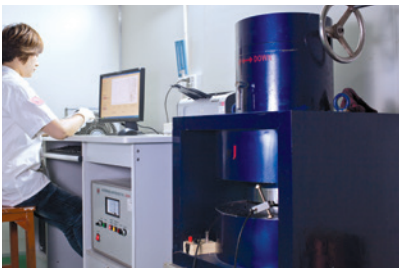


VALIDATING PRODUCTION QUALITY

In addition to preliminary strict analysis of critical aspects, we perform real-world tests on the drivers, spot-check and several other tests in the assembly phase.



KLIPPEL QUALITY CONTROL INSPECTION ENSURES 100% PEACE OF MIND WITH STRICT PROCESS CONTROL BEING PERFORMED IN ALL PRODUCTION PHASES. A WIDE RANGE OF TESTS ARE CARRIED OUT AS PART OF OUR QC PROGRAM, SUCH AS:



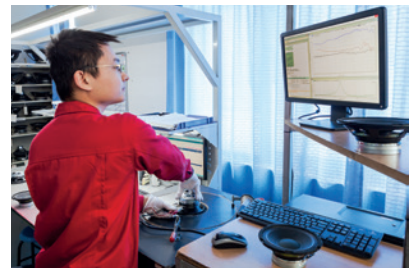
INCOMING QUALITY CONTROL

- Rigorous Supplier Control Plan
- Component RoHS Compliances
- Magnet Magnetic Field Measurements
- Spider Stiffness Measurements
- Surround Stiffness Measurements
- Salt Spray Test for mechanical parts
- VC winding thermal class
- Constant Temperature Test
- Humidity Test



IN-PROCESS QUALITY CONTROL

- Constant recording and analysis of all critical parameters
- Check of the adhesives by our team at every stage
- Sweep Test
- 100% Klippel QC for electro-acoustical and functional aspects, including voice coil displacement



FINISHED PRODUCT QUALITY CONTROL

- Klippel QC equipment, for electro-acoustical and functional aspects
- Mechanical Test
- Thermal Shock Test
- Product Life and Long Term Power Handling tests



NEODYMIUM LOW FREQUENCY TRANSDUCERS

FOR YOUR MOST CHALLENGING PROJECTS

Lavoce

Since 1999 the Lavoce Italiana engineering team have been working with Neodymium magnet material to produce high performance, compact and lightweight transducers. This experience has created a dynamic and stylish range of die-cast aluminium and pressed steel basket products (4" to 21"), designed for applications that require the best in optimized neo technology.

Our new flagship neodymium 21" and 18" subwoofers, SAN215.30 (2000 W AES, 5.3" VC, 97 dB) and SAN184.50 (1700 W AES, 4.5" VC, 98 dB), set out to push the boundaries of high power handling and sensitivity for larger voice coil designs, whilst our ultra-low distortion 10", WAN102.50LD (300W AES, 2.5" VC, 92dB), aims at setting a new reference in the Industry in terms of low THD level at low frequencies, continuing our commitment and tradition for innovation.

This premium design approach is applied to everything we do and is expressed in our Neodymium LF Transducers, developed using Finite Element Analysis (FEA) and placed through our own demanding testing and QC measurement standards.

FEATURES FOUND IN WAN, MAN AND SAN ALUMINIUM BASKET NEODYMIUM LF DRIVERS (6.5" TO 21"):

- **Lightweight and Powerful** neo motor structures
- **Optimised Cooling System** helps radiate heat away from the voice coil to aid power handling and lower power compression.
- **Inside/Outside Voice Coil** to optimise the thermal capacity of the voice coil and power handling of the product.
- **Waterproof Treated Cone Paper** to repel water and the impact of changing humidity conditions to the performance of the speaker.

SELECTED MODELS USE:

- **Aluminium Demodulating Ring** to reduce harmonic and intermodulation distortion.
- **Four Layer Inside/Outside Voice Coil** providing additional layers to further enhance the thermal capacity of the voice coil in some of our high-power subwoofers.
- **Double Silicon Spider** increases the mechanical performance of our LF drivers, providing consistent linearity through extreme excursion.
- **CCAW / CCAR** (Copper Clad Aluminium) voice coil wire is used when a lighter moving mass is required to enhance sensitivity.

FEATURES FOUND IN WSN AND SSN PRESSED STEEL BASKET NEODYMIUM LF DRIVERS (4" TO 15"):

- **Inside/Outside Voice Coil** used in the majority of products instead of conventional two-layer voice coils, to further enhance power handling and reliability.
- **Resonant Free Basket design** ensures there are no unwanted resonances coming from the basket.
- **Sleeve Protected Lead-Out Wire** to improve reliability and reduce the risk of erosion.
- **Proprietary Terminal Connection** for improved resistance to vibrations.

WWW.LAVOCESPEAKERS.COM



Lavoce Italiana

sales@lavocespeakers.com sales.cn@lavocespeakers.com

WSN041.00

Lavoce

4" WOOFER

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 1 INCH COPPER VOICE COIL
- 92 dB/SPL SENSITIVITY
- 80 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	100 (4)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,6
Program power (1)	W	80
AES Power rating (2)	W	40
Sensitivity (3)	dB	92
Frequency range	Hz	100 ÷ 10000
Voice coil diameter	mm (in.)	25 (1)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions	mm	65 x 32 x 4
OD x ID x h	(in.)	(2.56 x 1.26 x 0.16)
Coil material	Copper	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	4 (0.16)
Xmech (5)	mm (in.)	5,8 (0.23)
Gap height	mm (in.)	5 (0.2)
Voice coil winding height	mm (in.)	10,5 (0.41)
Driver displacement volume	l (ft ³)	0,13 (0.004)

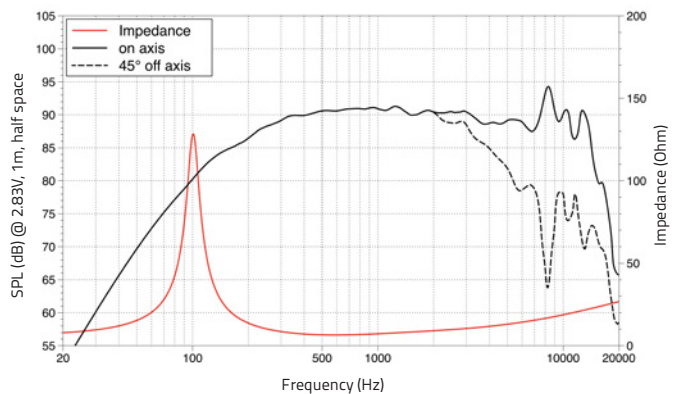
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,7
Resonance frequency	Fs	Hz	100
Moving mass	Mms	g (oz)	5,3 (0.19)
Compliance	Cms	mm/N	0,40
Force factor	BxL	N/A	7,9
Mechanical Q-factor	Qms		7,0
Electrical Q-factor	Qes		0,32
Total Q-factor	Qts		0,31
Equivalent air volume	Vas	l (ft ³)	1,7 (0.06)
Voice coil Inductance	Le	mH	0,27
Diaphragm area	Sd	cm ² (in. ²)	54 (8.37)
Reference efficiency	Eta 0	%	0,62

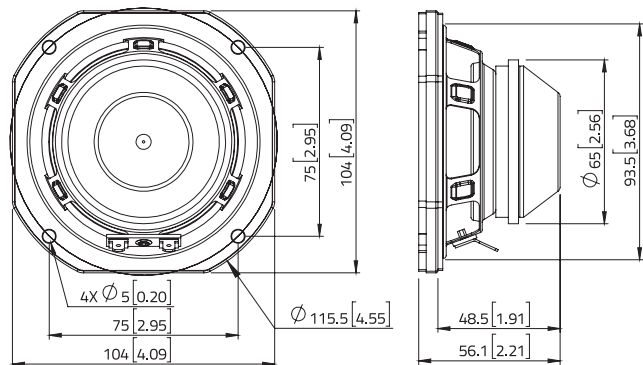
SHIPPING INFORMATION

Net weight	kg (lb.)	0,5 (1.1)
Multipack size (18)	mm	385 x 340 x 149
W x D x H	(in.)	(15.2 x 13.4 x 5.9)
Multipack weight	kg (lb.)	11 (24.3)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WSN061.52

Lavoce

6.5" WOOFER

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 1.5 INCH COPPER VOICE COIL
- 94 dB/SPL SENSITIVITY
- 200 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	165 (6.5)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,2
Program power (1)	W	200
AES Power rating (2)	W	100
Sensitivity (3)	dB	94
Frequency range	Hz	90 ÷ 6000
Voice coil diameter	mm (in.)	38 (1.5)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions	mm	75 x 45 x 4
OD x ID x h	(in.)	(2.95 x 1.77 x 0.16)
Coil material	Copper	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	3,8 (0.16)
Xmech (5)	mm (in.)	6,3 (0.25)
Gap height	mm (in.)	6 (0.24)
Voice coil winding height	mm (in.)	10,6 (0.42)
Driver displacement volume	l (ft ³)	0,3 (0.01)

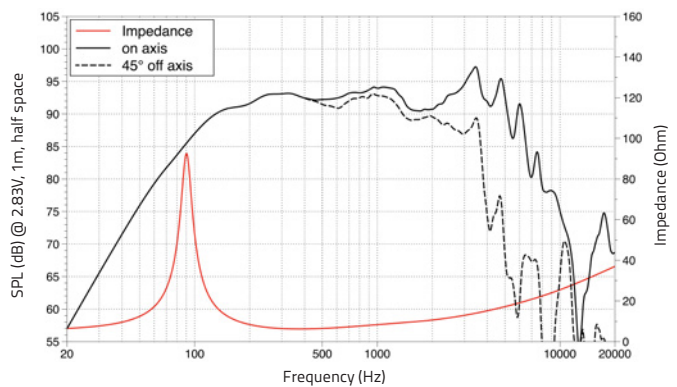
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,4
Resonance frequency	Fs	Hz	90
Moving mass	Mms	g (oz)	13,4 (0.47)
Compliance	Cms	mm/N	0,23
Force factor	BxL	N/A	9,7
Mechanical Q-factor	Qms		7,2
Electrical Q-factor	Qes		0,45
Total Q-factor	Qts		0,42
Equivalent air volume	Vas	l (ft ³)	6,7 (0.24)
Voice coil Inductance	Le	mH	0,4
Diaphragm area	Sd	cm ² (in. ²)	143 (22.17)
Reference efficiency	Eta 0	%	1

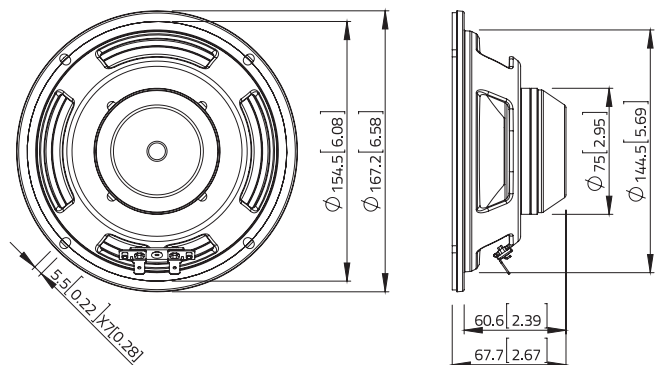
SHIPPING INFORMATION

Net weight	kg (lb.)	0,9 (2)
Multipack size (8)	mm	410 x 370 x 208
W x D x H	(in.)	(16.1 x 14.6 x 8.2)
Multipack weight	kg (lb.)	9,9 (21.9)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



MAN061.80

Lavoce

6.5" MIDRANGE

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 1.8 INCH CCAW VOICE COIL
- 95,5 dB/SPL SENSITIVITY
- 300 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- COPPER RING FOR EXTENDED FREQUENCY RESPONSE
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	165 (6.5)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,6
Program power (1)	W	300
AES Power rating (2)	W	150
Sensitivity (3)	dB	95,5
Frequency range	Hz	170 ÷ 6000
Voice coil diameter	mm (in.)	45 (1.8)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	85 x 55 x 7 (3.35 x 2.2 x 0.28)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	3 (0.12)
Xmech (5)	mm (in.)	5,5 (0.22)
Gap height	mm (in.)	6 (0.24)
Voice coil winding height	mm (in.)	9 (0.35)
Driver displacement volume	l (ft ³)	0,4 (0.01)

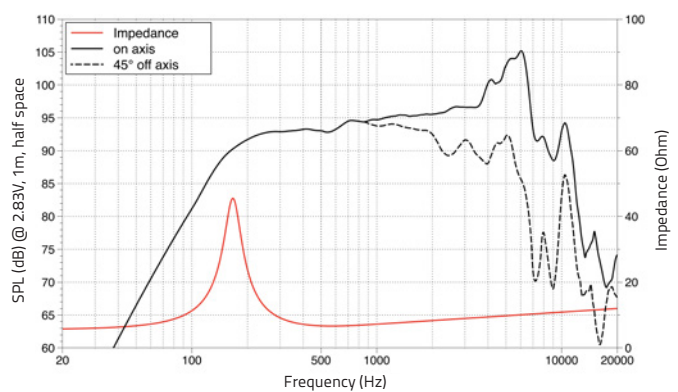
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	170
Moving mass	Mms	g (oz)	13 (0.46)
Compliance	Cms	mm/N	0,07
Force factor	BxL	N/A	11,0
Mechanical Q-factor	Qms		4,5
Electrical Q-factor	Qes		0,60
Total Q-factor	Qts		0,54
Equivalent air volume	Vas	l (ft ³)	2 (0.07)
Voice coil Inductance	Le	mH	0,08
Diaphragm area	Sd	cm ² (in. ²)	137 (21.24)
Reference efficiency	Eta 0	%	1,50

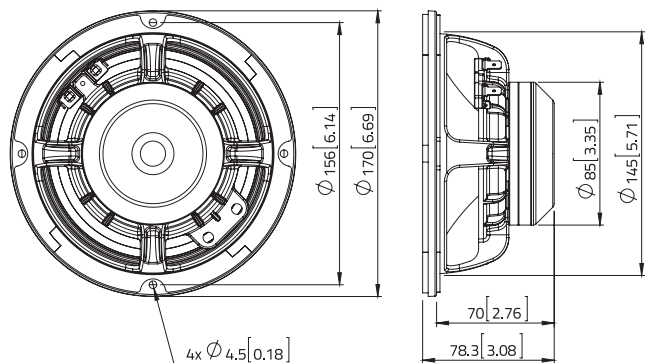
SHIPPING INFORMATION

Net weight	kg (lb.)	1,2 (2.5)
Multipack size (8)	mm (in.)	410 x 370 x 208 (16.1 x 14.6 x 8.2)
Multipack weight	kg (lb.)	12,8 (28.2)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



MAN062.00

Lavoce

6.5" MIDRANGE

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 2 INCH CCAW VOICE COIL
- 98 dB/SPL SENSITIVITY
- 500 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	165 (6.5)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,7
Program power (1)	W	500
AES Power rating (2)	W	250
Sensitivity (3)	dB	98
Frequency range	Hz	100 ÷ 4000
Voice coil diameter	mm (in.)	51 (2)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	50 x 9 + 48 x 5 (1.97 x 0.35 + 1.89 x 0.2)
Coil material	CCA W	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	3,9 (0.15)
Xmech (5)	mm (in.)	6,4 (0.25)
Gap height	mm (in.)	6 (0.24)
Voice coil winding height	mm (in.)	10,8 (0.43)
Driver displacement volume	l (ft ³)	0,423 (0.015)

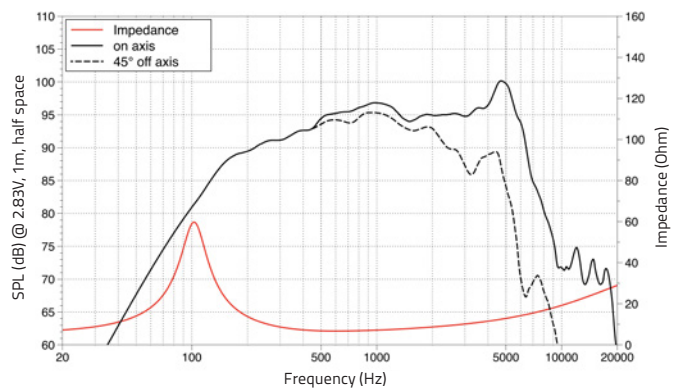
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,7
Resonance frequency	Fs	Hz	105
Moving mass	Mms	g (oz)	14,4 (0,51)
Compliance	Cms	mm/N	0,16
Force factor	BxL	N/A	12,8
Mechanical Q-factor	Qms		3,12
Electrical Q-factor	Qes		0,33
Total Q-factor	Qts		0,3
Equivalent air volume	Vas	l (ft ³)	3,7 (0.13)
Voice coil Inductance	Le	mH	0,32
Diaphragm area	Sd	cm ² (in. ²)	129 (19.95)
Reference efficiency	Eta 0	%	1,26

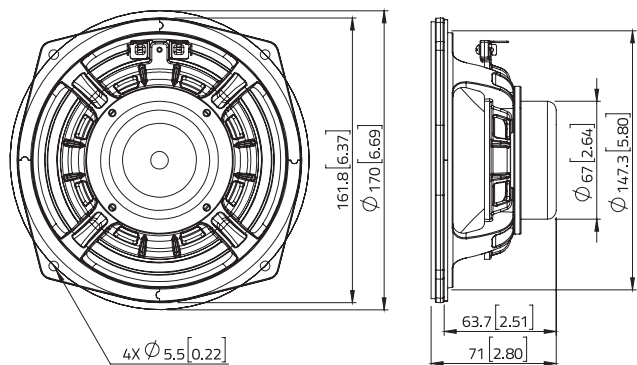
SHIPPING INFORMATION

Net weight	kg (lb.)	0,9 (2.03)
Multipack size (8)	mm (in.)	374 x 374 x 191 (14.7 x 13.6 x 7.5)
Multipack weight	kg (lb.)	11 (24.3)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WAN082.00

Lavoce

8" WOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 2 INCH CCAW VOICE COIL
- 94,5 dB/SPL SENSITIVITY
- 400 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- COPPER RING FOR EXTENDED FREQUENCY RESPONSE
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	200 (8)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,1
Program power (1)	W	400
AES Power rating (2)	W	200
Sensitivity (3)	dB	94,5
Frequency range	Hz	80 ÷ 3000
Voice coil diameter	mm (in.)	51 (2)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	51 x 9 (2 x 0.35)
Coil material	CCA W	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	6,4 (0.25)
Xmech (5)	mm (in.)	10,5 (0.41)
Gap height	mm (in.)	8,2 (0.32)
Voice coil winding height	mm (in.)	16,8 (0.66)
Driver displacement volume	l (ft ³)	0,6 (0.021)

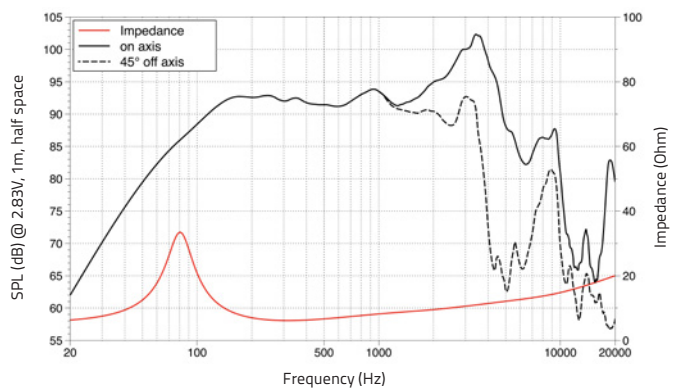
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,3
Resonance frequency	Fs	Hz	82
Moving mass	Mms	g (oz)	23,3 (0.82)
Compliance	Cms	mm/N	0,16
Force factor	BxL	N/A	10,5
Mechanical Q-factor	Qms		3
Electrical Q-factor	Qes		0,57
Total Q-factor	Qts		0,48
Equivalent air volume	Vas	l (ft ³)	11,5 (0.41)
Voice coil Inductance	Le	mH	0,26
Diaphragm area	Sd	cm ² (in. ²)	227 (35.2)
Reference efficiency	Eta 0	%	1,1

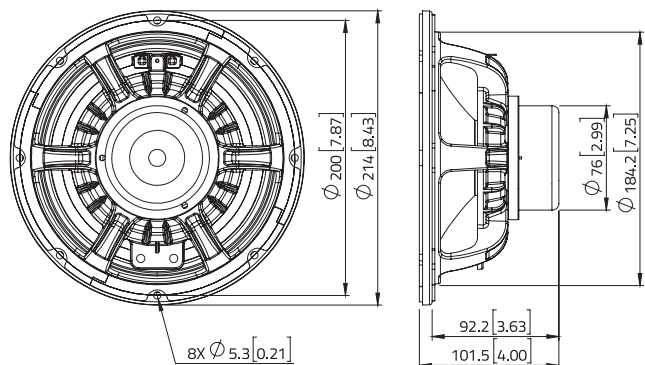
SHIPPING INFORMATION

Net weight	kg (lb.)	2,4 (5.3)
Multipack size (1)	mm (in.)	260 x 260 x 137 (10.2 x 10.2 x 5.4)
Multipack weight	kg (lb.)	3,1 (6.9)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WAN082.01

Lavoce

8" WOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 2 INCH CCAW VOICE COIL
- 96 dB/SPL SENSITIVITY
- 400 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	200 (8)
Nominal impedance	Ω	8
Minimum impedance	Ω	6
Program power (1)	W	400
AES Power rating (2)	W	200
Sensitivity (3)	dB	96
Frequency range	Hz	80 ÷ 5000
Voice coil diameter	mm (in.)	51 (2)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	102 x 60 x 7 (4.02 x 2.36 x 0.28)
Coil material	CCAW	
Former material	Kapton	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	6,1 (0.24)
Xmech (5)	mm (in.)	10,1 (0.4)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	16,2 (0.64)
Driver displacement volume	l (ft ³)	0,645 (0.023)

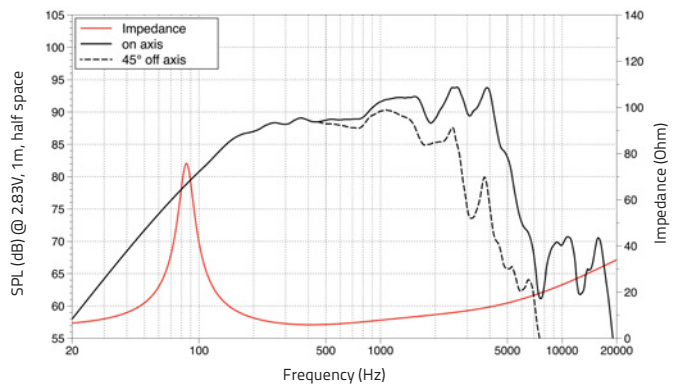
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,1
Resonance frequency	Fs	Hz	85
Moving mass	Mms	g (oz)	26,4 (0.93)
Compliance	Cms	mm/N	0,13
Force factor	BxL	N/A	14,4
Mechanical Q-factor	Qms		4,8
Electrical Q-factor	Qes		0,34
Total Q-factor	Qts		0,32
Equivalent air volume	Vas	l (ft ³)	9 (0.32)
Voice coil Inductance	Le	mH	0,36
Diaphragm area	Sd	cm ² (in. ²)	220 (34.1)
Reference efficiency	Eta 0	%	1,55

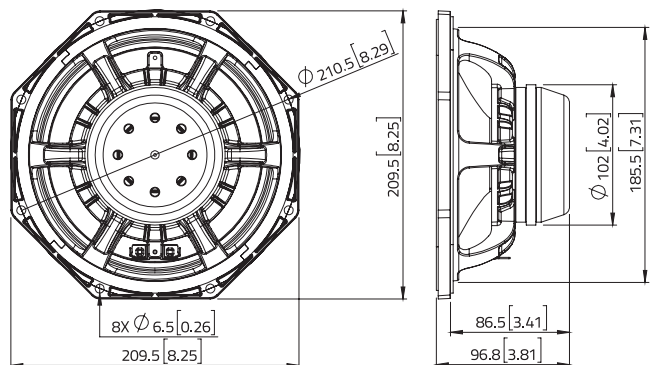
SHIPPING INFORMATION

Net weight	kg (lb.)	2,3 (5.1)
Multipack size (1)	mm (in.)	260 x 260 x 137 (10.2 x 10.2 x 5.4)
Multipack weight	kg (lb.)	2,9 (6.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice. C.a



WAN082.50

Lavoce

8" WOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 2,5 INCH COPPER VOICE COIL
- 94 dB/SPL SENSITIVITY
- 500 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	200 (8)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,8
Program power (1)	W	500
AES Power rating (2)	W	250
Sensitivity (3)	dB	94
Frequency range	Hz	75 ÷ 2000
Voice coil diameter	mm (in.)	65 (2.5)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	62 x 15 x 10 (2.44 x 0.59 x 0.39)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,1 (0.16)
Xmech (5)	mm (in.)	9,6 (0.38)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	13,1 (0.52)
Driver displacement volume	l (ft ³)	0,6 (0.02)

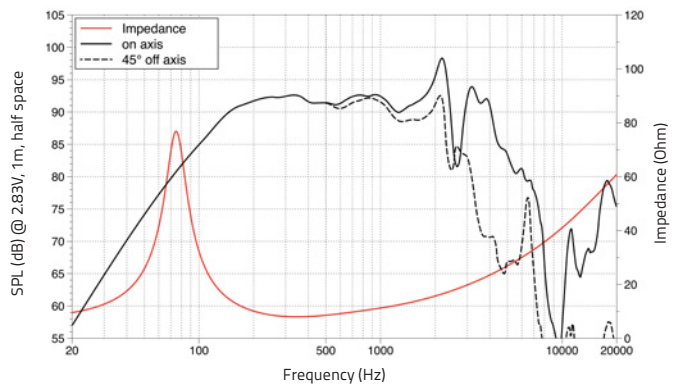
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	6,8
Resonance frequency	Fs	Hz	75
Moving mass	Mms	g (oz)	30 (1.06)
Compliance	Cms	mm/N	0,14
Force factor	BxL	N/A	16,4
Mechanical Q-factor	Qms		3,7
Electrical Q-factor	Qes		0,36
Total Q-factor	Qts		0,33
Equivalent air volume	Vas	l (ft ³)	10 (0.35)
Voice coil Inductance	Le	mH	0,8
Diaphragm area	Sd	cm ² (in. ²)	227 (35.2)
Reference efficiency	Eta 0	%	1,2

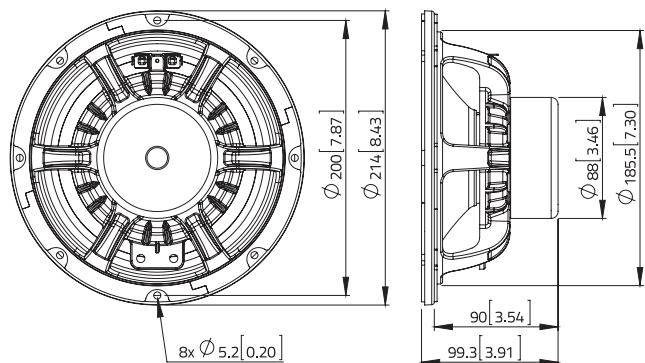
SHIPPING INFORMATION

Net weight	kg (lb.)	1,9 (4.1)
Multipack size (1)	mm (in.)	260 x 260 x 137 (10.2 x 10.2 x 5.4)
Multipack weight	kg (lb.)	2,6 (5.7)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WSN102.00

Lavoce

10" WOOFER

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 2 INCH CCAW VOICE COIL
- 97 dB/SPL SENSITIVITY
- 300 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,5
Program power (1)	W	300
AES Power rating (2)	W	150
Sensitivity (3)	dB	97
Frequency range	Hz	60 ÷ 4000
Voice coil diameter	mm (in.)	51 (2)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	51 x 9 (2 x 0.35)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	5,3 (0.21)
Xmech (5)	mm (in.)	9,4 (0.37)
Gap height	mm (in.)	8,2 (0.32)
Voice coil winding height	mm (in.)	14,6 (0.57)
Driver displacement volume	l (ft ³)	0,9 (0.03)

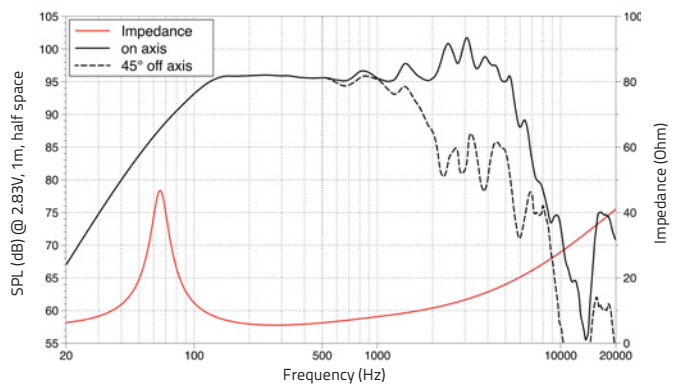
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5
Resonance frequency	Fs	Hz	65
Moving mass	Mms	g (oz)	30 (1.06)
Compliance	Cms	mm/N	0,20
Force factor	BxL	N/A	11,1
Mechanical Q-factor	Qms		4,3
Electrical Q-factor	Qes		0,52
Total Q-factor	Qts		0,46
Equivalent air volume	Vas	l (ft ³)	36 (1.3)
Voice coil Inductance	Le	mH	0,52
Diaphragm area	Sd	cm ² (in. ²)	363 (56.27)
Reference efficiency	Eta 0	%	1,9

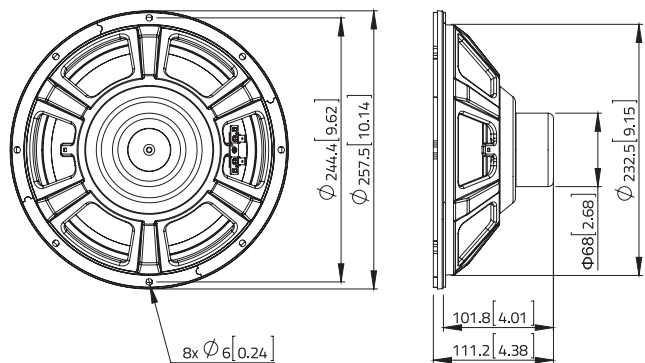
SHIPPING INFORMATION

Net weight	kg (lb.)	1,3 (2.9)
Multipack size (1)	mm (in.)	300 x 300 x 148 (11.8 x 11.8 x 5.8)
Multipack weight	kg (lb.)	2,3 (5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WSN102.50

Lavoce

10" WOOFER

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 2.5 INCH CCAW VOICE COIL
- 96 dB/SPL SENSITIVITY
- 600 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	6
Program power (1)	W	600
AES Power rating (2)	W	300
Sensitivity (3)	dB	96
Frequency range	Hz	75 ÷ 3000
Voice coil diameter	mm (in.)	65 (2.5)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	63 x 10 (2.48 x 0.39)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	3.1 (0.12)
Xmech (5)	mm (in.)	10.9 (0.43)
Gap height	mm (in.)	13 (0.51)
Voice coil winding height	mm (in.)	12.7 (0.5)
Driver displacement volume	l (ft ³)	1.1 (0.04)

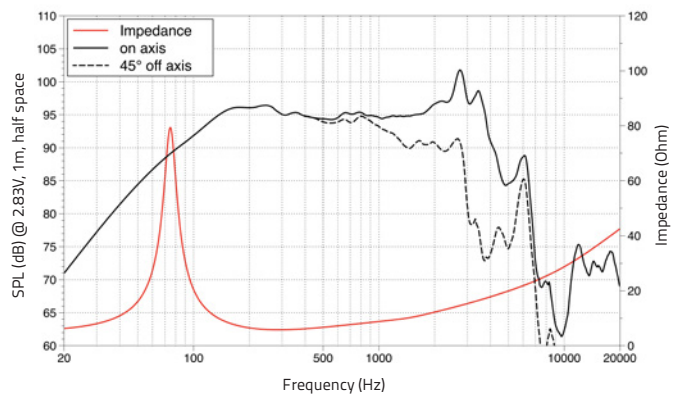
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	4,8
Resonance frequency	Fs	Hz	75
Moving mass	Mms	g (oz)	36 (1.27)
Compliance	Cms	mm/N	0,12
Force factor	BxL	N/A	14,0
Mechanical Q-factor	Qms		4,8
Electrical Q-factor	Qes		0,43
Total Q-factor	Qts		0,39
Equivalent air volume	Vas	l (ft ³)	22 (0.78)
Voice coil Inductance	Le	mH	0,6
Diaphragm area	Sd	cm ² (in. ²)	356 (55.18)
Reference efficiency	Eta 0	%	2,19

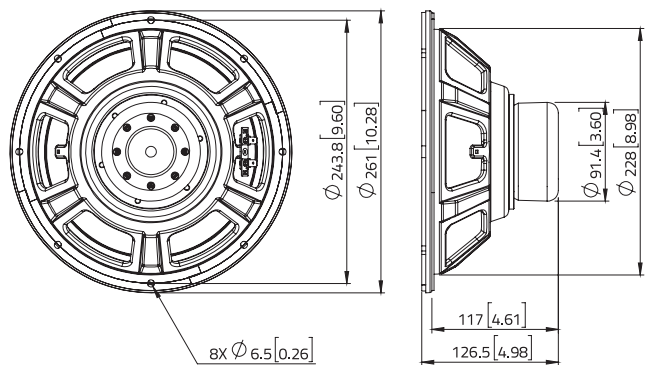
SHIPPING INFORMATION

Net weight	kg (lb.)	2,8 (6.2)
Multipack size (1)	mm (in.)	300 x 300 x 158 (11.8 x 11.8 x 6.2)
Multipack weight	kg (lb.)	3,8 (8.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WAN102.50

Lavoce

10" WOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 2.5 INCH CCAW VOICE COIL
- 97 dB/SPL SENSITIVITY
- 600 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,8
Program power (1)	W	600
AES Power rating (2)	W	300
Sensitivity (3)	dB	97
Frequency range	Hz	80 ÷ 4000
Voice coil diameter	mm (in.)	65 (2.5)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	64 x 8 (2.52 x 0.31)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	5,1 (0.2)
Xmech (5)	mm (in.)	9,1 (0.36)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	14,2 (0.56)
Driver displacement volume	l (ft ³)	1,2 (0.04)

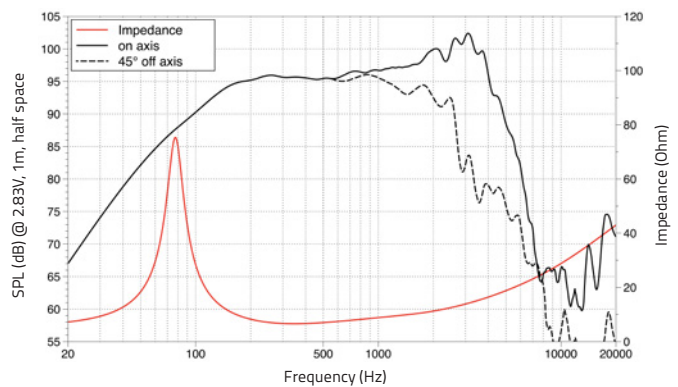
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,6
Resonance frequency	Fs	Hz	77
Moving mass	Mms	g (oz)	32,6 (1.15)
Compliance	Cms	mm/N	0,13
Force factor	BxL	N/A	15,3
Mechanical Q-factor	Qms		4,7
Electrical Q-factor	Qes		0,38
Total Q-factor	Qts		0,35
Equivalent air volume	Vas	l (ft ³)	21,5 (0.76)
Voice coil Inductance	Le	mH	0,50
Diaphragm area	Sd	cm ² (in. ²)	343 (53.17)
Reference efficiency	Eta 0	%	2,5

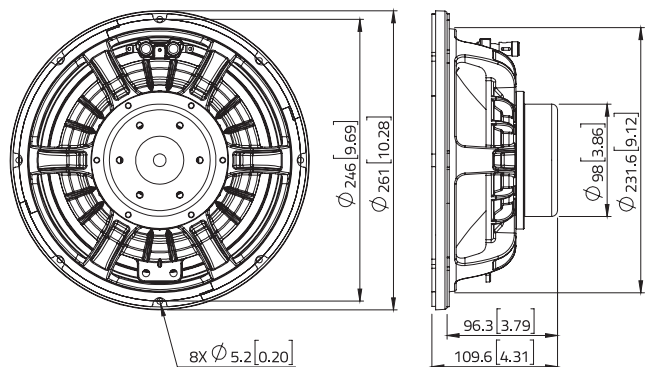
SHIPPING INFORMATION

Net weight	kg (lb.)	2,8 (6.2)
Multipack size (1)	mm (in.)	300 x 300 x 148 (11.8 x 11.8 x 5.8)
Multipack weight	kg (lb.)	3,7 (8.1)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAN102.50LD

Lavoce

10" WOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 2.5 INCH COPPER VOICE COIL
- 92 dB/SPL SENSITIVITY
- 600 WATT PROGRAM POWER HANDLING
- ULTRA LOW DISTORTION DESIGN
- OPTIMIZED COOLING SYSTEM
- ALUMINIUM DEMODULATING RING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	8,3
Program power (1)	W	600
AES Power rating (2)	W	300
Sensitivity (3)	dB	92
Frequency range	Hz	50 ÷ 4000
Voice coil diameter	mm (in.)	65 (2.5)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	120 x 78 x 10 (4.72 x 3.07 x 0.39)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	9,25 (0,36)
Xmech (5)	mm (in.)	15,5 (0,61)
Gap height	mm (in.)	11 (0,43)
Voice coil winding height	mm (in.)	24 (0,94)
Driver displacement volume	l (ft ³)	1,2 (0,04)

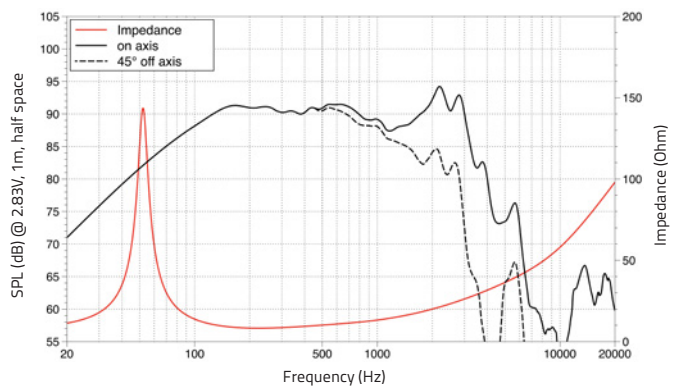
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	7,2
Resonance frequency	Fs	Hz	52
Moving mass	Mms	g (oz)	67,5 (2.38)
Compliance	Cms	mm/N	0,13
Force factor	BxL	N/A	19,6
Mechanical Q-factor	Qms		7,8
Electrical Q-factor	Qes		0,41
Total Q-factor	Qts		0,39
Equivalent air volume	Vas	l (ft ³)	23 (0.8)
Voice coil Inductance	Le	mH	1,27
Diaphragm area	Sd	cm ² (in. ²)	343 (53.17)
Reference efficiency	Eta 0	%	0,7

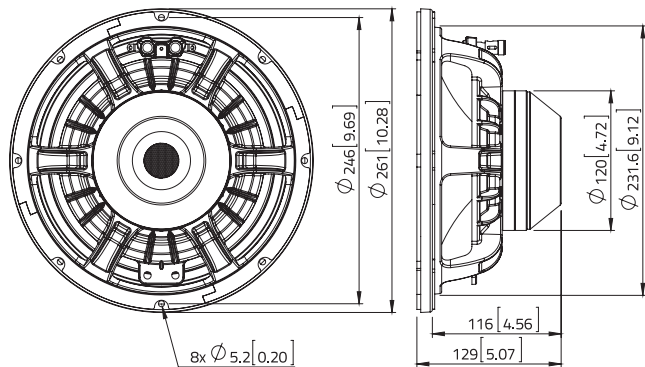
SHIPPING INFORMATION

Net weight	kg (lb.)	3,9 (8.8)
Multipack size (1)	mm (in.)	293 x 293 x 163 (11.5 x 11.5 x 6.4)
Multipack weight	kg (lb.)	4,7 (10.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WAN103.00

Lavoce

10" WOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 3 INCH COPPER VOICE COIL
- 93 dB/SPL SENSITIVITY
- 900 WATT PROGRAM POWER HANDLING
- 29,6 mm (1.2 INCH) PEAK TO PEAK MAXIMUM EXCURSION
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	8,2
Program power (1)	W	900
AES Power rating (2)	W	450
Sensitivity (3)	dB	93
Frequency range	Hz	50 ÷ 1500
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	75 x 20 x 10 (3 x 0.8 x 0.4)
Coil material	Copper	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	9,6 (0.38)
Xmech (5)	mm (in.)	14,8 (0.58)
Gap height	mm (in.)	9,5 (0.37)
Voice coil winding height	mm (in.)	24 (0.94)
Driver displacement volume	l (ft ³)	1,6 (0.06)

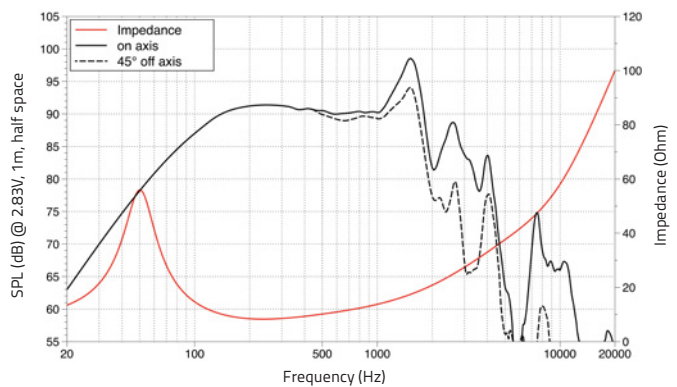
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	7,1
Resonance frequency	Fs	Hz	48
Moving mass	Mms	g (oz)	68,6 (2.42)
Compliance	Cms	mm/N	0,16
Force factor	BxL	N/A	19,7
Mechanical Q-factor	Qms		4,5
Electrical Q-factor	Qes		0,37
Total Q-factor	Qts		0,35
Equivalent air volume	Vas	l (ft ³)	26 (0.92)
Voice coil Inductance	Le	mH	1,4
Diaphragm area	Sd	cm ² (in. ²)	343 (53.17)
Reference efficiency	Eta 0	%	0,7

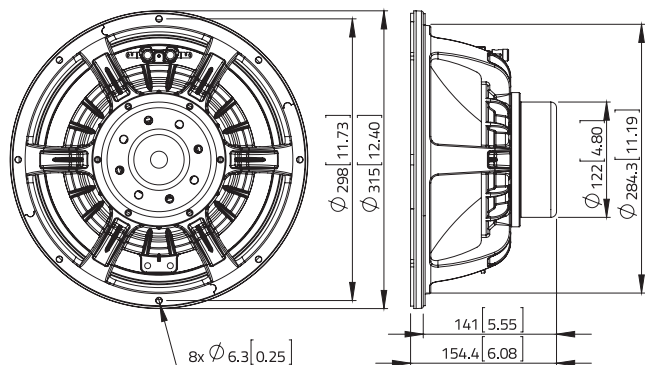
SHIPPING INFORMATION

Net weight	kg (lb.)	3,8 (8.3)
Multipack size (1)	mm (in.)	300 x 300 x 153 (11.8 x 11.8 x 6)
Multipack weight	kg (lb.)	4,7 (10.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAN103.01

Lavoce

10" WOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 3 INCH CCAW VOICE COIL
- 98 dB/SPL SENSITIVITY
- 900 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,3
Program power (1)	W	900
AES Power rating (2)	W	450
Sensitivity (3)	dB	98
Frequency range	Hz	70 ÷ 3500
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	120 x 80 x 10 (4.72 x 3.15 x 0.39)
Coil material	CCAW	
Former material	Kapton	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	5 (0.2)
Xmech (5)	mm (in.)	10,1 (0.4)
Gap height	mm (in.)	9,5 (0.37)
Voice coil winding height	mm (in.)	14,7 (0.58)
Driver displacement volume	l (ft ³)	1,6 (0.06)

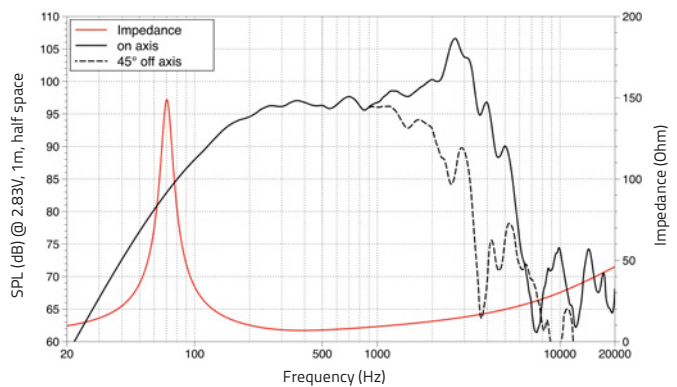
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	70
Moving mass	Mms	g (oz)	40 (1.41)
Compliance	Cms	mm/N	0,12
Force factor	BxL	N/A	20,6
Mechanical Q-factor	Qms		6
Electrical Q-factor	Qes		0,23
Total Q-factor	Qts		0,22
Equivalent air volume	Vas	l (ft ³)	22 (0.78)
Voice coil Inductance	Le	mH	0,7
Diaphragm area	Sd	cm ² (in. ²)	343 (53.17)
Reference efficiency	Eta 0	%	3,2

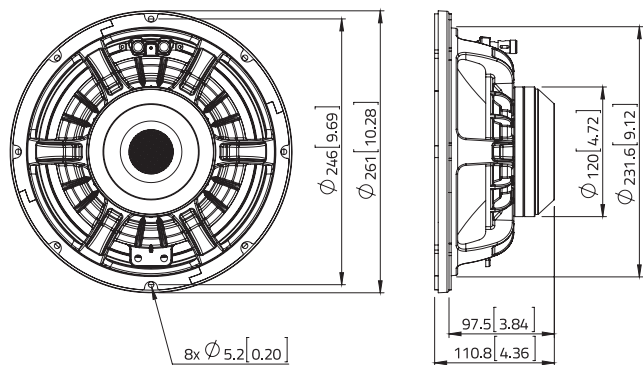
SHIPPING INFORMATION

Net weight	kg (lb.)	3,1 (6.8)
Multipack size (1)	mm (in.)	293 x 293 x 145 (11.5 x 11.5 x 5.7)
Multipack weight	kg (lb.)	3,8 (8.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WSN122.50

Lavoce

12" WOOFER

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 2.5 INCH COPPER VOICE COIL
- 98 dB/SPL SENSITIVITY
- 500 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,4
Program power (1)	W	500
AES Power rating (2)	W	250
Sensitivity (3)	dB	98
Frequency range	Hz	50 ÷ 3000
Voice coil diameter	mm (in.)	65 (2,5)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	64 x 8 (2.5 x 0.3)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,7 (0.18)
Xmech (5)	mm (in.)	8,8 (0.35)
Gap height	mm (in.)	8,2 (0.32)
Voice coil winding height	mm (in.)	13,4 (0.53)
Driver displacement volume	l (ft ³)	1,6 (0.06)

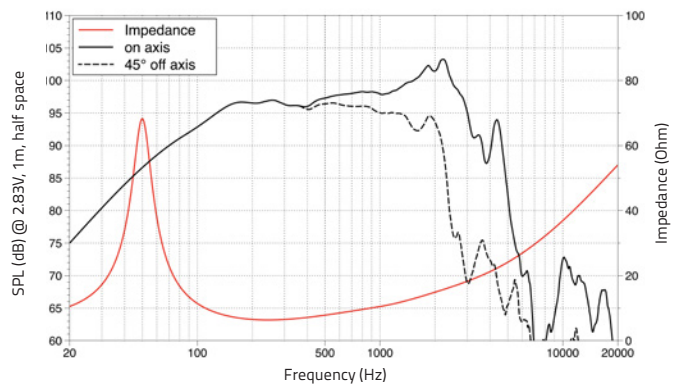
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,7
Resonance frequency	Fs	Hz	50
Moving mass	Mms	g (oz)	52,3 (1.84)
Compliance	Cms	mm/N	0,17
Force factor	BxL	N/A	15,8
Mechanical Q-factor	Qms		4,3
Electrical Q-factor	Qes		0,39
Total Q-factor	Qts		0,36
Equivalent air volume	Vas	l (ft ³)	70 (2.47)
Voice coil Inductance	Le	mH	0,80
Diaphragm area	Sd	cm ² (in. ²)	531 (82.31)
Reference efficiency	Eta 0	%	2,50

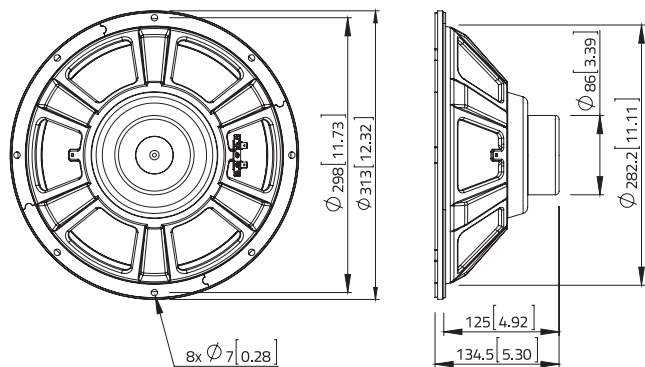
SHIPPING INFORMATION

Net weight	kg (lb.)	2,1 (4.6)
Multipack size (1)	mm (in.)	364 x 364 x 186 (14.3 x 14.3 x 7.3)
Multipack weight	kg (lb.)	3,4 (7.6)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAN123.00

Lavoce

12" WOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 3 INCH CCAW VOICE COIL
- 99 dB/SPL SENSITIVITY
- 1000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,7
Program power (1)	W	1000
AES Power rating (2)	W	500
Sensitivity (3)	dB	99
Frequency range	Hz	50 ÷ 3000
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	75 x 10 (2.95 x 0.4)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	7 (0.28)
Xmech (5)	mm (in.)	12,5 (0.49)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	19 (0.75)
Driver displacement volume	l (ft ³)	2,4 (0.08)

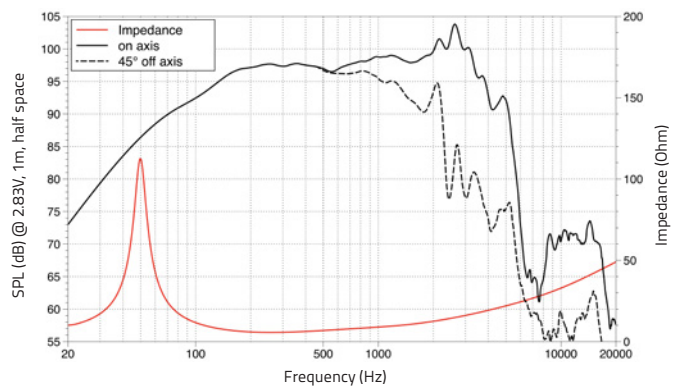
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	4,8
Resonance frequency	Fs	Hz	48
Moving mass	Mms	g (oz)	61 (2.15)
Compliance	Cms	mm/N	0,17
Force factor	BxL	N/A	17,8
Mechanical Q-factor	Qms		6,2
Electrical Q-factor	Qes		0,28
Total Q-factor	Qts		0,26
Equivalent air volume	Vas	l (ft ³)	73 (2.58)
Voice coil Inductance	Le	mH	0,7
Diaphragm area	Sd	cm ² (in. ²)	531 (82.31)
Reference efficiency	Eta 0	%	2,8

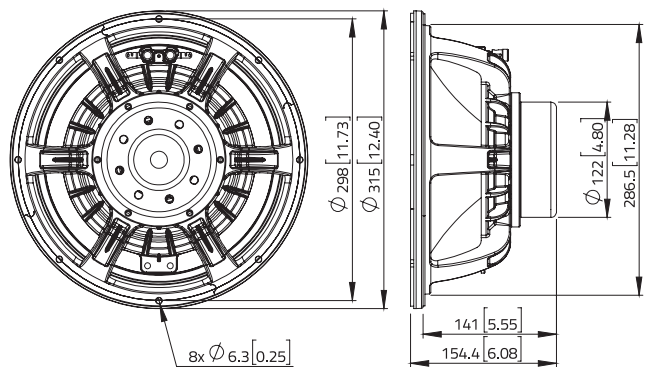
SHIPPING INFORMATION

Net weight	kg (lb.)	5,2 (11.4)
Multipack size (1)	mm (in.)	356 x 356 x 192 (14 x 14 x 7.6)
Multipack weight	kg (lb.)	6,8 (15)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WAN124.01

Lavoce

12" WOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH COPPER VOICE COIL
- 96 dB/SPL SENSITIVITY
- 2000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- ALUMINIUM DEMODULATING RING
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,3
Program power (1)	W	2000
AES Power rating (2)	W	1000
Sensitivity (3)	dB	96
Frequency range	Hz	40 ÷ 2000
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	97 x 31 x 9 (3.82 x 1.22 x 0.35)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	8,5 (0.33)
Xmech (5)	mm (in.)	17 (0.67)
Gap height	mm (in.)	14 (0.55)
Voice coil winding height	mm (in.)	24 (0.94)
Driver displacement volume	l (ft ³)	2,5 (0.09)

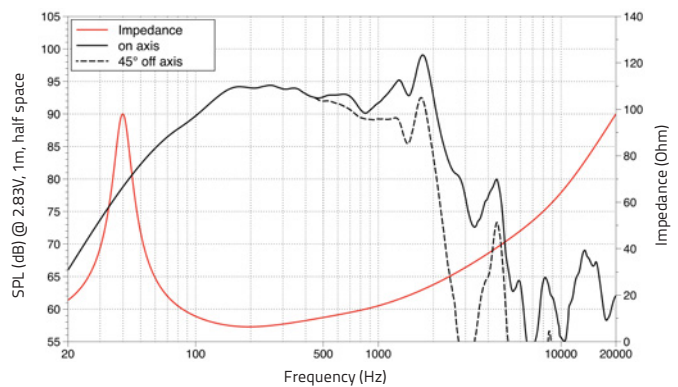
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5
Resonance frequency	Fs	Hz	40
Moving mass	Mms	g (oz)	122 (4.3)
Compliance	Cms	mm/N	0,12
Force factor	BxL	N/A	26,8
Mechanical Q-factor	Qms		4
Electrical Q-factor	Qes		0,22
Total Q-factor	Qts		0,21
Equivalent air volume	Vas	l (ft ³)	51 (1.8)
Voice coil Inductance	Le	mH	1,7
Diaphragm area	Sd	cm ² (in. ²)	540 (83.7)
Reference efficiency	Eta 0	%	1,5

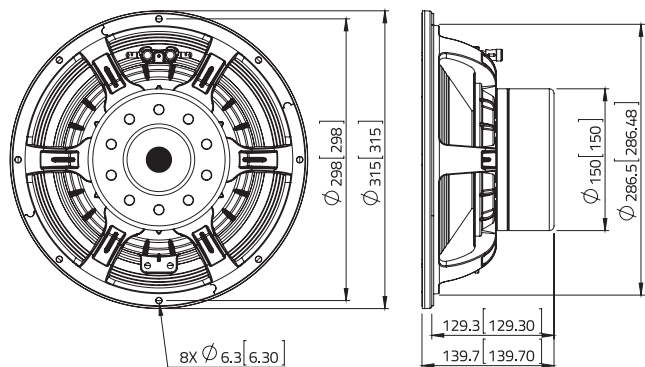
SHIPPING INFORMATION

Net weight	kg (lb.)	7,5 (16,5)
Multipack size (1)	mm (in.)	356 x 356 x 192 (14 x 14 x 7.6)
Multipack weight	kg (lb.)	8,8 (19.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WSN152.50

Lavoce

15" WOOFER

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 2.5 INCH COPPER VOICE COIL
- 97,5 dB/SPL SENSITIVITY
- 500 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	6
Program power (1)	W	500
AES Power rating (2)	W	250
Sensitivity (3)	dB	97,5
Frequency range	Hz	45 ÷ 3000
Voice coil diameter	mm (in.)	65 (2.5)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	64 x 8 (2.5 x 0.3)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,7 (0.18)
Xmech (5)	mm (in.)	8,8 (0.34)
Gap height	mm (in.)	8,2 (0.32)
Voice coil winding height	mm (in.)	13,4 (0.53)
Driver displacement volume	l (ft ³)	3,3 (0.11)

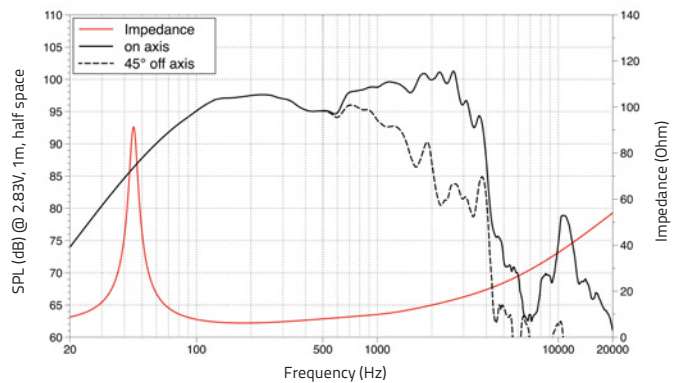
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,6
Resonance frequency	Fs	Hz	43
Moving mass	Mms	g (oz)	90,4 (3.19)
Compliance	Cms	mm/N	0,15
Force factor	BxL	N/A	16,2
Mechanical Q-factor	Qms		10,2
Electrical Q-factor	Qes		0,51
Total Q-factor	Qts		0,49
Equivalent air volume	Vas	l (ft ³)	160 (5.65)
Voice coil Inductance	Le	mH	0,77
Diaphragm area	Sd	cm ² (in. ²)	855 (132.53)
Reference efficiency	Eta 0	%	2,3

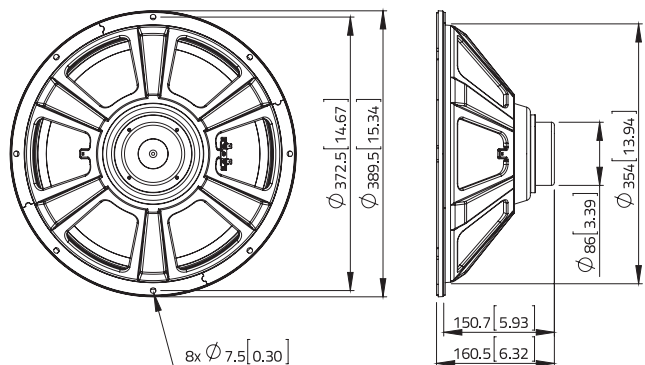
SHIPPING INFORMATION

Net weight	kg (lb.)	2,6 (5,6)
Multipack size (1)	mm (in.)	438 x 438 x 204 (17.2 x 17.2 x 8)
Multipack weight	kg (lb.)	4,7 (10.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



SSN153.00

Lavoce

15" SUBWOOFER

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 3 INCH COPPER VOICE COIL
- 98 dB/SPL SENSITIVITY
- 800 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- TRIPLE ROLL SURROUND
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,8
Program power (1)	W	800
AES Power rating (2)	W	400
Sensitivity (3)	dB	98
Frequency range	Hz	50 ÷ 2000
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	74 x 9 (2.9 x 0.4)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	6,7 (0.26)
Xmech (5)	mm (in.)	12,6 (0.49)
Gap height	mm (in.)	10,5 (0.41)
Voice coil winding height	mm (in.)	18,6 (0.73)
Driver displacement volume	l (ft ³)	4,6 (0.16)

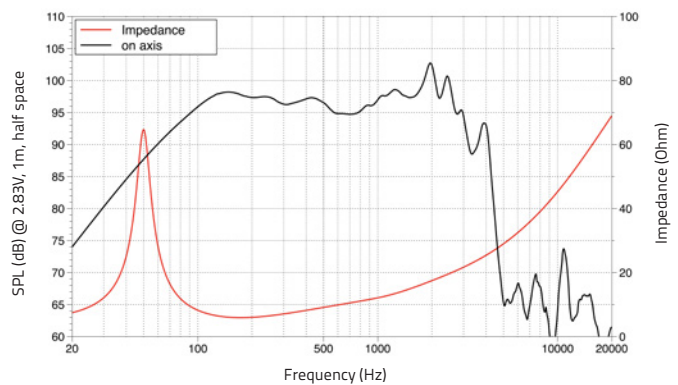
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,1
Resonance frequency	Fs	Hz	50
Moving mass	Mms	g (oz)	112 (3.95)
Compliance	Cms	mm/N	0,09
Force factor	BxL	N/A	19,2
Mechanical Q-factor	Qms		8,1
Electrical Q-factor	Qes		0,49
Total Q-factor	Qts		0,47
Equivalent air volume	Vas	l (ft ³)	91 (3.21)
Voice coil Inductance	Le	mH	1,00
Diaphragm area	Sd	cm ² (in. ²)	855 (132.53)
Reference efficiency	Eta 0	%	2,30

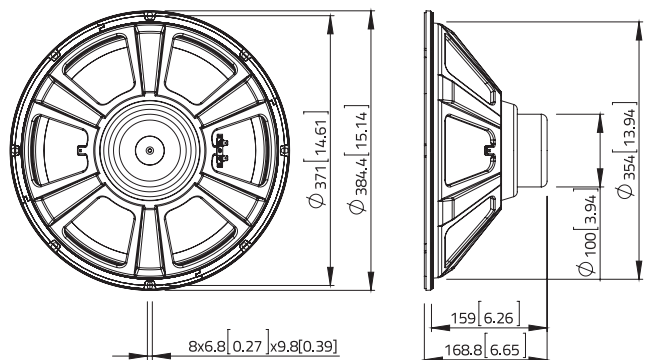
SHIPPING INFORMATION

Net weight	kg (lb.)	3,5 (7.8)
Multipack size (1)	mm (in.)	438 x 438 x 212 (17.2 x 17.2 x 8.3)
Multipack weight	kg (lb.)	5,7 (12.6)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAN153.00

Lavoce

15" WOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 3 INCH CCAW VOICE COIL
- 98.5 dB/SPL SENSITIVITY
- 1000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,3
Program power (1)	W	1000
AES Power rating (2)	W	500
Sensitivity (3)	dB	98,5
Frequency range	Hz	45 ÷ 3000
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	75 x 10 (2.95 x 0.4)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	7 (0.28)
Xmech (5)	mm (in.)	12,7 (0.5)
Gap height	mm (in.)	10,5 (0.41)
Voice coil winding height	mm (in.)	19 (0.75)
Driver displacement volume	l (ft ³)	4,9 (0.17)

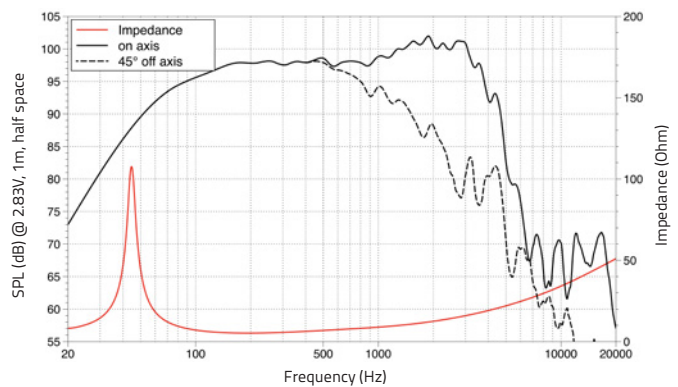
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	4,7
Resonance frequency	Fs	Hz	43
Moving mass	Mms	g (oz)	100 (3.53)
Compliance	Cms	mm/N	0,13
Force factor	BxL	N/A	17,3
Mechanical Q-factor	Qms		9,5
Electrical Q-factor	Qes		0,43
Total Q-factor	Qts		0,41
Equivalent air volume	Vas	l (ft ³)	137 (4.84)
Voice coil Inductance	Le	mH	0,75
Diaphragm area	Sd	cm ² (in. ²)	850 (131.7)
Reference efficiency	Eta 0	%	2,4

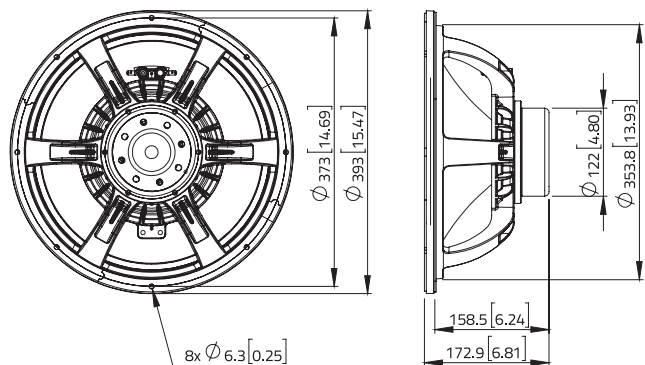
SHIPPING INFORMATION

Net weight	kg (lb.)	5,8 (12.7)
Multipack size (1)	mm (in.)	452 x 452 x 204 (17.8 x 17.8 x 8)
Multipack weight	kg (lb.)	8 (17.6)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAN154.02

Lavoce

15" WOOFER

NEODYMIUM MAGNET
ALUMINUM BASKET DRIVER



- 4 INCH CCAW VOICE COIL
- 99 dB/SPL SENSITIVITY
- 1400 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,3
Program power (1)	W	1400
AES Power rating (2)	W	700
Sensitivity (3)	dB	99
Frequency range	Hz	40 ÷ 3000
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	97 x 9 (3.82 x 0.35)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	7,95 (0.31)
Xmech (5)	mm (in.)	14,95 (0.59)
Gap height	mm (in.)	12 (0.47)
Voice coil winding height	mm (in.)	21,9 (0.86)
Driver displacement volume	l (ft ³)	4 (0.14)

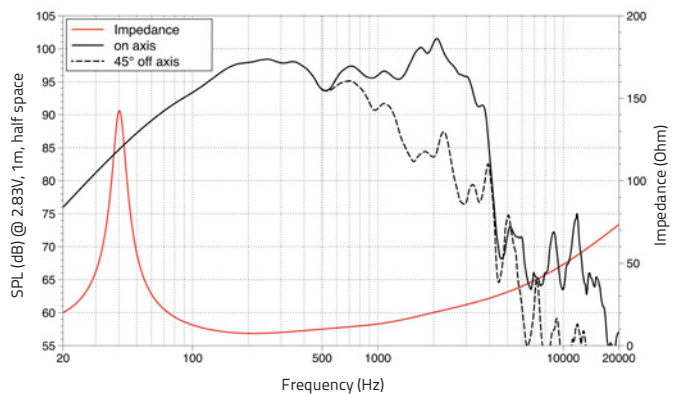
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,9
Resonance frequency	Fs	Hz	40
Moving mass	Mms	g (oz)	108 (3.81)
Compliance	Cms	mm/N	0,12
Force factor	BxL	N/A	26,4
Mechanical Q-factor	Qms		5,7
Electrical Q-factor	Qes		0,25
Total Q-factor	Qts		0,24
Equivalent air volume	Vas	l (ft ³)	155 (5.47)
Voice coil Inductance	Le	mH	1,10
Diaphragm area	Sd	cm ² (in. ²)	810 (125.6)
Reference efficiency	Eta 0	%	4,80

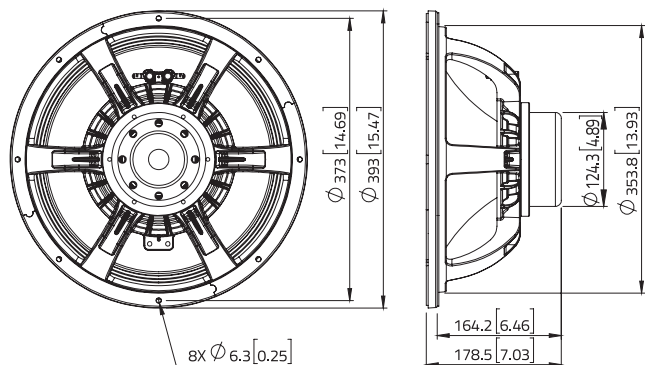
SHIPPING INFORMATION

Net weight	kg (lb.)	6,5 (14.3)
Multipack size (1)	mm (in.)	438 x 438 x 230 (17.2 x 17.2 x 9)
Multipack weight	kg (lb.)	8,7 (19.3)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAN154.01

Lavoce

15" SUBWOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH COPPER VOICE COIL
- 98 dB/SPL SENSITIVITY
- 2000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- ALUMINIUM DEMODULATING RING
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,4
Program power (1)	W	2000
AES Power rating (2)	W	1000
Sensitivity (3)	dB	98
Frequency range	Hz	45 ÷ 1000
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	97 x 31 x 9 (3.8 x 1.2 x 0.35)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	8,8 (0.34)
Xmech (5)	mm (in.)	17,3 (0.68)
Gap height	mm (in.)	14 (0.55)
Voice coil winding height	mm (in.)	24,5 (0.96)
Driver displacement volume	l (ft ³)	4,4 (0.16)

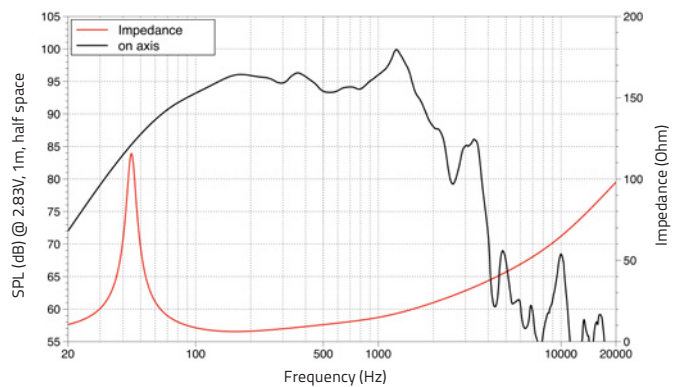
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,1
Resonance frequency	Fs	Hz	43
Moving mass	Mms	g (oz)	164 (5.8)
Compliance	Cms	mm/N	0,07
Force factor	BxL	N/A	25,9
Mechanical Q-factor	Qms		8,2
Electrical Q-factor	Qes		0,36
Total Q-factor	Qts		0,35
Equivalent air volume	Vas	l (ft ³)	84 (2.97)
Voice coil Inductance	Le	mH	1,70
Diaphragm area	Sd	cm ² (in. ²)	830 (128.65)
Reference efficiency	Eta 0	%	2,50

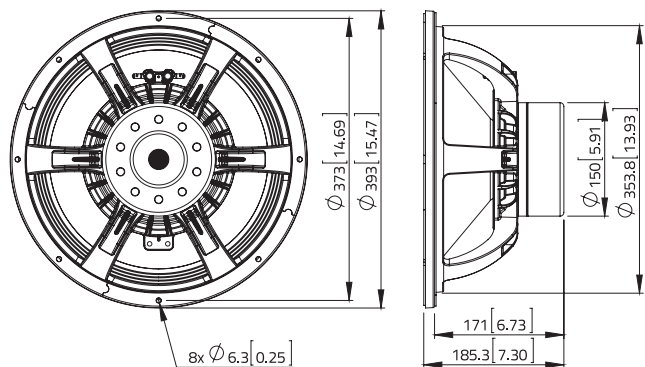
SHIPPING INFORMATION

Net weight	kg (lb.)	8,2 (18)
Multipack size (1)	mm (in.)	438 x 438 x 230 (17.2 x 17.2 x 9)
Multipack weight	kg (lb.)	10,4 (22.8)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAN154.00

Lavoce

15" SUBWOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH COPPER VOICE COIL
- 95,5 dB/SPL SENSITIVITY
- 3000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- 45 mm (1.8 INCH) PEAK TO PEAK EXCURSION
- OPTIMIZED COOLING SYSTEM
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- ALUMINIUM DEMODULATING RING
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,4
Program power (1)	W	3000
AES Power rating (2)	W	1500
Sensitivity (3)	dB	95,5
Frequency range	Hz	40 ÷ 1000
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	97 x 31 x 14 (3.8 x 1.2 x 0.6)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	12,5 (0.49)
Xmech (5)	mm (in.)	22,5 (0.89)
Gap height	mm (in.)	16 (0.63)
Voice coil winding height	mm (in.)	33 (1.3)
Driver displacement volume	l (ft ³)	4,5 (0.16)

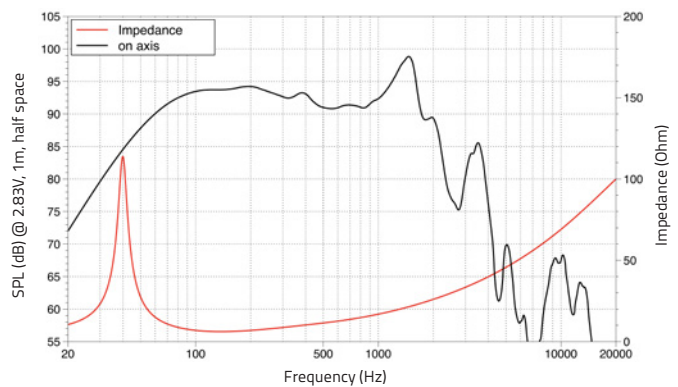
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,3
Resonance frequency	Fs	Hz	40
Moving mass	Mms	g (oz)	200 (7.05)
Compliance	Cms	mm/N	0,10
Force factor	BxL	N/A	25,0
Mechanical Q-factor	Qms		8,5
Electrical Q-factor	Qes		0,42
Total Q-factor	Qts		0,40
Equivalent air volume	Vas	l (ft ³)	105 (3.71)
Voice coil Inductance	Le	mH	1,80
Diaphragm area	Sd	cm ² (in. ²)	830 (128.65)
Reference efficiency	Eta 0	%	1,40

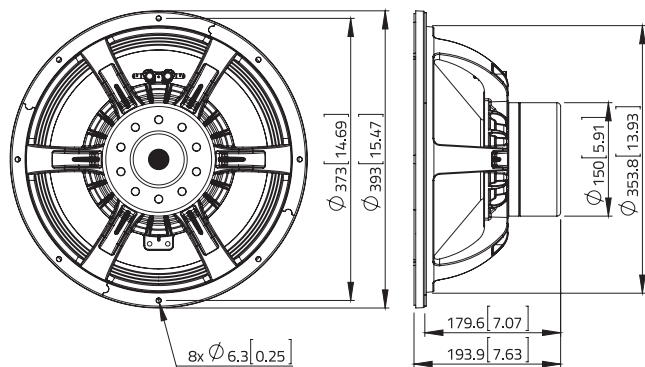
SHIPPING INFORMATION

Net weight	kg (lb.)	9,2 (20.2)
Multipack size (1)	mm (in.)	438 x 438 x 230 (17.2 x 17.2 x 9)
Multipack weight	kg (lb.)	11,5 (25.3)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



SAN184.02

Lavoce

18" SUBWOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH COPPER VOICE COIL
- 96,5 dB/SPL SENSITIVITY
- 2400 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- ALUMINIUM DEMODULATING RING
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	460 (18)
Nominal impedance	Ω	8
Minimum impedance	Ω	6
Program power (1)	W	2400
AES Power rating (2)	W	1200
Sensitivity (3)	dB	96,5
Frequency range	Hz	40 ÷ 1000
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	94 x 20 x 8 (3.7 x 0.8 x 0.3)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	9,5 (0.37)
Xmech (5)	mm (in.)	15,8 (0.62)
Gap height	mm (in.)	11 (0.43)
Voice coil winding height	mm (in.)	24,5 (0.96)
Driver displacement volume	l (ft ³)	7,8 (0.28)

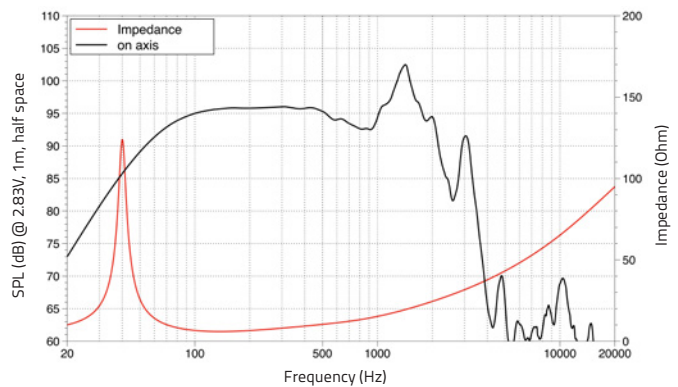
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,2
Resonance frequency	Fs	Hz	38
Moving mass	Mms	g (oz)	255 (8.99)
Compliance	Cms	mm/N	0,07
Force factor	BxL	N/A	27,3
Mechanical Q-factor	Qms		11,9
Electrical Q-factor	Qes		0,42
Total Q-factor	Qts		0,40
Equivalent air volume	Vas	l (ft ³)	150 (5.3)
Voice coil Inductance	Le	mH	1,9
Diaphragm area	Sd	cm ² (in. ²)	1225 (189.9)
Reference efficiency	Eta 0	%	1,8

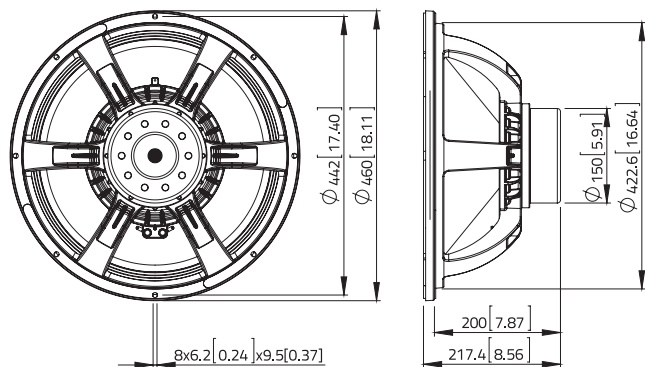
SHIPPING INFORMATION

Net weight	kg (lb.)	9 (19.8)
Multipack size (1)	mm (in.)	558 x 558 x 260 (22 x 22 x 10.2)
Multipack weight	kg (lb.)	12,9 (28.3)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



SAN184.03

Lavoce

18" SUBWOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH COPPER VOICE COIL
- 96 dB/SPL SENSITIVITY
- 3000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- 44,6 mm (1.8 INCH) PEAK TO PEAK EXCURSION
- OPTIMIZED COOLING SYSTEM
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- ALUMINIUM DEMODULATING RING
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	460 (18)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,4
Program power (1)	W	3000
AES Power rating (2)	W	1500
Sensitivity (3)	dB	96
Frequency range	Hz	35 ÷ 1000
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	97 x 20 x 14 (3.8 x 0.79 x 0.55)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	13 (0.51)
Xmech (5)	mm (in.)	22,3 (0.88)
Gap height	mm (in.)	15 (0.6)
Voice coil winding height	mm (in.)	33,5 (1.32)
Driver displacement volume	l (ft ³)	7,8 (0.28)

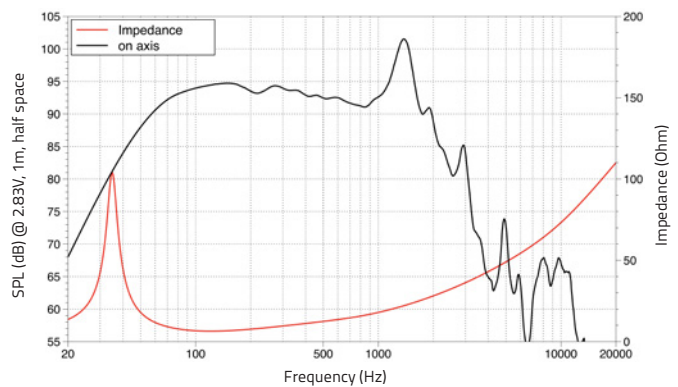
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	36
Moving mass	Mms	g (oz)	261 (9.21)
Compliance	Cms	mm/N	0,07
Force factor	BxL	N/A	27.2
Mechanical Q-factor	Qms		7,8
Electrical Q-factor	Qes		0,44
Total Q-factor	Qts		0,42
Equivalent air volume	Vas	l (ft ³)	160 (5.65)
Voice coil Inductance	Le	mH	2.1
Diaphragm area	Sd	cm ² (in. ²)	1225 (189.9)
Reference efficiency	Eta 0	%	1.6

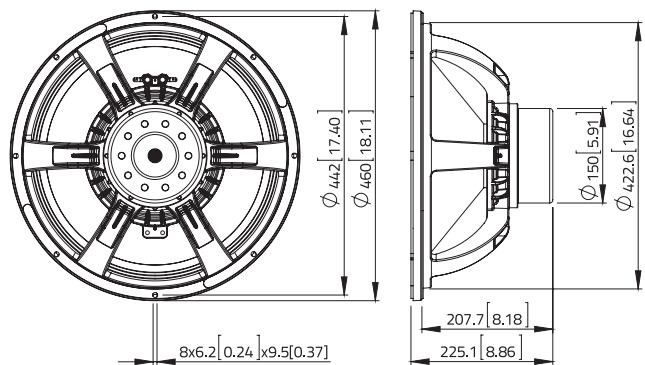
SHIPPING INFORMATION

Net weight	kg (lb.)	11 (24.3)
Multipack size (1)	mm (in.)	558 x 558 x 268 (22 x 22 x 10.6)
Multipack weight	kg (lb.)	15,2 (33.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



SAN184.50

Lavoce

18" SUBWOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



PRELIMINARY

- 4.5 INCH CCAW VOICE COIL
- 98 dB/SPL SENSITIVITY
- 3400 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- 45,6 mm (1.8 INCH) PEAK TO PEAK MAXIMUM EXCURSION
- OPTIMIZED COOLING SYSTEM
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- ALUMINIUM DEMODULATION RING
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	460 (18)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,4
Program power (1)	W	3400
AES Power rating (2)	W	1700
Sensitivity (3)	dB	98
Frequency range	Hz	30 ÷ 1000
Voice coil diameter	mm (in.)	115 (4.5)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	113 x 40 x 17 (4.45 x 1.57 x 0.67)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	12 (0.47)
Xmech (5)	mm (in.)	22,8 (0.9)
Gap height	mm (in.)	17 (0,67)
Voice coil winding height	mm (in.)	32,5 (1.28)
Driver displacement volume	l (ft ³)	7,64 (0.27)

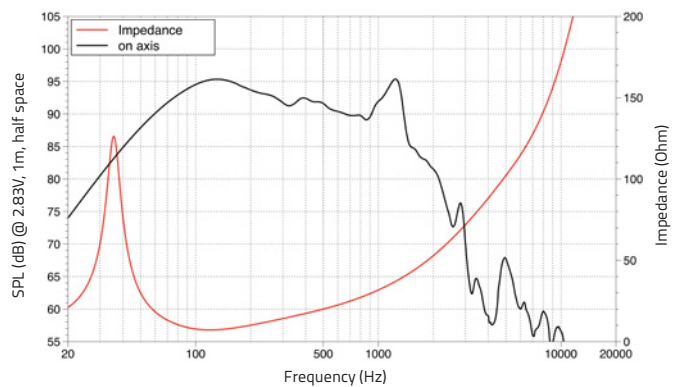
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,4
Resonance frequency	Fs	Hz	35
Moving mass	Mms	g (oz)	326 (11,5)
Compliance	Cms	mm/N	0,06
Force factor	BxL	N/A	39,5
Mechanical Q-factor	Qms		7
Electrical Q-factor	Qes		0,25
Total Q-factor	Qts		0,24
Equivalent air volume	Vas	l (ft ³)	129 (4.55)
Voice coil Inductance	Le	mH	4,35
Diaphragm area	Sd	cm ² (in. ²)	1225 (189.88)
Reference efficiency	Eta 0	%	2,24

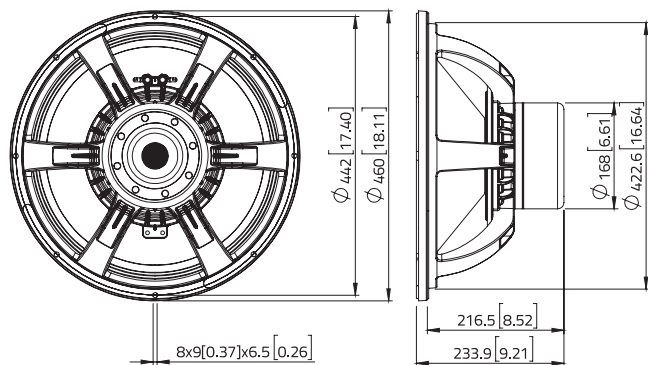
SHIPPING INFORMATION

Net weight	kg (lb.)	13,5 (29.8)
Multipack size (1)	mm (in.)	520 x 520 x 280 (20.5 x 20.5 x 11)
Multipack weight	kg (lb.)	15,1 (33.3)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



SAN214.50

Lavoce

21" SUBWOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 4,5 INCH CCAW VOICE COIL
- 98,5 dB/SPL SENSITIVITY
- 3400 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- 48 mm (1.9 INCH) PEAK TO PEAK MAXIMUM EXCURSION
- OPTIMIZED COOLING SYSTEM
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- ALUMINIUM DEMODULATING RING
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	530 (21)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,6
Program power (1)	W	3400
AES Power rating (2)	W	1700
Sensitivity (3)	dB	98,5
Frequency range	Hz	30 ÷ 1000
Voice coil diameter	mm (in.)	115 (4.5)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	113 x 40 x 17 (4.45 x 1.57 x 0.67)
Coil material	CCAW	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	15,5 (0.61)
Xmech (5)	mm (in.)	24 (0.94)
Gap height	mm (in.)	14 (0.55)
Voice coil winding height	mm (in.)	38 (1.5)
Driver displacement volume	l (ft ³)	10,3 (0.36)

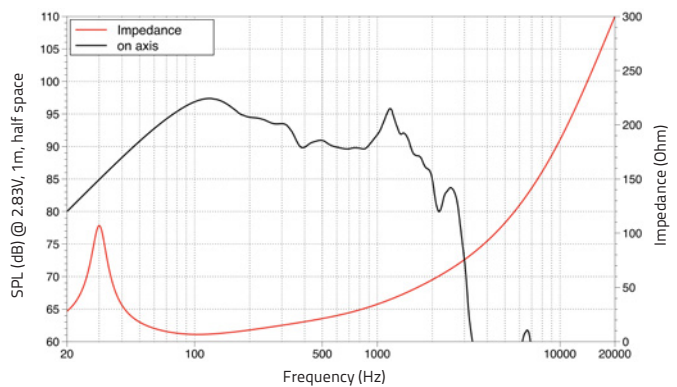
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,2
Resonance frequency	Fs	Hz	30
Moving mass	Mms	g (oz)	388 (13.69)
Compliance	Cms	mm/N	0,06
Force factor	BxL	N/A	39,0
Mechanical Q-factor	Qms		5,5
Electrical Q-factor	Qes		0,28
Total Q-factor	Qts		0,26
Equivalent air volume	Vas	l (ft ³)	226 (7.98)
Voice coil Inductance	Le	mH	4,70
Diaphragm area	Sd	cm ² (in. ²)	1661 (257.46)
Reference efficiency	Eta 0	%	2,90

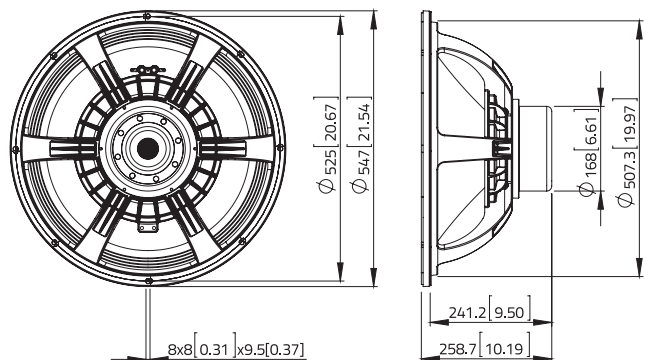
SHIPPING INFORMATION

Net weight	kg (lb.)	15,2 (33.4)
Multipack size (1)	mm (in.)	642 x 642 x 302 (25.3 x 25.3 x 11.9)
Multipack weight	kg (lb.)	20,7 (45.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



SAN215.30

Lavoce

21" SUBWOOFER

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER

PRELIMINARY

- 5,3 INCH COPPER VOICE COIL
- 97 dB/SPL SENSITIVITY
- 4000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- 53 mm (2,1 INCH) PEAK TO PEAK MAXIMUM EXCURSION
- OPTIMIZED COOLING SYSTEM
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- ALUMINIUM DEMODULATING RING
- TRIPLE ROLL SURROUND



GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	530 (21)
Nominal impedance	Ω	8
Minimum impedance	Ω	7
Program power (1)	W	4000
AES Power rating (2)	W	2000
Sensitivity (3)	dB	97
Frequency range	Hz	30 ÷ 1000
Voice coil diameter	mm (in.)	134 (5.3)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	130 x 35 x 14 (5.12 x 1.38 x 0.55)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	14,9 (0.59)
Xmech (5)	mm (in.)	26,4 (1.04)
Gap height	mm (in.)	18 (0.71)
Voice coil winding height	mm (in.)	38,8 (1.53)
Driver displacement volume	l (ft ³)	10,548 (0.372)

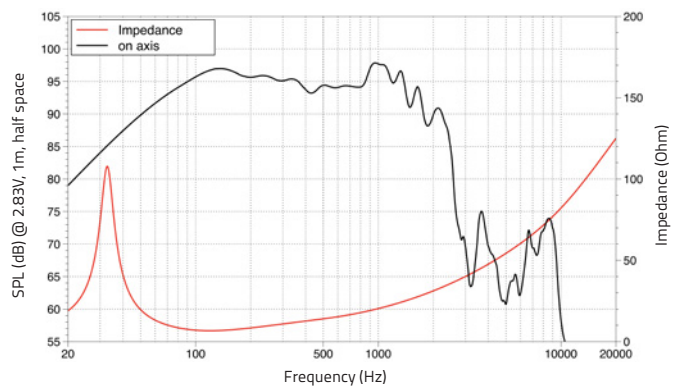
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,2
Resonance frequency	Fs	Hz	35
Moving mass	Mms	g (oz)	435 (15.34)
Compliance	Cms	mm/N	0,05
Force factor	BxL	N/A	39
Mechanical Q-factor	Qms		6,2
Electrical Q-factor	Qes		0,35
Total Q-factor	Qts		0,33
Equivalent air volume	Vas	l (ft ³)	200 (7.07)
Voice coil Inductance	Le	mH	3,2
Diaphragm area	Sd	cm ² (in. ²)	1661 (257.46)
Reference efficiency	Eta 0	%	2,45

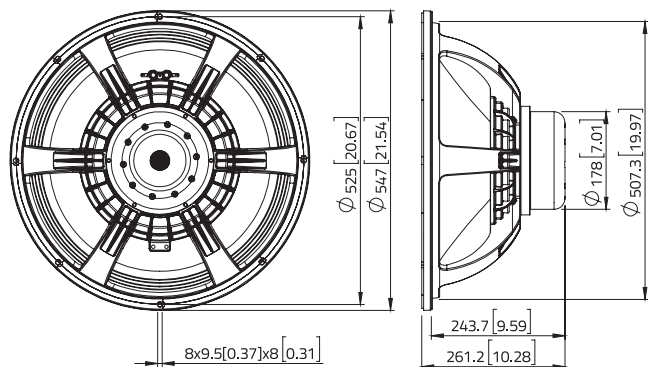
SHIPPING INFORMATION

Net weight	kg (lb.)	15,2 (33.4)
Multipack size (1)	mm (in.)	642 x 642 x 302 (25.3 x 25.3 x 11.9)
Multipack weight	kg (lb.)	20,7 (45.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

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FERRITE LOW FREQUENCY TRANSDUCERS

FOR YOUR MOST CHALLENGING PROJECTS

Lavoce

The Lavoce Italiana engineering team has a long and successful heritage of designing award winning Ferrite Low Frequency Transducers. Our established range of die-cast aluminium and pressed steel basket products (3" to 21") have equally been designed with the same care to deliver the perfect balance of performance, quality and price, for every application.

To meet the increased demand for high performing cost-effective midrange applications, we proudly introduce four new ferrite 6.5", 8" and 10" products with exceptional midrange output and clarity: MSF061.50, MAF061.50, MAF082.00 and MAF103.00

In addition the latest ferrite 18" subwoofer, SAF184.50 (1800 W AES, 4.5" VC, 97 dB), complements our range with very high power handling and sensitivity, whilst maintaining outstanding linearity at low frequency, and our new 15" high output mid-bass woofer, WAF154.03 (850 W AES, 4" VC, 98 dB), has been optimised for demanding two or three-way applications.

This premium design approach is applied to everything we do and is expressed in our Ferrite LF Transducers, developed using Finite Element Analysis (FEA) and placed through our own demanding testing and QC measurement standards.

FEATURES FOUND IN WAF, MAF AND SAF ALUMINIUM BASKET FERRITE LF DRIVERS (6.5" TO 21"):

- **Optimised Cooling System** helps radiate heat away from the voice coil to aid power handling and lower power compression.
- **Inside/Outside Voice Coil** to optimise the thermal capacity of the voice coil and power handling of the product.
- **Waterproof Treated Cone Paper** to repel water and the impact of changing humidity conditions to the performance of the speaker.

SELECTED MODELS USE:

- **Aluminium Demodulating Ring** to reduce harmonic and intermodulation distortion.
- **Four Layer Inside/Outside Voice Coil** providing additional layers to further enhance the thermal capacity of the voice coil in some of our high-power subwoofers.
- **Double Silicon Spider** increases the mechanical performance of our LF drivers, providing consistent linearity through extreme excursion.
- **CCA / CCAR** (Copper Clad Aluminium) voice coil wire is used when a lighter moving mass is required to enhance sensitivity.

FEATURES FOUND IN WSF, MSF AND SSF PRESSED STEEL BASKET FERRITE LF DRIVERS (3" TO 18"):

- **Inside/Outside Voice Coil** used in the majority of products instead of conventional two-layer voice coils, to further enhance power handling and reliability.
- **Resonant Free Basket design** ensures there are no unwanted resonances coming from the basket.
- **Sleeve Protected Lead-Out Wire** to improve reliability and reduce the risk of erosion.
- **Proprietary Terminal Connection** for improved resistance to vibrations.

SELECTED MODELS USE:

- **Shallow design** for space saving projects that require cost effective and high excursion LF options.
- **Long Throw design** for ground breaking subwoofer applications in small enclosures.



WSF030.70

Lavoce

3" WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 0.75 INCH COPPER VOICE COIL
- 85.5 dB/SPL SENSITIVITY
- 60 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	70 (3)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,9
Program power (1)	W	60
AES Power rating (2)	W	30
Sensitivity (3)	dB	85,5
Frequency range	Hz	100 ÷ 2000
Voice coil diameter	mm (in.)	20 (0.75)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	70 x 32 x 15 (2.76 x 1.26 x 0.6)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Aluminium	
Surround material	Rubber	
Xmax (4)	mm (in.)	3,3 (0.13)
Xmech (5)	mm (in.)	4,3 (0.17)
Gap height	mm (in.)	4 (0.16)
Voice coil winding height	mm (in.)	8,5 (0.33)
Driver displacement volume	l (ft ³)	0,111 (0.004)

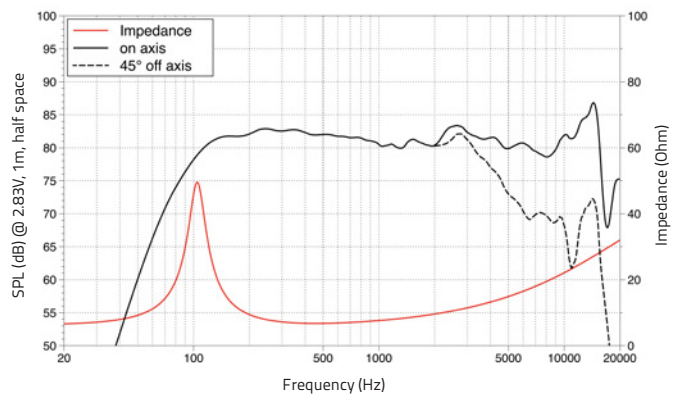
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	6,12
Resonance frequency	Fs	Hz	109
Moving mass	Mms	g (oz)	3,5 (0.12)
Compliance	Cms	mm/N	0,6
Force factor	BxL	N/A	4,58
Mechanical Q-factor	Qms		4
Electrical Q-factor	Qes		0,7
Total Q-factor	Qts		0,6
Equivalent air volume	Vas	l (ft ³)	0,95 (0.03)
Voice coil Inductance	Le	mH	0,35
Diaphragm area	Sd	cm ² (in. ²)	33 (5.12)
Reference efficiency	Eta 0	%	0,17

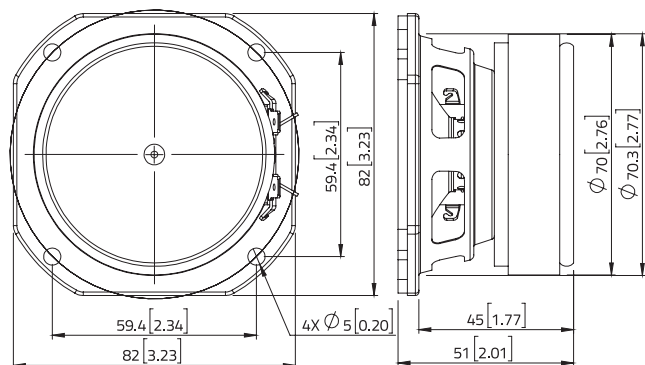
SHIPPING INFORMATION

Net weight	kg (lb.)	0,5 (1.1)
Multipack size (20)	mm (in.)	458 x 210 x 150 (18.3 x 8.3 x 5.9)
Multipack weight	kg (lb.)	11,4 (25.1)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WSF041.00

Lavoce

4" WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 1 INCH COPPER VOICE COIL
- 90 dB/SPL SENSITIVITY
- 80 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	100 (4)
Nominal impedance	Ω	8
Minimum impedance	Ω	6
Program power (1)	W	80
AES Power rating (2)	W	40
Sensitivity (3)	dB	90
Frequency range	Hz	120 ÷ 11000
Voice coil diameter	mm (in.)	25 (1)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	80 x 32 x 15 (3.1 x 1.26 x 0.6)
Coil material	Copper	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	2,8 (0.1)
Xmech (5)	mm (in.)	3,7 (0.07)
Gap height	mm (in.)	4 (0.16)
Voice coil winding height	mm (in.)	7,5 (0.3)
Driver displacement volume	l (ft ³)	0,19 (0.007)

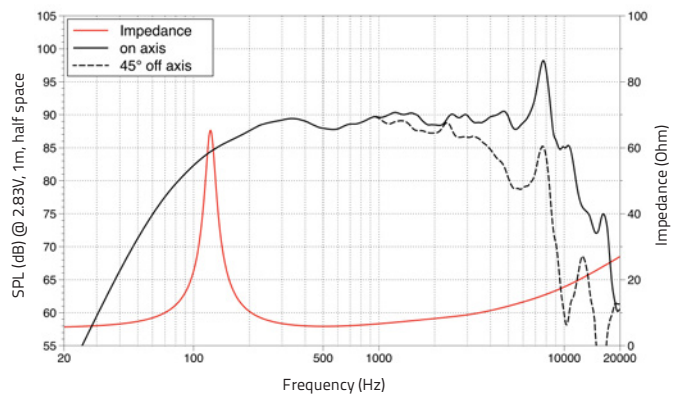
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	122
Moving mass	Mms	g (oz)	4,5 (0,15)
Compliance	Cms	mm/N	0,53
Force factor	BxL	N/A	5,8
Mechanical Q-factor	Qms		6,5
Electrical Q-factor	Qes		0,57
Total Q-factor	Qts		0,52
Equivalent air volume	Vas	l (ft ³)	1,5 (0.05)
Voice coil Inductance	Le	mH	0,23
Diaphragm area	Sd	cm ² (in. ²)	54 (8.59)
Reference efficiency	Eta 0	%	0,47

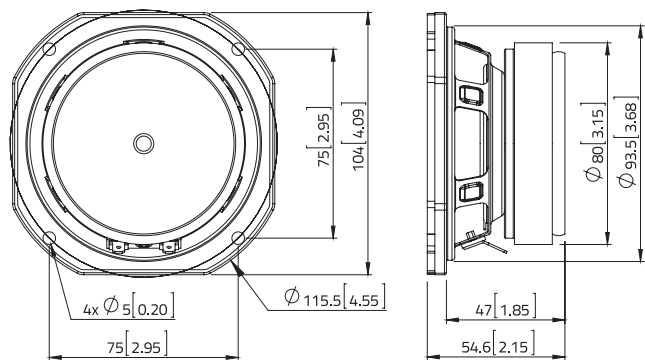
SHIPPING INFORMATION

Net weight	kg (lb.)	0,7 (1.6)
Multipack size (18)	mm	415 x 370 x 160
W x D x H	(in.)	(16.3 x 14.6 x 6.3)
Multipack weight	kg (lb.)	9,8 (21.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WSF051.02

Lavoce

5" WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 1 INCH COPPER VOICE COIL
- 91,5 dB/SPL SENSITIVITY
- 120 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	130 (5)
Nominal impedance	Ω	8
Minimum impedance	Ω	6
Program power (1)	W	120
AES Power rating (2)	W	60
Sensitivity (3)	dB	91,5
Frequency range	Hz	100 ÷ 5000
Voice coil diameter	mm (in.)	25 (1)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	90 x 32 x 15 (3.5 x 1.2 x 0.6)
Coil material	Copper	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	3,1 (0.12)
Xmech (5)	mm (in.)	4,9 (0.19)
Gap height	mm (in.)	5 (0.2)
Voice coil winding height	mm (in.)	8,7 (0.34)
Driver displacement volume	l (ft ³)	0,3 (0.009)

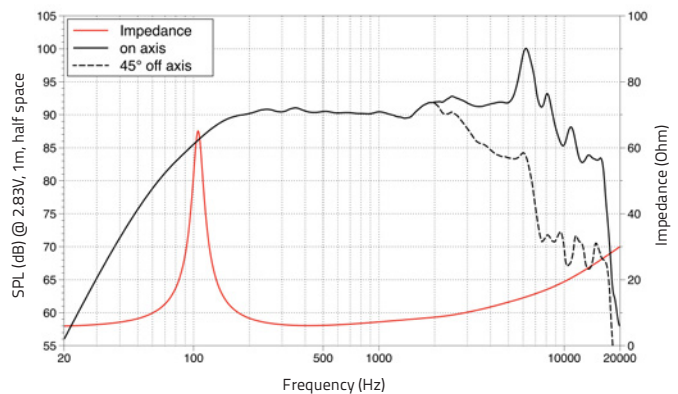
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,6
Resonance frequency	Fs	Hz	105
Moving mass	Mms	g (oz)	7,2 (0.25)
Compliance	Cms	mm/N	0,31
Force factor	BxL	N/A	6,4
Mechanical Q-factor	Qms		7
Electrical Q-factor	Qes		0,66
Total Q-factor	Qts		0,60
Equivalent air volume	Vas	l (ft ³)	3,4 (0.12)
Voice coil Inductance	Le	mH	0,27
Diaphragm area	Sd	cm ² (in. ²)	88 (13.64)
Reference efficiency	Eta 0	%	0,6

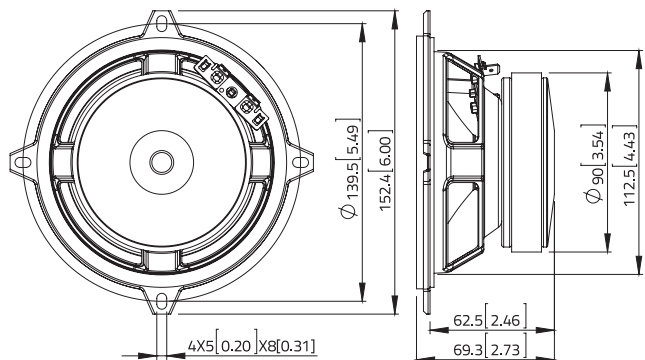
SHIPPING INFORMATION

Net weight	kg (lb.)	0,9 (2.1)
Multipack size (12)	mm (in.)	494 x 350 x 195 (19.4 x 13.8 x 7.7)
Multipack weight	kg (lb.)	14,6 (32)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



MSF051.22

Lavoce

5" MIDRANGE

FERRITE MAGNET
STEEL BASKET DRIVER



- 1.25 INCH CCAW VOICE COIL
- 92 dB/SPL SENSITIVITY
- 140 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	130 (5)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,4
Program power (1)	W	140
AES Power rating (2)	W	70
Sensitivity (3)	dB	92
Frequency range	Hz	140 ÷ 10000
Voice coil diameter	mm (in.)	32 (1.25)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	100 x 40 x 15 (3.9 x 1.6 x 0.6)
Coil material	CCAW	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	3,1 (0.12)
Xmech (5)	mm (in.)	4,85 (0.19)
Gap height	mm (in.)	5 (0.2)
Voice coil winding height	mm (in.)	8,7 (0.34)
Driver displacement volume	l (ft ³)	0,4 (0.014)

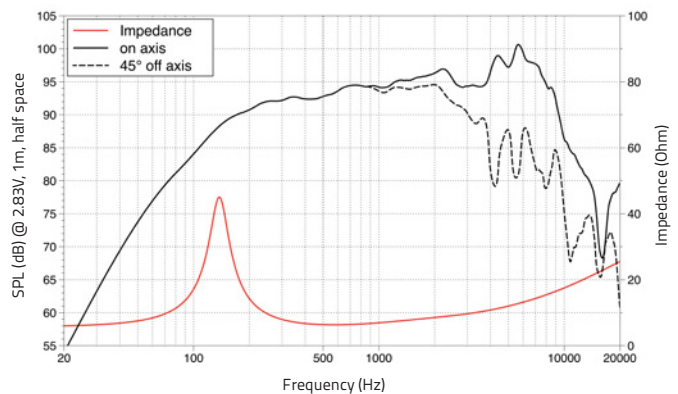
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,7
Resonance frequency	Fs	Hz	140
Moving mass	Mms	g (oz)	6,5 (0.23)
Compliance	Cms	mm/N	0,20
Force factor	BxL	N/A	7,3
Mechanical Q-factor	Qms		4,1
Electrical Q-factor	Qes		0,60
Total Q-factor	Qts		0,53
Equivalent air volume	Vas	l (ft ³)	1,8 (0.06)
Voice coil Inductance	Le	mH	0,20
Diaphragm area	Sd	cm ² (in. ²)	95 (14.73)
Reference efficiency	Eta 0	%	0,70

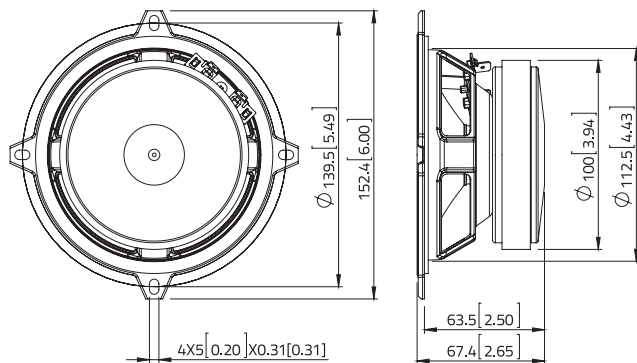
SHIPPING INFORMATION

Net weight	kg (lb.)	1,2 (2.7)
Multipack size (12)	mm (in.)	494 x 350 x 195 (19.4 x 13.8 x 7.7)
Multipack weight	kg (lb.)	17,7 (38.9)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a

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WSF061.52

Lavoce

6.5" WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 1.5 INCH COPPER VOICE COIL
- 94.5 dB/SPL SENSITIVITY
- 250 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	165 (6.5)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,2
Program power (1)	W	250
AES Power rating (2)	W	125
Sensitivity (3)	dB	94,5
Frequency range	Hz	90 ÷ 5000
Voice coil diameter	mm (in.)	38 (1.5)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	115 x 45 x 20 (4.5 x 1.77 x 0.79)
Coil material	Copper	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	3,8 (0.15)
Xmech (5)	mm (in.)	6.3 (0.25)
Gap height	mm (in.)	6 (0.23)
Voice coil winding height	mm (in.)	10,6 (0.42)
Driver displacement volume	l (ft ³)	0,5 (0.02)

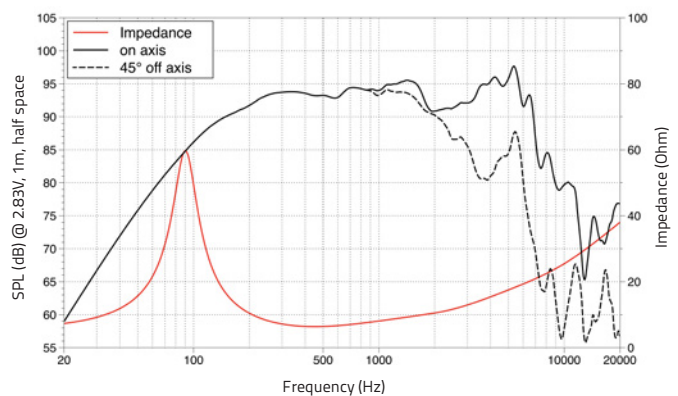
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,4
Resonance frequency	Fs	Hz	90
Moving mass	Mms	g (oz)	13,4 (0.47)
Compliance	Cms	mm/N	0,24
Force factor	BxL	N/A	10,0
Mechanical Q-factor	Qms		7,6
Electrical Q-factor	Qes		0,41
Total Q-factor	Qts		0,39
Equivalent air volume	Vas	l (ft ³)	6,8 (0.24)
Voice coil Inductance	Le	mH	0,46
Diaphragm area	Sd	cm ² (in. ²)	143 (22.17)
Reference efficiency	Eta 0	%	1,20

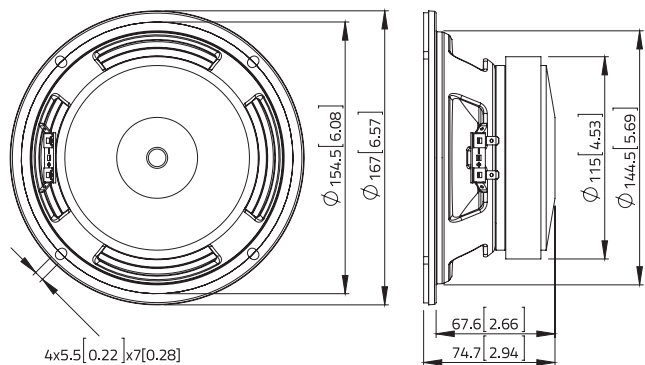
SHIPPING INFORMATION

Net weight	kg (lb.)	2 (4.4)
Multipack size (8)	mm (in.)	410 x 370 x 208 (16.1 x 14.6 x 8.2)
Multipack weight	kg (lb.)	19,5 (42.9)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



MSF061.50

Lavoce

6.5" MIDRANGE

FERRITE MAGNET
STEEL BASKET DRIVER



- 1.5 INCH COPPER VOICE COIL
- 95 dB/SPL SENSITIVITY
- 200 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	165 (6.5)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,1
Program power (1)	W	200
AES Power rating (2)	W	100
Sensitivity (3)	dB	95
Frequency range	Hz	500 ÷ 5000
Voice coil diameter	mm (in.)	38 (1.5)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	100 x 45 x 15 (3.94 x 1.77 x 0.59)
Coil material	Copper	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Paper	
Xmax (4)	mm (in.)	2 (0.08)
Xmech (5)	mm (in.)	4,5 (0.18)
Gap height	mm (in.)	6 (0.24)
Voice coil winding height	mm (in.)	7 (0.28)
Driver displacement volume	l (ft ³)	0,786 (0.028)

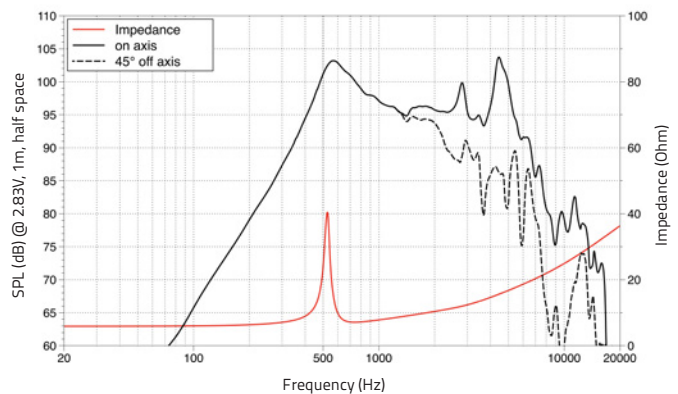
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,9
Resonance frequency	Fs	Hz	526
Moving mass	Mms	g (oz)	9,2 (0.32)
Compliance	Cms	mm/N	0,01
Force factor	BxL	N/A	8,2
Mechanical Q-factor	Qms		15,8
Electrical Q-factor	Qes		2,69
Total Q-factor	Qts		2,3
Equivalent air volume	Vas	l (ft ³)	0,28 (0.009)
Voice coil Inductance	Le	mH	0,41
Diaphragm area	Sd	cm ² (in. ²)	143 (22.17)
Reference efficiency	Eta 0	%	1,51

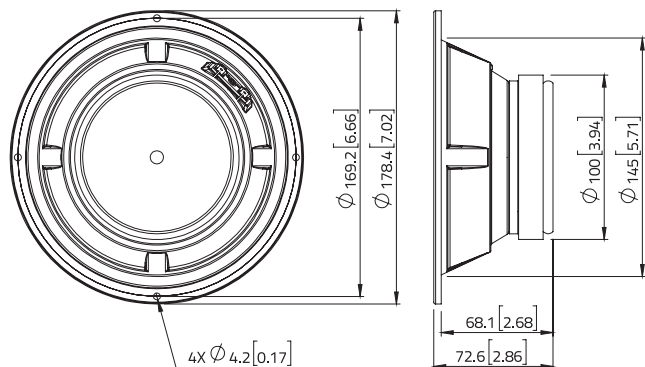
SHIPPING INFORMATION

Net weight	kg (lb.)	1,4 (3.1)
Multipack size (8)	mm (in.)	410 x 382 x 183 (16.1 x 15 x 7.2)
Multipack weight	kg (lb.)	12,9 (28.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



MAF061.50

Lavoce

6.5" MIDRANGE

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 1.5 INCH EDGEWOUND CCA VOICE COIL
- 97 dB/SPL SENSITIVITY
- 240 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- ALUMINUM DEMODULATION RING
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	165 (6.5)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,4
Program power (1)	W	240
AES Power rating (2)	W	120
Sensitivity (3)	dB	97
Frequency range	Hz	150 ÷ 9000
Voice coil diameter	mm (in.)	38 (1.5)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	120 x 60 x 20 (4.72 x 2.36 x 0.79)
Coil material	Edgewound CCA	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	3,5 (0.14)
Xmech (5)	mm (in.)	6 (0.24)
Gap height	mm (in.)	6 (0.24)
Voice coil winding height	mm (in.)	10 (0.39)
Driver displacement volume	l (ft ³)	0,53 (0.019)

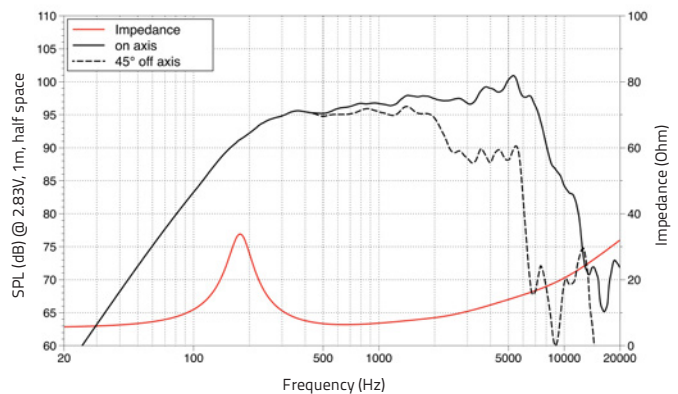
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,6
Resonance frequency	Fs	Hz	172
Moving mass	Mms	g (oz)	9,7 (0.34)
Compliance	Cms	mm/N	0,09
Force factor	BxL	N/A	10
Mechanical Q-factor	Qms		3,2
Electrical Q-factor	Qes		0,59
Total Q-factor	Qts		0,49
Equivalent air volume	Vas	l (ft ³)	2,55 (0.09)
Voice coil Inductance	Le	mH	0,32
Diaphragm area	Sd	cm ² (in. ²)	143 (22.17)
Reference efficiency	Eta 0	%	2,13

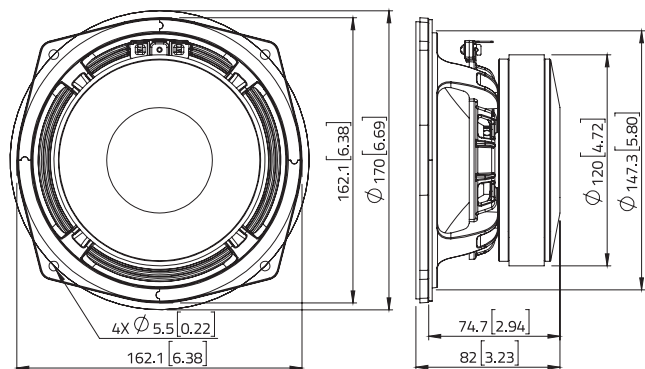
SHIPPING INFORMATION

Net weight	kg (lb.)	2,3 (5.1)
Multipack size (8)	mm (in.)	376 x 350 x 203 (14.8 x 13.8 x 8)
Multipack weight	kg (lb.)	20,6 (45.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WAF061.80

Lavoce

6.5" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 1.8 INCH CCAW VOICE COIL
- 91 dB/SPL SENSITIVITY
- 300 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	165 (6.5)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,3
Program power (1)	W	300
AES Power rating (2)	W	150
Sensitivity (3)	dB	91
Frequency range	Hz	65 ÷ 5000
Voice coil diameter	mm (in.)	45 (1.8)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	120 x 60 x 20 (4.72 x 2.36 x 0.79)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	4,8 (0.19)
Xmech (5)	mm (in.)	7,3 (0.29)
Gap height	mm (in.)	6 (0.24)
Voice coil winding height	mm (in.)	12,6 (0.5)
Driver displacement volume	l (ft ³)	0,8 (0.03)

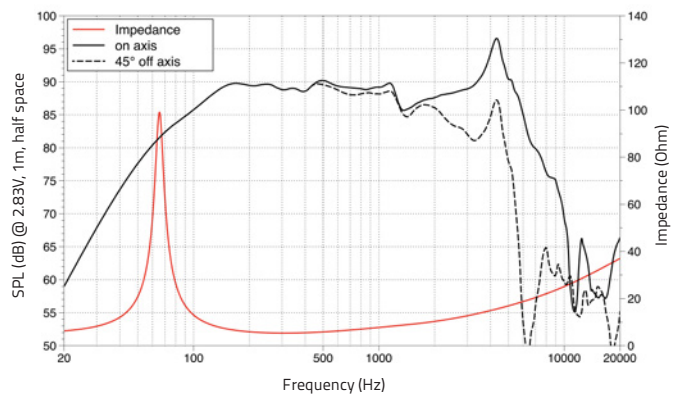
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	4,7
Resonance frequency	Fs	Hz	65
Moving mass	Mms	g (oz)	20 (0.71)
Compliance	Cms	mm/N	0,30
Force factor	BxL	N/A	9,5
Mechanical Q-factor	Qms		8,6
Electrical Q-factor	Qes		0,43
Total Q-factor	Qts		0,4
Equivalent air volume	Vas	l (ft ³)	7,5 (0.26)
Voice coil Inductance	Le	mH	0,33
Diaphragm area	Sd	cm ² (in. ²)	135 (20.93)
Reference efficiency	Eta 0	%	0,46

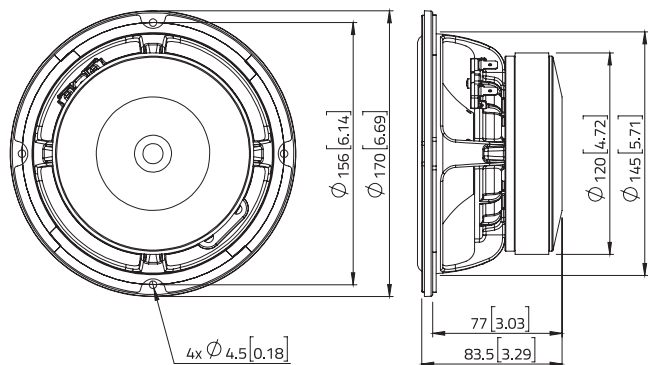
SHIPPING INFORMATION

Net weight	kg (lb.)	2,3 (5)
Multipack size (8)	mm (in.)	410 x 370 x 231 (16.1 x 14.6 x 9.1)
Multipack weight	kg (lb.)	21 (46.2)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WSF081.82

Lavoce

8" WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 1.8 INCH COPPER VOICE COIL
- 97 dB/SPL SENSITIVITY
- 250 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	200 (8)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,6
Program power (1)	W	250
AES Power rating (2)	W	125
Sensitivity (3)	dB	97
Frequency range	Hz	75 ÷ 3000
Voice coil diameter	mm (in.)	45 (1.8)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	130 x 60 x 18 (5.1 x 2.4 x 0.7)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,6 (0.18)
Xmech (5)	mm (in.)	7,1 (0.28)
Gap height	mm (in.)	6 (0.24)
Voice coil winding height	mm (in.)	12,2 (0.48)
Driver displacement volume	l (ft ³)	0,8 (0.03)

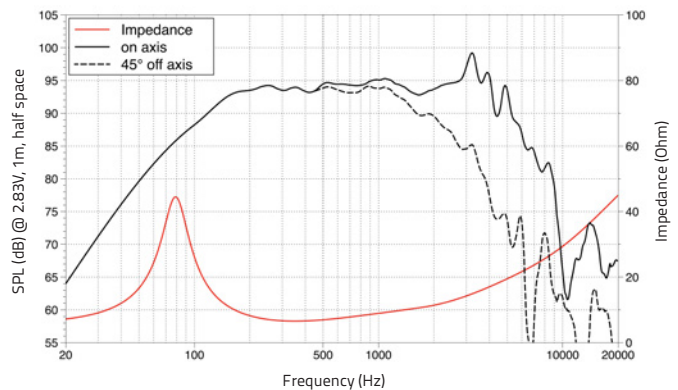
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,6
Resonance frequency	Fs	Hz	79
Moving mass	Mms	g (oz)	19,3 (0.68)
Compliance	Cms	mm/N	0,21
Force factor	BxL	N/A	11,3
Mechanical Q-factor	Qms		2,9
Electrical Q-factor	Qes		0,43
Total Q-factor	Qts		0,37
Equivalent air volume	Vas	l (ft ³)	16 (0.57)
Voice coil Inductance	Le	mH	0,50
Diaphragm area	Sd	cm ² (in. ²)	227 (35.19)
Reference efficiency	Eta 0	%	1,80

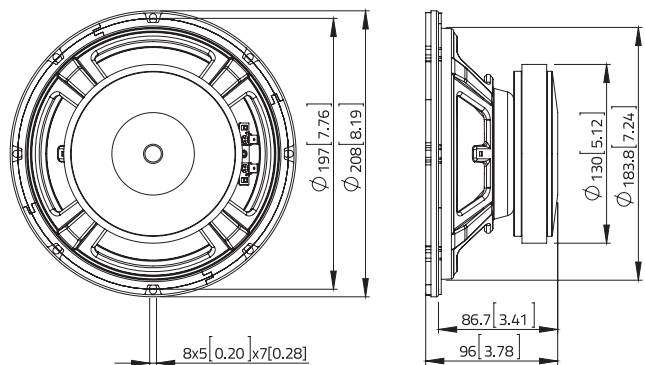
SHIPPING INFORMATION

Net weight	kg (lb.)	2,3 (5)
Multipack size (1)	mm (in.)	260 x 260 x 137 (10.2 x 10.2 x 5.4)
Multipack weight	kg (lb.)	3 (6.6)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



SSF081.50

Lavoce

8" SUBWOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 1.5 INCH COPPER VOICE COIL
- 89 dB/SPL SENSITIVITY
- 400 WATT PROGRAM POWER HANDLING
- 21 mm (0.8 INCH) PEAK TO PEAK MAXIMUM EXCURSION
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- 70 mm INSTALLATION DEPTH
- RESONANCE FREE AND HEAVY DUTY STEEL BASKET DESIGN
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	200 (8)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,8
Program power (1)	W	400
AES Power rating (2)	W	200
Sensitivity (3)	dB	89
Frequency range	Hz	50 ÷ 500
Voice coil diameter	mm (in.)	38 (1.5)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	120 x 60 x 22 (4.7 x 2.4 x 0.9)
Coil material	Copper	
Former material	Aluminium	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	6,3 (0.25)
Xmech (5)	mm (in.)	10,3 (0.41)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	16,5 (0.65)
Driver displacement volume	l (ft ³)	0,7 (0.03)

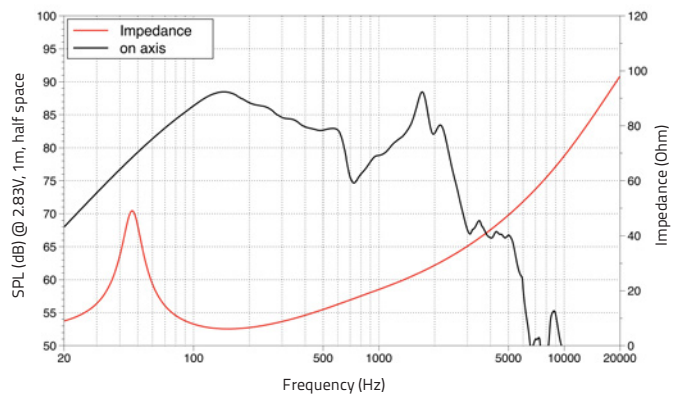
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,3
Resonance frequency	Fs	Hz	47
Moving mass	Mms	g (oz)	46,6 (1.64)
Compliance	Cms	mm/N	0,24
Force factor	BxL	N/A	12,6
Mechanical Q-factor	Qms		3,7
Electrical Q-factor	Qes		0,45
Total Q-factor	Qts		0,40
Equivalent air volume	Vas	l (ft ³)	16 (0.57)
Voice coil Inductance	Le	mH	1,43
Diaphragm area	Sd	cm ² (in. ²)	216 (33.48)
Reference efficiency	Eta 0	%	0,35

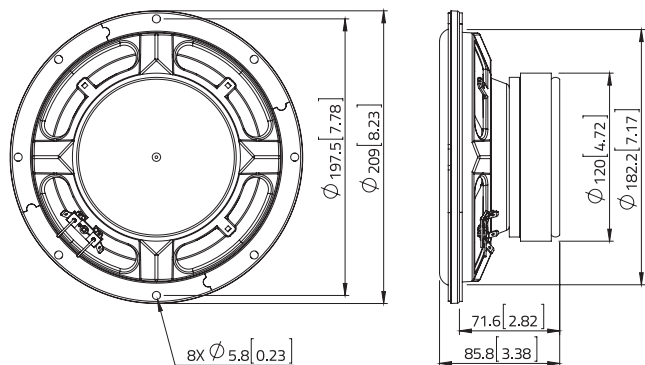
SHIPPING INFORMATION

Net weight	kg (lb.)	2,5 (5.5)
Multipack size (1)	mm	260 x 260 x 120
W x D x H	(in.)	(10.2 x 10.2 x 4.7)
Multipack weight	kg (lb.)	3,1 (6.9)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



SSF082.00L

Lavoce

8" SUBWOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 2 INCH CCAW VOICE COIL
- 87 dB/SPL SENSITIVITY
- 700 WATT PROGRAM POWER HANDLING
- LONG THROW DESIGN
- 29 mm (1.1 INCH) PEAK TO PEAK MAXIMUM EXCURSION
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- OPTIMIZED COOLING SYSTEM
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	200 (8)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,7
Program power (1)	W	700
AES Power rating (2)	W	350
Sensitivity (3)	dB	87
Frequency range	Hz	50 ÷ 500
Voice coil diameter	mm (in.)	51 (2)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	140 x 62 x 20 (5.5 x 2.4 x 0.79)
Coil material	CCAW	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	9 (0.35)
Xmech (5)	mm (in.)	14,5 (0.55)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	23 (0.09)
Driver displacement volume	l (ft ³)	1 (0.03)

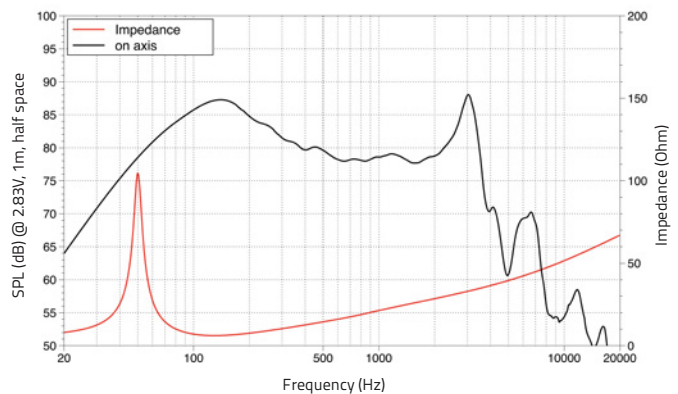
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,2
Resonance frequency	Fs	Hz	50
Moving mass	Mms	g (oz)	66,3 (2.34)
Compliance	Cms	mm/N	0,14
Force factor	BxL	N/A	14,7
Mechanical Q-factor	Qms		9,9
Electrical Q-factor	Qes		0,51
Total Q-factor	Qts		0,50
Equivalent air volume	Vas	l (ft ³)	9,5 (0.34)
Voice coil inductance	Le	mH	2,5
Diaphragm area	Sd	cm ² (in. ²)	216 (33.5)
Reference efficiency	Eta 0	%	0,24

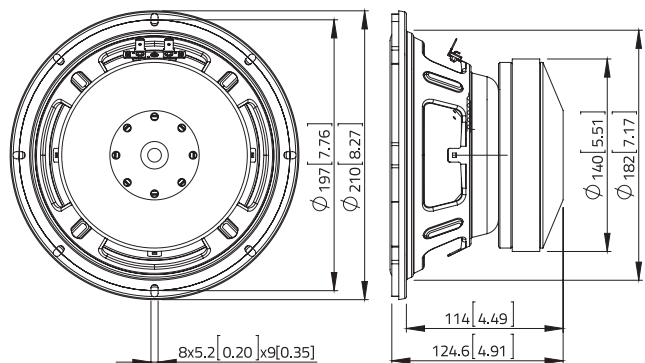
SHIPPING INFORMATION

Net weight	kg (lb.)	4,1 (9)
Multipack size (1)	mm (in.)	260 x 260 x 166 (10.2 x 10.2 x 6.5)
Multipack weight	kg (lb.)	4,8 (10.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



MAF082.00

Lavoce

8" MIDRANGE

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 2 INCH COPPER VOICE COIL
- 98,5 dB/SPL SENSITIVITY
- 400 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- COPPER RING FOR EXTENDED FREQUENCY RESPONSE
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	200 (8)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,5
Program power (1)	W	400
AES Power rating (2)	W	200
Sensitivity (3)	dB	98,5
Frequency range	Hz	90 ÷ 5000
Voice coil diameter	mm (in.)	51 (2)
Chassis material	Aluminum	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	155 x 56 x 17,5 (6.1 x 2.2 x 0.69)
Coil material	Copper	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	2,6 (0.1)
Xmech (5)	mm (in.)	6,6 (0.26)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	9,2 (0.36)
Driver displacement volume	l (ft ³)	0,99 (0.035)

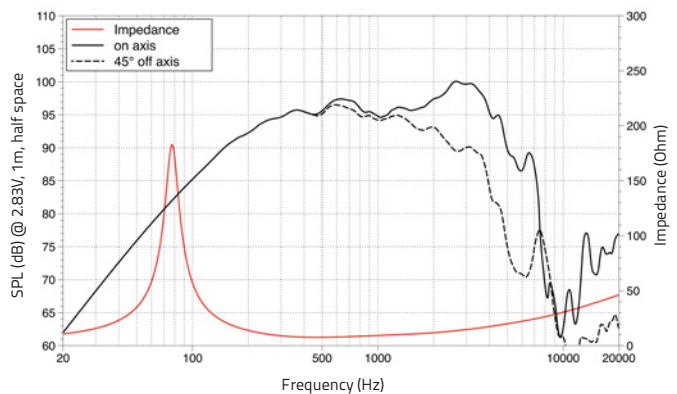
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,8
Resonance frequency	Fs	Hz	77
Moving mass	Mms	g (oz)	20,4 (0.72)
Compliance	Cms	mm/N	0,2
Force factor	BxL	N/A	17,3
Mechanical Q-factor	Qms		5,8
Electrical Q-factor	Qes		0,19
Total Q-factor	Qts		0,18
Equivalent air volume	Vas	l (ft ³)	13 (0.45)
Voice coil Inductance	Le	mH	0,52
Diaphragm area	Sd	cm ² (in. ²)	214 (33.17)
Reference efficiency	Eta 0	%	3,11

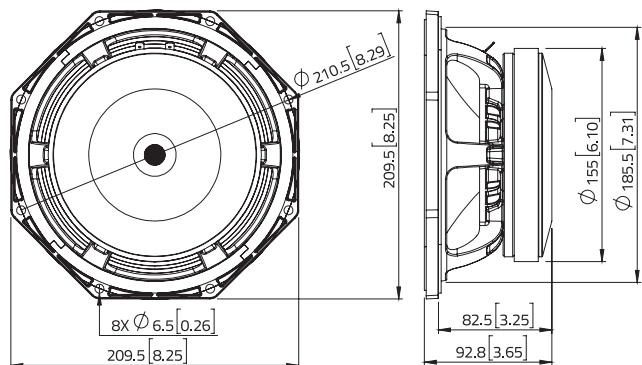
SHIPPING INFORMATION

Net weight	kg (lb.)	4,1 (9)
Multipack size (1)	mm (in.)	260 x 260 x 132 (10.2 x 10.2 x 5.2)
Multipack weight	kg (lb.)	4,7 (10.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice. C.a



WAF082.00

Lavoce

8" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 2 INCH CCAW VOICE COIL
- 95,5 dB/SPL SENSITIVITY
- 400 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- COPPER RING FOR EXTENDED FREQUENCY RESPONSE
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	200 (8)
Nominal impedance	Ω	8
Minimum impedance	Ω	7
Program power (1)	W	400
AES Power rating (2)	W	200
Sensitivity (3)	dB	95,5
Frequency range	Hz	80 ÷ 3000
Voice coil diameter	mm (in.)	51 (2)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	145 x 70 x 22 (5.7 x 2.76 x 0.87)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	6,5 (0.25)
Xmech (5)	mm (in.)	10,6 (0.42)
Gap height	mm (in.)	8,2 (0.32)
Voice coil winding height	mm (in.)	17 (0.67)
Driver displacement volume	l (ft ³)	1 (0.03)

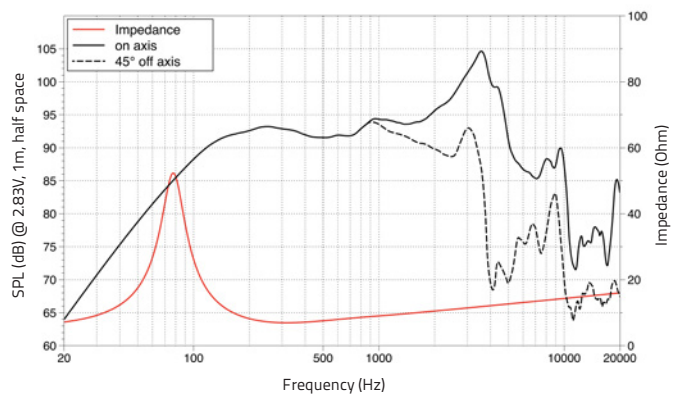
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	78
Moving mass	Mms	g (oz)	24 (0.85)
Compliance	Cms	mm/N	0,17
Force factor	BxL	N/A	12,5
Mechanical Q-factor	Qms		3,5
Electrical Q-factor	Qes		0,4
Total Q-factor	Qts		0,36
Equivalent air volume	Vas	l (ft ³)	12 (0.42)
Voice coil Inductance	Le	mH	0,19
Diaphragm area	Sd	cm ² (in. ²)	227 (35.2)
Reference efficiency	Eta 0	%	1,3

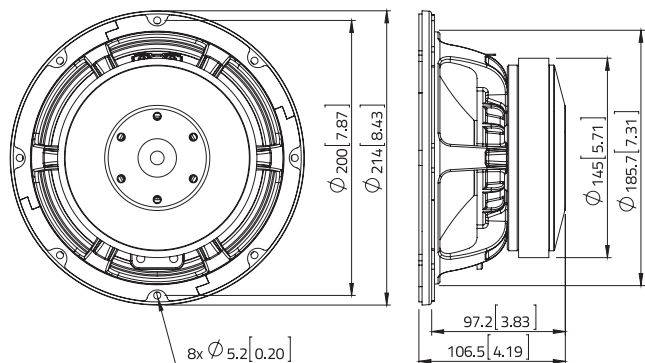
SHIPPING INFORMATION

Net weight	kg (lb.)	4 (8.8)
Multipack size (1)	mm (in.)	260 x 260 x 137 (10.2 x 10.2 x 5.4)
Multipack weight	kg (lb.)	4,8 (10.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WSF101.82

Lavoce

10" WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 1.8 INCH COPPER VOICE COIL
- 97,5 dB/SPL SENSITIVITY
- 300 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,4
Program power (1)	W	300
AES Power rating (2)	W	150
Sensitivity (3)	dB	97,5
Frequency range	Hz	65 ÷ 3000
Voice coil diameter	mm (in.)	45 (1.8)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	130 x 60 x 18 (5.1 x 2.36 x 0.7)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,6 (0.18)
Xmech (5)	mm (in.)	7,1 (0.28)
Gap height	mm (in.)	6 (0.24)
Voice coil winding height	mm (in.)	12,2 (0.48)
Driver displacement volume	l (ft ³)	1,1 (0.04)

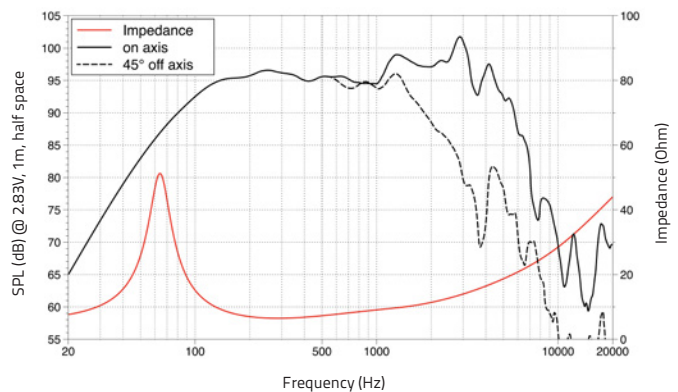
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,6
Resonance frequency	Fs	Hz	64
Moving mass	Mms	g (oz)	26,2 (0.92)
Compliance	Cms	mm/N	0,24
Force factor	BxL	N/A	11,5
Mechanical Q-factor	Qms		3,6
Electrical Q-factor	Qes		0,45
Total Q-factor	Qts		0,40
Equivalent air volume	Vas	l (ft ³)	41,6 (1.47)
Voice coil Inductance	Le	mH	0,43
Diaphragm area	Sd	cm ² (in. ²)	363 (56.27)
Reference efficiency	Eta 0	%	2,30

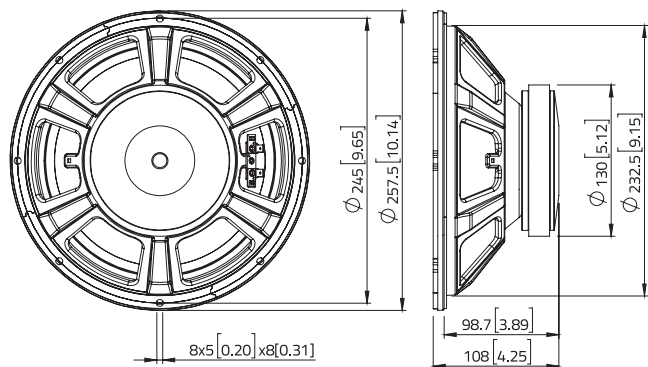
SHIPPING INFORMATION

Net weight	kg (lb.)	2,6 (5.7)
Multipack size (1)	mm (in.)	300 x 300 x 148 (11.8 x 11.8 x 5.8)
Multipack weight	kg (lb.)	3,6 (7.8)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WSF102.00

Lavoce

10" WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 2 INCH CCAW VOICE COIL
- 97 dB/SPL SENSITIVITY
- 350 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,0
Program power (1)	W	350
AES Power rating (2)	W	175
Sensitivity (3)	dB	97
Frequency range	Hz	60 ÷ 4000
Voice coil diameter	mm (in.)	51 (2)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	140 x 60 x 17 (5.51 x 2.36 x 0.67)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	5,3 (0.21)
Xmech (5)	mm (in.)	9,3 (0.37)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	14,6 (0.57)
Driver displacement volume	l (ft ³)	1,2 (0.04)

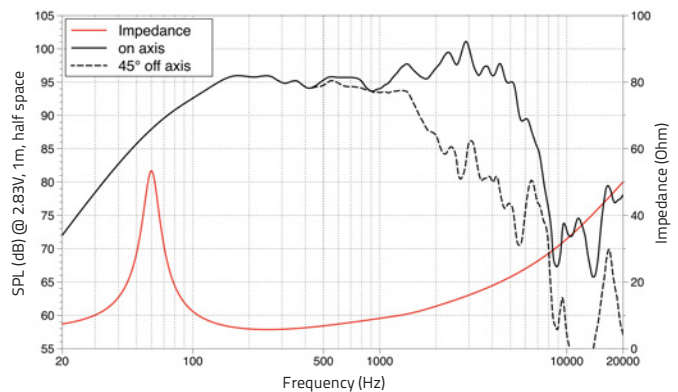
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,2
Resonance frequency	Fs	Hz	65
Moving mass	Mms	g (oz)	30,4 (1.07)
Compliance	Cms	mm/N	0,20
Force factor	BxL	N/A	11,6
Mechanical Q-factor	Qms		5,7
Electrical Q-factor	Qes		0,48
Total Q-factor	Qts		0,44
Equivalent air volume	Vas	l (ft ³)	36,6 (1.29)
Voice coil Inductance	Le	mH	0,50
Diaphragm area	Sd	cm ² (in. ²)	363 (56.27)
Reference efficiency	Eta 0	%	2

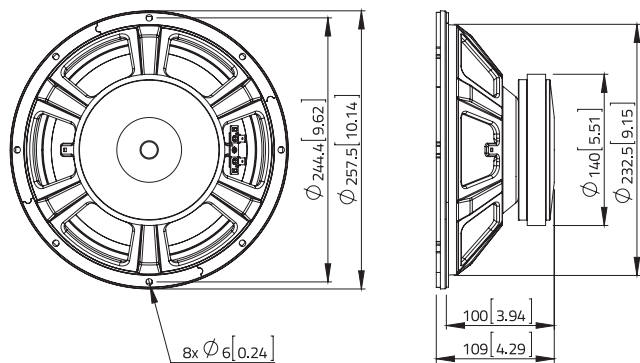
SHIPPING INFORMATION

Net weight	kg (lb.)	3,2 (7)
Multipack size (1)	mm (in.)	300 x 300 x 148 (11.8 x 11.8 x 5.8)
Multipack weight	kg (lb.)	4,1 (9)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WSF102.50

Lavoce

10" WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 2.5 INCH EDGEWOUND CCA VOICE COIL
- 97.5 dB/SPL SENSITIVITY
- 500 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,5
Program power (1)	W	500
AES Power rating (2)	W	250
Sensitivity (3)	dB	97,5
Frequency range	Hz	60 ÷ 2000
Voice coil diameter	mm (in.)	65 (2.5)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	155 x 80 x 20 (6.1 x 3.15 x 0.79)
Coil material	Edgewound CCA	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,8 (0.19)
Xmech (5)	mm (in.)	8,95 (0.35)
Gap height	mm (in.)	8,2 (0.32)
Voice coil winding height	mm (in.)	13,7 (0.54)
Driver displacement volume	l (ft ³)	1,4 (0.05)

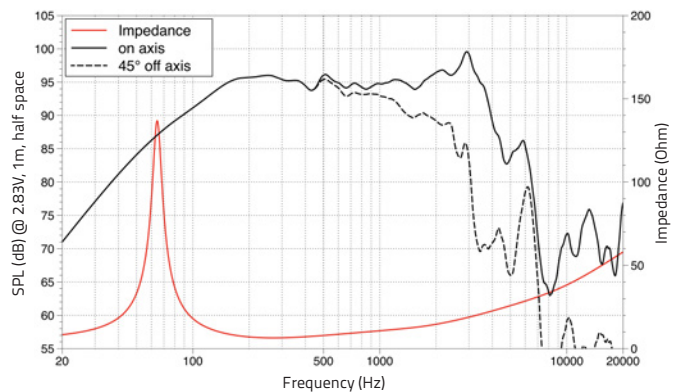
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	64
Moving mass	Mms	g (oz)	35 (1.23)
Compliance	Cms	mm/N	0,17
Force factor	BxL	N/A	14,9
Mechanical Q-factor	Qms		8
Electrical Q-factor	Qes		0,35
Total Q-factor	Qts		0,33
Equivalent air volume	Vas	l (ft ³)	29 (1.02)
Voice coil Inductance	Le	mH	0,80
Diaphragm area	Sd	cm ² (in. ²)	346 (53.63)
Reference efficiency	Eta 0	%	2,1

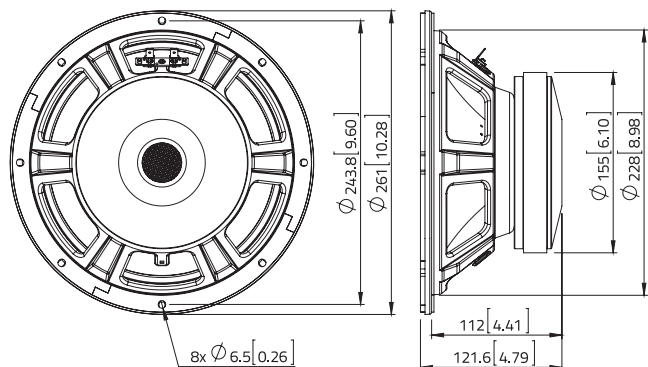
SHIPPING INFORMATION

Net weight	kg (lb.)	4,5 (10)
Multipack size (1)	mm (in.)	300 x 300 x 158 (11.8 x 11.8 x 6.2)
Multipack weight	kg (lb.)	5,5 (12.1)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



SSF102.40

Lavoce

10" SUBWOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 2.4 INCH CCAW VOICE COIL
- 87 dB/SPL SENSITIVITY
- 500 WATT PROGRAM POWER HANDLING
- 24.6 mm (0.9 INCH) PEAK TO PEAK MAXIMUM EXCURSION
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- 83 mm INSTALLATION DEPTH
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,7
Program power (1)	W	500
AES Power rating (2)	W	250
Sensitivity (3)	dB	87
Frequency range	Hz	40 ÷ 500
Voice coil diameter	mm (in.)	61 (2.4)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	140 x 70 x 20 (5.5 x 2.8 x 0.79)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	8,3 (0.33)
Xmech (5)	mm (in.)	12,3 (0.48)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	20,5 (0.81)
Driver displacement volume	l (ft ³)	1,5 (0.03)

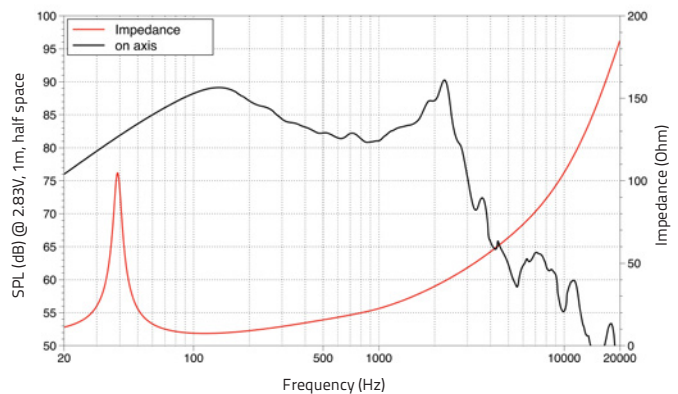
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	6,7
Resonance frequency	Fs	Hz	38
Moving mass	Mms	g (oz)	73,4 (2.6)
Compliance	Cms	mm/N	0,22
Force factor	BxL	N/A	14
Mechanical Q-factor	Qms		8,9
Electrical Q-factor	Qes		0,61
Total Q-factor	Qts		0,57
Equivalent air volume	Vas	l (ft ³)	42 (1.5)
Voice coil Inductance	Le	mH	2,4
Diaphragm area	Sd	cm ² (in. ²)	363 (14.3)
Reference efficiency	Eta 0	%	0,4

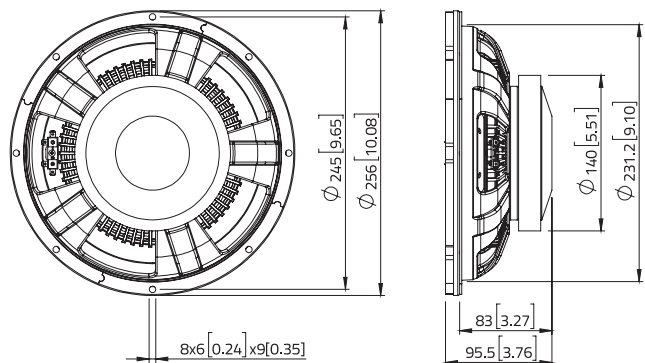
SHIPPING INFORMATION

Net weight	kg (lb.)	3,5 (7.6)
Multipack size (1)	mm (in.)	300 x 300 x 126 (11.8 x 11.8 x 5)
Multipack weight	kg (lb.)	4,3 (9.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



SSF102.50L

Lavoce

10" SUBWOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 2.5 INCH CCAW VOICE COIL
- 91,5 dB/SPL SENSITIVITY
- 800 WATT PROGRAM POWER HANDLING
- LONG THROW DESIGN
- 34 mm (1.3 INCH) PEAK TO PEAK MAXIMUM EXCURSION
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- OPTIMIZED COOLING SYSTEM
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,5
Program power (1)	W	800
AES Power rating (2)	W	400
Sensitivity (3)	dB	91,5
Frequency range	Hz	50 ÷ 500
Voice coil diameter	mm (in.)	65 (2.5)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	170 x 80 x 25 (6.7 x 31.5 x 0.98)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	11,5 (0.45)
Xmech (5)	mm (in.)	17 (0.67)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	28 (1.1)
Driver displacement volume	l (ft ³)	1,6 (0.06)

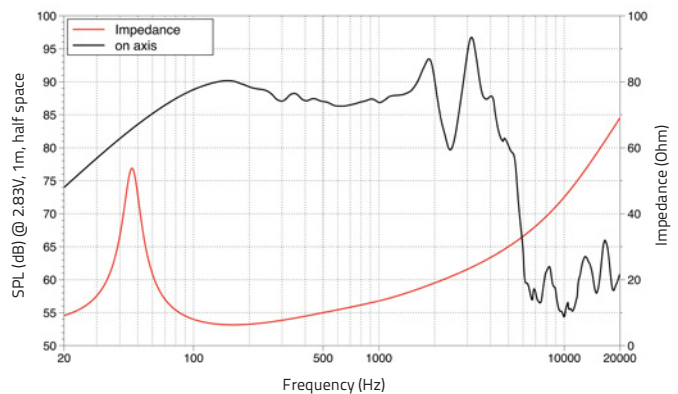
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	50
Moving mass	Mms	g (oz)	67 (2.36)
Compliance	Cms	mm/N	0,13
Force factor	BxL	N/A	15,5
Mechanical Q-factor	Qms		4,6
Electrical Q-factor	Qes		0,53
Total Q-factor	Qts		0,48
Equivalent air volume	Vas	l (ft ³)	25,6 (0.9)
Voice coil Inductance	Le	mH	1,20
Diaphragm area	Sd	cm ² (in. ²)	363 (56.27)
Reference efficiency	Eta 0	%	0,50

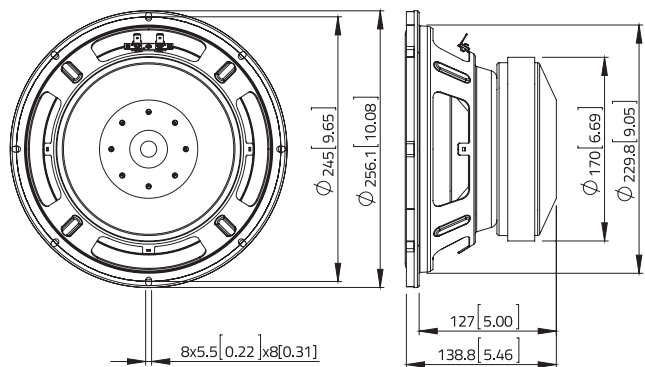
SHIPPING INFORMATION

Net weight	kg (lb.)	7,1 (15.6)
Multipack size (1)	mm (in.)	308 x 308 x 196 (12.1 x 12.1 x 7.7)
Multipack weight	kg (lb.)	8,1 (17.8)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAF102.50

Lavoce

10" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 2.5 INCH CCAW VOICE COIL
- 97 dB/SPL SENSITIVITY
- 500 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,7
Program power (1)	W	500
AES Power rating (2)	W	250
Sensitivity (3)	dB	97
Frequency range	Hz	70 ÷ 4000
Voice coil diameter	mm (in.)	65 (2.5)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	156 x 80 x 20 (6.1 x 3.1 x 0.79)
Coil material	CCAW	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	5,1 (0.2)
Xmech (5)	mm (in.)	9,1 (0.36)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	14,2 (0.56)
Driver displacement volume	l (ft ³)	1,6 (0.06)

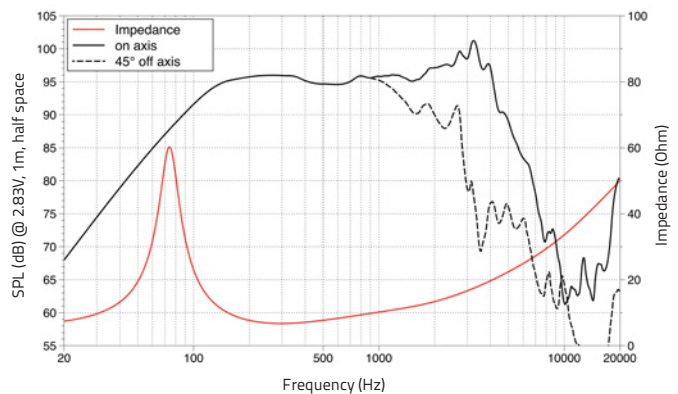
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,6
Resonance frequency	Fs	Hz	74
Moving mass	Mms	g (oz)	33,7 (1.19)
Compliance	Cms	mm/N	0,13
Force factor	BxL	N/A	14,6
Mechanical Q-factor	Qms		4,0
Electrical Q-factor	Qes		0,41
Total Q-factor	Qts		0,37
Equivalent air volume	Vas	l (ft ³)	28 (0.99)
Voice coil Inductance	Le	mH	0,67
Diaphragm area	Sd	cm ² (in. ²)	343 (53.17)
Reference efficiency	Eta 0	%	2,6

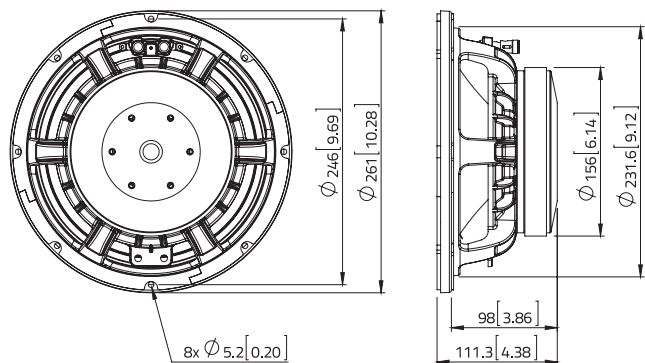
SHIPPING INFORMATION

Net weight	kg (lb.)	4,8 (10.5)
Multipack size (1)	mm (in.)	300 x 300 x 148 (11.8 x 11.8 x 5.8)
Multipack weight	kg (lb.)	5,7 (12.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAF102.51

Lavoce

10" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 2.5 INCH CCAW VOICE COIL
- 96 dB/SPL SENSITIVITY
- 700 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- ALUMINIUM DEMODULATING RING
- TRIPLE ROLL SURROUND
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,8
Program power (1)	W	700
AES Power rating (2)	W	350
Sensitivity (3)	dB	96
Frequency range	Hz	60 ÷ 4000
Voice coil diameter	mm (in.)	65 (2.5)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	155 x 75 x 20 (6.1 x 2.95 x 0.79)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	6,1 (0.24)
Xmech (5)	mm (in.)	11,6 (0.46)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	17,2 (0.68)
Driver displacement volume	l (ft ³)	1,6 (0.06)

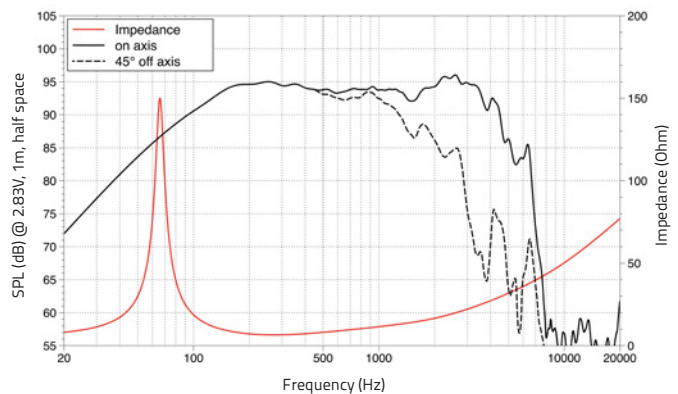
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,7
Resonance frequency	Fs	Hz	66
Moving mass	Mms	g (oz)	37,6 (1.33)
Compliance	Cms	mm/N	0,15
Force factor	BxL	N/A	15,7
Mechanical Q-factor	Qms		9,0
Electrical Q-factor	Qes		0,36
Total Q-factor	Qts		0,34
Equivalent air volume	Vas	l (ft ³)	26 (0.92)
Voice coil Inductance	Le	mH	0,98
Diaphragm area	Sd	cm ² (in. ²)	346 (53.63)
Reference efficiency	Eta 0	%	2

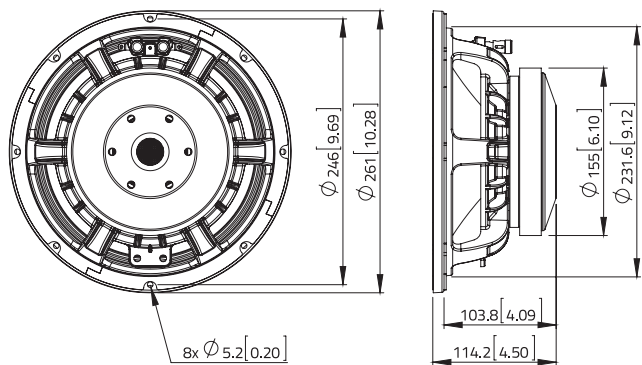
SHIPPING INFORMATION

Net weight	kg (lb.)	4,8 (10.5)
Multipack size (1)	mm (in.)	300 x 300 x 148 (11.8 x 11.8 x 5.8)
Multipack weight	kg (lb.)	5,7 (12.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAF102.52

Lavoce

10" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 2.5 INCH CCAW VOICE COIL
- 96 dB/SPL SENSITIVITY
- 700 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- TRIPLE ROLL SURROUND
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,90
Program power (1)	W	700
AES Power rating (2)	W	350
Sensitivity (3)	dB	96
Frequency range	Hz	60 ÷ 4000
Voice coil diameter	mm (in.)	65 (2.5)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	160 x 70 x 20 (6.3 x 2.76 x 0.79)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	9,1 (0.36)
Xmech (5)	mm (in.)	14,6 (0.57)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	23,1 (0.91)
Driver displacement volume	l (ft ³)	1.6 (0.06)

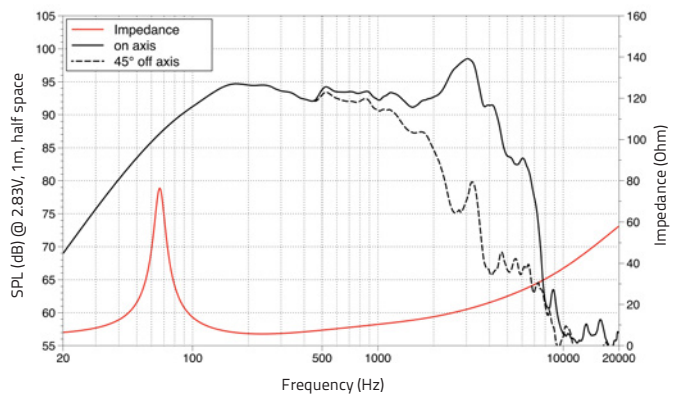
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	4,9
Resonance frequency	Fs	Hz	66
Moving mass	Mms	g (oz)	41,7 (1.47)
Compliance	Cms	mm/N	0,14
Force factor	BxL	N/A	13,9
Mechanical Q-factor	Qms		6,4
Electrical Q-factor	Qes		0,44
Total Q-factor	Qts		0,41
Equivalent air volume	Vas	l (ft ³)	23,5
Voice coil Inductance	Le	mH	0,8
Diaphragm area	Sd	cm ² (in. ²)	346 (53.63)
Reference efficiency	Eta 0	%	1,5

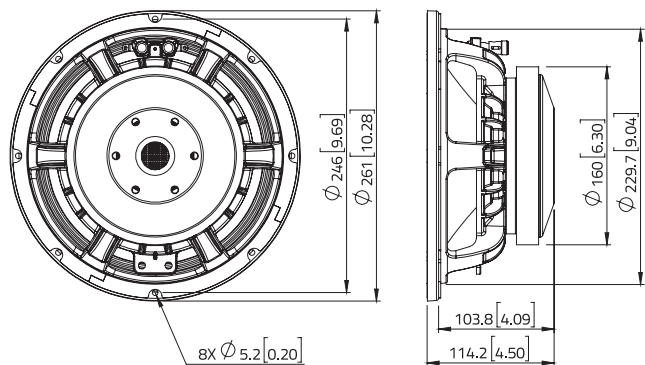
SHIPPING INFORMATION

Net weight	kg (lb.)	5 (11)
Multipack size (1)	mm (in.)	300 x 300 x 148 (11.8 x 11.8 x 5.8)
Multipack weight	kg (lb.)	5,9 (12.9)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAF102.50A

Lavoce

10" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 2.5 INCH EDGEWOUND CCA VOICE COIL
- 98 dB/SPL SENSITIVITY
- 500 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,7
Program power (1)	W	500
AES Power rating (2)	W	250
Sensitivity (3)	dB	98
Frequency range	Hz	70 ÷ 4000
Voice coil diameter	mm (in.)	65 (2.5)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	155 x 80 x 20 (6.1 x 3.1 x 0.8)
Coil material	Edgewound CCA	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	5 (0.2)
Xmech (5)	mm (in.)	9 (0.35)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	14 (0.55)
Driver displacement volume	l (ft ³)	1,5 (0.05)

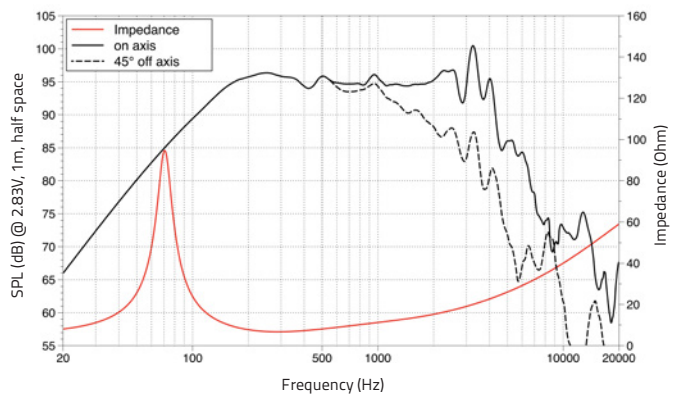
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	71
Moving mass	Mms	g (oz)	34,6 (1.22)
Compliance	Cms	mm/N	0,14
Force factor	BxL	N/A	16
Mechanical Q-factor	Qms		5,3
Electrical Q-factor	Qes		0,33
Total Q-factor	Qts		0,31
Equivalent air volume	Vas	l (ft ³)	23,6 (0.83)
Voice coil Inductance	Le	mH	0,80
Diaphragm area	Sd	cm ² (in. ²)	343 (53.17)
Reference efficiency	Eta 0	%	2,5

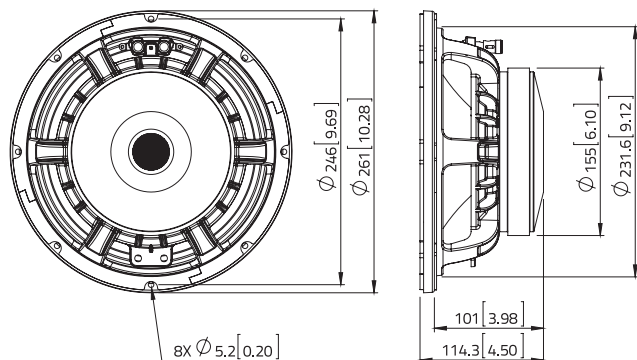
SHIPPING INFORMATION

Net weight	kg (lb.)	4,7 (10.2)
Multipack size (1)	mm (in.)	300 x 300 x 148 (11.8 x 11.8 x 5.8)
Multipack weight	kg (lb.)	5,6 (12.3)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



MAF103.00

Lavoce

10" MIDRANGE

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 3 INCH COPPER VOICE COIL
- 99 dB/SPL SENSITIVITY
- 700 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,2
Program power (1)	W	700
AES Power rating (2)	W	350
Sensitivity (3)	dB	99
Frequency range	Hz	70 - 4000
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Aluminum	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	200 x 85 x 19 (7.87 x 3.35 x 0.75)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	2,2 (0,09)
Xmech (5)	mm (in.)	6,2 (0.24)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	8,3 (0.33)
Driver displacement volume	l (ft ³)	1,8 (0.064)

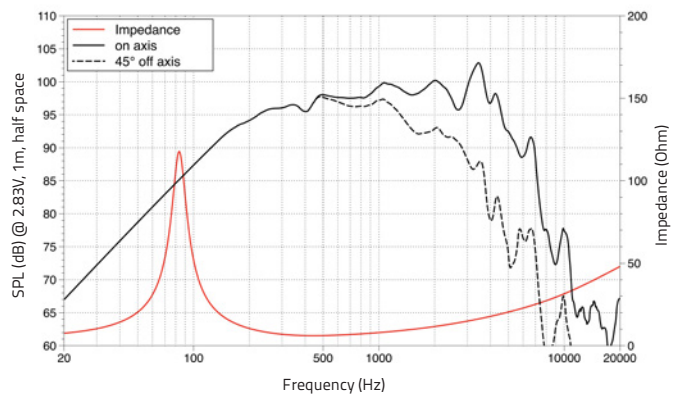
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,1
Resonance frequency	Fs	Hz	83
Moving mass	Mms	g (oz)	41 (1.45)
Compliance	Cms	mm/N	0,1
Force factor	BxL	N/A	20,7
Mechanical Q-factor	Qms		5,6
Electrical Q-factor	Qes		0,25
Total Q-factor	Qts		0,24
Equivalent air volume	Vas	l (ft ³)	15,3 (0.54)
Voice coil Inductance	Le	mH	0,78
Diaphragm area	Sd	cm ² (in. ²)	350 (54.25)
Reference efficiency	Eta 0	%	3,36

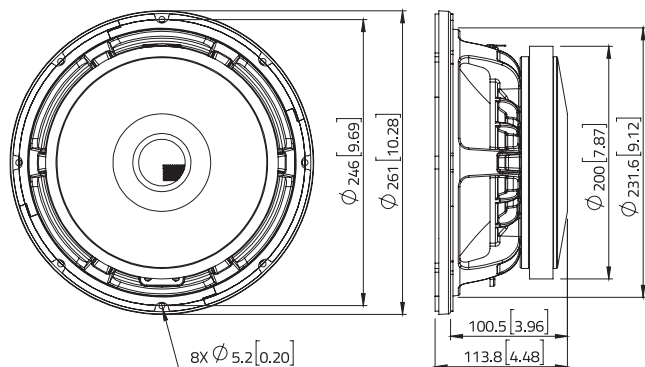
SHIPPING INFORMATION

Net weight	kg (lb.)	6,9 (15.2)
Multipack size (1)	mm (in.)	300 x 300 x 148 (11.8 x 11.8 x 5.8)
Multipack weight	kg (lb.)	7,8 (17.2)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WSF122.02

Lavoce

12" WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 2 INCH COPPER VOICE COIL
- 97,5 dB/SPL SENSITIVITY
- 400 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,1
Program power (1)	W	400
AES Power rating (2)	W	200
Sensitivity (3)	dB	97,5
Frequency range	Hz	50 ÷ 3000
Voice coil diameter	mm (in.)	51 (2)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	140 x 60 x 17 (5.5 x 2.36 x 0.7)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,3 (0.17)
Xmech (5)	mm (in.)	8,3 (0.33)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	12,6 (0.5)
Driver displacement volume	l (ft ³)	1,9 (0.07)

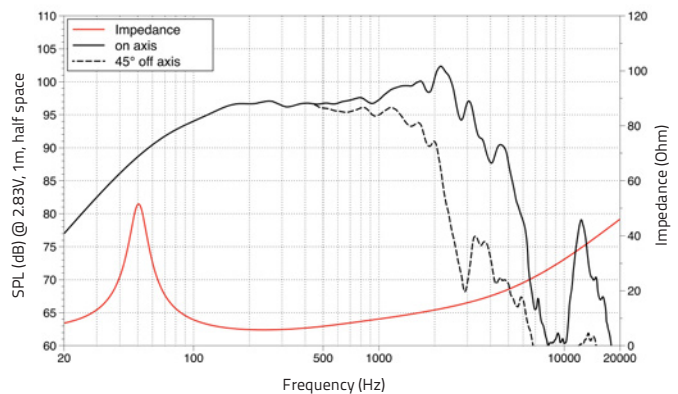
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,2
Resonance frequency	Fs	Hz	50
Moving mass	Mms	g (oz)	44,8 (1.58)
Compliance	Cms	mm/N	0,22
Force factor	BxL	N/A	12,8
Mechanical Q-factor	Qms		4
Electrical Q-factor	Qes		0,45
Total Q-factor	Qts		0,40
Equivalent air volume	Vas	l (ft ³)	88 (3.11)
Voice coil Inductance	Le	mH	0,53
Diaphragm area	Sd	cm ² (in. ²)	531 (82.31)
Reference efficiency	Eta 0	%	2,4

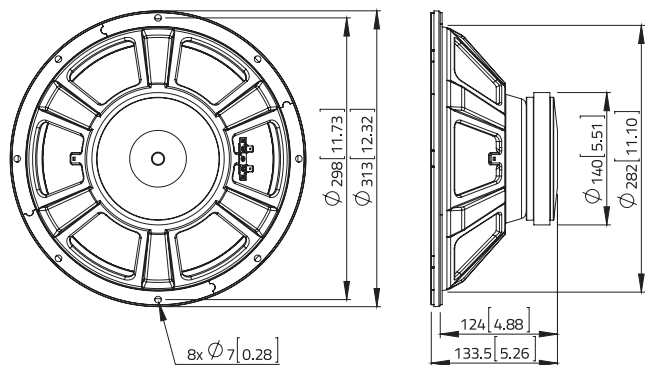
SHIPPING INFORMATION

Net weight	kg (lb.)	3,5 (7.6)
Multipack size (1)	mm (in.)	356 x 356 x 173 (14 x 14 x 6.8)
Multipack weight	kg (lb.)	4,8 (10.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



FSF122.02

Lavoce

12" FULLRANGE

FERRITE MAGNET
STEEL BASKET DRIVER



- 2 INCH COPPER VOICE COIL
- 98 dB/SPL SENSITIVITY
- 200 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- DUAL CONE FOR EXTENDED FREQUENCY RESPONSE
- SMOOTH AND SILKY TONE
- RESONANCE FREE AND HEAVY DUTY STEEL BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,4
Program power (1)	W	200
AES Power rating (2)	W	100
Sensitivity (3)	dB	98
Frequency range	Hz	60 ÷ 10000
Voice coil diameter	mm (in.)	51 (2)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	155 x 80 x 20 (6.1 x 3.15 x 0.79)
Coil material	Copper	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	3 (0.12)
Xmech (5)	mm (in.)	7 (0.28)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	10 (0.39)
Driver displacement volume	l (ft ³)	2,32 (0.082)

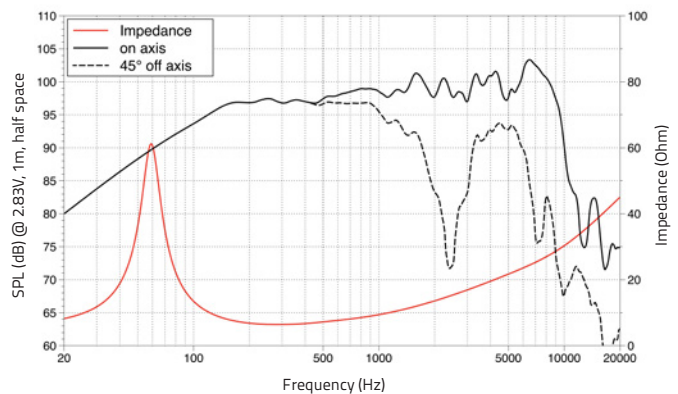
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,7
Resonance frequency	Fs	Hz	59
Moving mass	Mms	g (oz)	43,8 (1.54)
Compliance	Cms	mm/N	0,16
Force factor	BxL	N/A	14,6
Mechanical Q-factor	Qms		4,2
Electrical Q-factor	Qes		0,43
Total Q-factor	Qts		0,39
Equivalent air volume	Vas	l (ft ³)	58 (2.04)
Voice coil Inductance	Le	mH	0,55
Diaphragm area	Sd	cm ² (in. ²)	499 (77.35)
Reference efficiency	Eta 0	%	2,66

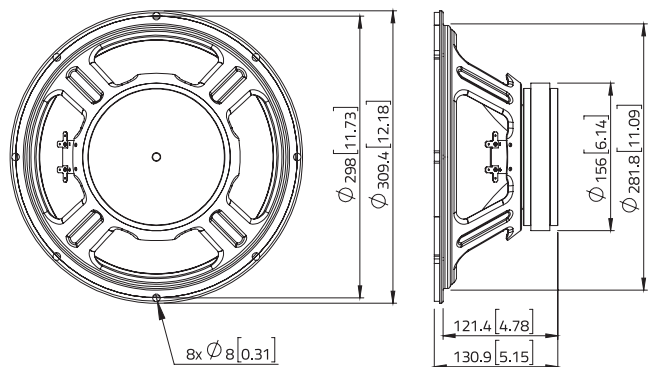
SHIPPING INFORMATION

Net weight	kg (lb.)	4,4 (9.7)
Multipack size (1)	mm (in.)	356 x 356 x 173 (14 x 14 x 6.8)
Multipack weight	kg (lb.)	5,7 (12.6)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WSF122.50

Lavoce

12" WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 2.5 INCH COPPER VOICE COIL
- 97,5 dB/SPL SENSITIVITY
- 500 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,4
Program power (1)	W	500
AES Power rating (2)	W	250
Sensitivity (3)	dB	97,5
Frequency range	Hz	50 ÷ 3000
Voice coil diameter	mm (in.)	65 (2,5)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	160 x 70 x 20 (6.3 x 2.76 x 0.79)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,7 (0.18)
Xmech (5)	mm (in.)	8,8 (0.35)
Gap height	mm (in.)	8,2 (0.32)
Voice coil winding height	mm (in.)	13,4 (0.53)
Driver displacement volume	l (ft ³)	2 (0.07)

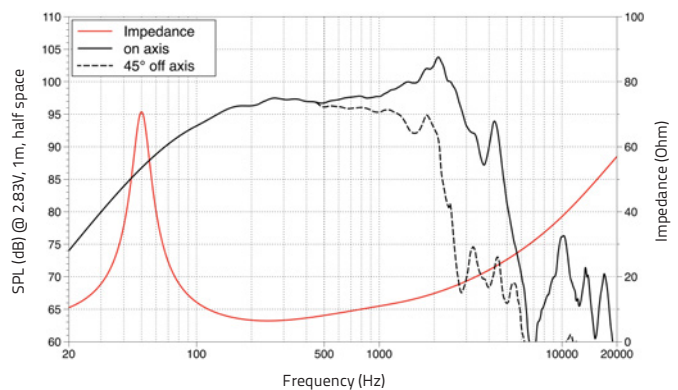
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	50
Moving mass	Mms	g (oz)	58,4 (2.05)
Compliance	Cms	mm/N	0,18
Force factor	BxL	N/A	17,1
Mechanical Q-factor	Qms		5,5
Electrical Q-factor	Qes		0,34
Total Q-factor	Qts		0,32
Equivalent air volume	Vas	l (ft ³)	72 (2.54)
Voice coil Inductance	Le	mH	0,76
Diaphragm area	Sd	cm ² (in. ²)	531 (82.31)
Reference efficiency	Eta 0	%	2,3

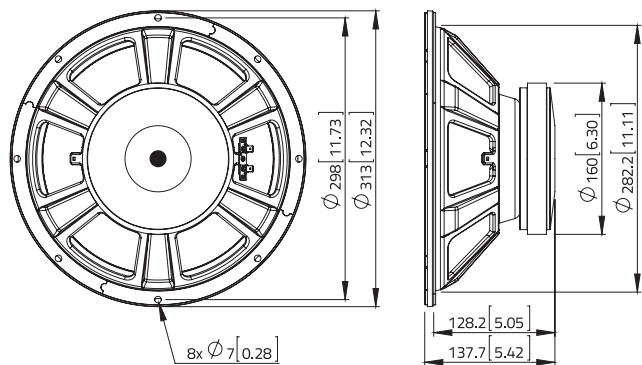
SHIPPING INFORMATION

Net weight	kg (lb.)	4,7 (10.3)
Multipack size (1)	mm (in.)	356 x 356 x 173 (14 x 14 x 6.8)
Multipack weight	kg (lb.)	6 (13.3)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



SSF122.50L

Lavoce

12" SUBWOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 2.5 INCH CCAW VOICE COIL
- 93 dB/SPL SENSITIVITY
- 800 WATT PROGRAM POWER HANDLING
- LONG THROW DESIGN
- 34 mm (1.3 INCH) PEAK TO PEAK MAXIMUM EXCURSION
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- OPTIMIZED COOLING SYSTEM
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,4
Program power (1)	W	800
AES Power rating (2)	W	400
Sensitivity (3)	dB	93
Frequency range	Hz	40 ÷ 500
Voice coil diameter	mm (in.)	65 (2.5)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	193 x 80 x 25 (7.59 x 3.15 x 0.94)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	11,5 (0.45)
Xmech (5)	mm (in.)	17 (0.67)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	28 (1.1)
Driver displacement volume	l (ft ³)	2,9 (0.1)

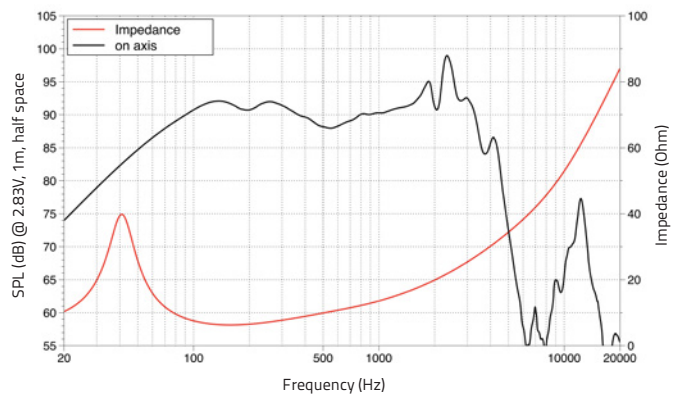
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,4
Resonance frequency	Fs	Hz	41
Moving mass	Mms	g (oz)	101 (3.56)
Compliance	Cms	mm/N	0,14
Force factor	BxL	N/A	17,3
Mechanical Q-factor	Qms		2,9
Electrical Q-factor	Qes		0,46
Total Q-factor	Qts		0,41
Equivalent air volume	Vas	l (ft ³)	59 (2.08)
Voice coil Inductance	Le	mH	1,30
Diaphragm area	Sd	cm ² (in. ²)	531 (82.31)
Reference efficiency	Eta 0	%	0,80

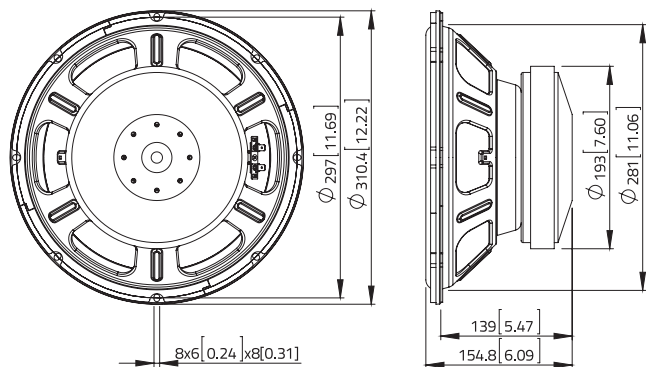
SHIPPING INFORMATION

Net weight	kg (lb.)	8,7 (19.2)
Multipack size (1)	mm (in.)	356 x 356 x 192 (14 x 14 x 7.6)
Multipack weight	kg (lb.)	10,2 (22.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAF122.50

Lavoce

12" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 2.5 INCH CCAW VOICE COIL
- 97 dB/SPL SENSITIVITY
- 700 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,6
Program power (1)	W	700
AES Power rating (2)	W	350
Sensitivity (3)	dB	97
Frequency range	Hz	60 ÷ 3000
Voice coil diameter	mm (in.)	65 (2.5)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	170 x 75 x 20 (6.69 x 2.95 x 0.79)
Coil material	CCAW	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	6 (0.24)
Xmech (5)	mm (in.)	11,5 (0.45)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	17 (0.67)
Driver displacement volume	l (ft ³)	2,6 (0.09)

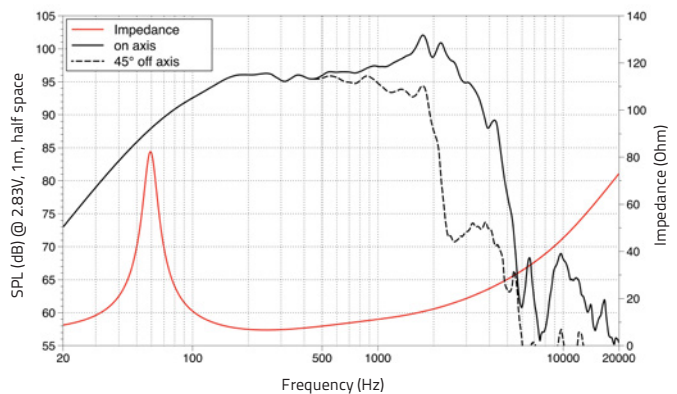
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,7
Resonance frequency	Fs	Hz	59
Moving mass	Mms	g (oz)	66,6 (2.35)
Compliance	Cms	mm/N	0,12
Force factor	BxL	N/A	19
Mechanical Q-factor	Qms		5,8
Electrical Q-factor	Qes		0,39
Total Q-factor	Qts		0,36
Equivalent air volume	Vas	l (ft ³)	47 (1.66)
Voice coil Inductance	Le	mH	0,88
Diaphragm area	Sd	cm ² (in. ²)	544 (84.32)
Reference efficiency	Eta 0	%	2,4

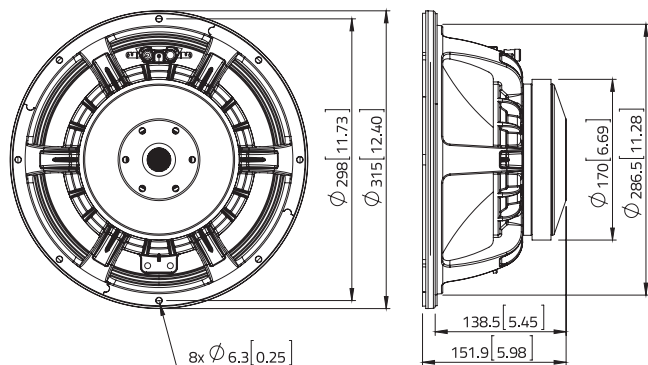
SHIPPING INFORMATION

Net weight	kg (lb.)	6,3 (13.9)
Multipack size (1)	mm (in.)	356 x 356 x 192 (14 x 14 x 7.6)
Multipack weight	kg (lb.)	7,8 (17.1)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAF123.00

Lavoce

12" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 3 INCH CCAW VOICE COIL
- 99 dB/SPL SENSITIVITY
- 1000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,0
Program power (1)	W	1000
AES Power rating (2)	W	500
Sensitivity (3)	dB	99
Frequency range	Hz	50 ÷ 3000
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	190 x 95 x 25 (7.48 x 3.74 x 0.98)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	7,2 (0.28)
Xmech (5)	mm (in.)	12,7 (0.5)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	19,3 (0.76)
Driver displacement volume	l (ft ³)	2,8 (0.09)

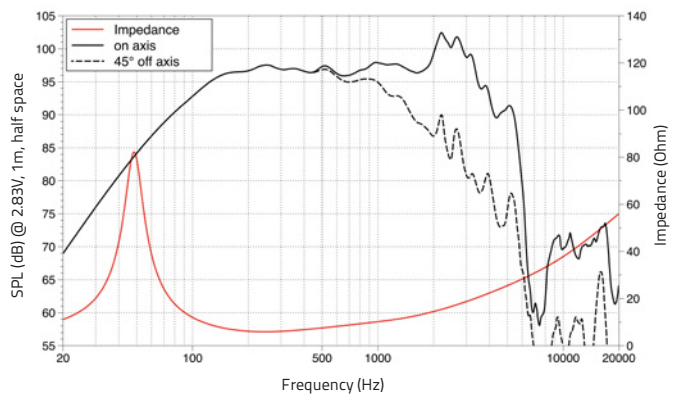
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	4,8
Resonance frequency	Fs	Hz	50
Moving mass	Mms	g (oz)	59 (2.08)
Compliance	Cms	mm/N	0,17
Force factor	BxL	N/A	18,2
Mechanical Q-factor	Qms		3,5
Electrical Q-factor	Qes		0,26
Total Q-factor	Qts		0,25
Equivalent air volume	Vas	l (ft ³)	69 (2.44)
Voice coil Inductance	Le	mH	0,84
Diaphragm area	Sd	cm ² (in. ²)	531 (82.31)
Reference efficiency	Eta 0	%	3

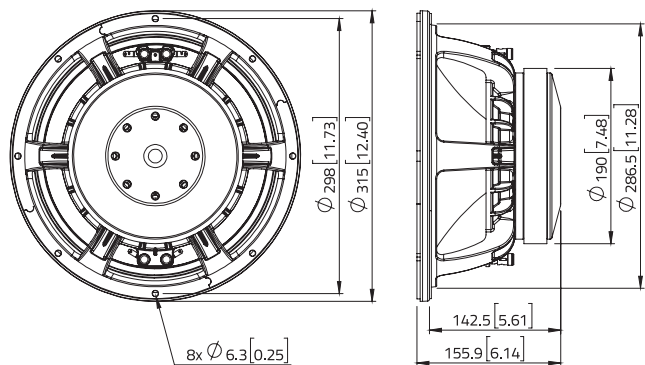
SHIPPING INFORMATION

Net weight	kg (lb.)	8,7 (19.2)
Multipack size (1)	mm (in.)	356 x 356 x 192 (14 x 14 x 7.6)
Multipack weight	kg (lb.)	10,4 (22.8)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WAF123.01

Lavoce

12" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 3 INCH CCAW VOICE COIL
- 98 dB/SPL SENSITIVITY
- 1000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- ALUMINIUM DEMODULATING RING

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,6
Program power (1)	W	1000
AES Power rating (2)	W	500
Sensitivity (3)	dB	98
Frequency range	Hz	65 ÷ 3000
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	190 x 95 x 25 (7.48 x 3.74 x 0.98)
Coil material	CCA W	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	7,5 (0.3)
Xmech (5)	mm (in.)	13 (0.51)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	20 (0.79)
Driver displacement volume	l (ft ³)	2,8 (0.1)

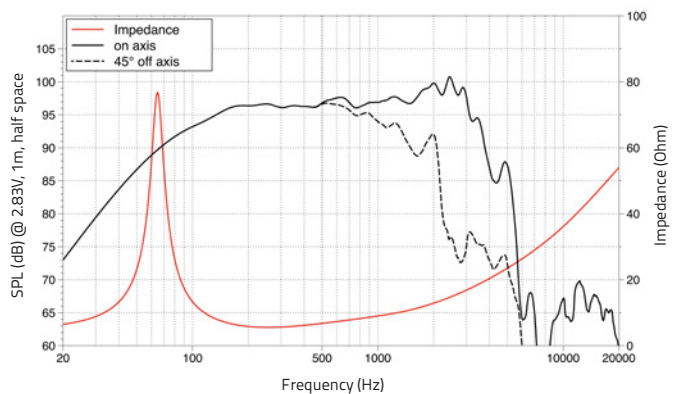
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	4,8
Resonance frequency	Fs	Hz	65
Moving mass	Mms	g (oz)	63 (2.22)
Compliance	Cms	mm/N	0,10
Force factor	BxL	N/A	17,0
Mechanical Q-factor	Qms		6,3
Electrical Q-factor	Qes		0,42
Total Q-factor	Qts		0,39
Equivalent air volume	Vas	l (ft ³)	42 (1.48)
Voice coil Inductance	Le	mH	0,74
Diaphragm area	Sd	cm ² (in. ²)	531 (82.31)
Reference efficiency	Eta 0	%	2,30

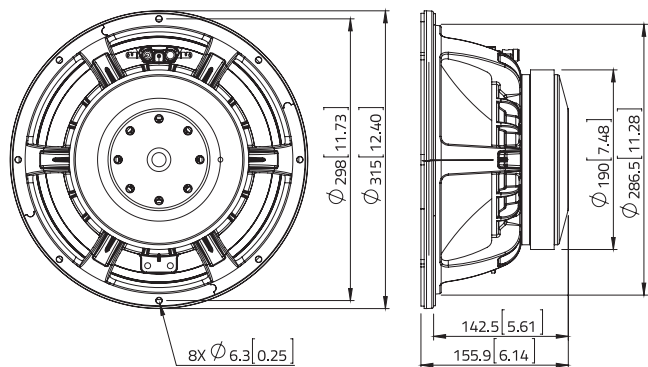
SHIPPING INFORMATION

Net weight	kg (lb.)	8,6 (18.9)
Multipack size (1)	mm (in.)	356 x 356 x 192 (14 x 14 x 7.6)
Multipack weight	kg (lb.)	10,2 (22.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAF123.02

Lavoce

12" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 3 INCH CCAW VOICE COIL
- 99 dB/SPL SENSITIVITY
- 1000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- ALUMINIUM DEMODULATING RING

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,0
Program power (1)	W	1000
AES Power rating (2)	W	500
Sensitivity (3)	dB	99
Frequency range	Hz	45 ÷ 3000
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	200 x 95 x 25 (7.87 x 3.74 x 0.98)
Coil material	CCA W	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,6 (0.18)
Xmech (5)	mm (in.)	10,1 (0.4)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	14,2 (0.56)
Driver displacement volume	l (ft ³)	2,8 (0.1)

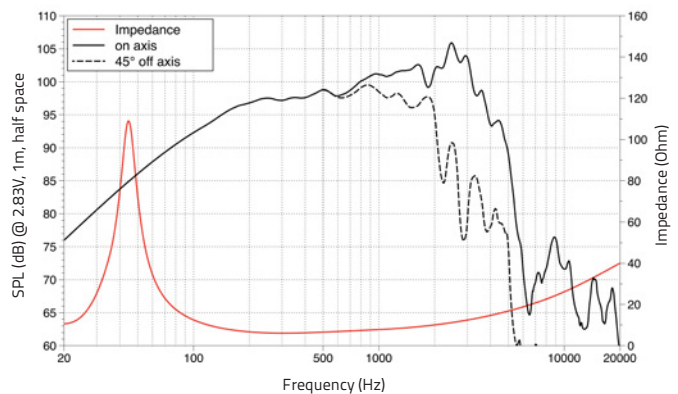
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,2
Resonance frequency	Fs	Hz	45
Moving mass	Mms	g (oz)	57 (2.01)
Compliance	Cms	mm/N	0,20
Force factor	BxL	N/A	18,3
Mechanical Q-factor	Qms		5,2
Electrical Q-factor	Qes		0,26
Total Q-factor	Qts		0,25
Equivalent air volume	Vas	l (ft ³)	80,0
Voice coil Inductance	Le	mH	0,47
Diaphragm area	Sd	cm ² (in. ²)	531 (82.3)
Reference efficiency	Eta 0	%	3,05

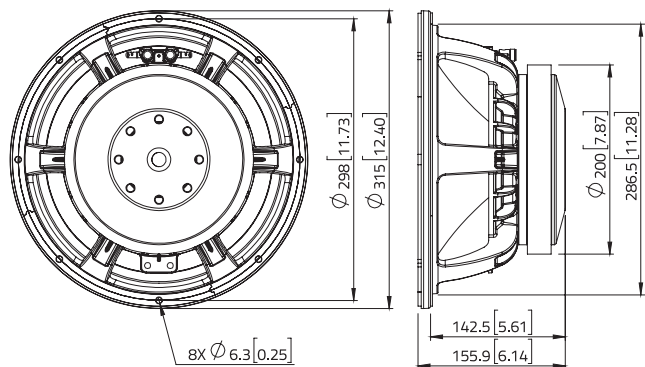
SHIPPING INFORMATION

Net weight	kg (lb.)	8,9 (19.6)
Multipack size (1)	mm (in.)	356 x 356 x 192 (14 x 14 x 7.6)
Multipack weight	kg (lb.)	10,6 (23.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAF123.03

Lavoce

12" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 3 INCH CCAW VOICE COIL
- 99 dB/SPL SENSITIVITY
- 1000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,8
Program power (1)	W	1000
AES Power rating (2)	W	500
Sensitivity (3)	dB	99
Frequency range	Hz	50 ÷ 3000
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	190 x 95 x 25 (7.48 x 3.74 x 0.98)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	9,8 (0.39)
Xmech (5)	mm (in.)	15,3 (0.6)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	24,5 (0.96)
Driver displacement volume	l (ft ³)	2,8 (0.09)

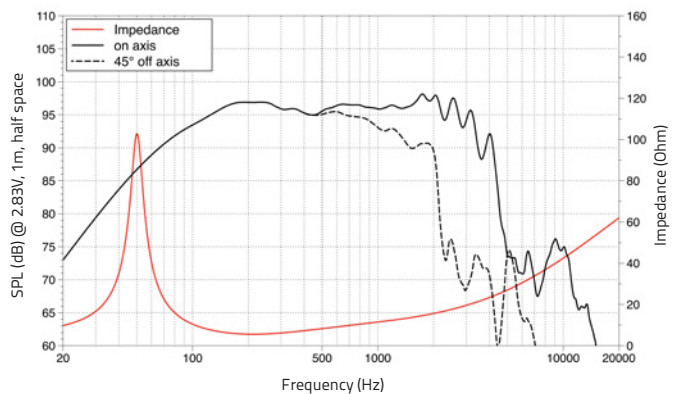
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	4,6
Resonance frequency	Fs	Hz	50
Moving mass	Mms	g (oz)	66 (2.33)
Compliance	Cms	mm/N	0,15
Force factor	BxL	N/A	17,8
Mechanical Q-factor	Qms		6,6
Electrical Q-factor	Qes		0,30
Total Q-factor	Qts		0,29
Equivalent air volume	Vas	l (ft ³)	70,0
Voice coil Inductance	Le	mH	0,9
Diaphragm area	Sd	cm ² (in. ²)	556 (86.18)
Reference efficiency	Eta 0	%	2,68

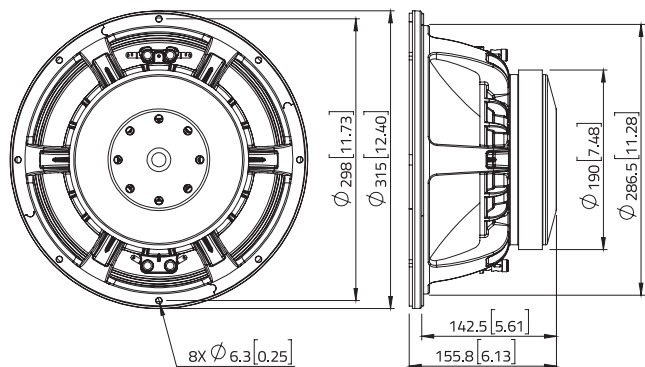
SHIPPING INFORMATION

Net weight	kg (lb.)	8,9 (19.6)
Multipack size (1)	mm (in.)	356 x 356 x 192 (14 x 14 x 7.6)
Multipack weight	kg (lb.)	10,6 (23.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAF124.01

Lavoce

12" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH COPPER VOICE COIL
- 95 dB/SPL SENSITIVITY
- 2000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- ALUMINIUM DEMODULATING RING
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,7
Program power (1)	W	2000
AES Power rating (2)	W	1000
Sensitivity (3)	dB	95
Frequency range	Hz	40 ÷ 1000
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	220 x 120 x 25 (8.66 x 4.72 x 0.98)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	9 (0.35)
Xmech (5)	mm (in.)	16 (0.63)
Gap height	mm (in.)	12 (0.47)
Voice coil winding height	mm (in.)	24 (0.94)
Driver displacement volume	l (ft ³)	3,2 (0.11)

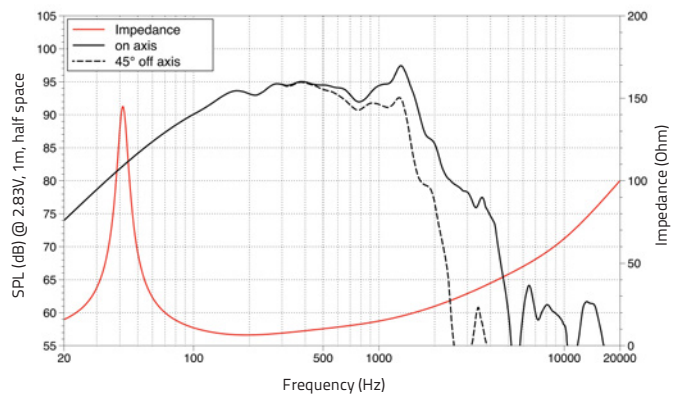
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,1
Resonance frequency	Fs	Hz	42
Moving mass	Mms	g (oz)	120 (4.23)
Compliance	Cms	mm/N	0,11
Force factor	BxL	N/A	26,4
Mechanical Q-factor	Qms		6,3
Electrical Q-factor	Qes		0,23
Total Q-factor	Qts		0,22
Equivalent air volume	Vas	l (ft ³)	49 (1.73)
Voice coil Inductance	Le	mH	1,7
Diaphragm area	Sd	cm ² (in. ²)	540 (83.7)
Reference efficiency	Eta 0	%	1,4

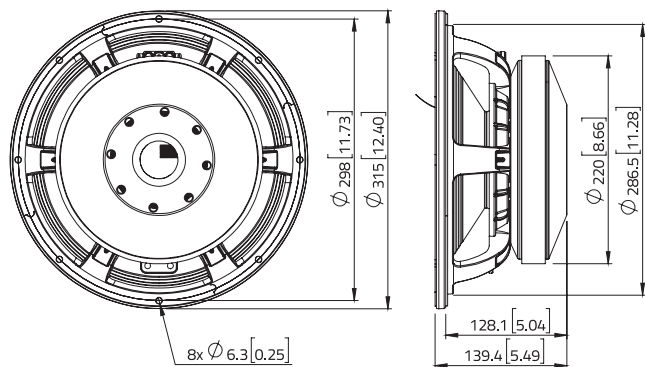
SHIPPING INFORMATION

Net weight	kg (lb.)	12,1 (26.6)
Multipack size (1)	mm (in.)	356 x 356 x 192 (14 x 14 x 7.6)
Multipack weight	kg (lb.)	13,4 (29.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAF124.02

Lavoce

12" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH CCAW VOICE COIL
- 97 dB/SPL SENSITIVITY
- 1200 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- ALUMINIUM DEMODULATING RING
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,8
Program power (1)	W	1200
AES Power rating (2)	W	600
Sensitivity (3)	dB	97
Frequency range	Hz	50 ÷ 2500
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminum	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	200 x 110 x 22 (7.87 x 4.33 x 0.87)
Coil material	CCAW	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	9,1 (0.36)
Xmech (5)	mm (in.)	14,6 (0.57)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	23,2 (0.91)
Driver displacement volume	l (ft ³)	2,932 (0.104)

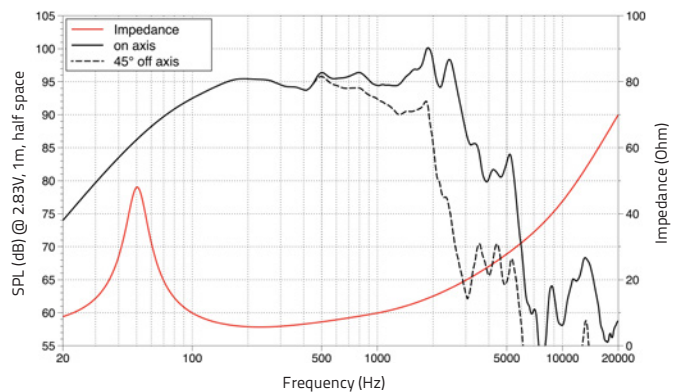
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5
Resonance frequency	Fs	Hz	52
Moving mass	Mms	g (oz)	77,3 (2.73)
Compliance	Cms	mm/N	0,12
Force factor	BxL	N/A	17,8
Mechanical Q-factor	Qms		3,4
Electrical Q-factor	Qes		0,39
Total Q-factor	Qts		0,35
Equivalent air volume	Vas	l (ft ³)	49,4 (1.7)
Voice coil Inductance	Le	mH	0,91
Diaphragm area	Sd	cm ² (in. ²)	531 (82.31)
Reference efficiency	Eta 0	%	1,66

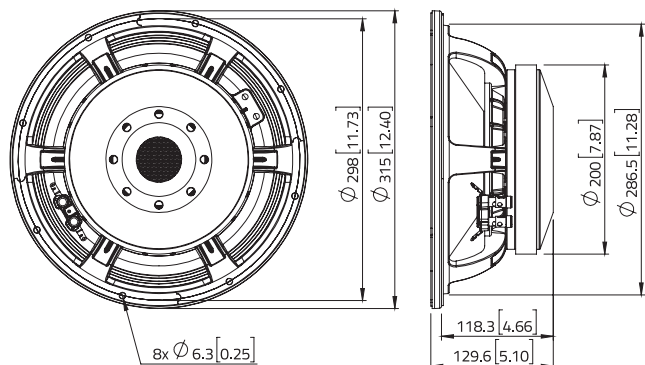
SHIPPING INFORMATION

Net weight	kg (lb.)	11,7 (25.8)
Multipack size (1)	mm (in.)	356 x 356 x 179 (14 x 14 x 7)
Multipack weight	kg (lb.)	13,1 (28.9)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WSF152.02

Lavoce

15" WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 2 INCH COPPER VOICE COIL
- 98 dB/SPL SENSITIVITY
- 400 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,9
Program power (1)	W	400
AES Power rating (2)	W	200
Sensitivity (3)	dB	98
Frequency range	Hz	40 ÷ 3000
Voice coil diameter	mm (in.)	51 (2)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	140 x 60 x 17 (5.5 x 2.36 x 0.7)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,3 (0.17)
Xmech (5)	mm (in.)	8,3 (0.33)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	12,6 (0.5)
Driver displacement volume	l (ft ³)	3,6 (0.12)

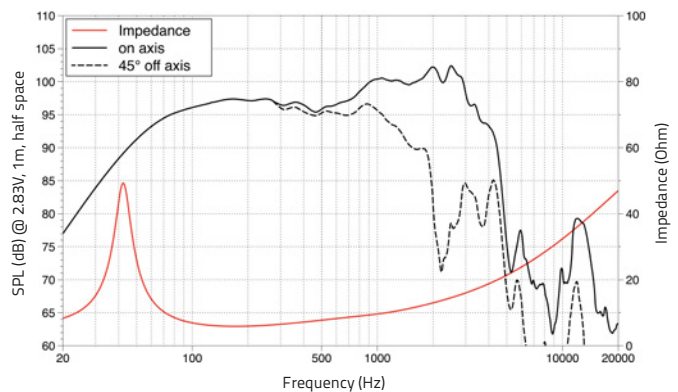
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,3
Resonance frequency	Fs	Hz	43
Moving mass	Mms	g (oz)	69,2 (2.44)
Compliance	Cms	mm/N	0,20
Force factor	BxL	N/A	12,8
Mechanical Q-factor	Qms		4,9
Electrical Q-factor	Qes		0,59
Total Q-factor	Qts		0,53
Equivalent air volume	Vas	l (ft ³)	210 (7.42)
Voice coil Inductance	Le	mH	0,63
Diaphragm area	Sd	cm ² (in. ²)	855 (132.53)
Reference efficiency	Eta 0	%	2,60

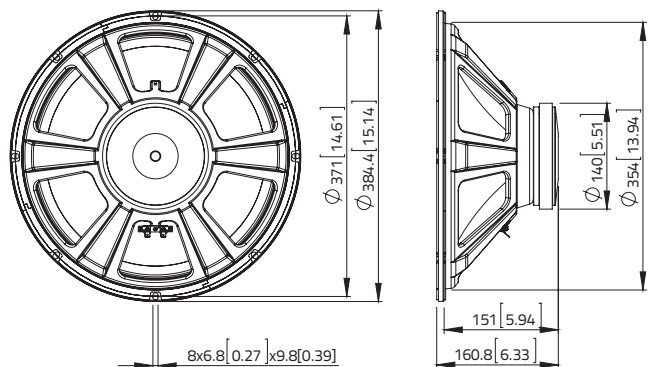
SHIPPING INFORMATION

Net weight	kg (lb.)	4,1 (9)
Multipack size (1)	mm (in.)	438 x 438 x 204 (17.2 x 17.2 x 8)
Multipack weight	kg (lb.)	6,3 (13.8)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WSF152.50

Lavoce

15" WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 2.5 INCH COPPER VOICE COIL
- 97,5 dB/SPL SENSITIVITY
- 500 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,2
Program power (1)	W	500
AES Power rating (2)	W	250
Sensitivity (3)	dB	97,5
Frequency range	Hz	45 ÷ 3000
Voice coil diameter	mm (in.)	65 (2,5)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	160 x 70 x 20 (6.3 x 2.76 x 0.79)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,7 (0.18)
Xmech (5)	mm (in.)	8,8 (0.35)
Gap height	mm (in.)	8,2 (0.32)
Voice coil winding height	mm (in.)	13,4 (0.53)
Driver displacement volume	l (ft ³)	3,8 (0.13)

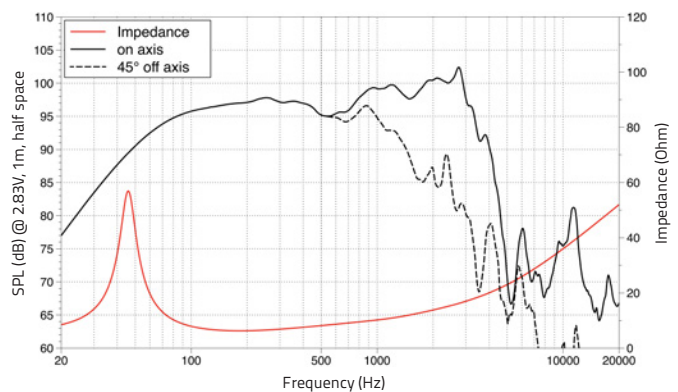
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,6
Resonance frequency	Fs	Hz	46
Moving mass	Mms	g (oz)	90,3 (3.19)
Compliance	Cms	mm/N	0,13
Force factor	BxL	N/A	16,2
Mechanical Q-factor	Qms		5,1
Electrical Q-factor	Qes		0,56
Total Q-factor	Qts		0,50
Equivalent air volume	Vas	l (ft ³)	137 (4.84)
Voice coil Inductance	Le	mH	0,77
Diaphragm area	Sd	cm ² (in. ²)	855 (132.53)
Reference efficiency	Eta 0	%	2,20

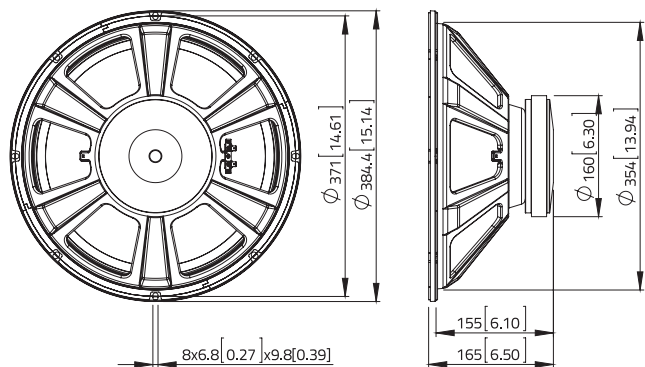
SHIPPING INFORMATION

Net weight	kg (lb.)	5,4 (11.8)
Multipack size (1)	mm (in.)	438 x 438 x 204 (17.2 x 17.2 x 8)
Multipack weight	kg (lb.)	7,5 (16.6)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



SSF153.00

Lavoce

15" SUBWOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 3 INCH COPPER VOICE COIL
- 98 dB/SPL SENSITIVITY
- 800 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,0
Program power (1)	W	800
AES Power rating (2)	W	400
Sensitivity (3)	dB	98
Frequency range	Hz	45 ÷ 2000
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	190 x 85 x 20 (7.48 x 3.35 x 0.79)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	6,7 (0.26)
Xmech (5)	mm (in.)	12,6 (0.49)
Gap height	mm (in.)	10,5 (0.41)
Voice coil winding height	mm (in.)	18,6 (0.73)
Driver displacement volume	l (ft ³)	4,1 (0.14)

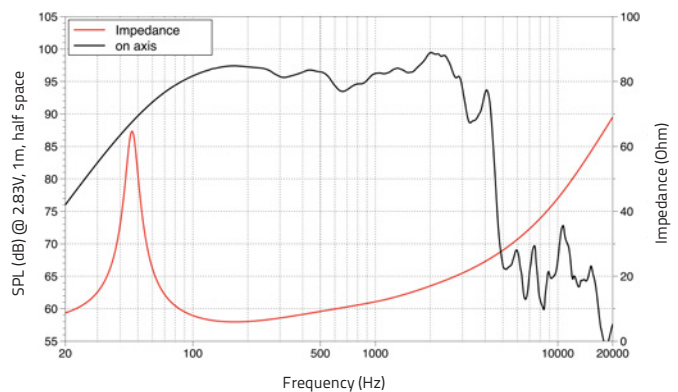
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,0
Resonance frequency	Fs	Hz	47
Moving mass	Mms	g (oz)	103,7 (3.66)
Compliance	Cms	mm/N	0,11
Force factor	BxL	N/A	18,6
Mechanical Q-factor	Qms		5,2
Electrical Q-factor	Qes		0,44
Total Q-factor	Qts		0,40
Equivalent air volume	Vas	l (ft ³)	117 (4.13)
Voice coil Inductance	Le	mH	1,00
Diaphragm area	Sd	cm ² (in. ²)	855 (132.53)
Reference efficiency	Eta 0	%	2,50

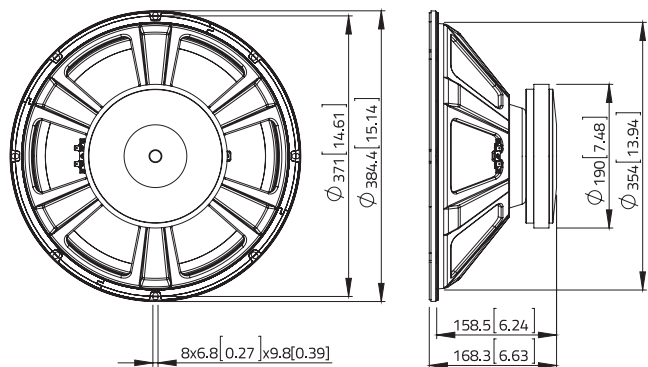
SHIPPING INFORMATION

Net weight	kg (lb.)	8,5 (18.8)
Multipack size (1)	mm (in.)	438 x 438 x 212 (17.2 x 17.2 x 8.3)
Multipack weight	kg (lb.)	10,7 (23.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WXF15.400

Lavoce

15" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 3 INCH CCAW VOICE COIL
- 99 dB/SPL SENSITIVITY
- 800 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	7
Program power (1)	W	800
AES Power rating (2)	W	400
Sensitivity (3)	dB	99
Frequency range	Hz	50 ÷ 3000
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	190 x 82 x 20 (7.48 x 3.23 x 0.79)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	6,1 (0.24)
Xmech (5)	mm (in.)	11,5 (0.45)
Gap height	mm (in.)	9,8 (0.39)
Voice coil winding height	mm (in.)	17,1 (0.67)
Driver displacement volume	l (ft ³)	4,3 (0.15)

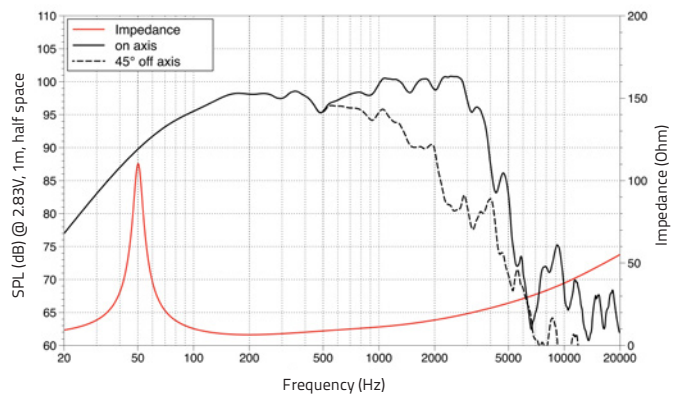
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	50
Moving mass	Mms	g (oz)	85 (3)
Compliance	Cms	mm/N	0,11
Force factor	BxL	N/A	19,3
Mechanical Q-factor	Qms		7,6
Electrical Q-factor	Qes		0,4
Total Q-factor	Qts		0,4
Equivalent air volume	Vas	l (ft ³)	118 (4.17)
Voice coil Inductance	Le	mH	0,9
Diaphragm area	Sd	cm ² (in. ²)	855 (132.5)
Reference efficiency	Eta 0	%	3,76

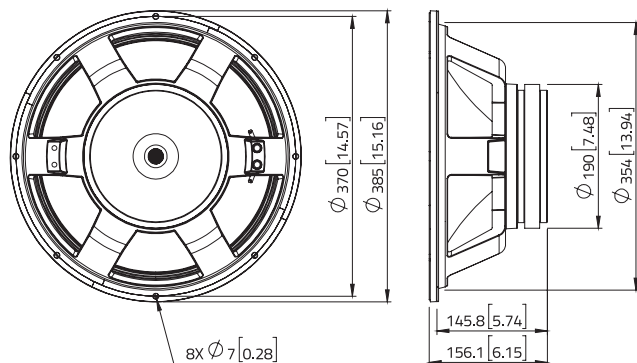
SHIPPING INFORMATION

Net weight	kg (lb.)	8 (17.6)
Multipack size (1)	mm (in.)	438 x 438 x 191 (17.2 x 17.2 x 7.5)
Multipack weight	kg (lb.)	10 (22)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WAF153.00

Lavoce

15" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 3 INCH CCAW VOICE COIL
- 99 dB/SPL SENSITIVITY
- 1000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,5
Program power (1)	W	1000
AES Power rating (2)	W	500
Sensitivity (3)	dB	99
Frequency range	Hz	40 ÷ 3000
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	190 x 95 x 25 (7.48 x 3.74 x 0.98)
Coil material	CCA W	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	7 (0.28)
Xmech (5)	mm (in.)	12,5 (0.49)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	19 (0.75)
Driver displacement volume	l (ft ³)	4,8 (0.17)

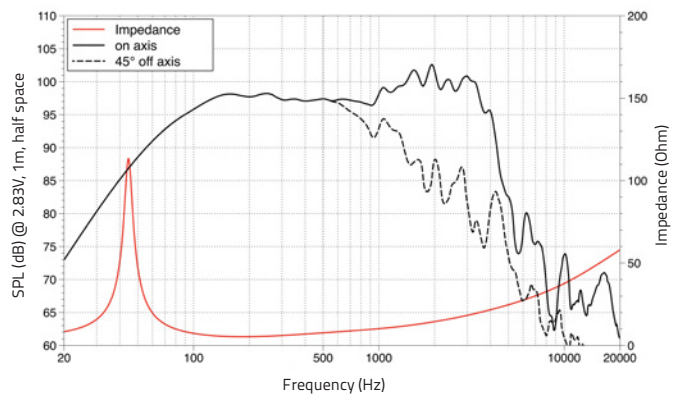
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	4,7
Resonance frequency	Fs	Hz	43
Moving mass	Mms	g (oz)	99 (3.49)
Compliance	Cms	mm/N	0,14
Force factor	BxL	N/A	17,8
Mechanical Q-factor	Qms		9,0
Electrical Q-factor	Qes		0,39
Total Q-factor	Qts		0,37
Equivalent air volume	Vas	l (ft ³)	146 (5.16)
Voice coil Inductance	Le	mH	0,90
Diaphragm area	Sd	cm ² (in. ²)	855 (132.53)
Reference efficiency	Eta 0	%	2,80

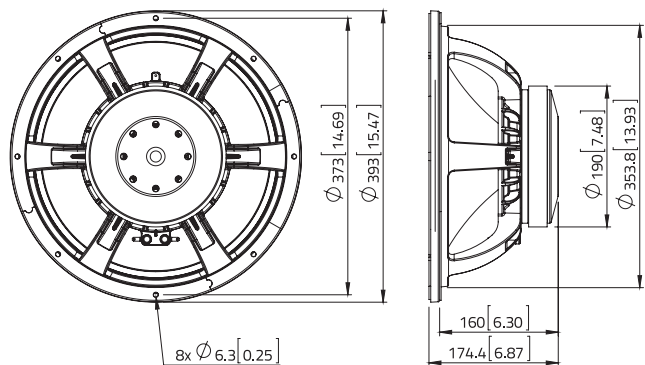
SHIPPING INFORMATION

Net weight	kg (lb.)	9,4 (20.7)
Multipack size (1)	mm (in.)	452 x 452 x 204 (17.8 x 17.8 x 8)
Multipack weight	kg (lb.)	11,6 (25.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAF153.02

Lavoce

15" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 3 INCH CCAW VOICE COIL
- 98 dB/SPL SENSITIVITY
- 1000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- DOUBLE ALUMINIUM DEMODULATING RING
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	6
Program power (1)	W	1000
AES Power rating (2)	W	500
Sensitivity (3)	dB	98
Frequency range	Hz	40 ÷ 4000
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	200x85x20 (7.87x3.35x0.79)
Coil material	CCA W	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,6 (0.18)
Xmech (5)	mm (in.)	10,1 (0.4)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	14,2 (0.56)
Driver displacement volume	l (ft ³)	4,5 (0.16)

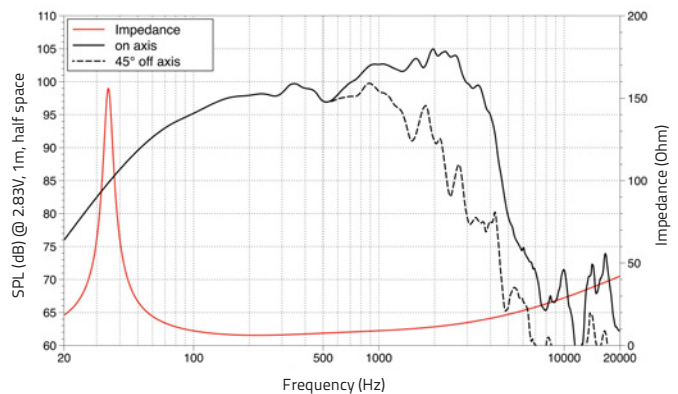
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,3
Resonance frequency	Fs	Hz	35
Moving mass	Mms	g (oz)	89,1 (3.14)
Compliance	Cms	mm/N	0,23
Force factor	BxL	N/A	19,4
Mechanical Q-factor	Qms		7,7
Electrical Q-factor	Qes		0,27
Total Q-factor	Qts		0,26
Equivalent air volume	Vas	l (ft ³)	244 (8.6)
Voice coil Inductance	Le	mH	0,59
Diaphragm area	Sd	cm ² (in. ²)	855 (132.53)
Reference efficiency	Eta 0	%	3,59

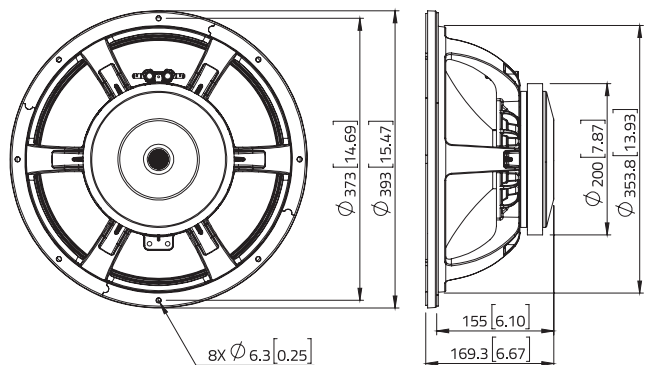
SHIPPING INFORMATION

Net weight	kg (lb.)	10,2 (22.5)
Multipack size (1)	mm (in.)	455 x 455 x 215 (17.9 x 17.9 x 8.5)
Multipack weight	kg (lb.)	11,4 (25.1)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WXF15.800

Lavoce

15" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH EDGEWOUND CCA VOICE COIL
- 98 dB/SPL SENSITIVITY
- 1600 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- ALUMINIUM DEMODULATING RING
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,2
Program power (1)	W	1600
AES Power rating (2)	W	800
Sensitivity (3)	dB	98
Frequency range	Hz	40 ÷ 2000
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	220 x 110 x 20 (8.66 x 4.33 x 0.79)
Coil material	Edgewound CCA	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	7,7 (0.3)
Xmech (5)	mm (in.)	11,7 (0.46)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	19,4 (0.76)
Driver displacement volume	l (ft ³)	4,4 (0.15)

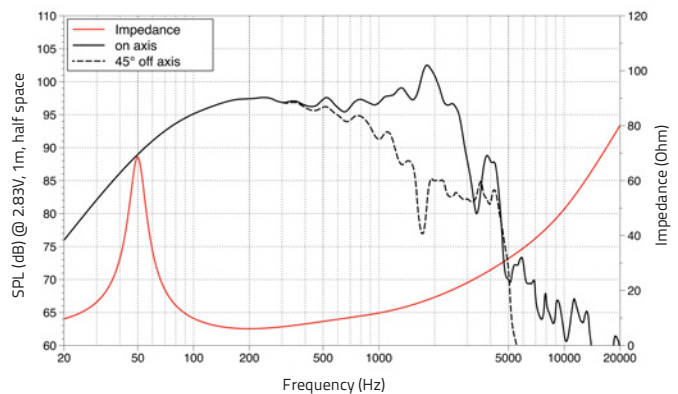
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,2
Resonance frequency	Fs	Hz	50
Moving mass	Mms	g (oz)	130 (4.59)
Compliance	Cms	mm/N	0,07
Force factor	BxL	N/A	22,8
Mechanical Q-factor	Qms		5,2
Electrical Q-factor	Qes		0,41
Total Q-factor	Qts		0,38
Equivalent air volume	Vas	l (ft ³)	78 (2.75)
Voice coil Inductance	Le	mH	1
Diaphragm area	Sd	cm ² (in. ²)	855 (132.5)
Reference efficiency	Eta 0	%	2,37

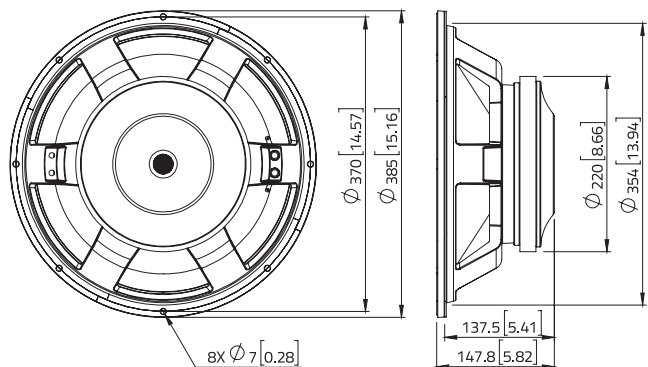
SHIPPING INFORMATION

Net weight	kg (lb.)	10,4 (22.9)
Multipack size (1)	mm (in.)	438 x 438 x 191 (17.2 x 17.2 x 7.5)
Multipack weight	kg (lb.)	12,4 (27.3)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WAF154.02

Lavoce

15" SUBWOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH COPPER VOICE COIL
- 96 dB/SPL SENSITIVITY
- 1600 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,3
Program power (1)	W	1600
AES Power rating (2)	W	800
Sensitivity (3)	dB	96
Frequency range	Hz	40 ÷ 1000
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	200 x 110 x 22 (7.87 x 4.33 x 0.87)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	7,9 (0.31)
Xmech (5)	mm (in.)	13,8 (0.54)
Gap height	mm (in.)	10,5 (0.41)
Voice coil winding height	mm (in.)	21 (0.83)
Driver displacement volume	l (ft ³)	4,6 (0.16)

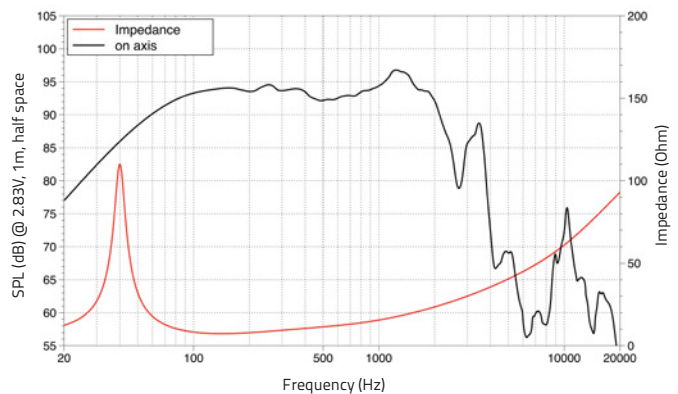
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	6
Resonance frequency	Fs	Hz	40
Moving mass	Mms	g (oz)	148,8 (5.25)
Compliance	Cms	mm/N	0,10
Force factor	BxL	N/A	23,1
Mechanical Q-factor	Qms		7,2
Electrical Q-factor	Qes		0,42
Total Q-factor	Qts		0,39
Equivalent air volume	Vas	l (ft ³)	131 (4.63)
Voice coil Inductance	Le	mH	1,70
Diaphragm area	Sd	cm ² (in. ²)	830 (128.65)
Reference efficiency	Eta 0	%	1,5

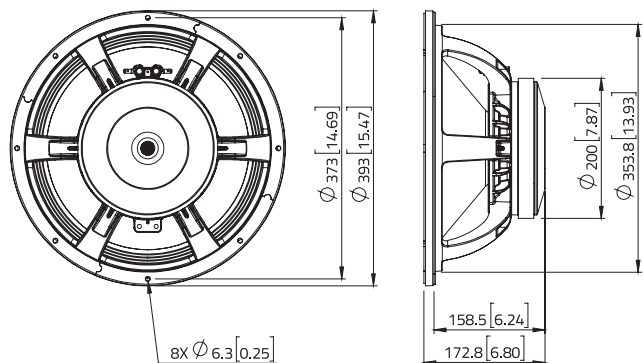
SHIPPING INFORMATION

Net weight	kg (lb.)	10,2 (22.5)
Multipack size (1)	mm (in.)	438 x 438 x 218 (17.2 x 17.2 x 8.6)
Multipack weight	kg (lb.)	12,5 (27.6)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAF154.03

Lavoce

15" WOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH CCAW VOICE COIL
- 98 dB/SPL SENSITIVITY
- 1700 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- COPPER RING FOR EXTENDED FREQUENCY RESPONSE
- DOUBLE ALUMINIUM DEMODULATING RING
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,6
Program power (1)	W	1700
AES Power rating (2)	W	850
Sensitivity (3)	dB	98
Frequency range	Hz	40 ÷ 3000
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	220 x 110 x 25 (8.66 x 4.33 x 0.98)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	5,2 (0.2)
Xmech (5)	mm (in.)	14,1 (0.56)
Gap height	mm (in.)	14,5 (0.57)
Voice coil winding height	mm (in.)	17,7 (0.7)
Driver displacement volume	l (ft ³)	5,200 (0.184)

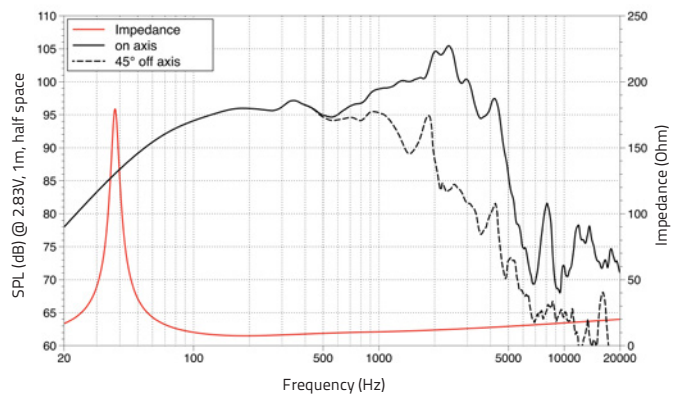
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	6
Resonance frequency	Fs	Hz	38
Moving mass	Mms	g (oz)	104 (3.67)
Compliance	Cms	mm/N	0,17
Force factor	BxL	N/A	22,3
Mechanical Q-factor	Qms		8,6
Electrical Q-factor	Qes		0,3
Total Q-factor	Qts		0,29
Equivalent air volume	Vas	l (ft ³)	188 (6.64)
Voice coil Inductance	Le	mH	0,28
Diaphragm area	Sd	cm ² (in. ²)	881 (136.56)
Reference efficiency	Eta 0	%	3,26

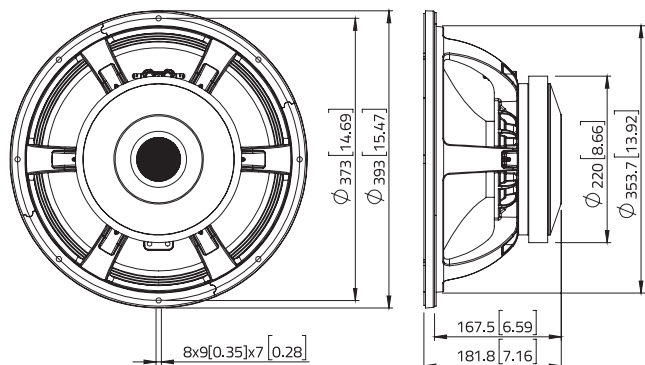
SHIPPING INFORMATION

Net weight	kg (lb.)	11,3 (24.9)
Multipack size (1)	mm (in.)	455 x 455 x 220 (17.9 x 17.9 x 8.7)
Multipack weight	kg (lb.)	12,6 (27.8)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WAF154.01

Lavoce

15" SUBWOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH COPPER VOICE COIL
- 97 dB/SPL SENSITIVITY
- 2000 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- ALUMINIUM DEMODULATING RING
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,8
Program power (1)	W	2000
AES Power rating (2)	W	1000
Sensitivity (3)	dB	97
Frequency range	Hz	40 ÷ 1000
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	220 x 120 x 25 (8.66 x 4.72 x 0.98)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	10,3 (0.4)
Xmech (5)	mm (in.)	17,3 (0.68)
Gap height	mm (in.)	12 (0.47)
Voice coil winding height	mm (in.)	26,5 (1.04)
Driver displacement volume	l (ft ³)	5,4 (0.19)

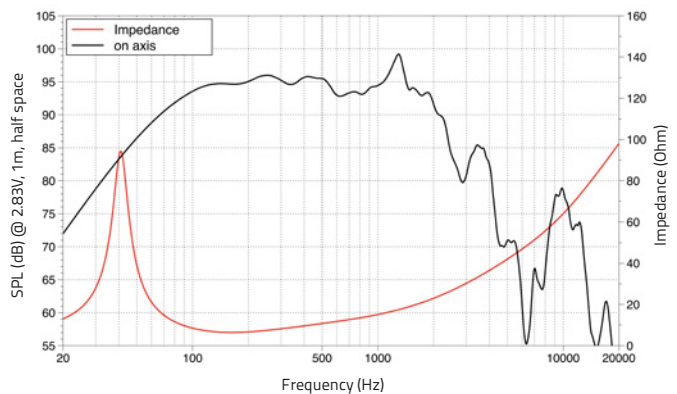
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,3
Resonance frequency	Fs	Hz	42
Moving mass	Mms	g (oz)	162,8 (5.74)
Compliance	Cms	mm/N	0,09
Force factor	BxL	N/A	26,3
Mechanical Q-factor	Qms		5,5
Electrical Q-factor	Qes		0,32
Total Q-factor	Qts		0,30
Equivalent air volume	Vas	l (ft ³)	86 (3.04)
Voice coil Inductance	Le	mH	1,70
Diaphragm area	Sd	cm ² (in. ²)	830 (128.65)
Reference efficiency	Eta 0	%	1,80

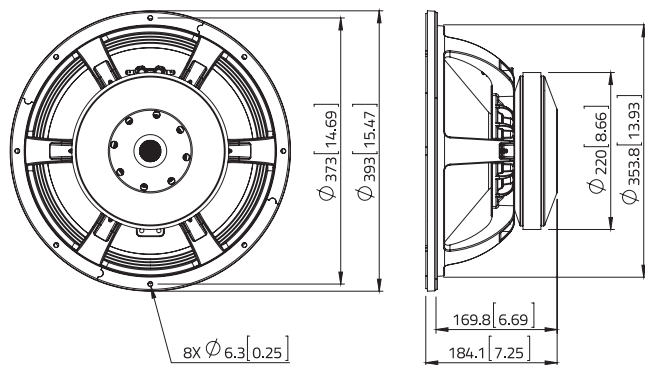
SHIPPING INFORMATION

Net weight	kg (lb.)	13,3 (29.2)
Multipack size (1)	mm	438 x 438 x 230
W x D x H	(in.)	(17.2 x 17.2 x 9.1)
Multipack weight	kg (lb.)	15,3 (33.6)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



WAF154.00

Lavoce

15" SUBWOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH COPPER VOICE COIL
- 96 dB/SPL SENSITIVITY
- 3000 W PROGRAM POWER HANDLING
- FEM OPTIMIZED FERRITE MOTOR AND SUSPENSIONS
- 43 mm (1.7 INCH) PEAK TO PEAK EXCURSION
- OPTIMIZED COOLING SYSTEM
- ALUMINIUM DEMODULATING RING
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	8
Program power (1)	W	3000
AES Power rating (2)	W	1500
Sensitivity (3)	dB	96
Frequency range	Hz	40 ÷ 1000
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	220 x 115 x 30 (8.66 x 4.53 x 1.18)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	12,1 (0.48)
Xmech (5)	mm (in.)	21,4 (0.84)
Gap height	mm (in.)	15 (0.59)
Voice coil winding height	mm (in.)	31,7 (1.25)
Driver displacement volume	l (ft ³)	5,4 (0.19)

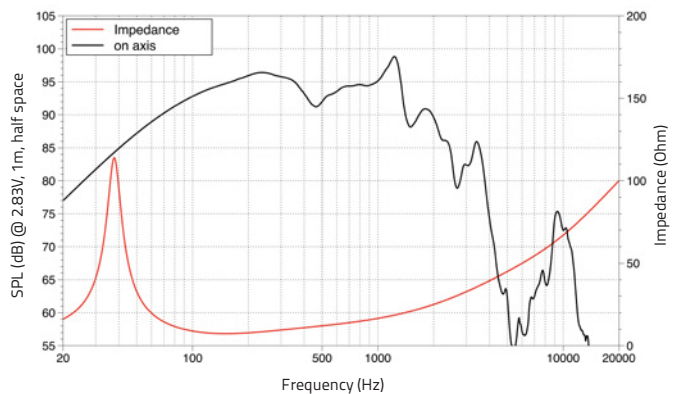
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,8
Resonance frequency	Fs	Hz	38
Moving mass	Mms	g (oz)	167 (5.89)
Compliance	Cms	mm/N	0,10
Force factor	BxL	N/A	27,3
Mechanical Q-factor	Qms		5,7
Electrical Q-factor	Qes		0,31
Total Q-factor	Qts		0,29
Equivalent air volume	Vas	l (ft ³)	103 (3.64)
Voice coil Inductance	Le	mH	1,8
Diaphragm area	Sd	cm ² (in. ²)	830 (128.65)
Reference efficiency	Eta 0	%	1,70

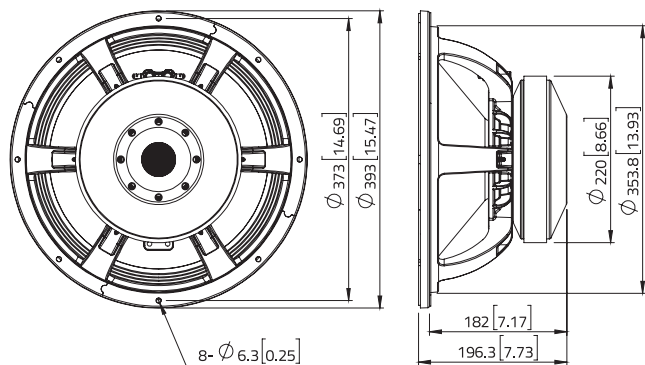
SHIPPING INFORMATION

Net weight	kg (lb.)	15,5 (34.1)
Multipack size (1)	mm (in.)	438 x 438 x 230 (17.2 x 17.2 x 9.1)
Multipack weight	kg (lb.)	17,8 (39.1)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



SSF184.00

Lavoce

18" SUBWOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 4 INCH COPPER VOICE COIL
- 97 dB/SPL SENSITIVITY
- 1600 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- DOUBLE SPIDER

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	460 (18)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,7
Program power (1)	W	1600
AES Power rating (2)	W	800
Sensitivity (3)	dB	97
Frequency range	Hz	35 ÷ 800
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	220 x 110 x 25 (8.66 x 4.33 x 0.98)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	8,5 (0.3)
Xmech (5)	mm (in.)	15,5 (0.6)
Gap height	mm (in.)	12 (0.5)
Voice coil winding height	mm (in.)	23 (0.9)
Driver displacement volume	l (ft ³)	7,7 (0.27)

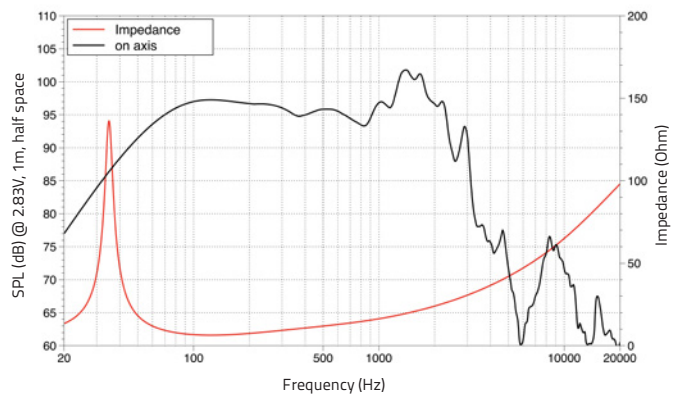
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	35
Moving mass	Mms	g (oz)	221,8 (7.82)
Compliance	Cms	mm/N	0,09
Force factor	BxL	N/A	25,3
Mechanical Q-factor	Qms		9,90
Electrical Q-factor	Qes		0,42
Total Q-factor	Qts		0,40
Equivalent air volume	Vas	l (ft ³)	198 (7)
Voice coil Inductance	Le	mH	1,80
Diaphragm area	Sd	cm ² (in. ²)	1225 (189.9)
Reference efficiency	Eta 0	%	1,9

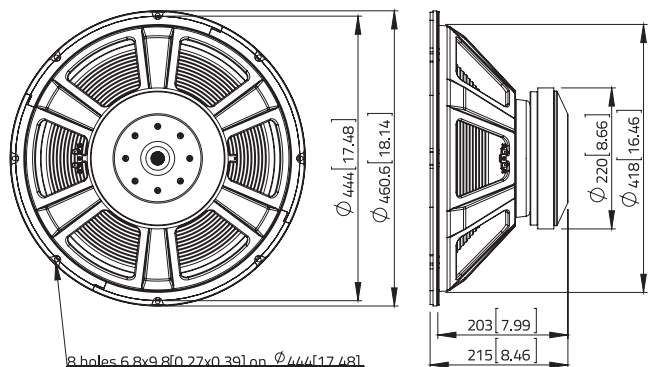
SHIPPING INFORMATION

Net weight	kg (lb.)	13,9 (30.5)
Multipack size (1)	mm (in.)	528 x 528 x 258 (20.8 x 20.8 x 10.2)
Multipack weight	kg (lb.)	17,3 (38)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice..B.a



SAF184.01

Lavoce

18" SUBWOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH COPPER VOICE COIL
- 98 dB/SPL SENSITIVITY
- 1400 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	460 (18)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,7
Program power (1)	W	1400
AES Power rating (2)	W	700
Sensitivity (3)	dB	98
Frequency range	Hz	30 ÷ 1500
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions	mm	220 x 110 x 25
OD x ID x h	(in.)	(8.66 x 4.72 x 0.98)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	6,8 (0.33)
Xmech (5)	mm (in.)	13 (0.49)
Gap height	mm (in.)	11 (0.31)
Voice coil winding height	mm (in.)	19 (0.83)
Driver displacement volume	l (ft ³)	8,5 (0.30)

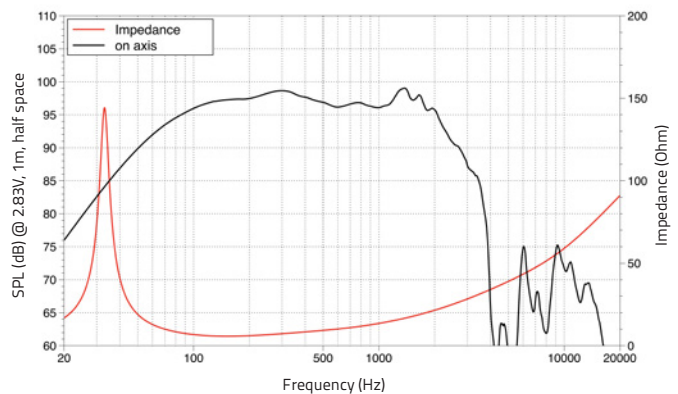
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	4,9
Resonance frequency	Fs	Hz	33
Moving mass	Mms	g (oz)	199 (7.02)
Compliance	Cms	mm/N	0,11
Force factor	BxL	N/A	25.6
Mechanical Q-factor	Qms		8,7
Electrical Q-factor	Qes		0,31
Total Q-factor	Qts		0,30
Equivalent air volume	Vas	l (ft ³)	221 (7.8)
Voice coil Inductance	Le	mH	1,6
Diaphragm area	Sd	cm ² (in. ²)	1160 (179.8)
Reference efficiency	Eta 0	%	2,4

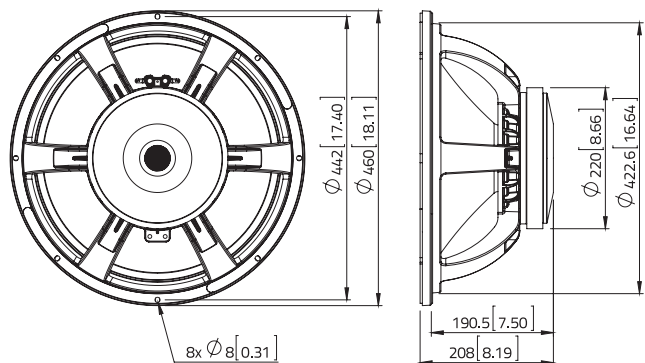
SHIPPING INFORMATION

Net weight	kg (lb.)	11,9 (26.1)
Multipack size (1)	mm	558 x 558 x 245
W x D x H	(in.)	(22 x 22 x 9.6)
Multipack weight	kg (lb.)	15,8 (34.7)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



SAF184.05

Lavoce

18" SUBWOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH COPPER VOICE COIL
- 96 dB/SPL SENSITIVITY
- 2000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	460 (18)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,5
Program power (1)	W	2000
AES Power rating (2)	W	1000
Sensitivity (3)	dB	96
Frequency range	Hz	30 ÷ 2500
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions	mm	220 x 110 x 25
OD x ID x h	(in.)	(8.66 x 4.33 x 0.98)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	7,7 (0.3)
Xmech (5)	mm (in.)	13,2 (0.52)
Gap height	mm (in.)	10 (0.39)
Voice coil winding height	mm (in.)	20,3 (0.8)
Driver displacement volume	l (ft ³)	7,4 (0.26)

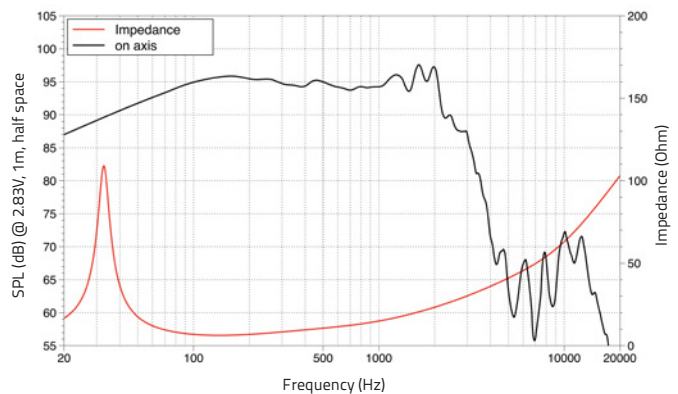
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	34
Moving mass	Mms	g (oz)	217 (7.65)
Compliance	Cms	mm/N	0,104
Force factor	BxL	N/A	25,6
Mechanical Q-factor	Qms		7,2
Electrical Q-factor	Qes		0,38
Total Q-factor	Qts		0,36
Equivalent air volume	Vas	l (ft ³)	188,5 (6.65)
Voice coil Inductance	Le	mH	1,7
Diaphragm area	Sd	cm ² (in. ²)	1134 (175.77)
Reference efficiency	Eta 0	%	1,78

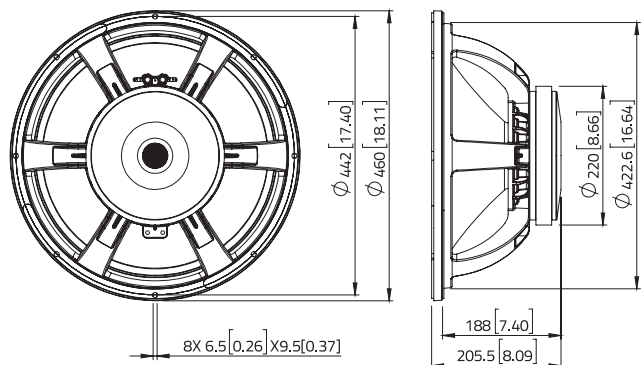
SHIPPING INFORMATION

Net weight	kg (lb.)	12,3 (27.1)
Multipack size (1)	mm	520 x 520 x 253
W x D x H	(in.)	(20.5 x 20.5 x 9.9)
Multipack weight	kg (lb.)	14 (30.9)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

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SAF184.02

Lavoce

18" SUBWOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH COPPER VOICE COIL
- 97 dB/SPL SENSITIVITY
- 2400 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- OPTIMIZED COOLING SYSTEM
- ALUMINIUM DEMODULATING RING
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	460 (18)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,8
Program power (1)	W	2400
AES Power rating (2)	W	1200
Sensitivity (3)	dB	97
Frequency range	Hz	40 ÷ 1000
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	220 x 120 x 25 (8.66 x 4.72 x 0.98)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	8,4 (0.33)
Xmech (5)	mm (in.)	15,4 (0.6)
Gap height	mm (in.)	12 (0.47)
Voice coil winding height	mm (in.)	22,7 (0.89)
Driver displacement volume	l (ft ³)	8,5 (0.30)

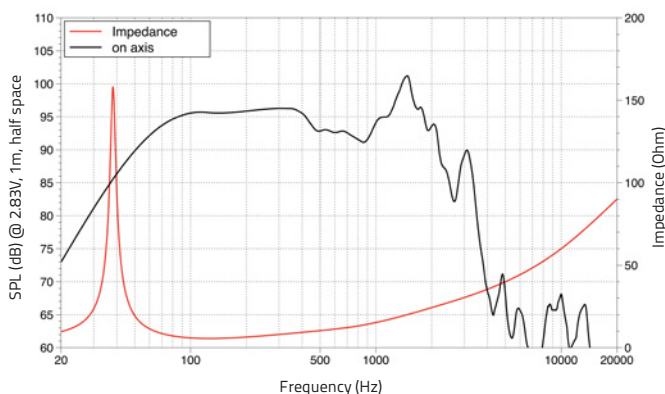
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	4,8
Resonance frequency	Fs	Hz	38
Moving mass	Mms	g (oz)	250 (8.82)
Compliance	Cms	mm/N	0,07
Force factor	BxL	N/A	24,9
Mechanical Q-factor	Qms		10,2
Electrical Q-factor	Qes		0,46
Total Q-factor	Qts		0,44
Equivalent air volume	Vas	l (ft ³)	150 (5.3)
Voice coil inductance	Le	mH	1,9
Diaphragm area	Sd	cm ² (in. ²)	1225 (189.9)
Reference efficiency	Eta 0	%	1,7

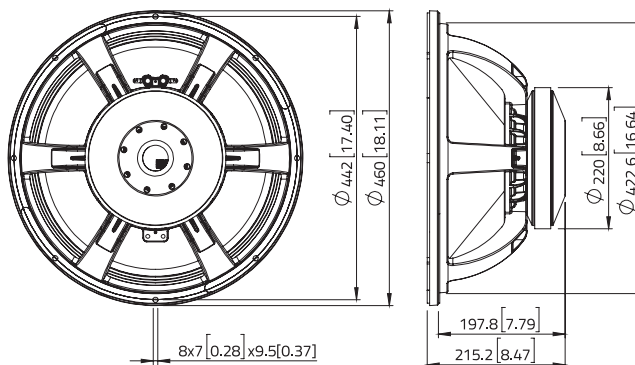
SHIPPING INFORMATION

Net weight	kg (lb.)	13,5 (29.8)
Multipack size (1)	mm (in.)	558 x 558 x 256 (22 x 22 x 10.1)
Multipack weight	kg (lb.)	17,4 (38.2)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



SAF184.03

Lavoce

18" SUBWOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH COPPER VOICE COIL
- 96 dB/SPL SENSITIVITY
- 3000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- 45 mm (1.8 INCH) PEAK TO PEAK EXCURSION
- OPTIMIZED COOLING SYSTEM
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- ALUMINIUM DEMODULATING RING
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	460 (18)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,2
Program power (1)	W	3000
AES Power rating (2)	W	1500
Sensitivity (3)	dB	96
Frequency range	Hz	30 ÷ 1000
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	220 x 115 x 30 (8.66 x 4.53 x 1.18)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	13 (0.51)
Xmech (5)	mm (in.)	22,3 (0.88)
Gap height	mm (in.)	15 (0.6)
Voice coil winding height	mm (in.)	33,5 (1.32)
Driver displacement volume	l (ft ³)	8,5 (0.30)

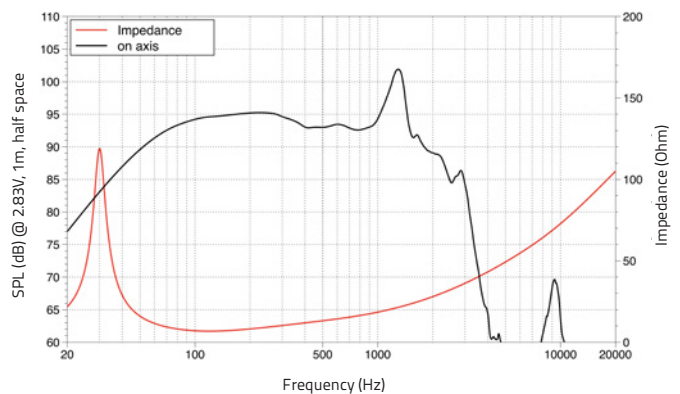
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,8
Resonance frequency	Fs	Hz	30
Moving mass	Mms	g (oz)	250 (8.82)
Compliance	Cms	mm/N	0,11
Force factor	BxL	N/A	28
Mechanical Q-factor	Qms		6,7
Electrical Q-factor	Qes		0,34
Total Q-factor	Qts		0,32
Equivalent air volume	Vas	l (ft ³)	245 (8.65)
Voice coil Inductance	Le	mH	2,1
Diaphragm area	Sd	cm ² (in. ²)	1225 (189.9)
Reference efficiency	Eta 0	%	1,7

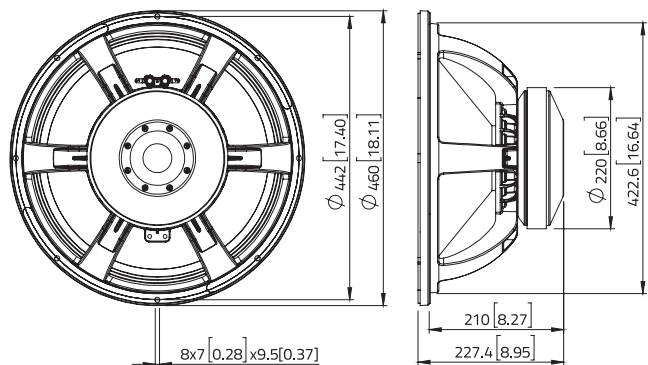
SHIPPING INFORMATION

Net weight	kg (lb.)	16,4 (36)
Multipack size (1)	mm (in.)	558 x 558 x 268 (22 x 22 x 10.6)
Multipack weight	kg (lb.)	20,6 (45.3)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

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SAF184.04

Lavoce

18" SUBWOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 4 INCH COPPER VOICE COIL
- 95 dB/SPL SENSITIVITY
- 3000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- 43 mm (1.7 INCH) PEAK TO PEAK EXCURSION
- OPTIMIZED COOLING SYSTEM
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- ALUMINIUM DEMODULATING RING
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	460 (18)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,5
Program power (1)	W	3000
AES Power rating (2)	W	1500
Sensitivity (3)	dB	95
Frequency range	Hz	35 ÷ 1000
Voice coil diameter	mm (in.)	100 (4)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	220 x 115 x 30 (8.66 x 4.53 x 1.18)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	12,1 (0.48)
Xmech (5)	mm (in.)	21,4 (0.84)
Gap height	mm (in.)	15 (0.6)
Voice coil winding height	mm (in.)	31,7 (1.25)
Driver displacement volume	l (ft ³)	8,5 (0.30)

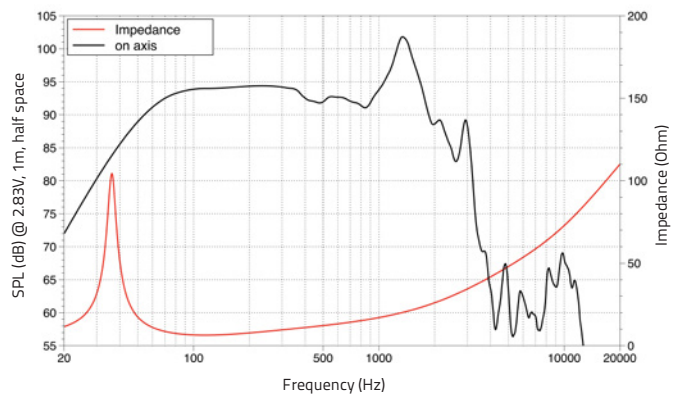
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	37
Moving mass	Mms	g (oz)	270 (9.52)
Compliance	Cms	mm/N	0,06
Force factor	BxL	N/A	26,3
Mechanical Q-factor	Qms		9
Electrical Q-factor	Qes		0,50
Total Q-factor	Qts		0,47
Equivalent air volume	Vas	l (ft ³)	143 (5.05)
Voice coil inductance	Le	mH	2
Diaphragm area	Sd	cm ² (in. ²)	1225 (189.9)
Reference efficiency	Eta 0	%	1,4

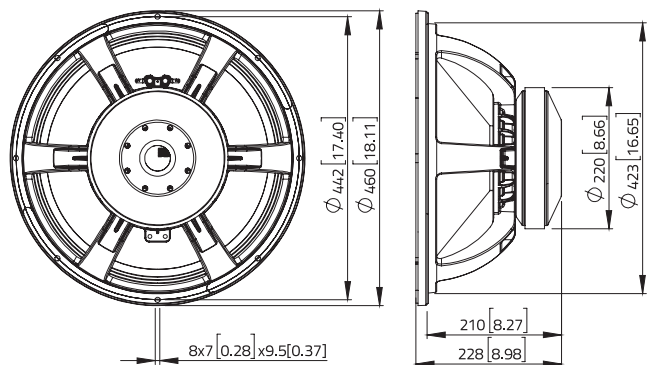
SHIPPING INFORMATION

Net weight	kg (lb.)	16 (35.2)
Multipack size (1)	mm (in.)	558 x 558 x 268 (22 x 22 x 10.6)
Multipack weight	kg (lb.)	20,2 (44.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



SAF184.50

Lavoce

18" SUBWOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



PRELIMINARY

- 4.5 INCH COPPER VOICE COIL
- 96,5 dB/SPL SENSITIVITY
- 3600 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- 43.5 mm (1.7 INCH) PEAK TO PEAK MAXIMUM EXCURSION
- OPTIMIZED COOLING SYSTEM
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	460 (18)
Nominal impedance	Ω	8
Minimum impedance	Ω	7
Program power (1)	W	3600
AES Power rating (2)	W	1800
Sensitivity (3)	dB	96,5
Frequency range	Hz	30 ÷ 1000
Voice coil diameter	mm (in.)	115 (4.5)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	250 x 128 x 30 (9.84 x 5.04 x 1.18)
Coil material	Copper	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	12,5 (0.49)
Xmech (5)	mm (in.)	21,8 (0.86)
Gap height	mm (in.)	15 (0.59)
Voice coil winding height	mm (in.)	32,5 (1.28)
Driver displacement volume	l (ft ³)	8,455 (0.299)

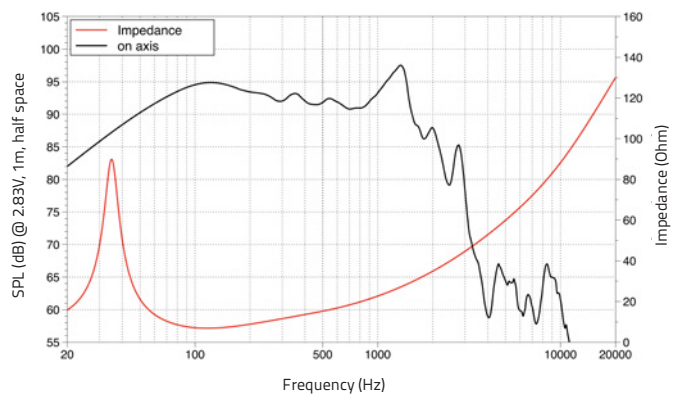
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,55
Resonance frequency	Fs	Hz	35
Moving mass	Mms	g (oz)	271 (9.56)
Compliance	Cms	mm/N	0,08
Force factor	BxL	N/A	30,5
Mechanical Q-factor	Qms		5,4
Electrical Q-factor	Qes		0,35
Total Q-factor	Qts		0,33
Equivalent air volume	Vas	l (ft ³)	162 (5.72)
Voice coil Inductance	Le	mH	2,8
Diaphragm area	Sd	cm ² (in. ²)	1225 (189.88)
Reference efficiency	Eta 0	%	1,88

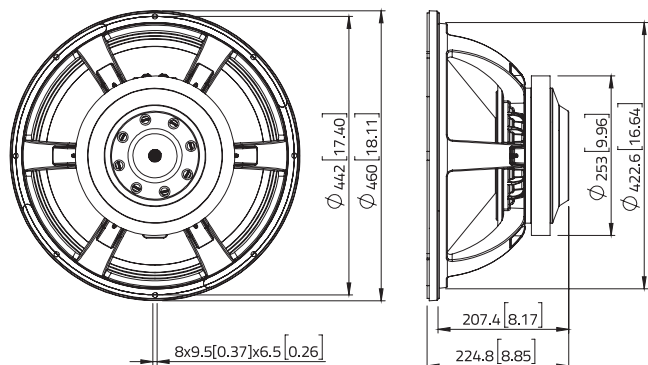
SHIPPING INFORMATION

Net weight	kg (lb.)	16,8 (37)
Multipack size (1)	mm (in.)	520 x 520 x 270 (20.5 x 20.5 x 10.6)
Multipack weight	kg (lb.)	18,5 (40.8)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

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SAF214.50

Lavoce

21" SUBWOOFER

FERRITE MAGNET
ALUMINIUM BASKET DRIVER



- 4.5 INCH COPPER VOICE COIL
- 96 dB/SPL SENSITIVITY
- 4000 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSION
- 43.5 mm (1.7 INCH) PEAK TO PEAK MAXIMUM EXCURSION
- OPTIMIZED COOLING SYSTEM
- DOUBLE SILICON SPIDER
- RESONANCE FREE AND HEAVY DUTY BASKET DESIGN
- TRIPLE ROLL SURROUND

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	530 (21)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,8
Program power (1)	W	4000
AES Power rating (2)	W	2000
Sensitivity (3)	dB	96
Frequency range	Hz	30 ÷ 1000
Voice coil diameter	mm (in.)	115 (4.5)
Chassis material	Aluminium	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	240 x 120 x 30 (9.45 x 4.72 x 1.18)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	12,5 (0.49)
Xmech (5)	mm (in.)	21,8 (0.86)
Gap height	mm (in.)	15 (0.59)
Voice coil winding height	mm (in.)	32,5 (1.28)
Driver displacement volume	l (ft ³)	11,85 (0.418)

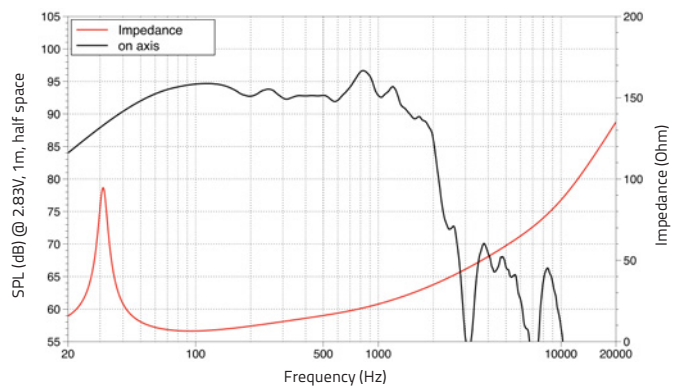
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	30
Moving mass	Mms	g (oz)	393 (13,86)
Compliance	Cms	mm/N	0,06
Force factor	BxL	N/A	30,1
Mechanical Q-factor	Qms		7,9
Electrical Q-factor	Qes		0,46
Total Q-factor	Qts		0,44
Equivalent air volume	Vas	l (ft ³)	267 (9.4)
Voice coil Inductance	Le	mH	2,8
Diaphragm area	Sd	cm ² (in. ²)	1661 (257.5)
Reference efficiency	Eta 0	%	1,62

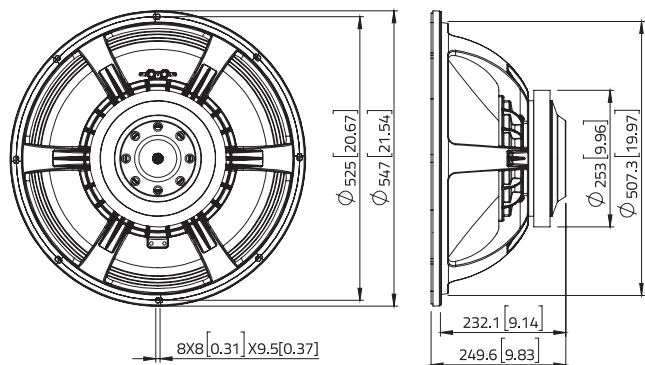
SHIPPING INFORMATION

Net weight	kg (lb.)	17,8 (39.2)
Multipack size (1)	mm (in.)	642 x 642 x 286 (25.3 x 25.3 x 11.3)
Multipack weight	kg (lb.)	23,2 (51.1)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

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NEODYMIUM HIGH FREQUENCY COMPRESSION DRIVERS

FOR YOUR MOST CHALLENGING PROJECTS

Lavoce

Lavoce compression drivers are carefully designed and engineered with performance, consistency and reliability as the main objective. Our engineering team have taken every care to ensure that each device delivers an accurate and coherent wavefront to compliment your chosen horn, with the elegant styling that customers expect from Lavoce Italiana.

Our established range of neodymium compression drivers offer very lightweight 1" exit and 1.4" exit options, using either 1.4", 1.7", 2.5", 3" and 4" voice coils, and either a one-piece Polyester, High temperature polymer, or Titanium diaphragm and surround. The new flagship DN14.40TM (130W AES, 4" VC, 109dB) uses a composite Titanium diaphragm and Polyester surround, and our patented Integral Input Surface phase plug topology found in all of our 1.4" exit models.

A premium design approach is applied to everything we do and is expressed in our Neodymium HF Compression Drivers, developed using Finite Element Analysis (FEA) and placed through our own demanding testing and QC measurement standards.

FEATURES FOUND IN DN07 (0.75" EXIT), DN10 (1" EXIT) AND DN14 (1.4" EXIT) NEODYMIUM HF COMPRESSION DRIVERS:

- **Lightweight and Powerful** neo motor structures
- **Smooth Extended Frequency Response** with low distortion and high sensitivity
- **Low Crossover Point** to allow more flexibility with system design.
- **Edgewound CCA** is a copper clad aluminium flat voice coil wire used to increase the motor strength, thermal dissipation and create a lighter moving mass to enhance sensitivity.
- **Reinforced Polyimide Former** gives rigidity and stability to the voice coil structure.

SELECTED MODELS USE:

- **Integral Input Surface Phase Plug Topology** is a patented technology which increases production consistency and eliminates the risk of unwanted distortions coming from the input surface of the phase plug.
- **Polyester Diaphragm and Surround** for the perfect balance of sensitivity, power handling and price
- **High Temperature Polymer (PEEK) Diaphragm and Surround** for a smooth performance and improved power handling
- **Titanium Diaphragm and Surround** for high power handling, reliability and reference performance
- **Composite Titanium Diaphragm and Polyester Surround** for improved excursion and stability in high frequency.

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DN07.10LM

Lavoce

0,75" COMPRESSION DRIVER

NEODYMIUM MAGNET



- 1 INCH CCAW VOICE COIL
- 109 dB/SPL SENSITIVITY
- 20 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 2000 - 18000 Hz FREQUENCY RANGE
- POLYESTER DIAPHRAGM

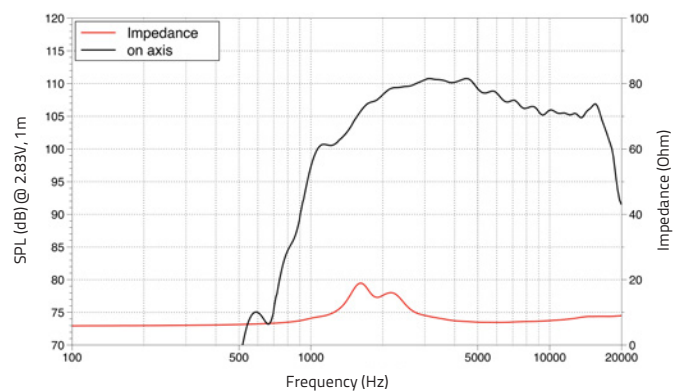
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	19 (0,75)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,8
Program power (1)	W	20
AES Power rating (2)	W	10
Sensitivity (3)	dB	109
Frequency range	Hz	2000 ÷ 18000
Voice coil diameter	mm (in.)	25,4 (1)
Magnet material	Neodymium	
Magnet OD	mm (in.)	46 (1.8)
Coil material	CCA W	
Former material	Kapton	
Diaphragm material	Polyester	
Surround material	Polyester	
Voice coil Inductance	mH	0,04
Flux density	T	1,65
Recommended crossover (4)	Hz	2500
Driver displacement volume	l (ft ³)	0,04 (0.001)

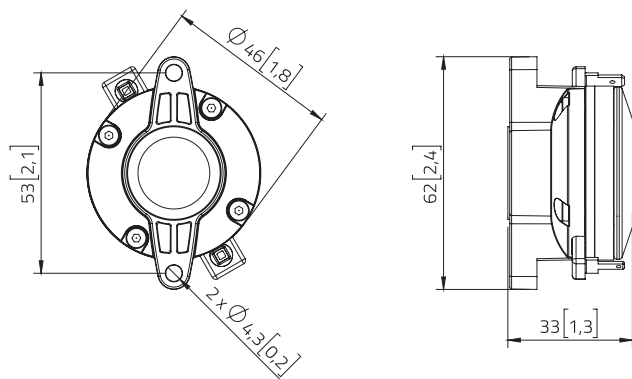
SHIPPING INFORMATION

Net weight	kg (lb.)	0,15 (0.33)
Multipack size (18)	mm (in.)	252 x 230 x 125
W x D x H	(in.)	(9.9 x 9 x 4.9)
Multipack weight	kg (lb.)	3,6 (7.9)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (2500-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with 60° x 40° horn, SPL averaged in the frequency range 2000 ÷ 18000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_C.a



DN10.14M

Lavoce

1" COMPRESSION DRIVER

NEODYMIUM MAGNET



- 1.4 INCH EDGEWOUND CCA VOICE COIL
- 107 dB/SPL SENSITIVITY
- 50 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1500 - 20000 Hz FREQUENCY RANGE
- POLYESTER DIAPHRAGM

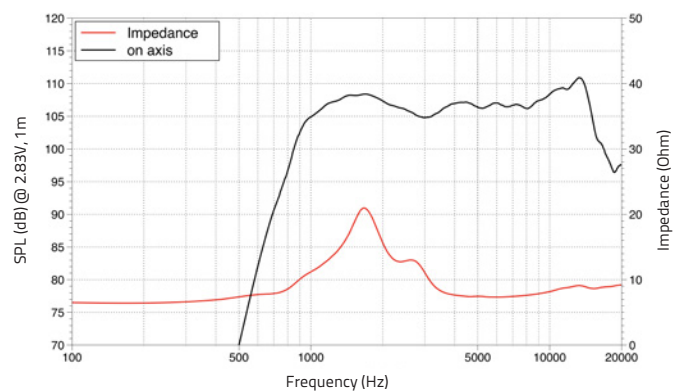
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,4
Program power (1)	W	50
AES Power rating (2)	W	25
Sensitivity (3)	dB	107
Frequency range	Hz	1500 ÷ 20000
Voice coil diameter	mm (in.)	36 (1.4)
Magnet material		Neodymium
Magnet OD	mm (in.)	70 (2.8)
Coil material		Edgewound CCA
Former material		Kapton
Diaphragm material		Polyester
Surround material		Polyester, vented
Voice coil Inductance	mH	0,09
Flux density	T	1,9
Recommended crossover (4)	Hz	1700
Driver displacement volume	l (ft ³)	0,1 (0.005)

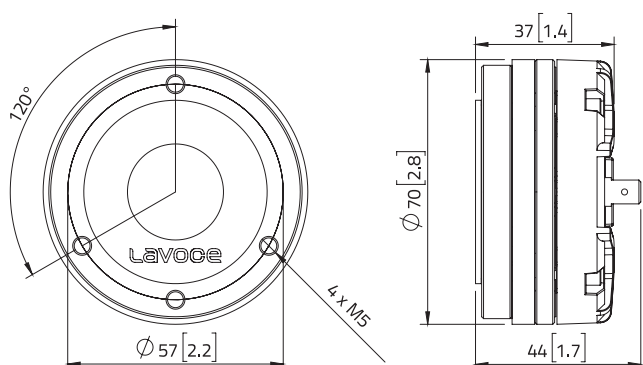
SHIPPING INFORMATION

Net weight	kg (lb.)	0,5 (1.1)
Multipack size (12)	mm (in.)	412 x 348 x 89 (16.2 x 13.7 x 3.5)
Multipack weight	kg (lb.)	7,2 (15.8)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1700-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1500 ÷ 20000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

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DN10.14

Lavoce

1" COMPRESSION DRIVER

NEODYMIUM MAGNET



- 1.4 INCH EDGEWOUND CCA VOICE COIL
- 107 dB/SPL SENSITIVITY
- 60 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1500 - 20000 Hz FREQUENCY RANGE
- HIGH TEMPERATURE POLYMERIC DIAPHRAGM

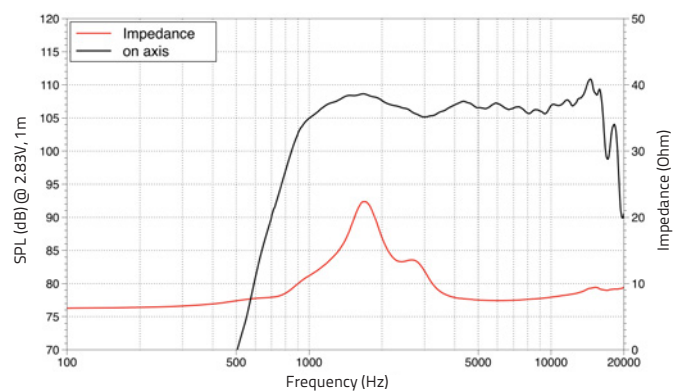
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,4
Program power (1)	W	60
AES Power rating (2)	W	30
Sensitivity (3)	dB	107
Frequency range	Hz	1500 ÷ 20000
Voice coil diameter	mm (in.)	36 (1.4)
Magnet material	Neodymium	
Magnet OD	mm (in.)	70 (2.8)
Coil material	Edgewound CCA	
Former material	Kapton	
Diaphragm material	High temperature polymer	
Surround material	High temperature polymer, vented	
Voice coil Inductance	mH	0,09
Flux density	T	1,9
Recommended crossover (4)	Hz	1700
Driver displacement volume	l (ft ³)	0,1 (0.005)

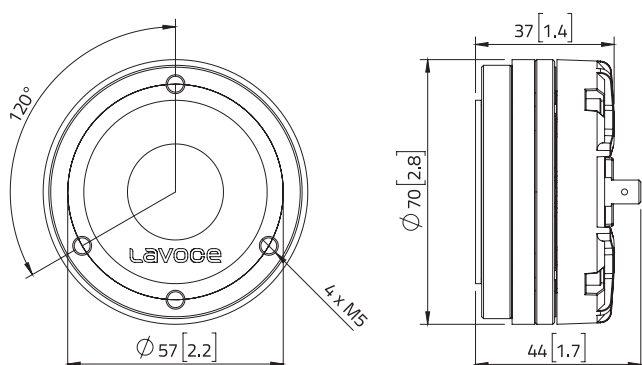
SHIPPING INFORMATION

Net weight	kg (lb.)	0,5 (1.1)
Multipack size (12)	mm (in.)	412 x 348 x 89 (16.2 x 13.7 x 3.5)
Multipack weight	kg (lb.)	7,2 (15.8)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1700-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1500 ÷ 20000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_B.a



DN10.17M

Lavoce

1" COMPRESSION DRIVER

NEODYMIUM MAGNET



- 1.7 INCH EDGEWOUND CCA VOICE COIL
- 110 dB/SPL SENSITIVITY
- 100 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1200 - 18000 Hz FREQUENCY RANGE
- POLYESTER DIAPHRAGM

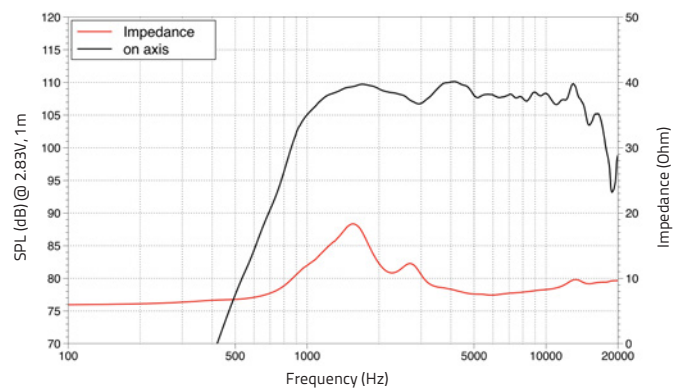
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,3
Program power (1)	W	100
AES Power rating (2)	W	50
Sensitivity (3)	dB	110
Frequency range	Hz	1200 ÷ 18000
Voice coil diameter	mm (in.)	44,4 (1.7)
Magnet material		Neodymium
Magnet OD	mm (in.)	85 (3.3)
Coil material		Edgewound CCA
Former material		Fiber Glass
Diaphragm material		Polyester
Surround material		Polyester, vented
Voice coil Inductance	mH	0,09
Flux density	T	1,9
Recommended crossover (4)	Hz	1600
Driver displacement volume	l (ft ³)	0,2 (0.008)

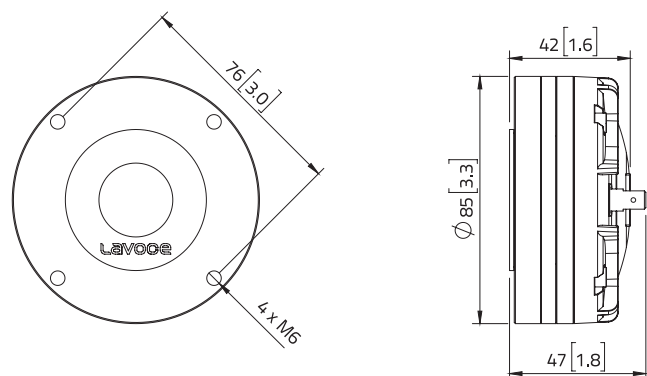
SHIPPING INFORMATION

Net weight	kg (lb.)	0,9 (1.9)
Multipack size (9)	mm	412 x 376 x 94
W x D x H	(in.)	(16.2 x 14.8 x 3.7)
Multipack weight	kg (lb.)	9,1 (19.9)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1600-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1200 ÷ 18000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

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DN10.17

Lavoce

1" COMPRESSION DRIVER

NEODYMIUM MAGNET



- 1.7 INCH EDGEWOUND CCA VOICE COIL
- 110 dB/SPL SENSITIVITY
- 110 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1200 - 18000 Hz FREQUENCY RANGE
- HIGH TEMPERATURE POLYMERIC DIAPHRAGM

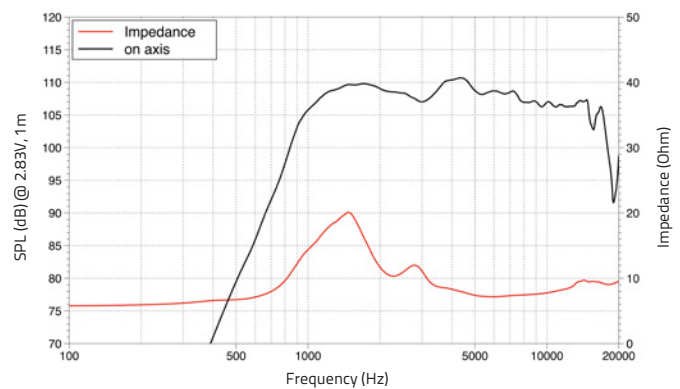
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,3
Program power (1)	W	110
AES Power rating (2)	W	55
Sensitivity (3)	dB	110
Frequency range	Hz	1200 ÷ 18000
Voice coil diameter	mm (in.)	44,4 (1.7)
Magnet material		Neodymium
Magnet OD	mm (in.)	85 (3.3)
Coil material		Edgewound CCA
Former material		Fiber glass
Diaphragm material		High temperature polymer
Surround material		High temperature polymer, vented
Voice coil Inductance	mH	0,09
Flux density	T	1,9
Recommended crossover (4)	Hz	1600
Driver displacement volume	l (ft ³)	0,2 (0.008)

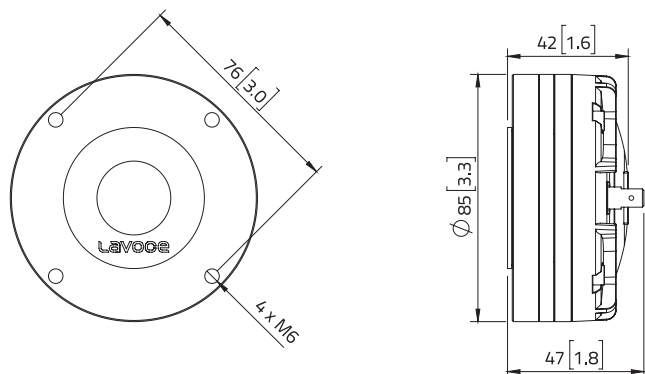
SHIPPING INFORMATION

Net weight	kg (lb.)	0,9 (1.9)
Multipack size (9)	mm	412 x 376 x 94
W x D x H	(in.)	(16.2 x 14.8 x 3.7)
Multipack weight	kg (lb.)	9,1 (19.9)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1600-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1200 ÷ 18000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_B.a



DN10.17T

Lavoce

1" COMPRESSION DRIVER

NEODYMIUM MAGNET



- 1.7 INCH EDGEWOUND CCA VOICE COIL
- 107 dB/SPL SENSITIVITY
- 110 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1200 - 18000 Hz FREQUENCY RANGE
- TITANIUM DIAPHRAGM

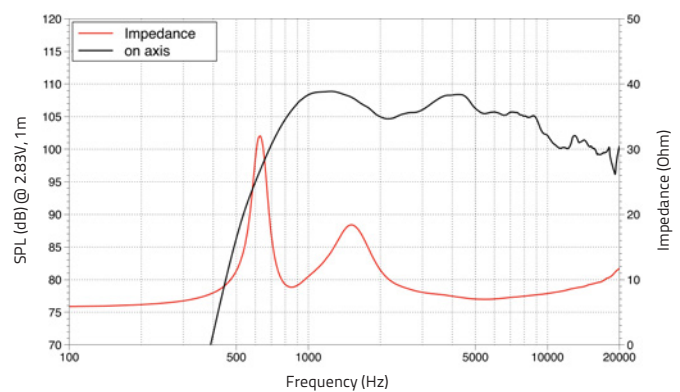
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,3
Program power (1)	W	110
AES Power rating (2)	W	55
Sensitivity (3)	dB	107
Frequency range	Hz	1200 ÷ 18000
Voice coil diameter	mm (in.)	44,4 (1.7)
Magnet material		Neodymium
Magnet OD	mm (in.)	85 (3.3)
Coil material		Edgewound CCA
Former material		Fiber Glass
Diaphragm material		Titanium
Surround material		Titanium
Voice coil Inductance	mH	0,09
Flux density	T	1,9
Recommended crossover (4)	Hz	1500
Driver displacement volume	l (ft ³)	0,2 (0.008)

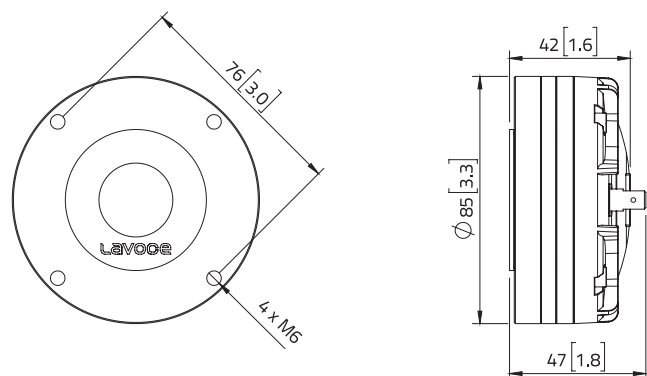
SHIPPING INFORMATION

Net weight	kg (lb.)	0,9 (1.9)
Multipack size (9)	mm	412 x 376 x 94
W x D x H	(in.)	(16.2 x 14.8 x 3.7)
Multipack weight	kg (lb.)	9,1 (19.9)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1500-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1200 ÷ 18000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_B.a

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DN14.25T

Lavoce

1.4" COMPRESSION DRIVER

NEODYMIUM MAGNET



- 2.5 INCH EDGEWOUND CCA VOICE COIL
- 108 dB/SPL SENSITIVITY
- 160 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1000 - 18000 Hz FREQUENCY RANGE
- TITANIUM DIAPHRAGM

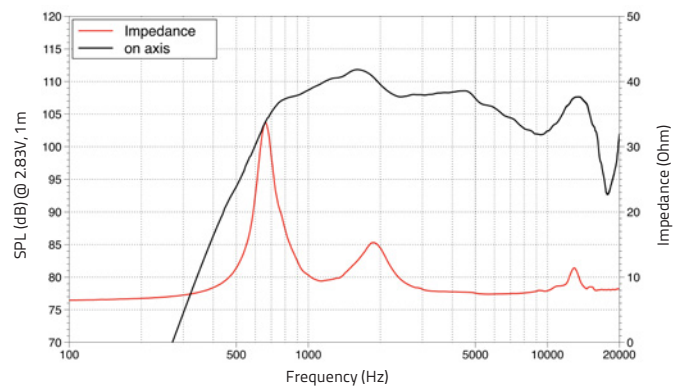
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	36 (1.4)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,8
Program power (1)	W	160
AES Power rating (2)	W	80
Sensitivity (3)	dB	108
Frequency range	Hz	1000 ÷ 18000
Voice coil diameter	mm (in.)	65 (2.5)
Magnet material		Neodymium
Magnet OD	mm (in.)	110 (4.3)
Coil material		Edgewound CCA
Former material		Kapton
Diaphragm material		Titanium
Surround material		Titanium
Voice coil Inductance	mH	0,11
Flux density	T	1,9
Recommended crossover (4)	Hz	1200
Driver displacement volume	l (ft ³)	0,4 (0.015)

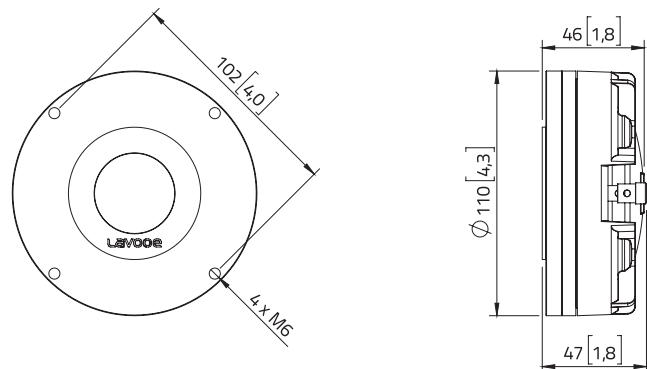
SHIPPING INFORMATION

Net weight	kg (lb.)	1,3 (2.8)
Multipack size (9)	mm	457 x 421 x 98
W x D x H	(in.)	(18 x 16.6 x 3.9)
Multipack weight	kg (lb.)	13,6 (29.8)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1600-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1403 horn, SPL averaged in the frequency range 1000 ÷ 18000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_B.a



DN14.30T

Lavoce

1.4" COMPRESSION DRIVER

NEODYMIUM MAGNET



- 3 INCH EDGEWOUND CCA VOICE COIL
- 108 dB/SPL SENSITIVITY
- 220 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 500 - 18000 Hz FREQUENCY RANGE
- TITANIUM DIAPHRAGM

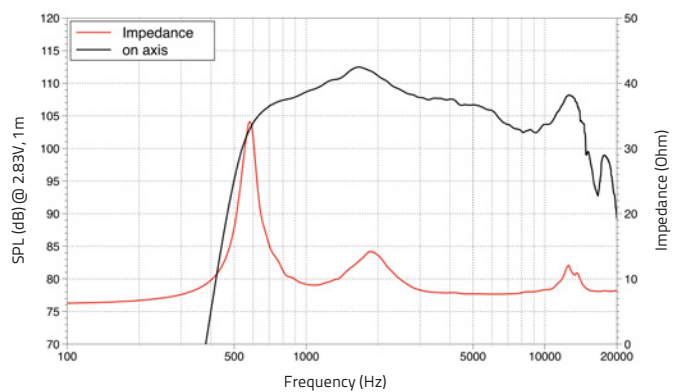
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	36 (1.4)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,6
Program power (1)	W	220
AES Power rating (2)	W	110
Sensitivity (3)	dB	108
Frequency range	Hz	500 ÷ 18000
Voice coil diameter	mm (in.)	75 (3)
Magnet material		Neodymium
Magnet OD	mm (in.)	115 (4.5)
Coil material		Edgewound CCA
Former material		Kapton
Diaphragm material		Titanium
Surround material		Titanium
Voice coil Inductance	mH	0,1
Flux density	T	1,9
Recommended crossover (4)	Hz	1200
Driver displacement volume	l (ft ³)	0,5 (0.018)

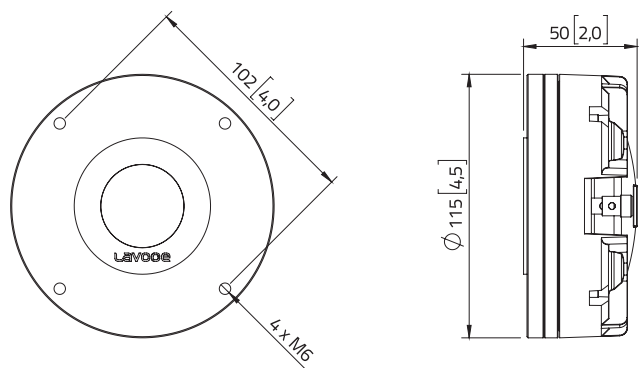
SHIPPING INFORMATION

Net weight	kg (lb.)	1,4 (3.1)
Multipack size (9)	mm	457 x 421 x 98
W x D x H	(in.)	(18 x 16.6 x 3.9)
Multipack weight	kg (lb.)	14,8 (32.6)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1000-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1403 horn, SPL averaged in the frequency range 500 ÷ 18000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_B.a



DN14.40T

Lavoce

1.4" COMPRESSION DRIVER

NEODYMIUM MAGNET



- 4 INCH EDGEWOUND CCA VOICE COIL
- 109 dB/SPL SENSITIVITY
- 260 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 500 - 20000 Hz FREQUENCY RANGE
- TITANIUM DIAPHRAGM AND FULL SUSPENSION

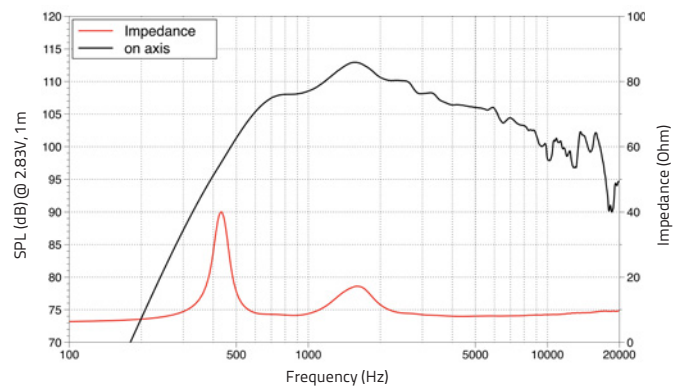
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	36 (1.4)
Nominal impedance	Ω	8
Minimum impedance	Ω	8.0
Program power (1)	W	260
AES Power rating (2)	W	130
Sensitivity (3)	dB	109
Frequency range	Hz	500 ÷ 20000
Voice coil diameter	mm (in.)	100 (4)
Magnet material		Neodymium
Magnet OD	mm (in.)	140 (5.5)
Coil material		Edgewound CCA
Former material		Kapton
Diaphragm material		Titanium
Surround material		Titanium
Voice coil Inductance	mH	0.17
Flux density	T	1.9
Recommended crossover (4)	Hz	800
Driver displacement volume	l (ft ³)	0,7 (0.025)

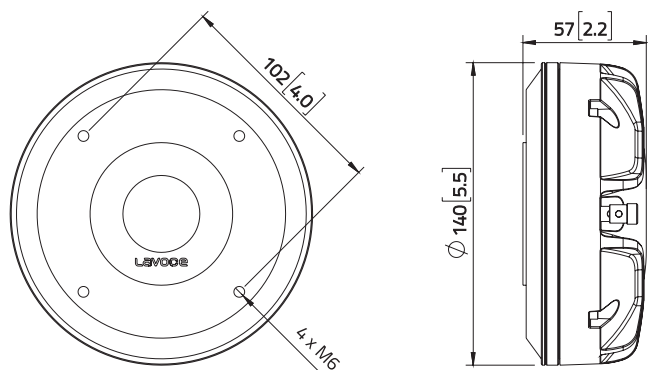
SHIPPING INFORMATION

Net weight	kg (lb.)	2.0 (4.4)
Multipack size (9)	mm (in.)	570 x 538 x 103 (22.4 x 21.2 x 4)
Multipack weight	kg (lb.)	19,7 (43.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (800-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1403 horn, SPL averaged in the frequency range 500 ÷ 18000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_C.a



DN14.40TM

Lavoce

1.4" COMPRESSION DRIVER

NEODYMIUM MAGNET

PRELIMINARY

- 4 INCH EDGEWOUND CCA VOICE COIL
- 109 dB/SPL SENSITIVITY
- 260 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 500 - 20000 Hz FREQUENCY RANGE
- TITANIUM DIAPHRAGM AND POLYESTER SUSPENSION



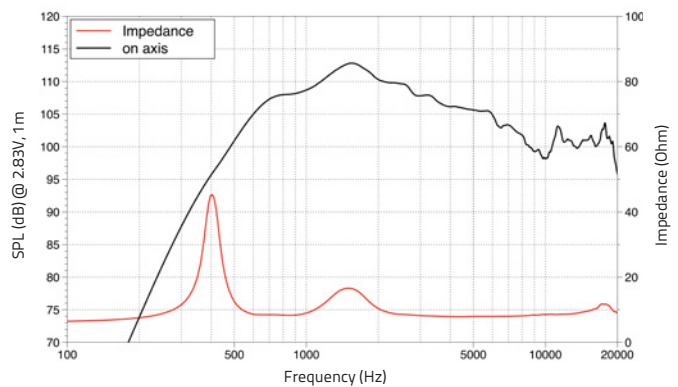
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	36 (1.4)
Nominal impedance	Ω	8
Minimum impedance	Ω	8
Program power (1)	W	260
AES Power rating (2)	W	130
Sensitivity (3)	dB	109
Frequency range	Hz	500 ÷ 20000
Voice coil diameter	mm (in.)	100 (4)
Magnet material		Neodymium
Magnet OD	mm (in.)	140 (5.5)
Coil material		Edgewound CCA
Former material		Kapton
Diaphragm material		Titanium
Surround material		Polyester
Voice coil Inductance	mH	0.17
Flux density	T	1.9
Recommended crossover (4)	Hz	800
Driver displacement volume	l (ft ³)	0,7 (0.025)

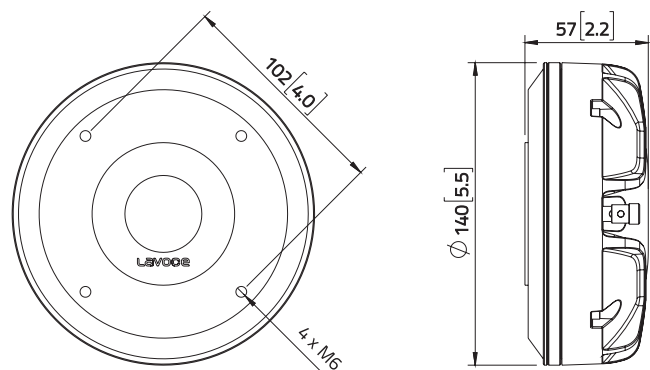
SHIPPING INFORMATION

Net weight	kg (lb.)	2.0 (4.4)
Multipack size (9)	mm (in.)	570 x 538 x 103 (22.4 x 21.2 x 4)
Multipack weight	kg (lb.)	19,7 (43.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (800-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1403 horn, SPL averaged in the frequency range 500 ÷ 18000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_C.a

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FERRITE HIGH FREQUENCY COMPRESSION DRIVERS

FOR YOUR MOST CHALLENGING PROJECTS

Lavoce

Lavoce compression drivers are carefully designed and engineered with performance, consistency and reliability as the main objective. Our engineering team have taken every care to ensure that each device delivers an accurate and coherent wavefront to compliment your chosen horn, with the elegant styling that customers expect from Lavoce Italiana.

Our successful range of 1" exit ferrite compression drivers is now complimented with four new ground-up designs, DF10.142LM, DF10.142LK (1.4" VC), DF10.171LK and DF10.172LK (1.7" VC), which all offer a coherent frequency trend to 20kHz and premium design features, whilst still maintaining the cost-effective edge that Lavoce is well-known for. Our 1.4" exit and 2" exit models, DF14.30T (1.4" exit, 110W AES, 107,5 dB) and DF20.30T (2" exit, 110W AES, 107,5dB) use the same one-piece Titanium diaphragm and surround and incorporate our patented Integral Input Surface phase plug topology.

A premium design approach is applied to everything we do and is expressed in our Neodymium HF Compression Drivers, developed using Finite Element Analysis (FEA) and placed through our own demanding testing and QC measurement standards.

FEATURES FOUND IN DF10 (1" EXIT), DF14 (1.4" EXIT) AND DF20 (2" EXIT) FERRITE HF COMPRESSION DRIVERS:

- **Smooth Extended Frequency Response** with low distortion and high sensitivity
- **Low Crossover Point** to allow more flexibility with system design.
- **Edgewound CCA** is a copper clad aluminium flat voice coil wire used to increase the motor strength, thermal dissipation and create a lighter moving mass to enhance sensitivity.
- **Reinforced Polyimide Former** gives rigidity and stability to the voice coil structure.

SELECTED MODELS USE:

- **Integral Input Surface Phase Plug Topology** is a patented technology which increases production consistency and eliminates the risk of unwanted distortions coming from the input surface of the phase plug.
- **Polyester Diaphragm/Surround and CCAW Voice coil wire** for the perfect balance of sensitivity, power handling and price
- **Polyimide Diaphragm/Surround** for a wider useable frequency band and improved power handling
- **High Temperature Polymer (PEEK) Diaphragm/Surround** for a smooth performance and improved power handling
- **Titanium Diaphragm/Surround** for high power handling, reliability and reference performance

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DF10.10LM

Lavoce

1" COMPRESSION DRIVER

FERRITE MAGNET



- 1 INCH CCAW VOICE COIL
- 107 dB/SPL SENSITIVITY
- 30 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1500 - 18000 Hz FREQUENCY RANGE
- POLYESTER DIAPHRAGM

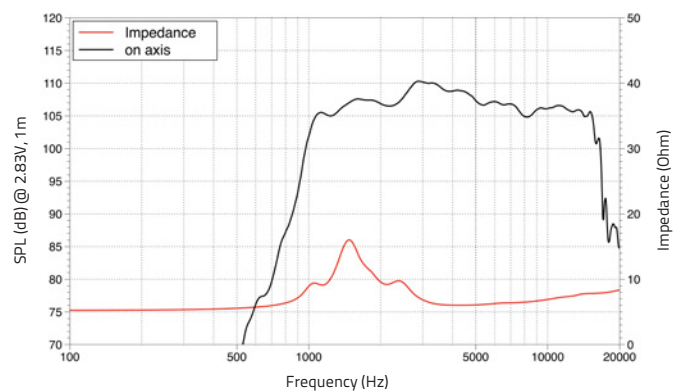
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,0
Program power (1)	W	30
AES Power rating (2)	W	15
Sensitivity (3)	dB	107
Frequency range	Hz	1500 ÷ 18000
Voice coil diameter	mm (in.)	25,4 (1)
Magnet material	Ferrite	
Magnet OD	mm (in.)	85 (3,3)
Coil material	CCAW	
Former material	Kapton	
Diaphragm material	Polyester	
Surround material	Polyester	
Voice coil Inductance	mH	0,03
Flux density	T	1,5
Recommended crossover (4)	Hz	2500
Driver displacement volume	l (ft ³)	0,2 (0.007)

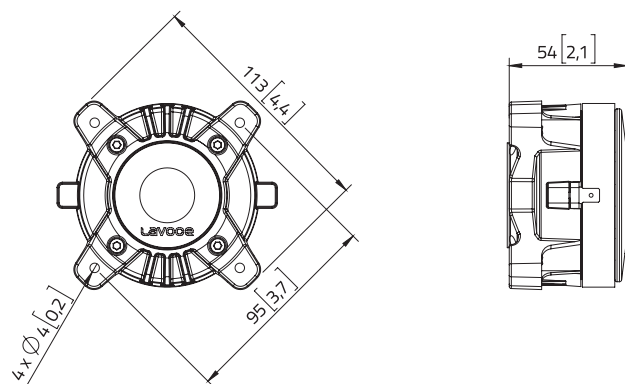
SHIPPING INFORMATION

Net weight	kg (lb.)	0,8 (1.7)
Multipack size (12)	mm	498 x 412 x 98
W x D x H	(in.)	(19.6 x 16.2 x 3.9)
Multipack weight	kg (lb.)	11,5 (25.2)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited (2500-20000 Hz, 12dB/oct.) pink noise signal as per AES 2-1984 Rev. 2003. (3) Driver mounted on 80° x 80° horn. (4) Measured on axis at 2.83V, 1m, SPL averaged in the frequency range 1500 ÷ 18000 Hz. (3) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_B.b

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DF10.101LM

Lavoce

1" COMPRESSION DRIVER

FERRITE MAGNET



- 1 INCH CCAW VOICE COIL
- 107 dB/SPL SENSITIVITY
- 30 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1500 - 18000 Hz FREQUENCY RANGE
- POLYESTER DIAPHRAGM

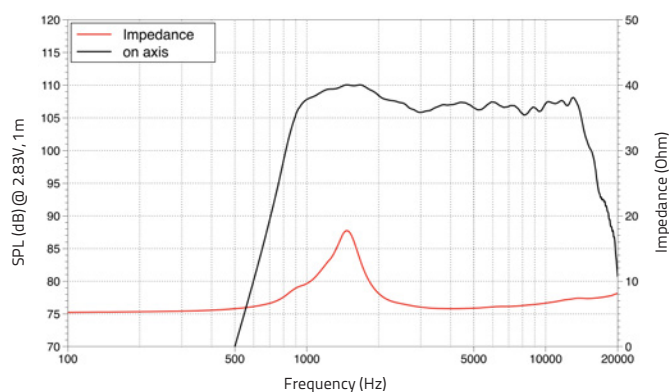
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,0
Program power (1)	W	30
AES Power rating (2)	W	15
Sensitivity (3)	dB	107
Frequency range	Hz	1500 ÷ 18000
Voice coil diameter	mm (in.)	25,4 (1)
Magnet material	Ferrite	
Magnet OD	mm (in.)	85 (3,3)
Coil material	CCAW	
Former material	Kapton	
Diaphragm material	Polyester	
Surround material	Polyester	
Voice coil Inductance	mH	0,03
Flux density	T	1,5
Recommended crossover (4)	Hz	2500
Driver displacement volume	l (ft ³)	0,2 (0.007)

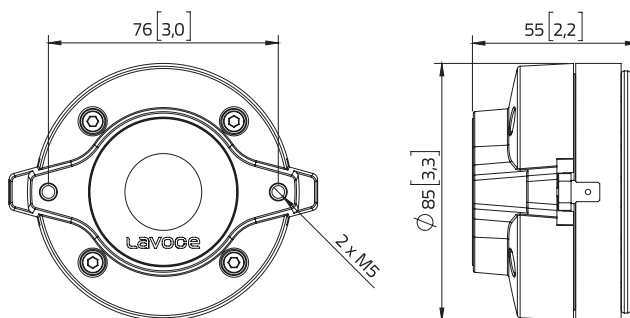
SHIPPING INFORMATION

Net weight	kg (lb.)	0,8 (1.7)
Multipack size (12)	mm (in.)	498 x 412 x 98
W x D x H		(19.6 x 16.2 x 3.9)
Multipack weight	kg (lb.)	11,5 (25.2)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited (2500-20000 Hz, 12dB/oct.) pink noise signal as per AES 2-1984 Rev. 2003. (3) Driver mounted on HD1003 horn. (4) Measured on axis at 2.83V, 1m, SPL averaged in the frequency range 1500 ÷ 18000 Hz. (3) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_B.a

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DF10.10L

Lavoce

1" COMPRESSION DRIVER

FERRITE MAGNET



- 1 INCH CCAW VOICE COIL
- 107 dB/SPL SENSITIVITY
- 40 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1500 - 18000 Hz FREQUENCY RANGE
- HIGH TEMPERATURE POLYMERIC DIAPHRAGM

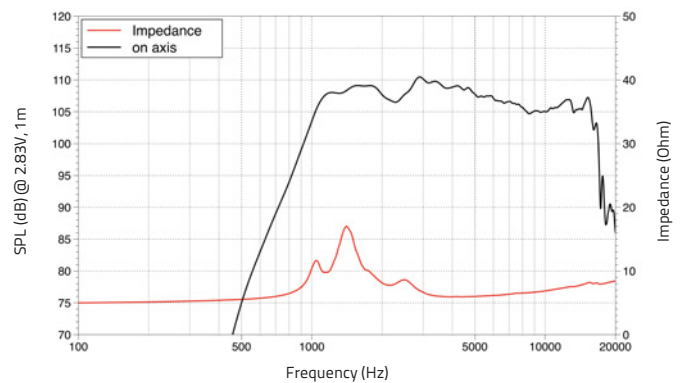
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,0
Program power (1)	W	40
AES Power rating (2)	W	20
Sensitivity (3)	dB	107
Frequency range	Hz	1500 ÷ 18000
Voice coil diameter	mm (in.)	25,4 (1)
Magnet material	Ferrite	
Magnet OD	mm (in.)	85 (3,3)
Coil material	CCAW	
Former material	Kapton	
Diaphragm material	High temperature polymer	
Surround material	High temperature polymer	
Voice coil Inductance	mH	0,03
Flux density	T	1,5
Recommended crossover (4)	Hz	2500
Driver displacement volume	l (ft ³)	0,2 (0.007)

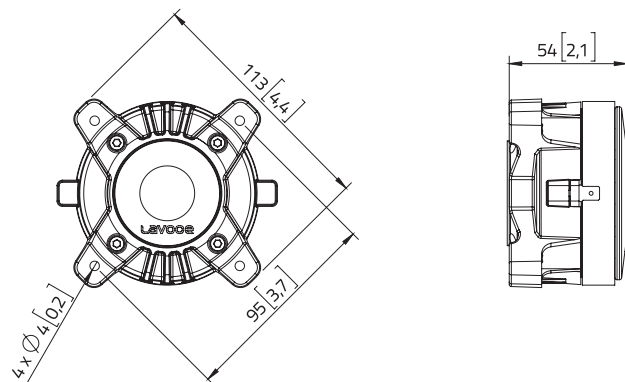
SHIPPING INFORMATION

Net weight	kg (lb.)	0,8 (1.7)
Multipack size (12)	mm	498 x 412 x 98
W x D x H	(in.)	(19.6 x 16.2 x 3.9)
Multipack weight	kg (lb.)	11,5 (25.2)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited (2500-20000 Hz, 12dB/oct.) pink noise signal as per AES 2-1984 Rev. 2003. (3) Driver mounted on 80° x 80° horn. (4) Measured on axis at 2.83V, 1m, SPL averaged in the frequency range 1500 ÷ 18000 Hz. (3) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_B.a

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DF10.101L

Lavoce

1" COMPRESSION DRIVER

FERRITE MAGNET



- 1 INCH CCAW VOICE COIL
- 107 dB/SPL SENSITIVITY
- 40 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1500 - 18000 Hz FREQUENCY RANGE
- HIGH TEMPERATURE POLYMERIC DIAPHRAGM

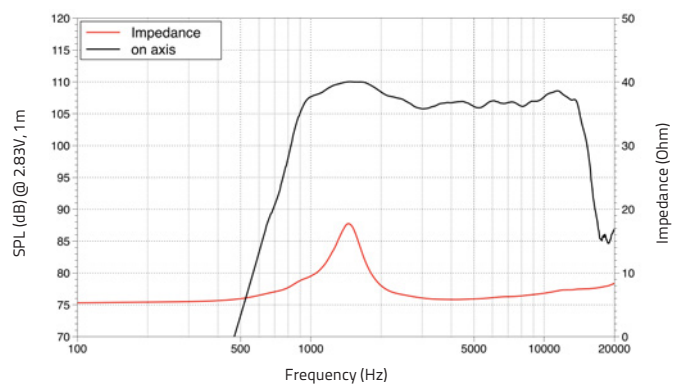
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,0
Program power (1)	W	40
AES Power rating (2)	W	20
Sensitivity (3)	dB	107
Frequency range	Hz	1500 ÷ 18000
Voice coil diameter	mm (in.)	25,4 (1)
Magnet material	Ferrite	
Magnet OD	mm (in.)	85 (3,3)
Coil material	CCAW	
Former material	Kapton	
Diaphragm material	High temperature polymer	
Surround material	High temperature polymer	
Voice coil Inductance	mH	0,03
Flux density	T	1,5
Recommended crossover (4)	Hz	2500
Driver displacement volume	l (ft ³)	0,2 (0.007)

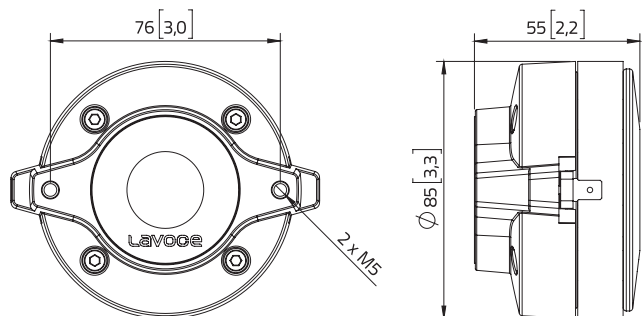
SHIPPING INFORMATION

Net weight	kg (lb.)	0,8 (1.7)
Multipack size (12)	mm (in.)	498 x 412 x 98 (19.6 x 16.2 x 3.9)
Multipack weight	kg (lb.)	11,5 (25.2)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited (2500-20000 Hz, 12dB/oct.) pink noise signal as per AES 2-1984 Rev. 2003. (3) Driver mounted on HD1003 horn. (4) Measured on axis at 2.83V, 1m, SPL averaged in the frequency range 1500 ÷ 18000 Hz. (3) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_B.a



DF10.14LM

Lavoce

1" COMPRESSION DRIVER

FERRITE MAGNET



- 1.4 INCH CCAW VOICE COIL
- 106 dB/SPL SENSITIVITY
- 50 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1500 - 20000 Hz FREQUENCY RANGE
- POLYESTER DIAPHRAGM

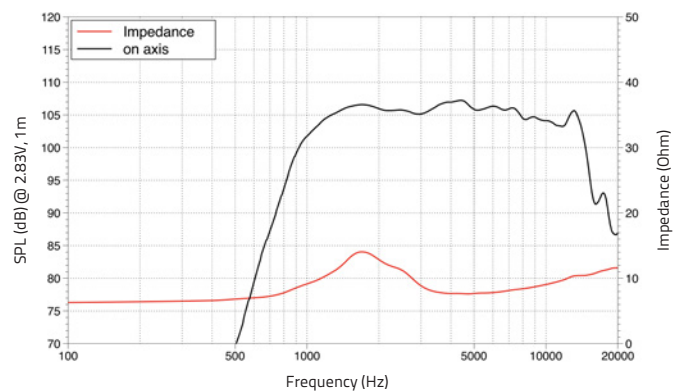
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,4
Program power (1)	W	50
AES Power rating (2)	W	25
Sensitivity (3)	dB	106
Frequency range	Hz	1500 ÷ 20000
Voice coil diameter	mm (in.)	36 (1.4)
Magnet material	Ferrite	
Magnet OD	mm (in.)	90 (3.5)
Coil material	CCAW	
Former material	Kapton	
Diaphragm material	Polyester	
Surround material	Polyester, vented	
Voice coil Inductance	mH	0,09
Flux density	T	1,5
Recommended crossover (4)	Hz	1700
Driver displacement volume	l (ft ³)	0,3 (0.010)

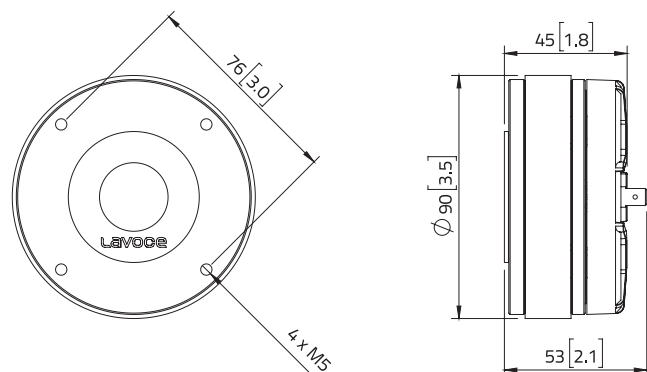
SHIPPING INFORMATION

Net weight	kg (lb.)	1 (2.2)
Multipack size (12)	mm (in.)	498 x 412 x 98 (19.6 x 16.2 x 3.8)
Multipack weight	kg (lb.)	13,5 (29.7)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1700-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1500 ÷ 20000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

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DF10.14M

Lavoce

1" COMPRESSION DRIVER

FERRITE MAGNET



- 1.4 INCH EDGEWOUND CCA VOICE COIL
- 106 dB/SPL SENSITIVITY
- 50 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1500 - 20000 Hz FREQUENCY RANGE
- POLYESTER DIAPHRAGM

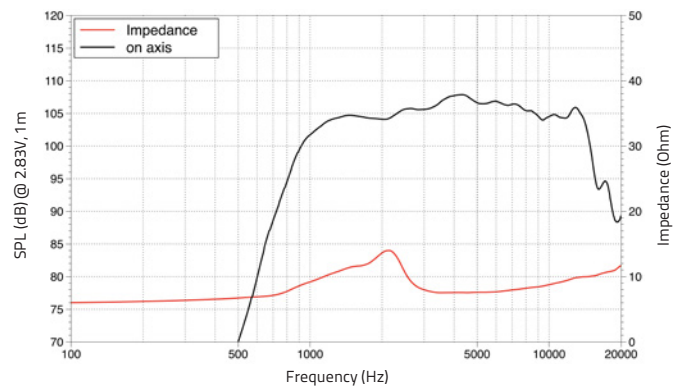
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,4
Program power (1)	W	50
AES Power rating (2)	W	25
Sensitivity (3)	dB	106
Frequency range	Hz	1500 ÷ 20000
Voice coil diameter	mm (in.)	36 (1.4)
Magnet material	Ferrite	
Magnet OD	mm (in.)	90 (3.5)
Coil material	Edgewound CCA	
Former material	Kapton	
Diaphragm material	Polyester	
Surround material	Polyester, vented	
Voice coil Inductance	mH	0,09
Flux density	T	1,5
Recommended crossover (4)	Hz	1700
Driver displacement volume	l (ft ³)	0,3 (0.010)

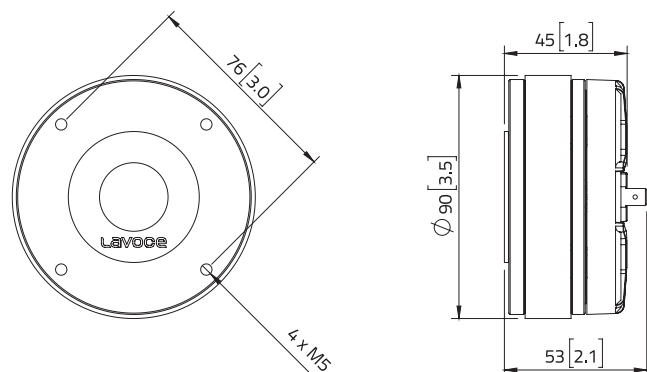
SHIPPING INFORMATION

Net weight	kg (lb.)	1 (2.2)
Multipack size (12)	mm (in.)	498 x 412 x 98 (19.6 x 16.2 x 3.8)
Multipack weight	kg (lb.)	13,5 (29.7)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1700-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1500 ÷ 20000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_B.a



DF10.14

Lavoce

1" COMPRESSION DRIVER

FERRITE MAGNET



- 1.4 INCH EDGEWOUND CCA VOICE COIL
- 106 dB/SPL SENSITIVITY
- 60 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1500 - 20000 Hz FREQUENCY RANGE
- HIGH TEMPERATURE POLYMERIC DIAPHRAGM

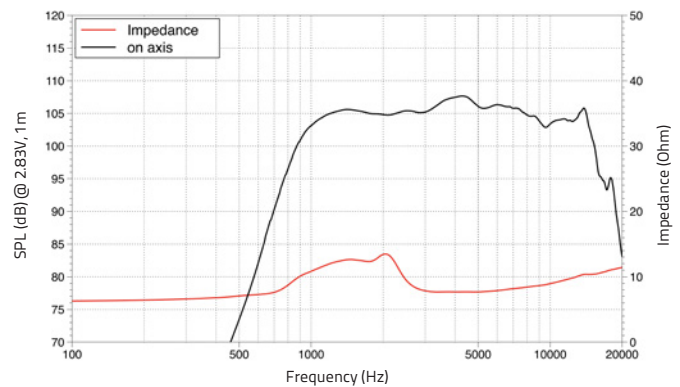
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,4
Program power (1)	W	60
AES Power rating (2)	W	30
Sensitivity (3)	dB	106
Frequency range	Hz	1500 ÷ 20000
Voice coil diameter	mm (in.)	36 (1.4)
Magnet material	Ferrite	
Magnet OD	mm (in.)	90 (3.5)
Coil material	Edgewound CCA	
Former material	Kapton	
Diaphragm material	High temperature polymer	
Surround material	High temperature polymer, vented	
Voice coil Inductance	mH	0,09
Flux density	T	1,5
Recommended crossover (4)	Hz	1700
Driver displacement volume	l (ft ³)	0,3 (0.010)

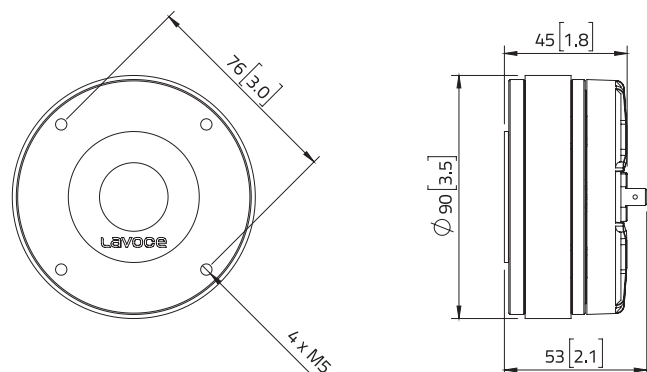
SHIPPING INFORMATION

Net weight	kg (lb.)	1 (2.2)
Multipack size (12)	mm	498 x 412 x 98
W x D x H	(in.)	(19.6 x 16.2 x 3.9)
Multipack weight	kg (lb.)	13,5 (29.7)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1700-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1500 ÷ 20000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

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DF10.142LM

Lavoce

1" COMPRESSION DRIVER

FERRITE MAGNET

PRELIMINARY

- 1.4 INCH CCAW VOICE COIL
- 106 dB/SPL SENSITIVITY
- 50 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1500 - 20000 Hz FREQUENCY RANGE
- POLYESTER DIAPHRAGM



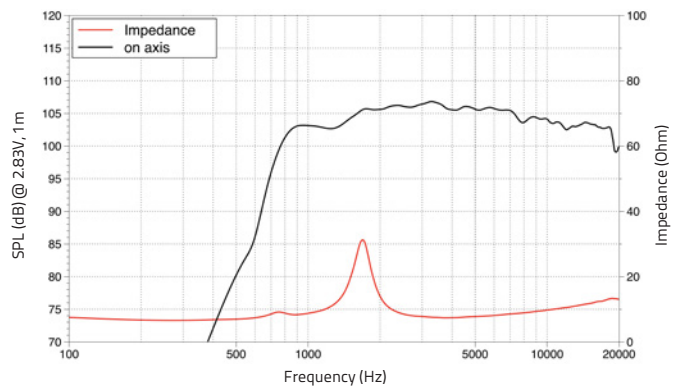
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,4
Program power (1)	W	50
AES Power rating (2)	W	25
Sensitivity (3)	dB	106
Frequency range	Hz	1500 ÷ 20000
Voice coil diameter	mm (in.)	35 (1.4)
Magnet material	Ferrite	
Magnet OD	mm (in.)	90 (3.5)
Coil material	CCA W	
Former material	Kapton	
Diaphragm material	Polyester	
Surround material	Polyester	
Voice coil Inductance	mH	0,09
Flux density	T	1,5
Recommended crossover (4)	Hz	2200
Driver displacement volume	l (ft ³)	0,2 (0.007)

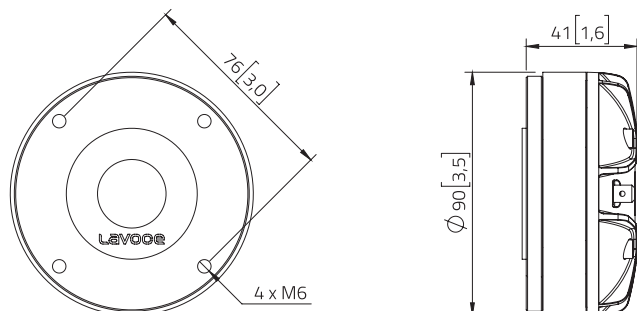
SHIPPING INFORMATION

Net weight	kg (lb.)	0,9 (2.0)
Multipack size (12)	mm	498 x 412 x 85
W x D x H	(in.)	(19.6 x 16.2 x 3.3)
Multipack weight	kg (lb.)	13,5 (29.7)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (2200-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1500 ÷ 20000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_C.a



DF10.142LK

Lavoce

1" COMPRESSION DRIVER

FERRITE MAGNET



- 1.4 INCH CCAW VOICE COIL
- 106 dB/SPL SENSITIVITY
- 70 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1500 - 20000 Hz FREQUENCY RANGE
- POLYIMIDE DIAPHRAGM

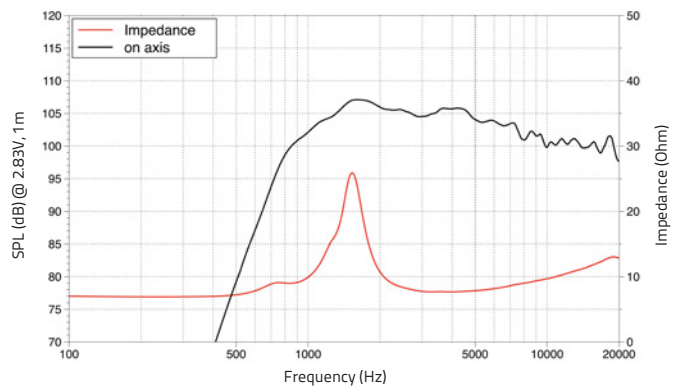
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,4
Program power (1)	W	70
AES Power rating (2)	W	35
Sensitivity (3)	dB	106
Frequency range	Hz	1500 ÷ 20000
Voice coil diameter	mm (in.)	35 (1.4)
Magnet material	Ferrite	
Magnet OD	mm (in.)	90 (3.5)
Coil material	CCAW	
Former material	Kapton	
Diaphragm material	Polyimide	
Surround material	Polyimide	
Voice coil Inductance	mH	0,09
Flux density	T	1,5
Recommended crossover (4)	Hz	2200
Driver displacement volume	l (ft ³)	0,2 (0.007)

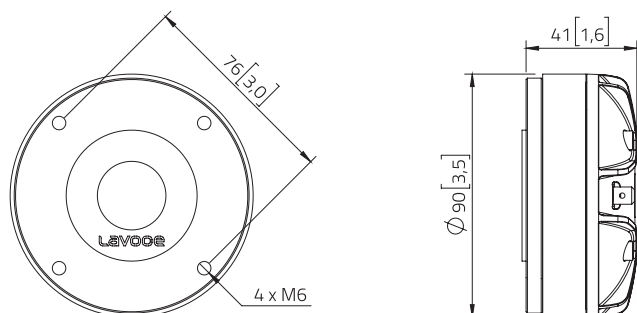
SHIPPING INFORMATION

Net weight	kg (lb.)	0,9 (2.0)
Multipack size (12)	mm	498 x 412 x 85
W x D x H	(in.)	(19.6 x 16.2 x 3.3)
Multipack weight	kg (lb.)	13,5 (29.7)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (2200-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1500 ÷ 20000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

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DF10.17LM

Lavoce

1" COMPRESSION DRIVER

FERRITE MAGNET



- 1.7 INCH CCAW VOICE COIL
- 108 dB/SPL SENSITIVITY
- 110 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1200 - 18000 Hz FREQUENCY RANGE
- POLYESTER DIAPHRAGM

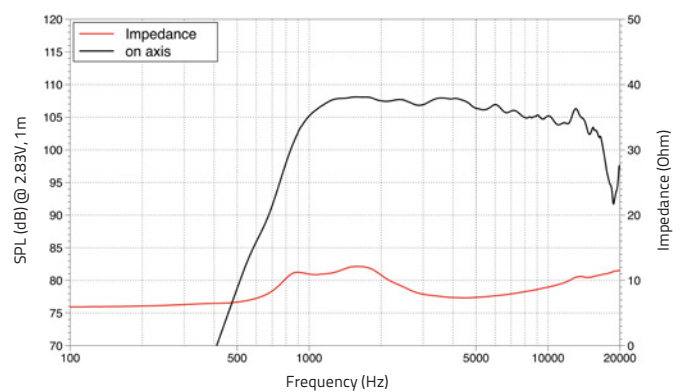
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,3
Program power (1)	W	110
AES Power rating (2)	W	55
Sensitivity (3)	dB	108
Frequency range	Hz	1200 ÷ 18000
Voice coil diameter	mm (in.)	44,4 (1.7)
Magnet material	Ferrite	
Magnet OD	mm (in.)	102 (4.0)
Coil material	CCAW	
Former material	Fiber Glass	
Diaphragm material	Polyester	
Surround material	Polyester, vented	
Voice coil Inductance	mH	0,08
Flux density	T	1,4
Recommended crossover (4)	Hz	1600
Driver displacement volume	l (ft ³)	0,45 (0.016)

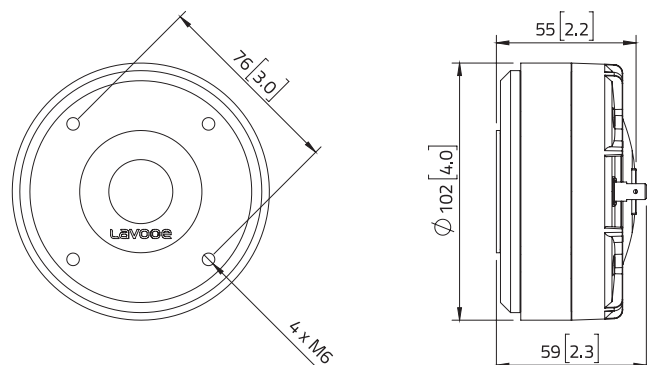
SHIPPING INFORMATION

Net weight	kg (lb.)	1,6 (3.5)
Multipack size (9)	mm	460 x 427 x 109
W x D x H	(in.)	(18.1 x 16.8 x 4.3)
Multipack weight	kg (lb.)	15,9 (35)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1600-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1200 ÷ 18000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_B.a



DF10.17M

Lavoce

1" COMPRESSION DRIVER

FERRITE MAGNET



- 1.7 INCH EDGEWOUND CCA VOICE COIL
- 108 dB/SPL SENSITIVITY
- 110 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1200 - 18000 Hz FREQUENCY RANGE
- POLYESTER DIAPHRAGM
- VOICE COIL COPPER DEMODULATION RING

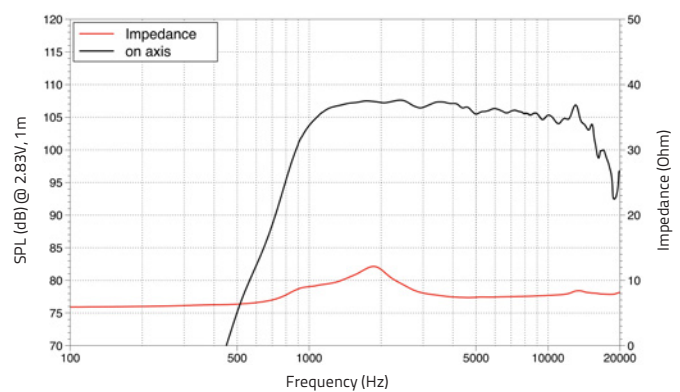
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,3
Program power (1)	W	110
AES Power rating (2)	W	55
Sensitivity (3)	dB	108
Frequency range	Hz	1200 ÷ 18000
Voice coil diameter	mm (in.)	44,4 (1.7)
Magnet material		Ferrite
Magnet OD	mm (in.)	102 (4.0)
Coil material		Edgewound CCA
Former material		Fiber Glass
Diaphragm material		Polyester
Surround material		Polyester, vented
Voice coil Inductance	mH	0,08
Flux density	T	1,4
Recommended crossover (4)	Hz	1600
Driver displacement volume	l (ft ³)	0,45 (0.016)

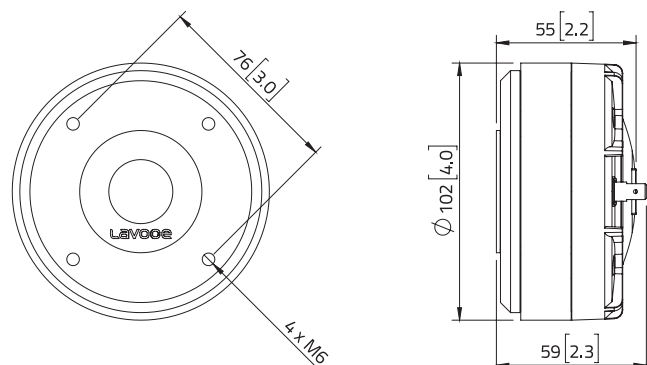
SHIPPING INFORMATION

Net weight	kg (lb.)	1,6 (3.5)
Multipack size (9)	mm	460 x 427 x 109
W x D x H	(in.)	(18.1 x 16.8 x 4.3)
Multipack weight	kg (lb.)	15,9 (35)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1600-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1200 ÷ 18000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

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Lavoce

1" COMPRESSION DRIVER

FERRITE MAGNET



- 1.7 INCH EDGEWOUND CCA VOICE COIL
- 108 dB/SPL SENSITIVITY
- 120 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1200 - 18000 Hz FREQUENCY RANGE
- HIGH TEMPERATURE POLYMERIC DIAPHRAGM
- VOICE COIL COPPER DEMODULATION RING

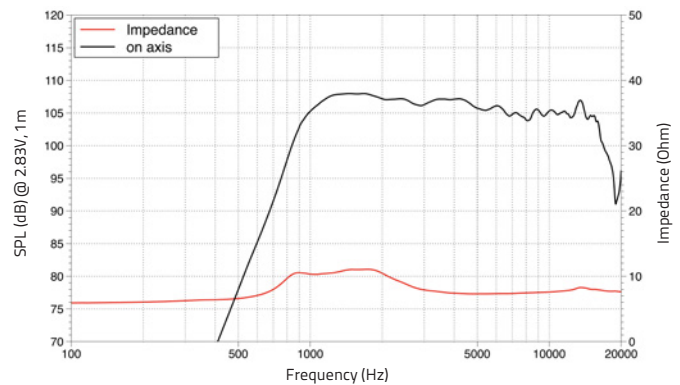
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,3
Program power (1)	W	120
AES Power rating (2)	W	60
Sensitivity (3)	dB	108
Frequency range	Hz	1200 ÷ 18000
Voice coil diameter	mm (in.)	44,4 (1.7)
Magnet material	Ferrite	
Magnet OD	mm (in.)	102 (4.0)
Coil material	Edgewound CCA	
Former material	Fiber Glass	
Diaphragm material	High temperature polymer	
Surround material	High temperature polymer, vented	
Voice coil Inductance	mH	0,08
Flux density	T	1,4
Recommended crossover (4)	Hz	1600
Driver displacement volume	l (ft ³)	0,45 (0.016)

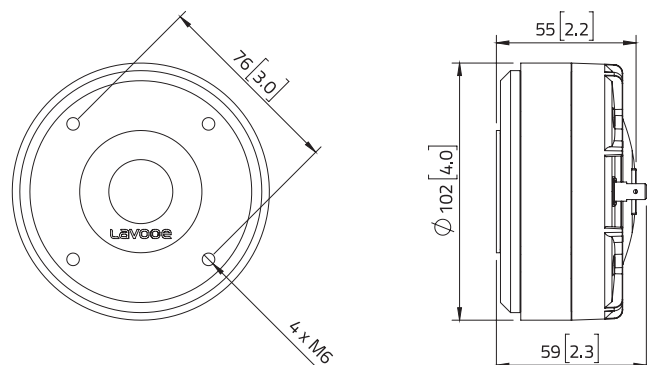
SHIPPING INFORMATION

Net weight	kg (lb.)	1,6 (3.5)
Multipack size (9)	mm	460 x 427 x 109
W x D x H	(in.)	(18.1 x 16.8 x 4.3)
Multipack weight	kg (lb.)	15,9 (35)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1600-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1200 ÷ 18000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_B.a



DF10.171LK

Lavoce

1" COMPRESSION DRIVER

FERRITE MAGNET

PRELIMINARY

- 1.7 INCH CCAW VOICE COIL
- 106,5 dB/SPL SENSITIVITY
- 110 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1200 - 20000 Hz FREQUENCY RANGE
- POLYIMIDE DIAPHRAGM



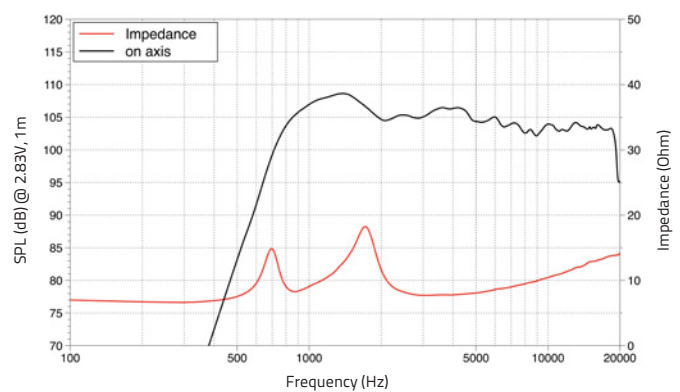
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,3
Program power (1)	W	110
AES Power rating (2)	W	55
Sensitivity (3)	dB	106,5
Frequency range	Hz	1200 ÷ 20000
Voice coil diameter	mm (in.)	44,4 (1.7)
Magnet material	Ferrite	
Magnet OD	mm (in.)	100 (3.93)
Coil material	CCAW	
Former material	Kapton	
Diaphragm material	Polyimide	
Surround material	Polyimide	
Voice coil Inductance	mH	0,08
Flux density	T	1,5
Recommended crossover (4)	Hz	2000
Driver displacement volume	l (ft ³)	0,3 (0.01)

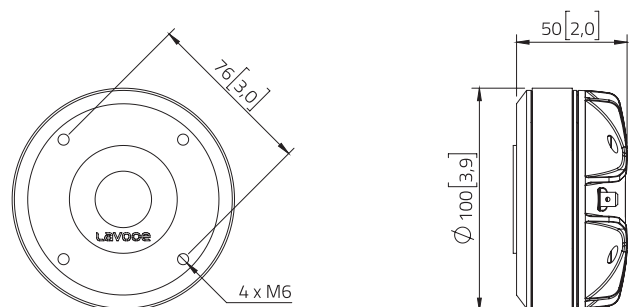
SHIPPING INFORMATION

Net weight	kg (lb.)	1,6 (3.5)
Multipack size (9)	mm	460 x 427 x 109
W x D x H	(in.)	(18.1 x 16.8 x 4.3)
Multipack weight	kg (lb.)	15,9 (35)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (2000-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1000 ÷ 20000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

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Lavoce

1" COMPRESSION DRIVER

FERRITE MAGNET

PRELIMINARY

- 1.7 INCH CCAW VOICE COIL
- 108,5 dB/SPL SENSITIVITY
- 120 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1000 - 20000 Hz FREQUENCY RANGE
- POLYIMIDE DIAPHRAGM



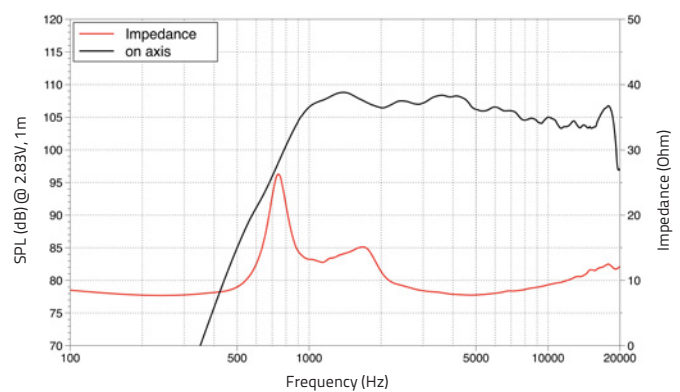
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,3
Program power (1)	W	120
AES Power rating (2)	W	60
Sensitivity (3)	dB	108,5
Frequency range	Hz	1000 ÷ 20000
Voice coil diameter	mm (in.)	44,4 (1.7)
Magnet material	Ferrite	
Magnet OD	mm (in.)	114 (4.5)
Coil material	CCAW	
Former material	Kapton	
Diaphragm material	Polyimide	
Surround material	Polyimide, vented	
Voice coil Inductance	mH	0,08
Flux density	T	1,75
Recommended crossover (4)	Hz	1600
Driver displacement volume	l (ft ³)	0,4 (0.01)

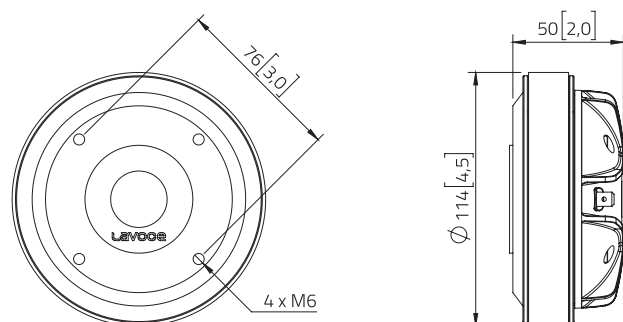
SHIPPING INFORMATION

Net weight	kg (lb.)	1,6 (3.5)
Multipack size (9)	mm	460 x 427 x 109
W x D x H	(in.)	(18.1 x 16.8 x 4.3)
Multipack weight	kg (lb.)	16,3 (35.9)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1600-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1000 ÷ 20000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_C.a



DF10.17T

Lavoce

1" COMPRESSION DRIVER

FERRITE MAGNET



- 1.7 INCH EDGEWOUND CCA VOICE COIL
- 106 dB/SPL SENSITIVITY
- 120 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 1200 - 18000 Hz FREQUENCY RANGE
- TITANIUM DIAPHRAGM AND SUSPENSION
- VOICE COIL COPPER DEMODULATION RING

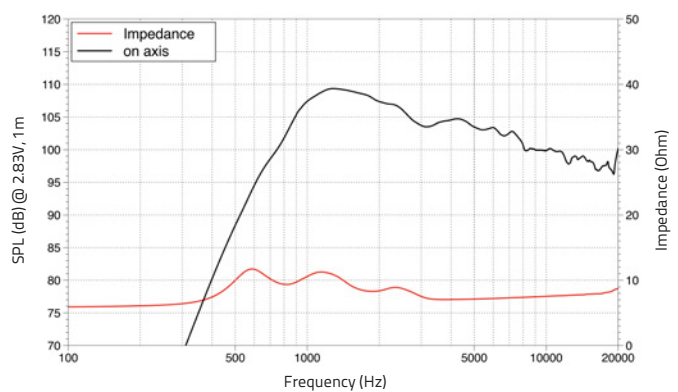
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25,4 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,3
Program power (1)	W	120
AES Power rating (2)	W	60
Sensitivity (3)	dB	106
Frequency range	Hz	1200 ÷ 18000
Voice coil diameter	mm (in.)	44,4 (1.7)
Magnet material	Ferrite	
Magnet OD	mm (in.)	102 (4.0)
Coil material	Edgewound CCA	
Former material	Fiber Glass	
Diaphragm material	Titanium	
Surround material	Titanium	
Voice coil Inductance	mH	0,08
Flux density	T	1,4
Recommended crossover (4)	Hz	1500
Driver displacement volume	l (ft ³)	0,45 (0.016)

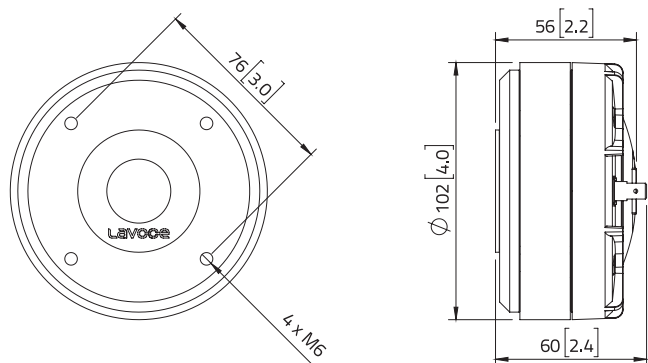
SHIPPING INFORMATION

Net weight	kg (lb.)	1,6 (3.5)
Multipack size (9)	mm	460 x 427 x 109
W x D x H	(in.)	(18.1 x 16.8 x 4.3)
Multipack weight	kg (lb.)	15,9 (35)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1500-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with HD1003 horn, SPL averaged in the frequency range 1200 ÷ 18000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_B.a

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DF14.30T

Lavoce

1.4" COMPRESSION DRIVER

FERRITE MAGNET



- 3 INCH EDGEWOUND CCA VOICE COIL
- 107.5 dB/SPL SENSITIVITY
- 220 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 500 - 18000 Hz FREQUENCY RANGE
- TITANIUM DIAPHRAGM

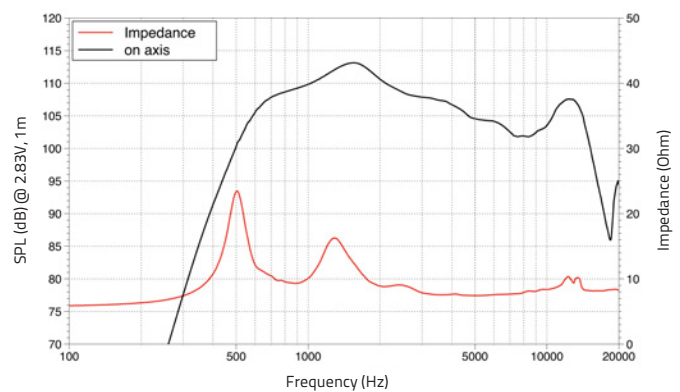
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	36 (1.4)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,6
Program power (1)	W	220
AES Power rating (2)	W	110
Sensitivity (3)	dB	107.5
Frequency range	Hz	500 ÷ 18000
Voice coil diameter	mm (in.)	75 (3)
Magnet material	Ferrite	
Magnet OD	mm (in.)	165 (6.5)
Coil material	Edgewound CCA	
Former material	Kapton	
Diaphragm material	Titanium	
Surround material	Titanium	
Voice coil Inductance	mH	0,1
Flux density	T	1,75
Recommended crossover (4)	Hz	1000
Driver displacement volume	l (ft ³)	0,75 (0.026)

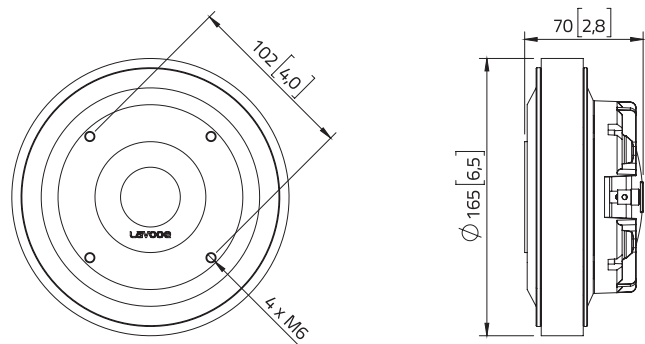
SHIPPING INFORMATION

Net weight	kg (lb.)	4,2 (9.3)
Multipack size (4)	mm (in.)	450 x 423 x 147 (17.7 x 16.6 x 5.8)
Multipack weight	kg (lb.)	18,9 (41.7)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1000-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with 80° x 60° horn, SPL averaged in the frequency range 500 ÷ 18000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_B.a



DF20.30T

Lavoce

2" COMPRESSION DRIVER

FERRITE MAGNET



- 3 INCH EDGEWOUND CCA VOICE COIL
- 107.5 dB/SPL SENSITIVITY
- 220 W PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR, PHASEPLUG AND DIAPHRAGM
- 500 - 18000 Hz FREQUENCY RANGE
- TITANIUM DIAPHRAGM

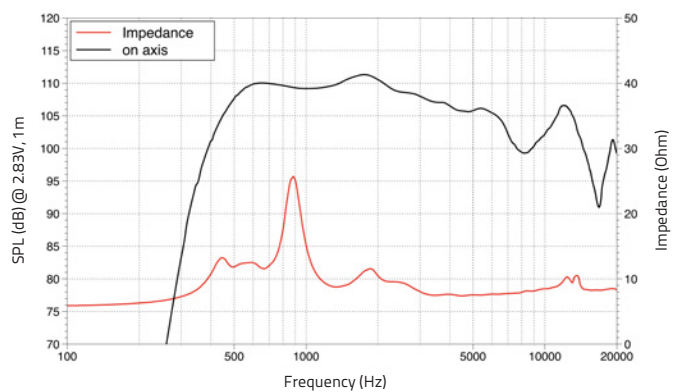
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	50 (2)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,6
Program power (1)	W	220
AES Power rating (2)	W	110
Sensitivity (3)	dB	107.5
Frequency range	Hz	500 ÷ 18000
Voice coil diameter	mm (in.)	75 (3)
Magnet material	Ferrite	
Magnet OD	mm (in.)	165 (6.5)
Coil material	Edgewound CCA	
Former material	Kapton	
Diaphragm material	Titanium	
Surround material	Titanium	
Voice coil Inductance	mH	0,1
Flux density	T	1,75
Recommended crossover (4)	Hz	1000
Driver displacement volume	l (ft ³)	0,75 (0.026)

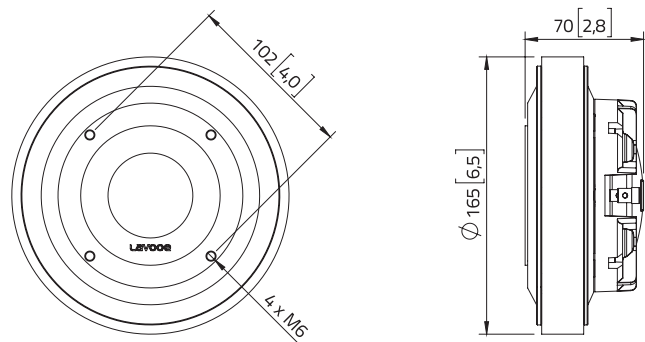
SHIPPING INFORMATION

Net weight	kg (lb.)	4,1 (9)
Multipack size (4)	mm (in.)	450 x 423 x 147 (17.7 x 16.6 x 5.8)
Multipack weight	kg (lb.)	18,6 (41)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Horn loaded test for 2h with continuous, band-limited (1000-20000 Hz, 12dB/oct.) pink noise as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, driver loaded with 90° x 40° horn, SPL averaged in the frequency range 500 ÷ 18000 Hz. (4) High pass filter with slope 12dB/oct. or higher.

All specifications subject to change without notice_B.a

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COMPRESSION DRIVER HORNS

FOR YOUR MOST CHALLENGING PROJECTS

Lavoce

Our launch into premium compression driver horns starts with four aluminium construction 1" and 1.4" throat entry designs, which perfectly complement our existing range of DN10 and DN14 neodymium magnet compression drivers and DF10 and DF14 ferrite magnet compression drivers.

Our 1" throat entry HD1003 and HD1004 exponential horns, and 1.4" throat entry HD1402 and HD1403 constant directivity horns, have each been carefully designed to deliver consistent dispersion and coverage across their frequency range, optimised extended frequency responses, low distortion, and the perfect partnership when loading with a compression driver.

A premium design approach is applied to everything we do and is expressed in our Compression Driver Horns, developed using Finite Element Analysis (FEA) and placed through our own demanding testing and QC measurement standards.

FEATURES FOUND IN HD1003 AND HD1004 (1" THROAT ENTRY) AND HD1402 AND HD1403 (1.4" THROAT ENTRY) HORNS:

- **Optimised on-axis and off-axis** frequency response
- **Very low distortion** at high SPL
- **Die-cast aluminium** construction
- **HD1003** – 1" Throat entry / 90° x 40° dispersion / Exponential (OEM only)
- **HD1004** – 1" Throat entry / 90° x 60° dispersion / Exponential
- **HD1402** – 1.4" Throat entry / 60° x 40° dispersion / Constant directivity (OEM only)
- **HD1403** – 1.4" Throat entry / 80° x 60° dispersion / Constant directivity



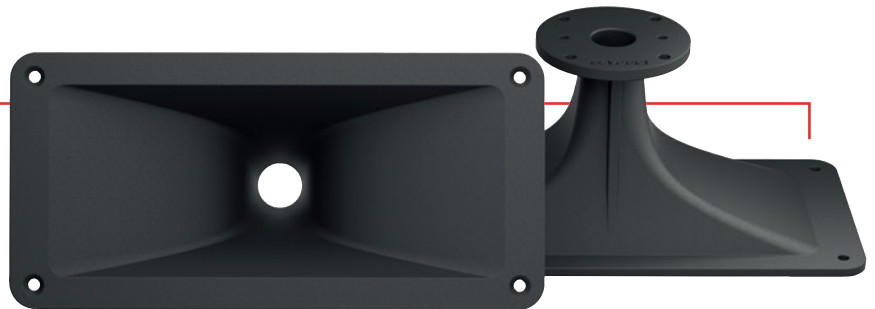
HD1003

Lavoce

1" THROAT ENTRY HORN

OEM only

- 90° x 40° NOMINAL COVERAGE
- CUT-OFF FREQUENCY 1000 Hz
- ALUMINIUM CONSTRUCTION TO ENSURE HIGH MECHANICAL STRENGTH AND HEAT DISSIPATION
- FEM OPTIMIZED EXPONENTIAL FLARE



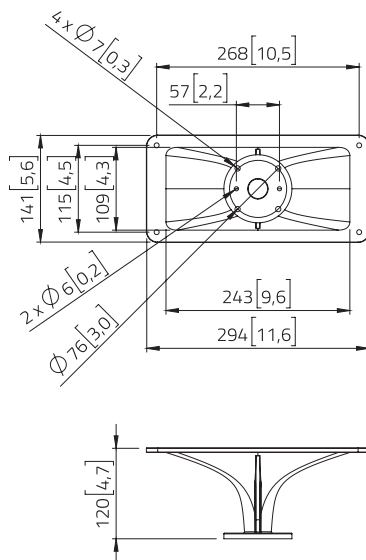
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25 (1)
Horizontal nominal coverage	°	90
Vertical nominal coverage	°	40
Cutoff Frequency	Hz	1000
Material	Aluminium	

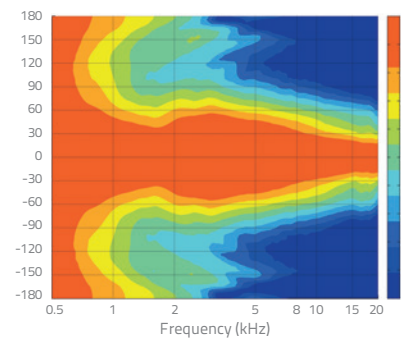
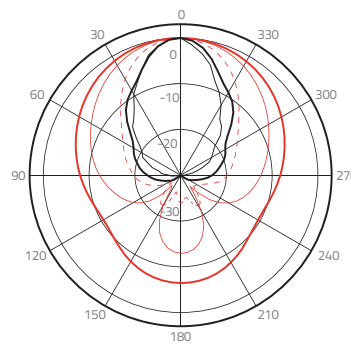
SHIPPING INFORMATION

Net weight	kg (lb.)	0,5 (1.1)
Multipack size (18)	mm	614 x 502 x 238
W x D x H	(in.)	(24.2 x 19.8 x 9.4)
Multipack weight	kg (lb.)	12,5 (27.5)

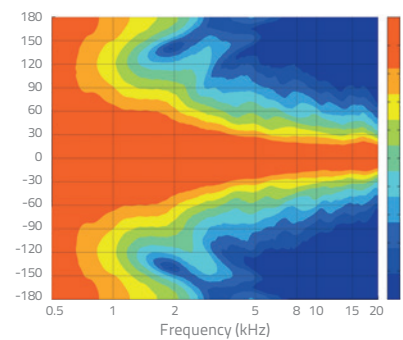
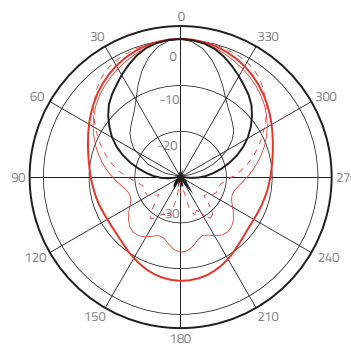
DIMENSIONS mm (in.)



HORIZONTAL ANGLE*



VERTICAL ANGLE*



* Horn measured using LAVOCE DN10.17T compression driver

All specifications subject to change without notice_B.a

1 kHz 2 kHz 4 kHz 8 kHz 16 kHz

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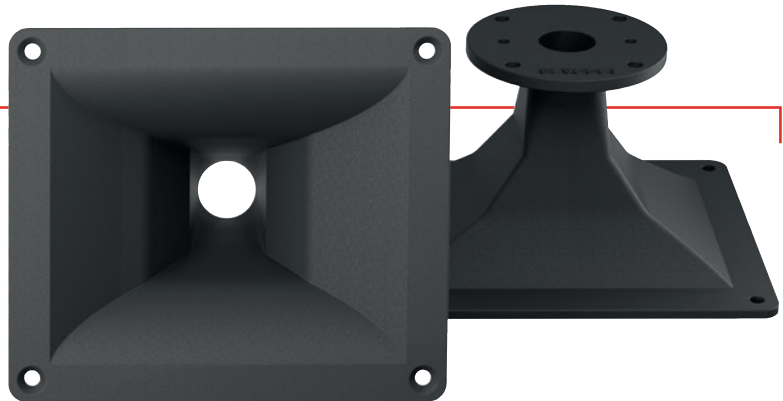
sales@lavocespeakers.com sales.cn@lavocespeakers.com

HD1004

Lavoce

1" THROAT ENTRY HORN

- 90° x 60° NOMINAL COVERAGE
- CUT-OFF FREQUENCY 1200 Hz
- ALUMINIUM CONSTRUCTION TO ENSURE HIGH MECHANICAL STRENGTH AND HEAT DISSIPATION
- FEM OPTIMIZED EXPONENTIAL FLARE



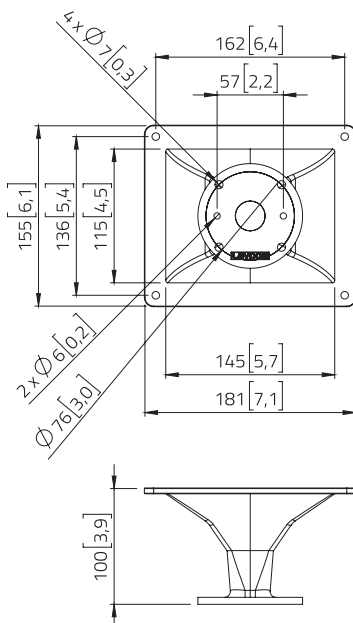
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	25 (1)
Horizontal nominal coverage	°	90
Vertical nominal coverage	°	60
Cutoff Frequency	Hz	1200
Material	Aluminium	

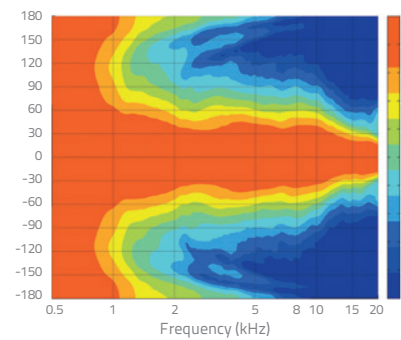
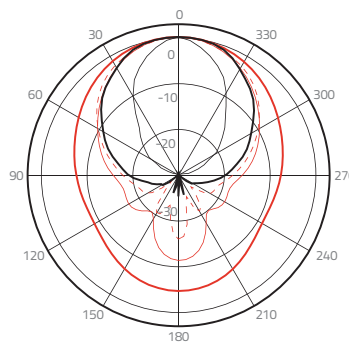
SHIPPING INFORMATION

Net weight	kg (lb.)	0,5 (1.1)
Multipack size (18)	mm	614 x 502 x 238
W x D x H	(in.)	(24.2 x 19.8 x 9.4)
Multipack weight	kg (lb.)	12,5 (27.5)

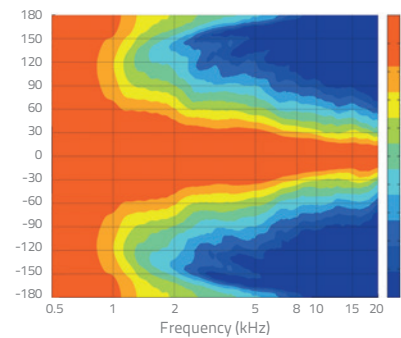
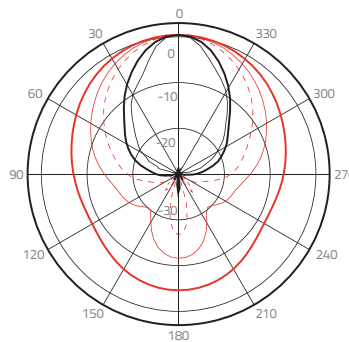
DIMENSIONS mm (in.)



HORIZONTAL ANGLE*



VERTICAL ANGLE*



* Horn measured using LAVOCE DN10.17T compression driver
All specifications subject to change without notice_B.a

1 kHz 2 kHz 4 kHz 8 kHz 16 kHz

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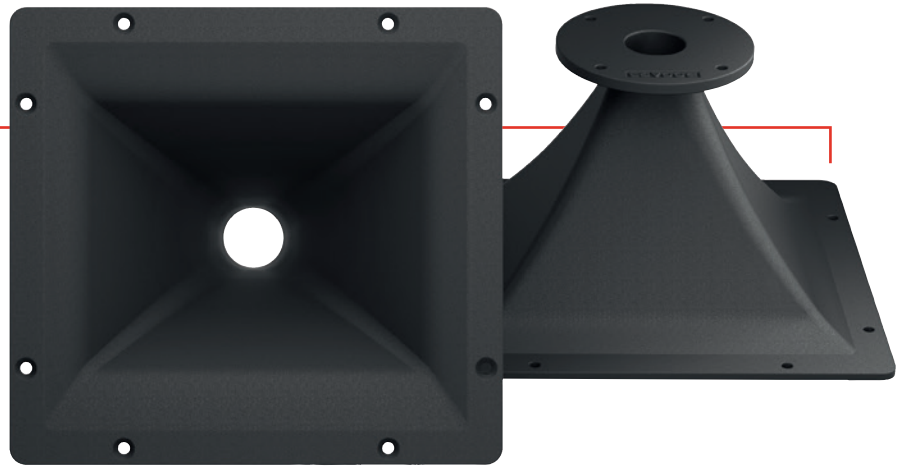
HD1402

Lavoce

1,4" THROAT ENTRY HORN

OEM only

- 60° x 40° NOMINAL COVERAGE
- CUT-OFF FREQUENCY 800 Hz
- ALUMINIUM CONSTRUCTION TO ENSURE HIGH MECHANICAL STRENGTH AND HEAT DISSIPATION
- FEM OPTIMIZED FOR CONSTANT DIRECTIVITY



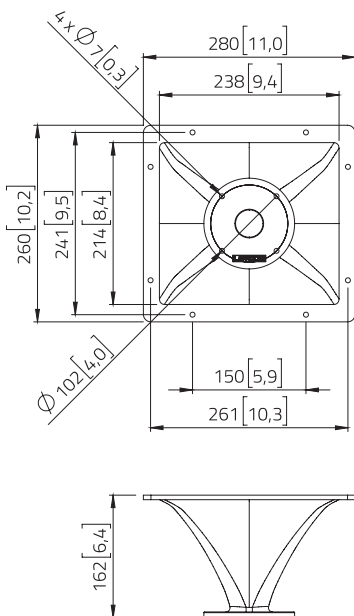
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	36 (1,4)
Horizontal nominal coverage	°	60
Vertical nominal coverage	°	40
Cutoff Frequency	Hz	800
Material	Aluminium	

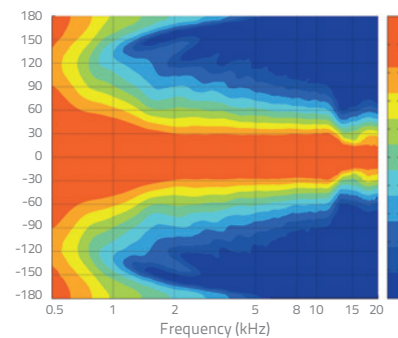
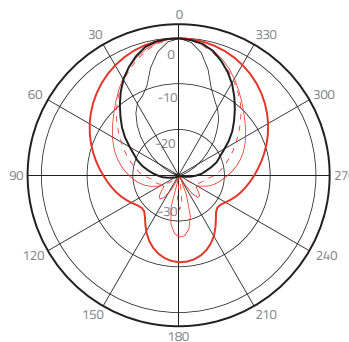
SHIPPING INFORMATION

Net weight	kg (lb.)	1,5 (3.3)
Multipack size (1)	mm (in.)	290 x 280 x 131 (11.4 x 11 x 5.2)
Multipack weight	kg (lb.)	1,8 (3.9)

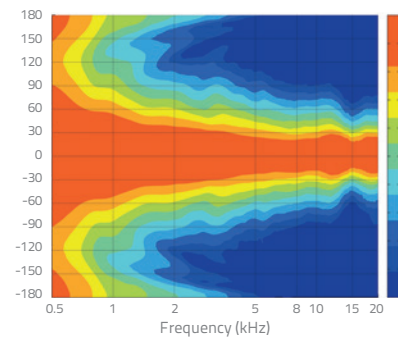
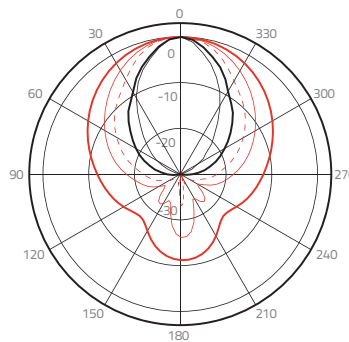
DIMENSIONS mm (in.)



HORIZONTAL ANGLE*



VERTICAL ANGLE*



* Horn measured using LAVOCE DN14.30T compression driver

All specifications subject to change without notice_B.a

1 kHz 2 kHz 4 kHz 8 kHz 16 kHz

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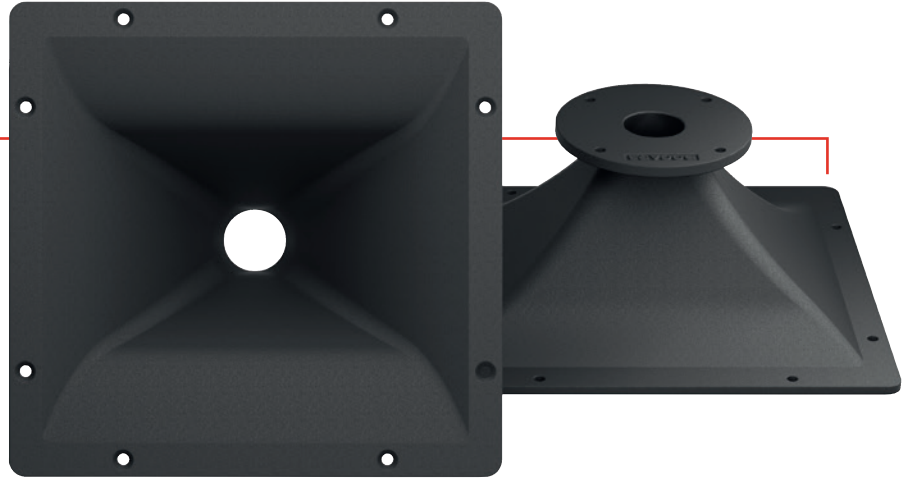
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HD1403

Lavoce

1,4" THROAT ENTRY HORN

- 80° x 60° NOMINAL COVERAGE
- CUT-OFF FREQUENCY 900HZ
- ALUMINIUM CONSTRUCTION TO ENSURE HIGH MECHANICAL STRENGTH AND HEAT DISSIPATION
- FEM OPTIMIZED FOR CONSTANT DIRECTIVITY



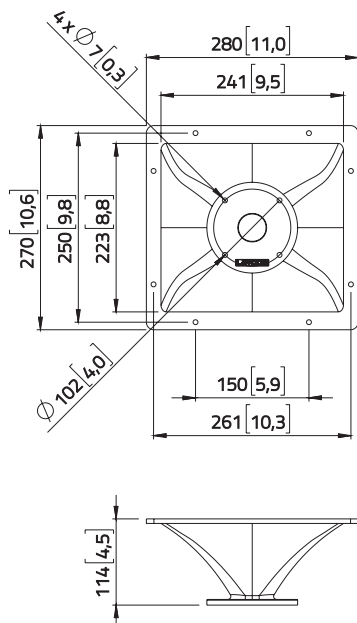
GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	36 (1,4)
Horizontal nominal coverage	°	80
Vertical nominal coverage	°	60
Cutoff Frequency	Hz	900
Material	Aluminium	

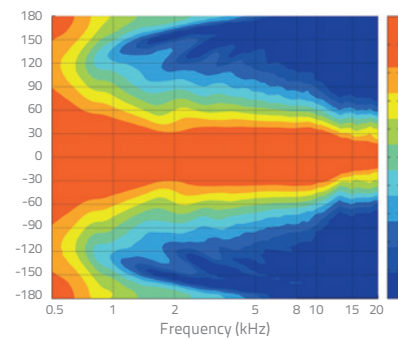
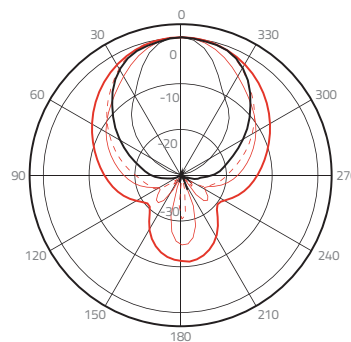
SHIPPING INFORMATION

Net weight	kg (lb.)	1,5 (3.3)
Multipack size (1)	mm	290 x 280 x 131
W x D x H	(in.)	(11.4 x 11 x 5.2)
Multipack weight	kg (lb.)	1,8 (3.9)

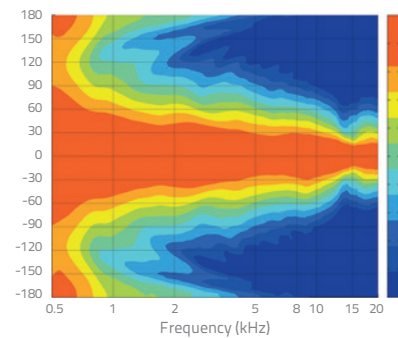
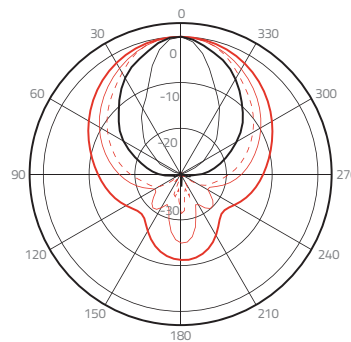
DIMENSIONS mm (in.)



HORIZONTAL ANGLE*



VERTICAL ANGLE*



* Horn measured using LAVOCE DN14.30T compression driver

All specifications subject to change without notice_B.a

1 kHz 2 kHz 4 kHz 8 kHz 16 kHz

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SMALL SIZE FULLRANGES

FOR YOUR MOST CHALLENGING PROJECTS

Lavoce

Lavoce engineers have been developing clever small size fullrange speakers for decades, so it is no surprise many of the world's leading professional audio manufacturers choose to use them in their column array sound systems today.

Our comprehensive range of neodymium and ferrite magnet 2", 3" and 4" fullrange speakers are selected for many innovative multiple driver products, due to their optimized HF frequency response, which can negate the need for an additional HF device and crossover network, and their perfect balance of performance and price.

A premium design approach is applied to everything we do and is expressed in our Small Size Fullranges, developed using Finite Element Analysis (FEA) and placed through our own demanding testing and QC measurement standards.

FEATURES FOUND IN FSN (NEO) AND FSF (FERRITE) SMALL SIZE FULLRANGES:

- **Wide and Extended Frequency Response** to offer flexibility in design and additional HF energy for multiple driver systems.
- **High Power Handling and Sensitivity**
- **Optimized Cone Profile and Surround** ensure a very linear response through the frequency range
- **Waterproof Treated Cone Paper** to repel water and the impact of changing humidity conditions to the performance of the speaker.
- **Shorting Copper Sleeve** for extended frequency response
- **Resonant Free Basket design** ensures there are no unwanted resonances coming from the basket.

SELECTED MODELS USE:

- **Lightweight and Powerful** neo motor structures.
- **Die-cast Aluminium Basket** to enhance heat dissipation from the voice coil and styling.
- **CCAW** (Copper Clad Aluminium) voice coil wire is used when a lighter moving mass is required to enhance sensitivity.
- **Flat Basket Flange** for easy mounting and design.

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FSN020.71F

Lavoce

2" FULLRANGE

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 0.75 INCH CCAW VOICE COIL
- 87 dB/SPL SENSITIVITY
- 30 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- COPPER RING FOR EXTENDED FREQUENCY RESPONSE
- RESONANCE FREE AND HEAVY DUTY STEEL BASKET DESIGN
- FLAT BASKET FLANGE FOR EASY MOUNTING

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	50 (2)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,8
Program power (1)	W	30
AES Power rating (2)	W	15
Sensitivity (3)	dB	87
Frequency range	Hz	200 ÷ 20000
Voice coil diameter	mm (in.)	20 (0.75)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	19x5 + 19x3 (0.75x0.2 + 0.75x0.1)
Coil material	CCAW	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	2,4 (0.09)
Xmech (5)	mm (in.)	2,6 (0.1)
Gap height	mm (in.)	3 (0.12)
Voice coil winding height	mm (in.)	6,2 (0.24)
Driver displacement volume	l (ft ³)	0,028 (0.001)

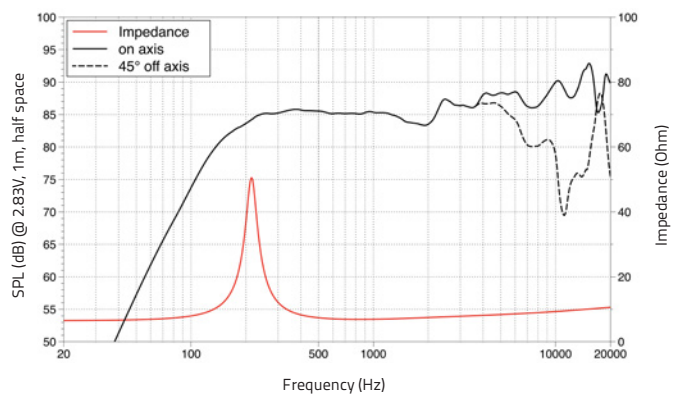
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	6,4
Resonance frequency	Fs	Hz	212
Moving mass	Mms	g (oz)	1,1 (0.04)
Compliance	Cms	mm/N	0,48
Force factor	BxL	N/A	3,2
Mechanical Q-factor	Qms		6,3
Electrical Q-factor	Qes		0,94
Total Q-factor	Qts		0,82
Equivalent air volume	Vas	l (ft ³)	0,2 (0.01)
Voice coil Inductance	Le	mH	0,06
Diaphragm area	Sd	cm ² (in. ²)	17,4 (2.7)
Reference efficiency	Eta 0	%	0,2

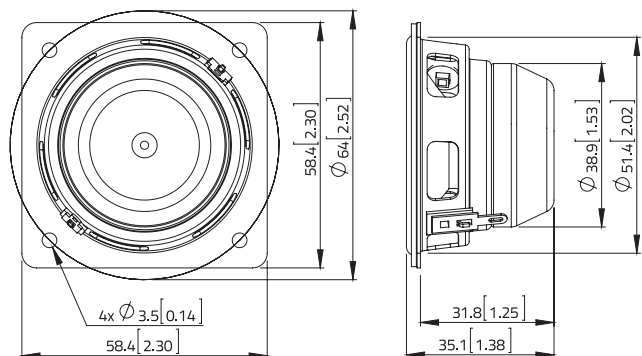
SHIPPING INFORMATION

Net weight	kg (lb.)	0,15 (0.34)
Multipack size (60)	mm (in.)	440 x 397 x 182 (17.3 x 15.6 x 7.2)
Multipack weight	kg (lb.)	12,9 (28.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



FSN020.72

Lavoce

2" FULLRANGE

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 0.75 INCH CCAW VOICE COIL
- 85 dB/SPL SENSITIVITY
- 30 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- COPPER RING FOR EXTENDED FREQUENCY RESPONSE
- RESONANCE FREE AND HEAVY DUTY STEEL BASKET DESIGN
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	50 (2)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,6
Program power (1)	W	30
AES Power rating (2)	W	15
Sensitivity (3)	dB	85
Frequency range	Hz	200 ÷ 20000
Voice coil diameter	mm (in.)	20 (0.75)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	19x5 + 19x3 (0.75x0.2 + 0.75x0.1)
Coil material	CCA W	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	2,4 (0.09)
Xmech (5)	mm (in.)	2,7 (0.1)
Gap height	mm (in.)	3 (0.12)
Voice coil winding height	mm (in.)	6,3 (0.25)
Driver displacement volume	l (ft ³)	0,03 (0.001)

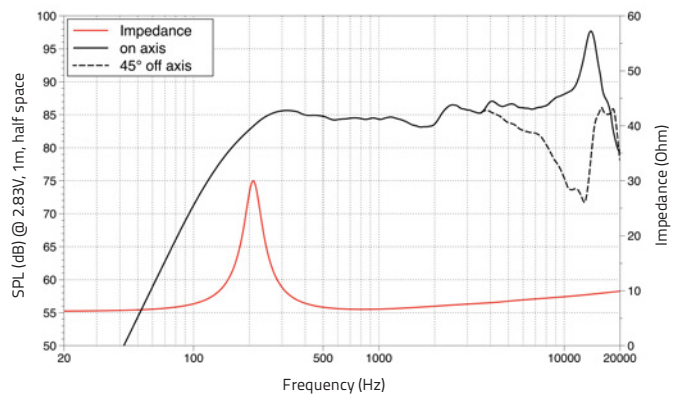
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	6,2
Resonance frequency	Fs	Hz	210
Moving mass	Mms	g (oz)	1,4 (0.05)
Compliance	Cms	mm/N	0,4
Force factor	BxL	N/A	3,2
Mechanical Q-factor	Qms		4,4
Electrical Q-factor	Qes		1,16
Total Q-factor	Qts		0,92
Equivalent air volume	Vas	l (ft ³)	0,17 (0.01)
Voice coil Inductance	Le	mH	0,06
Diaphragm area	Sd	cm ² (in. ²)	17,4 (2.7)
Reference efficiency	Eta 0	%	0,13

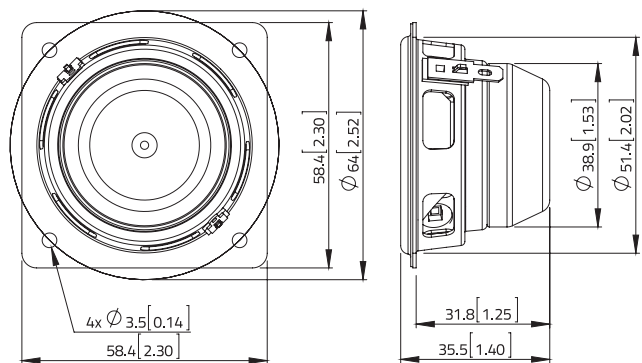
SHIPPING INFORMATION

Net weight	kg (lb.)	0,15 (0.34)
Multipack size (60)	mm (in.)	440 x 397 x 182 (17.3 x 15.6 x 7.2)
Multipack weight	kg (lb.)	12,8 (28.2)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



FSN021.00

Lavoce

2" FULLRANGE

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 1 INCH CCAW VOICE COIL
- 88 dB/SPL SENSITIVITY
- 40 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- COPPER RING FOR EXTENDED FREQUENCY RESPONSE
- RESONANCE FREE AND HEAVY DUTY STEEL BASKET DESIGN
- FLAT BASKET FLANGE FOR EASY MOUNTING

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	50 (2)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,2
Program power (1)	W	40
AES Power rating (2)	W	20
Sensitivity (3)	dB	88
Frequency range	Hz	200 ÷ 20000
Voice coil diameter	mm (in.)	25 (1)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	24,9 x 3,8 + 22 x 2,5 (0.94 x 0.15) + (0.84 x 0.1)
Coil material	CCAW	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	1,8 (0.07)
Xmech (5)	mm (in.)	2,4 (0.09)
Gap height	mm (in.)	3,5 (0.14)
Voice coil winding height	mm (in.)	5,3 (0.21)
Driver displacement volume	l (ft ³)	0,024 (0.001)

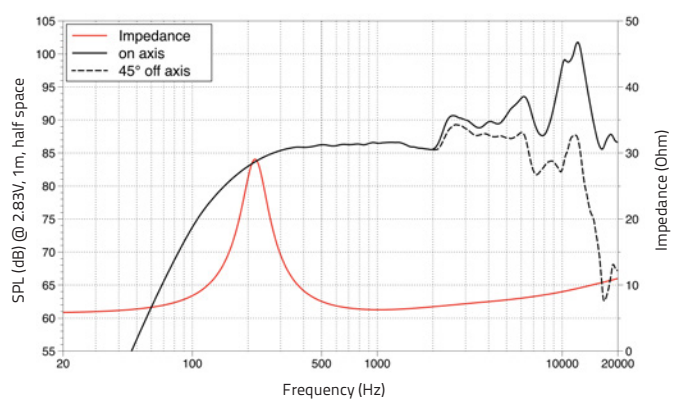
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,7
Resonance frequency	Fs	Hz	220
Moving mass	Mms	g (oz)	1,25 (0.04)
Compliance	Cms	mm/N	0,4
Force factor	BxL	N/A	3,6
Mechanical Q-factor	Qms		3,00
Electrical Q-factor	Qes		0,73
Total Q-factor	Qts		0,59
Equivalent air volume	Vas	l (ft ³)	0,2 (0.01)
Voice coil Inductance	Le	mH	0,07
Diaphragm area	Sd	cm ² (in. ²)	19 (2.95)
Reference efficiency	Eta 0	%	0,30

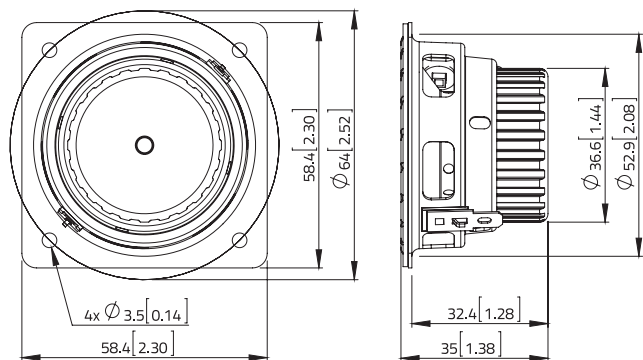
SHIPPING INFORMATION

Net weight	kg (lb.)	0,12 (0.27)
Multipack size (60)	mm (in.)	440 x 397 x 182 (17.3 x 15.6 x 7.2)
Multipack weight	kg (lb.)	11,6 (25.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



FSN021.02

Lavoce

2" FULLRANGE

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 1 INCH CCAW VOICE COIL
- 83 dB/SPL SENSITIVITY
- 50 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- VERY LIGHT MEMBRANE, FOR EXTENDED FREQUENCY RESPONSE
- COPPER RING FOR EXTENDED FREQUENCY RESPONSE
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	50 (2)
Nominal impedance	Ω	8
Minimum impedance	Ω	6
Program power (1)	W	50
AES Power rating (2)	W	25
Sensitivity (3)	dB	83
Frequency range	Hz	140 ÷ 20000
Voice coil diameter	mm (in.)	25 (1)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	24,9 x 5 (0.98 x 0.2)
Coil material	CCAW	
Former material	Polyimide	
Cone material	Aluminium	
Surround material	Rubber	
Xmax (4)	mm (in.)	2,5 (0.1)
Xmech (5)	mm (in.)	2,7 (0.11)
Gap height	mm (in.)	3 (0.12)
Voice coil winding height	mm (in.)	6,4 (0.25)
Driver displacement volume	l (ft ³)	0,026 (0.001)

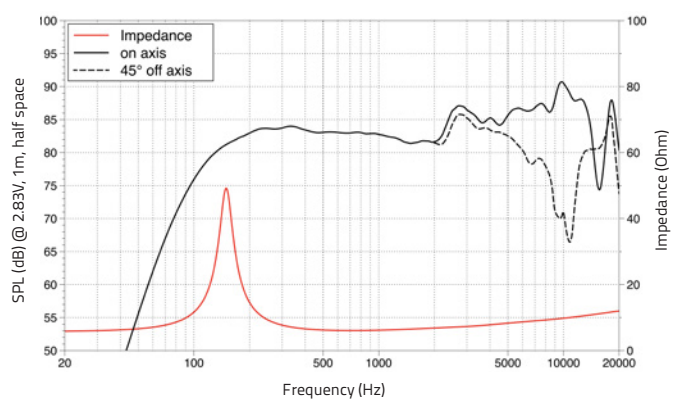
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,7
Resonance frequency	Fs	Hz	149
Moving mass	Mms	g (oz)	1,7 (0.06)
Compliance	Cms	mm/N	0,65
Force factor	BxL	N/A	3,4
Mechanical Q-factor	Qms		5,9
Electrical Q-factor	Qes		0,77
Total Q-factor	Qts		0,68
Equivalent air volume	Vas	l (ft ³)	0,33 (0.11)
Voice coil Inductance	Le	mH	0,1
Diaphragm area	Sd	cm ² (in. ²)	19 (2.95)
Reference efficiency	Eta 0	%	0,14

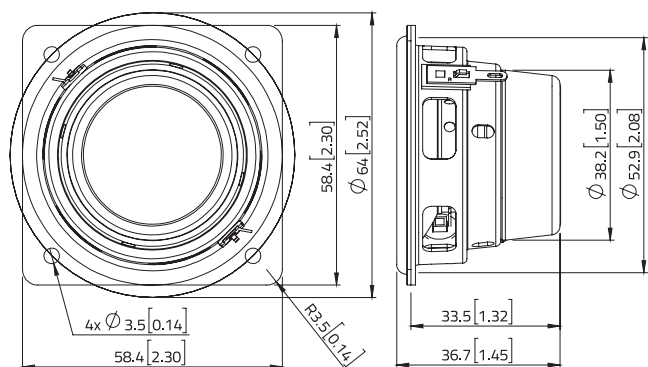
SHIPPING INFORMATION

Net weight	kg (lb.)	0,15 (0.33)
Multipack size (60)	mm (in.)	260 x 260 x 137 (10.2 x 10.2 x 5.4)
Multipack weight	kg (lb.)	11,4 (25.2)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

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FSF030.70

Lavoce

3" FULLRANGE

FERRITE MAGNET
STEEL BASKET DRIVER



- 0.75 INCH CCAW VOICE COIL
- 87,5 dB/SPL SENSITIVITY
- 60 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- COPPER RING FOR EXTENDED FREQUENCY RESPONSE
- RESONANCE FREE AND HEAVY DUTY STEEL BASKET DESIGN
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	70 (3)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,9
Program power (1)	W	60
AES Power rating (2)	W	30
Sensitivity (3)	dB	87,5
Frequency range	Hz	120 ÷ 21000
Voice coil diameter	mm (in.)	20 (0.75)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	70 x 32 x 15 (2.8 x 1.26 x 0.6)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	2,1 (0,08)
Xmech (5)	mm (in.)	3,1 (0.12)
Gap height	mm (in.)	4 (0.16)
Voice coil winding height	mm (in.)	6,2 (0.24)
Driver displacement volume	l (ft ³)	0,13 (0.004)

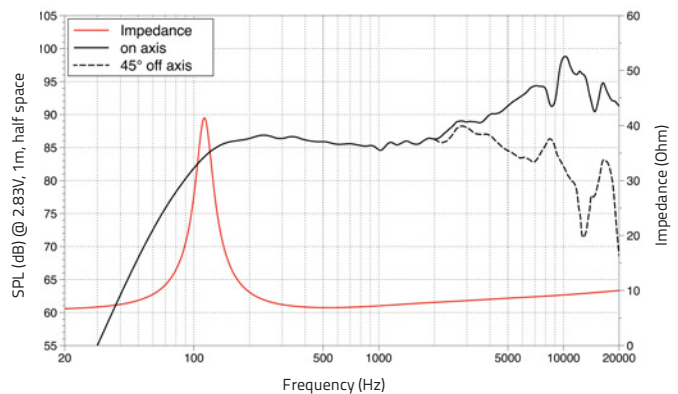
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	6,4
Resonance frequency	Fs	Hz	114
Moving mass	Mms	g (oz)	2 (0.07)
Compliance	Cms	mm/N	0,9
Force factor	BxL	N/A	3,3
Mechanical Q-factor	Qms		4,6
Electrical Q-factor	Qes		0,85
Total Q-factor	Qts		0,72
Equivalent air volume	Vas	l (ft ³)	1,4 (0.05)
Voice coil Inductance	Le	mH	0,05
Diaphragm area	Sd	cm ² (in. ²)	33,2 (5.15)
Reference efficiency	Eta 0	%	0,24

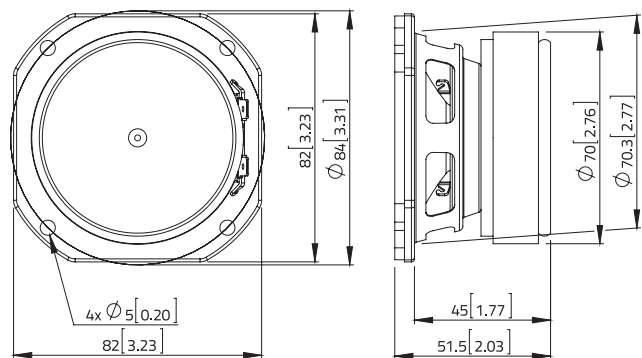
SHIPPING INFORMATION

Net weight	kg (lb.)	0,5 (1.1)
Multipack size (20)	mm (in.)	587 x 238 x 173 (23.1 x 9.4 x 6.8)
Multipack weight	kg (lb.)	12,3 (27.1)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



FSN030.71

Lavoce

3" FULLRANGE

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 0,75 INCH CCAW VOICE COIL
- 89 dB/SPL SENSITIVITY
- 60 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- COPPER RING FOR EXTENDED FREQUENCY RESPONSE
- RESONANCE FREE AND HEAVY DUTY STEEL BASKET DESIGN
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	70 (3)
Nominal impedance	Ω	8
Minimum impedance	Ω	7
Program power (1)	W	60
AES Power rating (2)	W	30
Sensitivity (3)	dB	89
Frequency range	Hz	120 ÷ 21000
Voice coil diameter	mm (in.)	20 (0.75)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	45 x 25 x 3,5 (1.77 x 0.98 x 0.14)
Coil material	CCAW	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	2,1 (0.08)
Xmech (5)	mm (in.)	3,1 (0.12)
Gap height	mm (in.)	4 (0.16)
Voice coil winding height	mm (in.)	6,2 (0.24)
Driver displacement volume	l (ft ³)	0,05 (0.002)

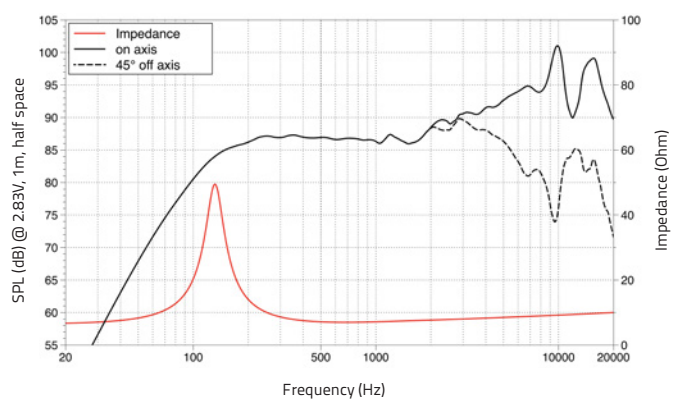
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	6,4
Resonance frequency	Fs	Hz	130
Moving mass	Mms	g (oz)	1.8 (0.06)
Compliance	Cms	mm/N	0,79
Force factor	BxL	N/A	3,9
Mechanical Q-factor	Qms		4,3
Electrical Q-factor	Qes		0,65
Total Q-factor	Qts		0,56
Equivalent air volume	Vas	l (ft ³)	1,2 (0.04)
Voice coil inductance	Le	mH	0,07
Diaphragm area	Sd	cm ² (in. ²)	33,2 (5.15)
Reference efficiency	Eta 0	%	0,4

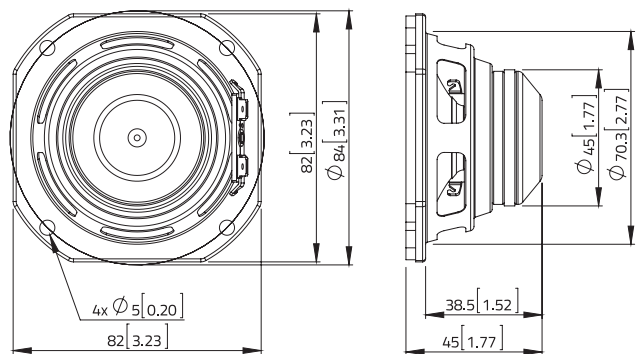
SHIPPING INFORMATION

Net weight	kg (lb.)	0,19 (0.43)
Multipack size (45)	mm (in.)	490 x 325 x 207 (19.3 x 12.8 x 8.1)
Multipack weight	kg (lb.)	12,6 (27.8)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



FSN030.72

Lavoce

3" FULLRANGE

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 0.75 INCH CCAW VOICE COIL
- 91 dB/SPL SENSITIVITY
- 60 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- RESONANCE FREE AND HEAVY DUTY STEEL BASKET DESIGN
- RUBBER SURROUND MATERIAL
- EXTENDED FREQUENCY RESPONSE

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	70 (3)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,8
Program power (1)	W	60
AES Power rating (2)	W	30
Sensitivity (3)	dB	91
Frequency range	Hz	120 ÷ 20000
Voice coil diameter	mm (in.)	20 (0.75)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	50 x 25 x 5 (1.97 x 0.98 x 0.2)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	2,1 (0.08)
Xmech (5)	mm (in.)	3,1 (0.12)
Gap height	mm (in.)	4 (0.16)
Voice coil winding height	mm (in.)	6,3 (0.25)
Driver displacement volume	l (ft ³)	0,05 (0.002)

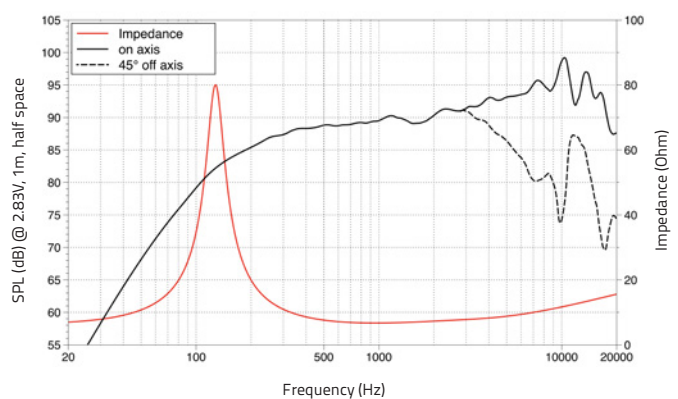
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	6,3
Resonance frequency	Fs	Hz	125
Moving mass	Mms	g (oz)	2,2 (0.08)
Compliance	Cms	mm/N	0,72
Force factor	BxL	N/A	5,6
Mechanical Q-factor	Qms		3,8
Electrical Q-factor	Qes		0,35
Total Q-factor	Qts		0,32
Equivalent air volume	Vas	l (ft ³)	1,1 (0.04)
Voice coil Inductance	Le	mH	0,14
Diaphragm area	Sd	cm ² (in. ²)	33,2 (5.15)
Reference efficiency	Eta 0	%	0,60

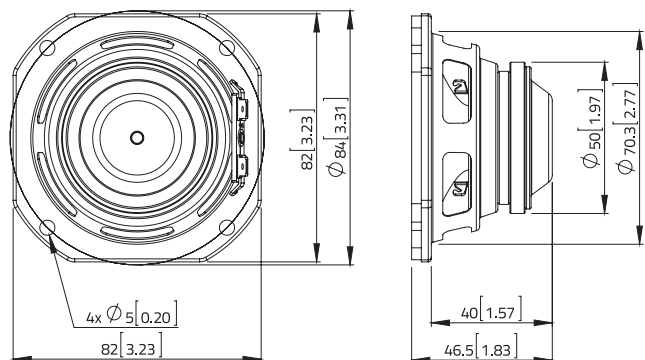
SHIPPING INFORMATION

Net weight	kg (lb.)	0,19 (0.43)
Multipack size (45)	mm (in.)	490 x 325 x 207 (19.3 x 12.8 x 8.1)
Multipack weight	kg (lb.)	12,6 (27.8)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



FAN030.71

Lavoce

3" FULLRANGE

NEODYMIUM MAGNET
ALUMINIUM BASKET DRIVER



- 0.75 INCH CCAW VOICE COIL
- 89,5 dB/SPL SENSITIVITY
- 60 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- COPPER RING FOR EXTENDED FREQUENCY RESPONSE
- RESONANCE FREE AND HEAVY DUTY ALUMINIUM BASKET DESIGN
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	70 (3)
Nominal impedance	Ω	8
Minimum impedance	Ω	7
Program power (1)	W	60
AES Power rating (2)	W	30
Sensitivity (3)	dB	89,5
Frequency range	Hz	120 ÷ 21000
Voice coil diameter	mm (in.)	20 (0.75)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	45 x 25 x 3,5 (1.8 x 0.98 x 0.14)
Coil material	CCA W	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	2,1 (0.08)
Xmech (5)	mm (in.)	3,1 (0.12)
Gap height	mm (in.)	4 (0.16)
Voice coil winding height	mm (in.)	6,2 (0.24)
Driver displacement volume	l (ft ³)	0,07 (0.002)

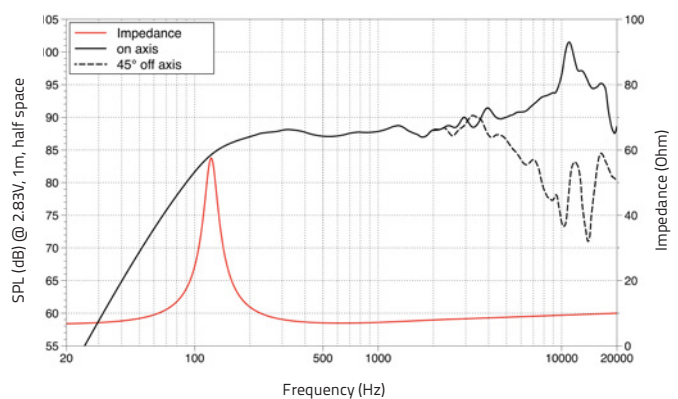
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	6,3
Resonance frequency	Fs	Hz	120
Moving mass	Mms	g (oz)	1,8 (0.06)
Compliance	Cms	mm/N	0,9
Force factor	BxL	N/A	3,7
Mechanical Q-factor	Qms		4,7
Electrical Q-factor	Qes		0,63
Total Q-factor	Qts		0,56
Equivalent air volume	Vas	l (ft ³)	1,5 (0.05)
Voice coil Inductance	Le	mH	0,05
Diaphragm area	Sd	cm ² (in. ²)	33,2 (5.15)
Reference efficiency	Eta 0	%	0,4

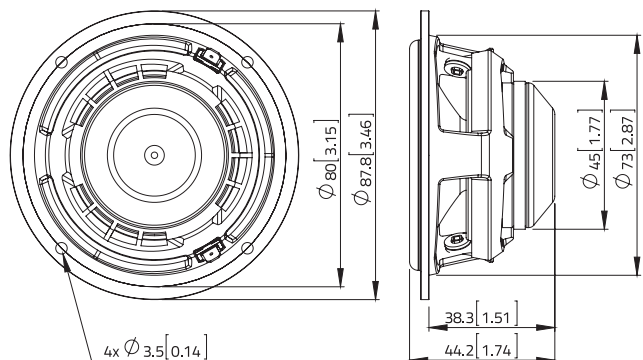
SHIPPING INFORMATION

Net weight	kg (lb.)	0,21 (0,46)
Multipack size (45)	mm (in.)	542 x 355 x 205 (21.3 x 14 x 8.1)
Multipack weight	kg (lb.)	13,6 (30)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



FSF041.00

Lavoce

4" FULLRANGE

FERRITE MAGNET
STEEL BASKET DRIVER



- 1 INCH CCAW VOICE COIL
- 89 dB/SPL SENSITIVITY
- 80 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- COPPER RING FOR EXTENDED FREQUENCY RESPONSE
- RESONANCE FREE AND HEAVY DUTY STEEL BASKET DESIGN
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	100 (4)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,0
Program power (1)	W	80
AES Power rating (2)	W	40
Sensitivity (3)	dB	89
Frequency range	Hz	110 ÷ 18000
Voice coil diameter	mm (in.)	25 (1)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	80 x 32 x 15 (3.1 x 1.26 x 0.6)
Coil material	CCAW	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	2,2 (0.08)
Xmech (5)	mm (in.)	3,2 (0.13)
Gap height	mm (in.)	4 (0.16)
Voice coil winding height	mm (in.)	6,4 (0.25)
Driver displacement volume	l (ft ³)	0,18 (0.006)

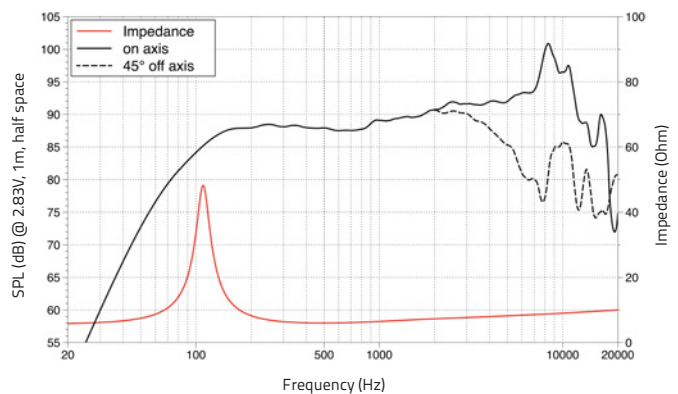
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,6
Resonance frequency	Fs	Hz	110
Moving mass	Mms	g (oz)	4,1 (0.14)
Compliance	Cms	mm/N	0,51
Force factor	BxL	N/A	4,5
Mechanical Q-factor	Qms		5,9
Electrical Q-factor	Qes		0,77
Total Q-factor	Qts		0,68
Equivalent air volume	Vas	l (ft ³)	2,1 (0.07)
Voice coil Inductance	Le	mH	0,06
Diaphragm area	Sd	cm ² (in. ²)	54 (8.37)
Reference efficiency	Eta 0	%	0,30

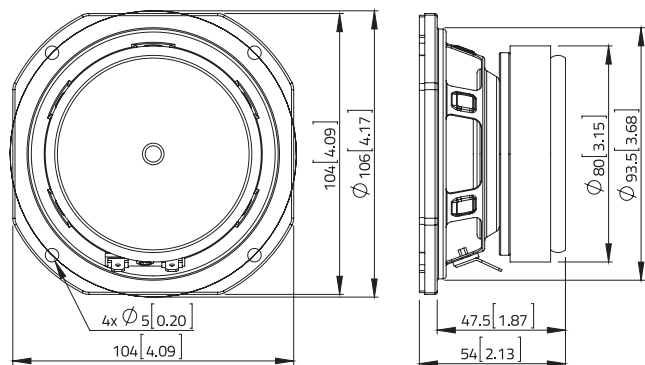
SHIPPING INFORMATION

Net weight	kg (lb.)	0,72 (1.58)
Multipack size (18)	mm	415 x 370 x 160
W x D x H	(in.)	(16.3 x 14.6 x 6.3)
Multipack weight	kg (lb.)	15,6 (34.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



FSN041.00

Lavoce

4" FULLRANGE

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 1 INCH COPPER VOICE COIL
- 91 dB/SPL SENSITIVITY
- 80 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- COPPER RING FOR EXTENDED FREQUENCY RESPONSE
- RESONANCE FREE AND HEAVY DUTY STEEL BASKET DESIGN
- RUBBER SURROUND MATERIAL

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	100 (4)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,9
Program power (1)	W	80
AES Power rating (2)	W	40
Sensitivity (3)	dB	91
Frequency range	Hz	110 ÷ 18000
Voice coil diameter	mm (in.)	25 (1)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	65 x 32 x 4 (2.6 x 1.26 x 0.16)
Coil material	Copper	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	2,2 (0.08)
Xmech (5)	mm (in.)	3,2 (0.13)
Gap height	mm (in.)	4 (0.16)
Voice coil winding height	mm (in.)	6,4 (0.25)
Driver displacement volume	l (ft ³)	0,09 (0.003)

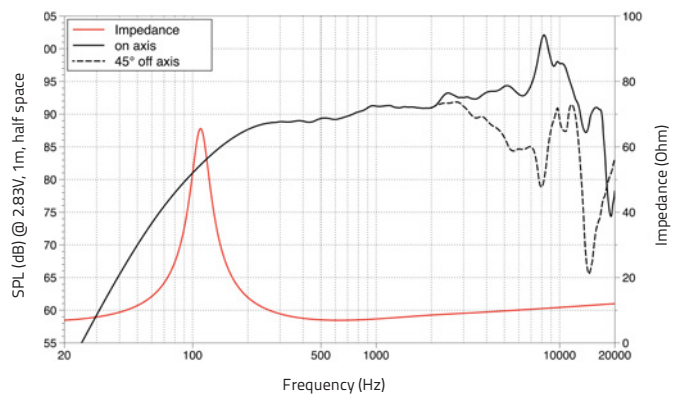
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	6,1
Resonance frequency	Fs	Hz	110
Moving mass	Mms	g (oz)	4,5 (0.16)
Compliance	Cms	mm/N	0,45
Force factor	BxL	N/A	7
Mechanical Q-factor	Qms		3,8
Electrical Q-factor	Qes		0,4
Total Q-factor	Qts		0,36
Equivalent air volume	Vas	l (ft ³)	1,8 (0.06)
Voice coil Inductance	Le	mH	0,04
Diaphragm area	Sd	cm ² (in. ²)	54 (21)
Reference efficiency	Eta 0	%	0,6

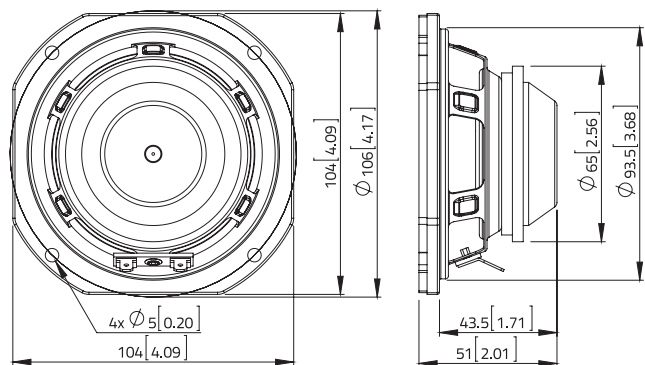
SHIPPING INFORMATION

Net weight	kg (lb.)	0,39 (0.87)
Multipack size (18)	mm (in.)	415 x 370 x 160 (16.3 x 14.6 x 6.3)
Multipack weight	kg (lb.)	9,6 (21.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



COAXIALS

FOR YOUR MOST CHALLENGING PROJECTS

Lavoce

Lavoce engineers have been developing and optimising premium coaxial designs since our parent company started trading in the late 80's. Our coaxial range originate from this heritage, with carefully selected 5" and 6" coaxial designs optimized for pro audio and public address applications.

These updated and cost-effective 5" and 6" coaxial designs have a high 50W power rating, ferrite magnet motor structures and integrated passive crossover networks which perfectly connect the LF and soft dome tweeter HF sections. The CSF051.21 (5") has an 92dB sensitivity and the CSF061.21 has a 92.5dB sensitivity and their overall specification makes them ideal for compact in-ceiling or in-wall applications, where a very wide and extended frequency response, and very good power handling and efficiency is required.

A premium design approach is applied to everything we do and is expressed in our Coaxials, developed using Finite Element Analysis (FEA) and placed through our own demanding testing and QC measurement standards.

FEATURES FOUND IN CSF051.21 (5") AND CSF061.21 (6.5") COAXIALS:

- **Fullrange Performance** simple to design into application
- **Integrated Crossover** optimised for PA applications
- **Wide and Extended Frequency Response** to 20kHz.
- **Constant Directivity**
- Resonant Free Basket Design ensures there are no unwanted resonances coming from the basket.
- **Shallow Profile Design** for compact enclosures
- **Waterproof Treated Cone Paper** to repel water and the impact of changing humidity conditions to the performance of the speaker



CSF051.21

Lavoce

5" COAXIAL

FERRITE WOOFER
NEODYMIUM TWEETER MAGNET
STEEL BASKET DRIVER



- 1.2 INCH WOOFER COPPER VOICE COIL
- 0.55 INCH TWEETER COPPER VOICE COIL
- 92 dB/SPL SENSITIVITY
- 100 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- EXTENDED FREQUENCY RESPONSE AND CONSTANT DIRECTIVITY
- RESONANCE FREE AND HEAVY DUTY STEEL BASKET DESIGN
- OPTIMIZED BUILT-IN CROSSOVER

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	130 - 20 (5 - 0.7)
Nominal impedance	Ω	8
Minimum impedance	Ω	6
Program power (1)	W	100
AES Power rating (2)	W	50
Sensitivity (3)	dB	92
Frequency range	Hz	110 ÷ 22000
Voice coil diameter	mm (in.)	30 - 14 (1.2 - 0.55)
Chassis material	Steel	
Magnet material	Ferrite - Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	85 x 40 x 13 (3.5 x 1.6 x 0.5)
Coil material	Copper	
Former material	Polyimide	
Cone material	Water Proof Treated Paper - PEI	
Surround material	Polycotton	
Xmax (4)	mm (in.)	3,1 (0.12)
Xmech (5)	mm (in.)	3,7 (0.15)
Gap height	mm (in.)	3,5 (0.14)
Voice coil winding height	mm (in.)	8 (0.31)
Driver displacement volume	l (ft ³)	0,28 (0.01)

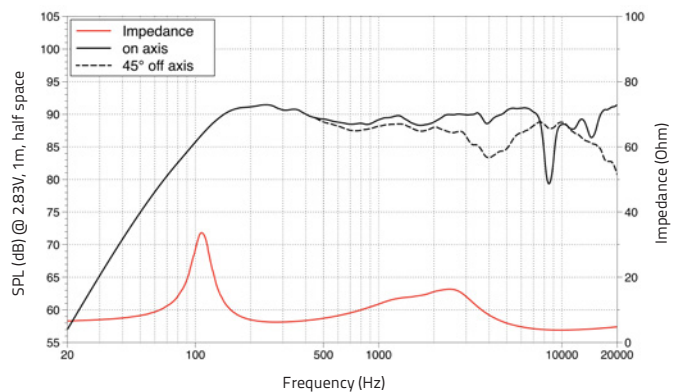
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	110
Moving mass	Mms	g (oz)	6,3 (0.22)
Compliance	Cms	mm/N	0,32
Force factor	BxL	N/A	5,9
Mechanical Q-factor	Qms		4,8
Electrical Q-factor	Qes		0,74
Total Q-factor	Qts		0,65
Equivalent air volume	Vas	l (ft ³)	4,3 (0.15)
Voice coil Inductance	Le	mH	0,30
Diaphragm area	Sd	cm ² (in. ²)	97 (15.04)
Reference efficiency	Eta 0	%	0,7

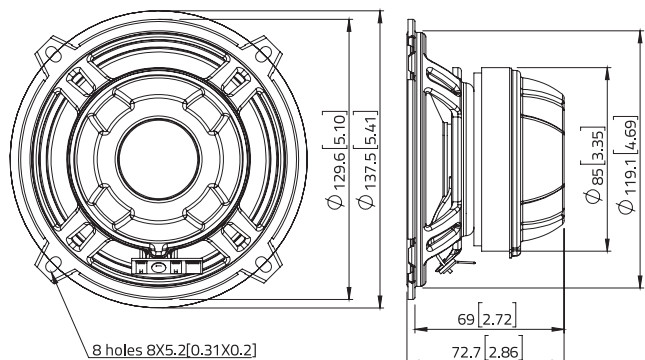
SHIPPING INFORMATION

Net weight	kg (lb.)	0,7 (1.7)
Multipack size (12)	mm	470 x 340 x 213
W x D x H	(in.)	(18.5 x 13.4 x 8.4)
Multipack weight	kg (lb.)	12 (26,5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



CSF061.21

Lavoce

6.5" COAXIAL

FERRITE WOOFER
NEODYMIUM TWEETER MAGNET
STEEL BASKET DRIVER



- 1.2 INCH WOOFER COPPER VOICE COIL
- 0.55 INCH TWEETER COPPER VOICE COIL
- 92,5 dB/SPL SENSITIVITY
- 100 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- EXTENDED FREQUENCY RESPONSE AND CONSTANT DIRECTIVITY
- RESONANCE FREE AND HEAVY DUTY STEEL BASKET DESIGN
- OPTIMIZED BUILT-IN CROSSOVER

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	165 - 20 (6.5 - 0.7)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,2
Program power (1)	W	100
AES Power rating (2)	W	50
Sensitivity (3)	dB	92,5
Frequency range	Hz	90 ÷ 22000
Voice coil diameter	mm (in.)	30 - 14 (1.2 - 0.55)
Chassis material	Steel	
Magnet material	Ferrite - Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	85 x 40 x 13 (3.5 x 1.6 x 0.5)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper - PEI	
Surround material	Polycotton	
Xmax (4)	mm (in.)	3 (0,12)
Xmech (5)	mm (in.)	4 (0.16)
Gap height	mm (in.)	4 (0.16)
Voice coil winding height	mm (in.)	8 (0.32)
Driver displacement volume	l (ft ³)	0,3 (0.01)

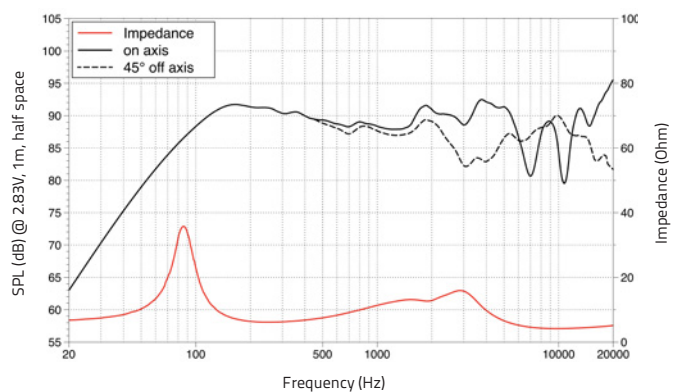
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,6
Resonance frequency	Fs	Hz	89
Moving mass	Mms	g (oz)	9,5 (0.34)
Compliance	Cms	mm/N	0,33
Force factor	BxL	N/A	6,2
Mechanical Q-factor	Qms		4,8
Electrical Q-factor	Qes		0,79
Total Q-factor	Qts		0,68
Equivalent air volume	Vas	l (ft ³)	8 (0.28)
Voice coil Inductance	Le	mH	0,38
Diaphragm area	Sd	cm ² (in. ²)	135 (20.93)
Reference efficiency	Eta 0	%	0,7

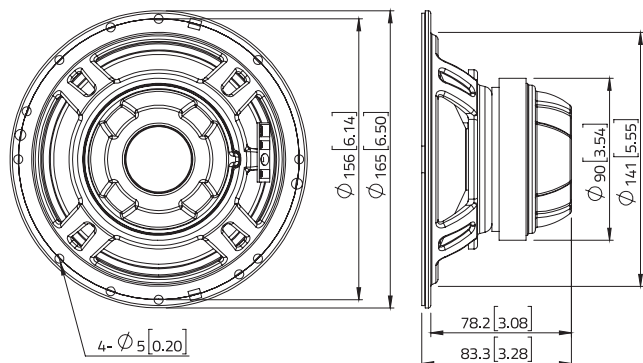
SHIPPING INFORMATION

Net weight	kg (lb.)	0,9 (2.0)
Multipack size (8)	mm (in.)	380 x 353 x 216 (14.9 x 13.9 x 8.5)
Multipack weight	kg (lb.)	9,7 (21.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



SOFT DOME TWEETERS

FOR YOUR MOST CHALLENGING PROJECTS

Lavoce

Soft Dome Tweeters require special care in their design and manufacture, to ensure the frequency response and dispersion characteristics remain consistent, which Lavoce engineers and the production team have been successfully producing for a very long time.

Our new 1" design, TN101.00 (15 W AES, 1" VC, 92 dB), offers higher efficiency and power handling in a super compact design, and perfectly complements our existing TN100.70 (7.5W AES, 0.75" VC, 90dB) option. Together with our existing 1,3" design, TN131.00 (15W AES, 1" VC, 92 dB), all use neodymium magnet motor structures, exhibit smooth frequency responses to 30kHz with a controlled dispersion, making them perfect for smaller two-way cabinets, install boxes and compact arrays.

A premium design approach is applied to everything we do and is expressed in our Soft Dome Tweeters, developed using Finite Element Analysis (FEA) and placed through our own demanding testing and QC measurement standards.

FEATURES FOUND IN TN100.70, TN101.00 (1") AND TN131.00 (1.3") SOFT DOME TWEETERS:

- **Lightweight and Powerful** neodymium motor structures.
- **Smooth Extended Frequency Response** to 30kHz.
- **Damped Textile Diaphragm and Surround** helps improve sensitivity up to 30kHz.
- **Outstanding Off Axis Dispersion** ensures high frequency is present at all angles.
- **CCAW (Copper Clad Aluminium) Voice Coil** is used to have a lighter moving mass to enhance sensitivity.
- **Ferrofluid** in the voice coil gap to improve thermal power handling and apply additional damping and control.
- **Customized Flange System** can be developed to provide total versatility and fine tuning of the frequency response for different applications.
- **Optional Mounting Faceplate** available for TN100.70 and TN131.00
- **All models are available as body only**, without heatsink

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TN100.70

Lavoce

1" SOFT DOME TWEETER

NEODYMIUM MAGNET



- 0.75 INCH CCAW VOICE COIL
- 90 dB/SPL SENSITIVITY
- 15 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- TEXTILE DIAPHRAGM

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	25 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,3
Program power (1)	W	15
AES power above 2.5 kHz (12dB/oct) (2)	W	7,5
Sensitivity (3)	dB	90
Frequency range	Hz	1500 ÷ 30000
Voice coil diameter	mm (in.)	20 (0.75)
Magnet material		Neodymium
Coil material		CCA W
Former material		Polyimide
Diaphragm and Surround material		Textile
Ferrofluid		YES

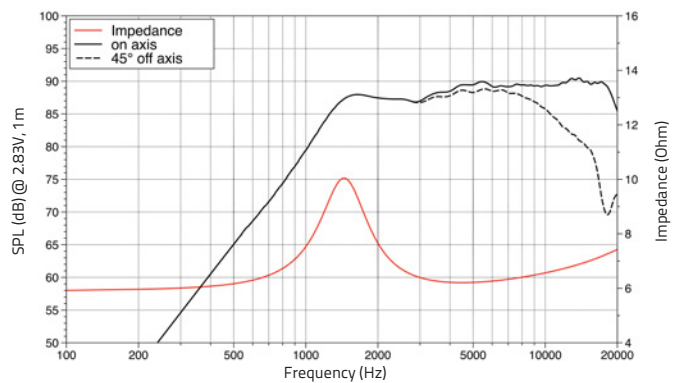
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,9
Resonance frequency	Fs	Hz	1500
Moving mass	Mms	g (oz)	0,16 (0.01)
Compliance	Cms	mm/N	0,070
Force factor	BxL	N/A	1,75
Mechanical Q-factor	Qms		2
Electrical Q-factor	Qes		2,9
Total Q-factor	Qts		1,2
Voice coil inductance	Le	mH	0,030
Diaphragm area	Sd	cm ² (in. ²)	8 (1.24)

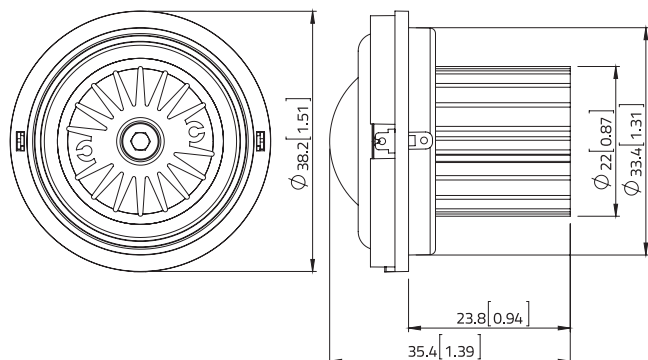
SHIPPING INFORMATION

Net weight	kg (lb.)	0,05 (0.1)
Multipack size (100)	mm (in.)	307 x 307 x 200 (12.1 x 12.1 x 7.9)
Multipack weight	kg (lb.)	7,1 (15.6)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested with heat sink for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, halfspace, average SPL in the frequency range

All specifications subject to change without notice_B.a



TN101.00

Lavoce

1" SOFT DOME TWEETER

NEODYMIUM MAGNET



- 1 INCH CCAW VOICE COIL
- 92 dB/SPL SENSITIVITY
- 30 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- TEXTILE DIAPHRAGM

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	26 (1)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,2
Program power (1)	W	30
AES power above 2.5 kHz (12dB/oct) (2)	W	15
Sensitivity (3)	dB	92
Frequency range	Hz	1500 ÷ 20000
Voice coil diameter	mm (in.)	25 (1)
Magnet material		Neodymium
Coil material		CCA W
Former material		Polyimide
Diaphragm and Surround material		Textile
Ferrofluid		YES

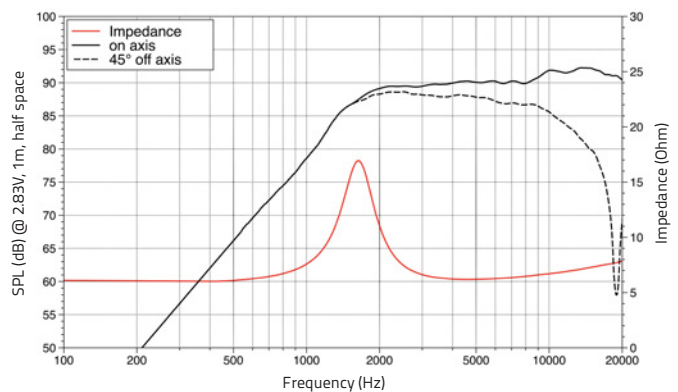
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,75
Resonance frequency	Fs	Hz	1600
Moving mass	Mms	g (oz)	0,23 (0.01)
Compliance	Cms	mm/N	0,046
Force factor	BxL	N/A	2,7
Mechanical Q-factor	Qms		4
Electrical Q-factor	Qes		1,74
Total Q-factor	Qts		1,21
Voice coil inductance	Le	mH	0,038
Diaphragm area	Sd	cm ² (in. ²)	9,15 (1.42)

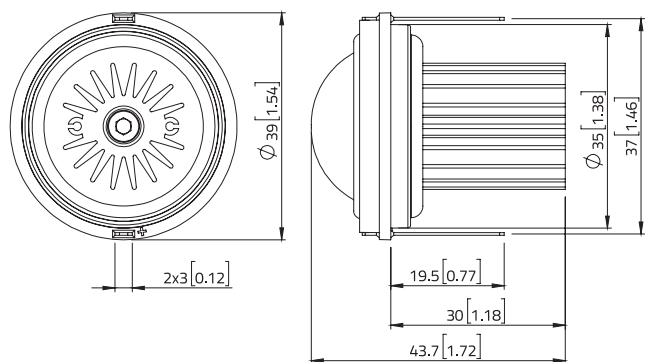
SHIPPING INFORMATION

Net weight	kg (lb.)	0,05 (0.11)
Multipack size (100)	mm (in.)	307 x 307 x 236 (12.1 x 12.1 x 9.3)
Multipack weight	kg (lb.)	6,9 (15.2)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested with heat sink for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, halfspace, average SPL in the frequency range

All specifications subject to change without notice_Ca



TN131.00

Lavoce

1.3" SOFT DOME TWEETER

NEODYMIUM MAGNET



- 1 INCH CCAW VOICE COIL
- 92 dB/SPL SENSITIVITY
- 30 WATT PROGRAM POWER HANDLING
- FEM OPTIMIZED MOTOR AND SUSPENSIONS
- TEXTILE DIAPHRAGM

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	32 (1.3)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,3
Program power (1)	W	30
AES power above 2.5 kHz (12dB/oct) (2)	W	15
Sensitivity (3)	dB	92
Frequency range	Hz	1250 ÷ 30000
Voice coil diameter	mm (in.)	25 (1)
Magnet material		Neodymium
Coil material		CCA W
Former material		Polyimide
Diaphragm and Surround material		Textile
Ferrofluid		YES

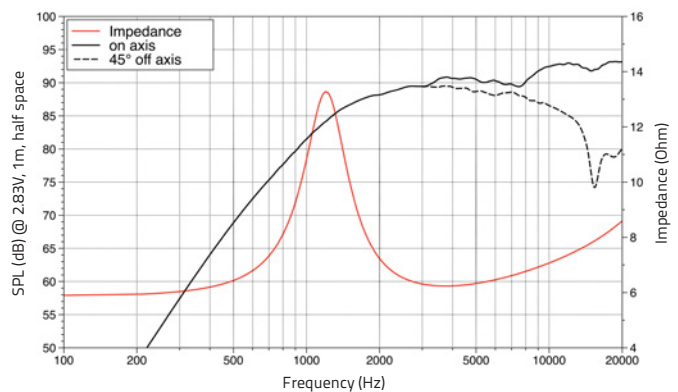
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,8
Resonance frequency	Fs	Hz	1250
Moving mass	Mms	g (oz)	0,34 (0.01)
Compliance	Cms	mm/N	0,05
Force factor	BxL	N/A	2,90
Mechanical Q-factor	Qms		2,3
Electrical Q-factor	Qes		1,84
Total Q-factor	Qts		1,00
Voice coil inductance	Le	mH	0,04
Diaphragm area	Sd	cm ² (in. ²)	9,3 (1.44)

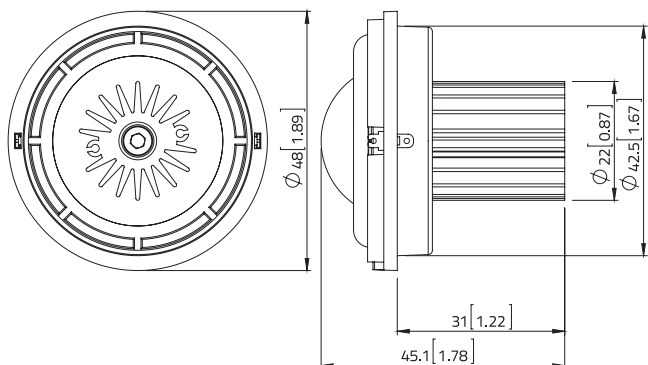
SHIPPING INFORMATION

Net weight	kg (lb.)	0,11 (0.24)
Multipack size (100)	mm (in.)	382 x 382 x 253 (15 x 15 x 9.9)
Multipack weight	kg (lb.)	17,7 (39)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested with heat sink for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. (3) Measured on axis at 2.83V, 1m, halfspace, average SPL in the frequency range

All specifications subject to change without notice_B.a



BASS GUITAR AND GUITAR SPEAKERS

FOR YOUR MOST CHALLENGING PROJECTS

Lavoce

Lavoce was born from a real passion for great sounding recorded and live music, and is the driving force behind everything we produce, so developing a range of dynamic bass guitar and guitar speakers was a natural transition.

Each of our 8", 10", 12" and 15" neodymium and ferrite bass guitar speakers have been crafted to deliver a solid low-end and musical mid-highs that are capable of cutting through any mix or stage set-up. With varying power handling options, from the cost effective LBASS models (100W), to the higher specification FBASS and NBASS models (150W to 400W), our team have created speakers that deliver the perfect balance of performance, quality and price, for your bass guitar cabinet and combo projects.

Our 12" guitar speaker, WSF121.70G (100W AES, 1.7" VC, 99dB), clearly demonstrated our capability to diversify into the demanding world of lead guitar speaker development, and with the addition of our new 10" guitar speaker, WSF101.70G (60W AES, 1.7" VC, 98 dB), we strengthen our proposition. Both speakers have been similarly designed to be versatile for a variety of different playing styles, delivering expressive tone with controlled low-end, fat and warm mids, and harmonically rich highs, making them both perfect for cabinets and combos.

FEATURES FOUND IN LBASS (FERRITE), FBASS (FERRITE) AND NBASS (NEO) BASS GUITAR SPEAKERS:

- **Inside/Outside Voice Coil** used in the majority of products instead of conventional two-layer voice coils, to further enhance power handling and reliability.
- **Resonant Free Basket design** ensures there are no unwanted resonances coming from the basket.
- **Waterproof Treated Cone Paper** to repel water and the impact of changing humidity conditions to the performance of the speaker.
- **Sleeve Protected Lead-Out Wire** to improve reliability and reduce the risk of erosion.
- **Proprietary Terminal Connection** for improved resistance to vibrations.
- **Lightweight and Powerful** neodymium motor structure (NBASS)
- **Available in 8ohm and 16ohm** (plus 32ohm for FBASS10-18)

FEATURES FOUND IN THE WSF101.70G AND WSF121.70G GUITAR SPEAKERS:

- **Resonant Free Basket design** ensures there are no unwanted resonances coming from the basket.
- **Sleeve Protected Lead-Out Wire** to improve reliability and reduce the risk of erosion.
- **Proprietary Terminal Connection** for improved resistance to vibrations.
- **Available in 8ohm and 16ohm**

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FBASS08-18

Lavoce

8" BASS GUITAR WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 1.8 INCH COPPER VOICE COIL
- 93 dB/SPL SENSITIVITY
- 300 WATT PROGRAM POWER HANDLING
- RUBBER SURROUND MATERIAL
- OVERALL BALANCED AND RICH TONE
- SOLID LOW-END AND TIGHT MID-HIGH'S

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	200 (8)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,2
Program power (1)	W	300
AES Power rating (2)	W	150
Sensitivity (3)	dB	93
Frequency range	Hz	50 ÷ 5000
Voice coil diameter	mm (in.)	45 (1.8)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	130 x 60 x 18 (5.12 x 2.36 x 0.71)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	4,5 (0.18)
Xmech (5)	mm (in.)	7 (0.28)
Gap height	mm (in.)	6 (0.24)
Voice coil winding height	mm (in.)	12 (0.47)
Driver displacement volume	l (ft ³)	0,7 (0.03)

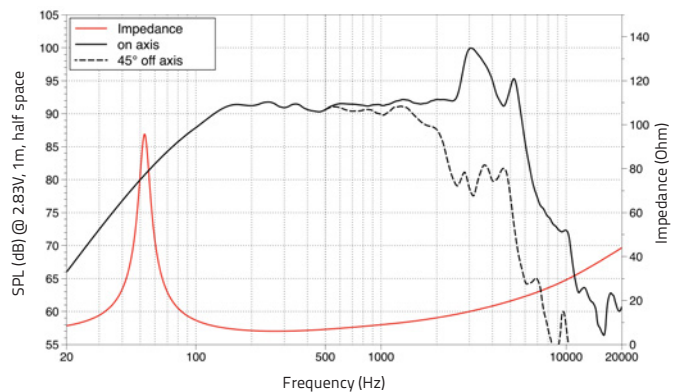
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,6
Resonance frequency	Fs	Hz	53
Moving mass	Mms	g (oz)	30 (1.06)
Compliance	Cms	mm/N	0,30
Force factor	BxL	N/A	11,4
Mechanical Q-factor	Qms		6,9
Electrical Q-factor	Qes		0,42
Total Q-factor	Qts		0,40
Equivalent air volume	Vas	l (ft ³)	24 (0.85)
Voice coil Inductance	Le	mH	0,58
Diaphragm area	Sd	cm ² (in. ²)	235 (36.43)
Reference efficiency	Eta 0	%	0,8

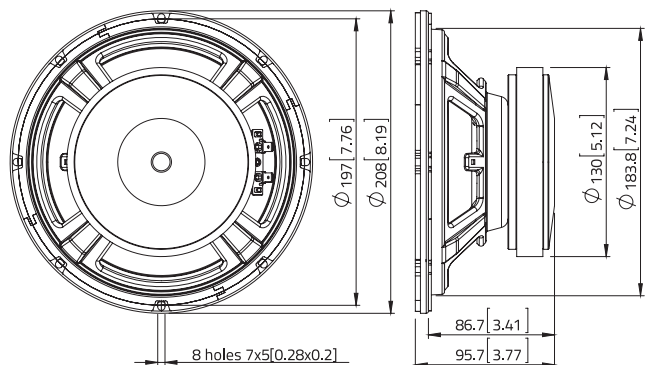
SHIPPING INFORMATION

Net weight	kg (lb.)	3 (6.6)
Multipack size (1)	mm	260 x 260 x 137
W x D x H	(in.)	(10.2 x 10.2 x 5.4)
Multipack weight	kg (lb.)	3,9 (8.7)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



NBASS08-20

Lavoce

8" BASS GUITAR WOOFER

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 2 INCH COPPER VOICE COIL
- 92 dB/SPL SENSITIVITY
- 400 WATT PROGRAM POWER HANDLING
- RUBBER SURROUND MATERIAL
- OVERALL BALANCED AND RICH TONE
- SOLID LOW-END AND TIGHT MID-HIGH'S
- EXTREMELY LIGHTWEIGHT

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	200 (8)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,1
Program power (1)	W	400
AES Power rating (2)	W	200
Sensitivity (3)	dB	92
Frequency range	Hz	55 ÷ 4000
Voice coil diameter	mm (in.)	51 (2)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	51 x 9 (1.97 x 0.35)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Rubber	
Xmax (4)	mm (in.)	6,55 (0.26)
Xmech (5)	mm (in.)	10,7 (0.42)
Gap height	mm (in.)	8,2 (0.32)
Voice coil winding height	mm (in.)	17,2 (0.68)
Driver displacement volume	l (ft ³)	0,5 (0.02)

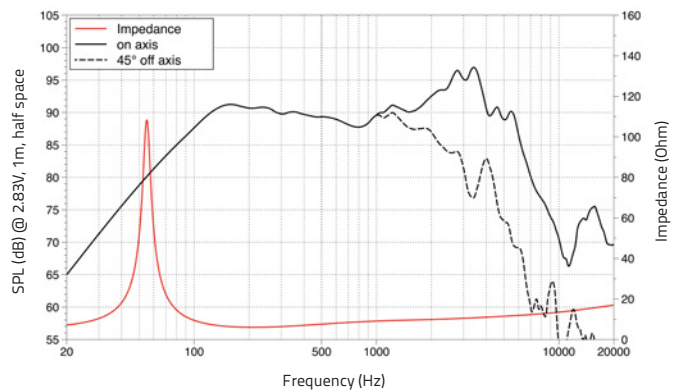
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,2
Resonance frequency	Fs	Hz	55
Moving mass	Mms	g (oz)	35,6 (1.26)
Compliance	Cms	mm/N	0,23
Force factor	BxL	N/A	11,3
Mechanical Q-factor	Qms		9,9
Electrical Q-factor	Qes		0,50
Total Q-factor	Qts		0,47
Equivalent air volume	Vas	l (ft ³)	18 (0.64)
Voice coil Inductance	Le	mH	0,11
Diaphragm area	Sd	cm ² (in. ²)	235 (36.43)
Reference efficiency	Eta 0	%	0,6

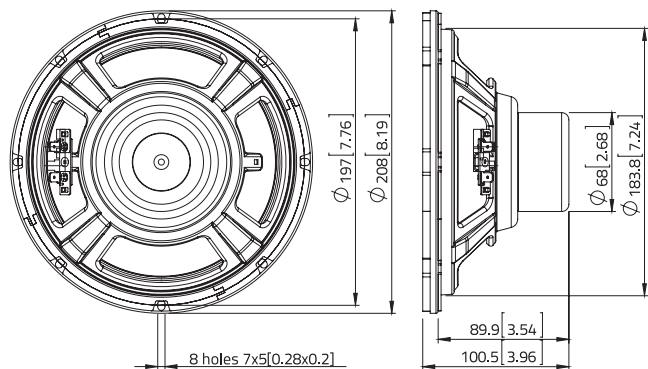
SHIPPING INFORMATION

Net weight	kg (lb.)	1,2 (2.6)
Multipack size (1)	mm (in.)	243 x 243 x 135 (9.6 x 9.6 x 5.3)
Multipack weight	kg (lb.)	1,7 (3.7)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



FBASS10-18

Lavoce

10" BASS GUITAR WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 1.8 INCH COPPER VOICE COIL
- 96 dB/SPL SENSITIVITY
- 300 WATT PROGRAM POWER HANDLING
- OVERALL BALANCED AND RICH TONE
- SOLID LOW-END AND TIGHT MID-HIGH'S

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,3
Program power (1)	W	300
AES Power rating (2)	W	150
Sensitivity (3)	dB	96
Frequency range	Hz	60 ÷ 5000
Voice coil diameter	mm (in.)	45 (1.8)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	134 x 60 x 18 (5.3 x 2.4 x 0.7)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,5 (0.18)
Xmech (5)	mm (in.)	7 (0.28)
Gap height	mm (in.)	6 (0.24)
Voice coil winding height	mm (in.)	12 (0.47)
Driver displacement volume	l (ft ³)	1 (0.04)

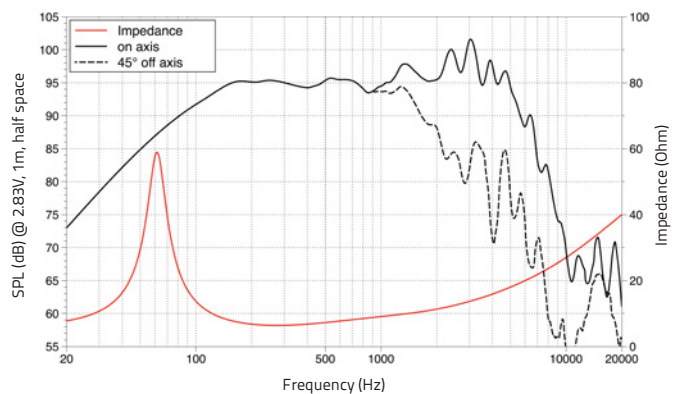
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,6
Resonance frequency	Fs	Hz	62
Moving mass	Mms	g (oz)	32.2 (1.14)
Compliance	Cms	mm/N	0,20
Force factor	BxL	N/A	12,4
Mechanical Q-factor	Qms		4,4
Electrical Q-factor	Qes		0,46
Total Q-factor	Qts		0,42
Equivalent air volume	Vas	l (ft ³)	35 (1.24)
Voice coil Inductance	Le	mH	0,50
Diaphragm area	Sd	cm ² (in. ²)	353 (54.72)
Reference efficiency	Eta 0	%	1,80

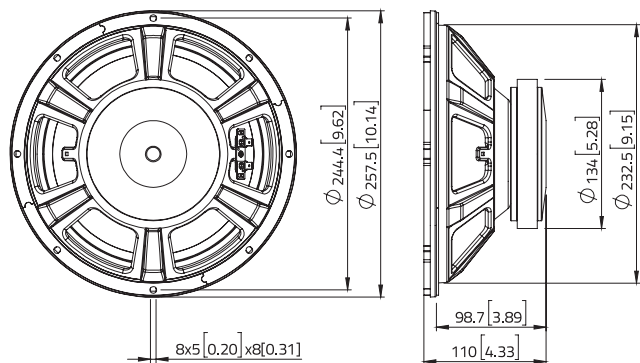
SHIPPING INFORMATION

Net weight	kg (lb.)	2,7 (5.9)
Multipack size (1)	mm (in.)	300 x 300 x 148 (11.8 x 11.8 x 5.8)
Multipack weight	kg (lb.)	3,7 (8)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



NBASS10-20

Lavoce

10" BASS GUITAR WOOFER

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 2 INCH COPPER VOICE COIL
- 95 dB/SPL SENSITIVITY
- 300 WATT PROGRAM POWER HANDLING
- OVERALL BALANCED AND RICH TONE
- SOLID LOW-END AND TIGHT MID-HIGH'S
- EXTREMELY LIGHTWEIGHT

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,8
Program power (1)	W	300
AES Power rating (2)	W	150
Sensitivity (3)	dB	95
Frequency range	Hz	50 ÷ 3000
Voice coil diameter	mm (in.)	51 (2)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	51 x 9 (2.0 x 0.35)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	6,6 (0.26)
Xmech (5)	mm (in.)	10,7 (0.42)
Gap height	mm (in.)	8,2 (0.32)
Voice coil winding height	mm (in.)	17,2 (0.67)
Driver displacement volume	l (ft ³)	0,9 (0.03)

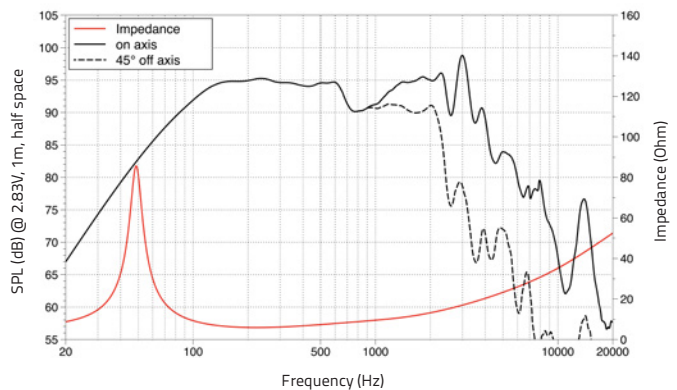
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,3
Resonance frequency	Fs	Hz	49
Moving mass	Mms	g (oz)	36,9 (1.3)
Compliance	Cms	mm/N	0,28
Force factor	BxL	N/A	11,9
Mechanical Q-factor	Qms		6,4
Electrical Q-factor	Qes		0,42
Total Q-factor	Qts		0,39
Equivalent air volume	Vas	l (ft ³)	51 (1.8)
Voice coil inductance	Le	mH	0,72
Diaphragm area	Sd	cm ² (in. ²)	353 (54.72)
Reference efficiency	Eta 0	%	1,3

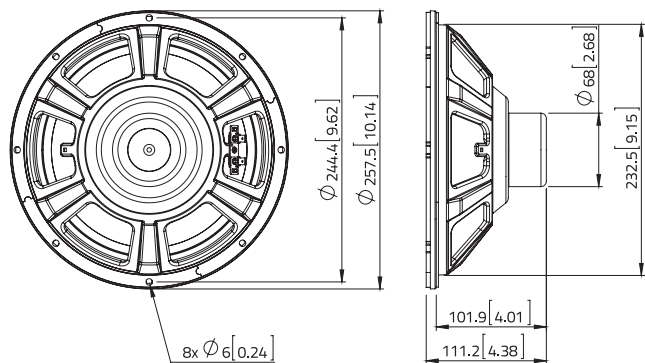
SHIPPING INFORMATION

Net weight	kg (lb.)	1,3 (2.9)
Multipack size (1)	mm (in.)	300 x 300 x 148 (11.8 x 11.8 x 5.8)
Multipack weight	kg (lb.)	2,3 (5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



LBASS12-15

Lavoce

12" BASS GUITAR WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 1.5 INCH COPPER VOICE COIL
- 96 dB/SPL SENSITIVITY
- 200 WATT PROGRAM POWER HANDLING
- OVERALL BALANCED AND RICH TONE
- SOLID LOW-END AND TIGHT MID-HIGH'S

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	6
Program power (1)	W	200
AES Power rating (2)	W	100
Sensitivity (3)	dB	96
Frequency range	Hz	40 ÷ 4000
Voice coil diameter	mm (in.)	38 (1.5)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	110 x 45 x 17 (43.3 x 15.7 x 6.7)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,7 (0.18)
Xmech (5)	mm (in.)	8,7 (0.34)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	13,3 (0.52)
Driver displacement volume	l (ft ³)	1,7 (0.06)

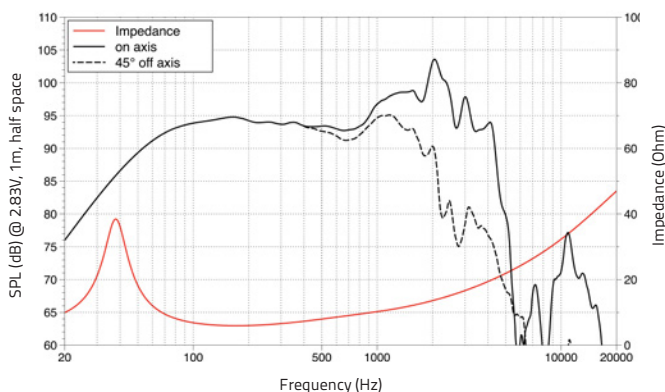
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,4
Resonance frequency	Fs	Hz	38
Moving mass	Mms	g (oz)	44,3 (1.56)
Compliance	Cms	mm/N	0,39
Force factor	BxL	N/A	10,0
Mechanical Q-factor	Qms		3,4
Electrical Q-factor	Qes		0,56
Total Q-factor	Qts		0,48
Equivalent air volume	Vas	l (ft ³)	160 (5.7)
Voice coil Inductance	Le	mH	0,7
Diaphragm area	Sd	cm ² (in. ²)	535 (82.9)
Reference efficiency	Eta 0	%	1,5

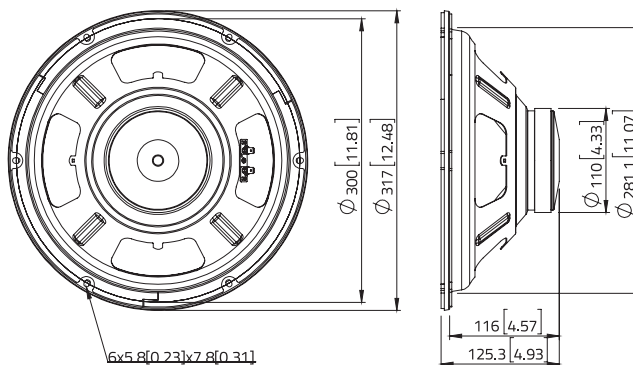
SHIPPING INFORMATION

Net weight	kg (lb.)	2,4 (5.2)
Multipack size (1)	mm (in.)	356 x 356 x 162 (14 x 14 x 6.4)
Multipack weight	kg (lb.)	3,5 (7.7)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



FBASS12-20

Lavoce

12" BASS GUITAR WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 2 INCH COPPER VOICE COIL
- 97 dB/SPL SENSITIVITY
- 400 WATT PROGRAM POWER HANDLING
- OVERALL BALANCED AND RICH TONE
- SOLID LOW-END AND TIGHT MID-HIGH'S

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,9
Program power (1)	W	400
AES Power rating (2)	W	200
Sensitivity (3)	dB	97
Frequency range	Hz	50 ÷ 3000
Voice coil diameter	mm (in.)	51 (2)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	145 x 60 x 17 (5.7 x 2.4 x 0.67)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,3 (0.17)
Xmech (5)	mm (in.)	8,4 (0.33)
Gap height	mm (in.)	8,2 (0.321)
Voice coil winding height	mm (in.)	12,6 (0.5)
Driver displacement volume	l (ft ³)	1,9 (0.07)

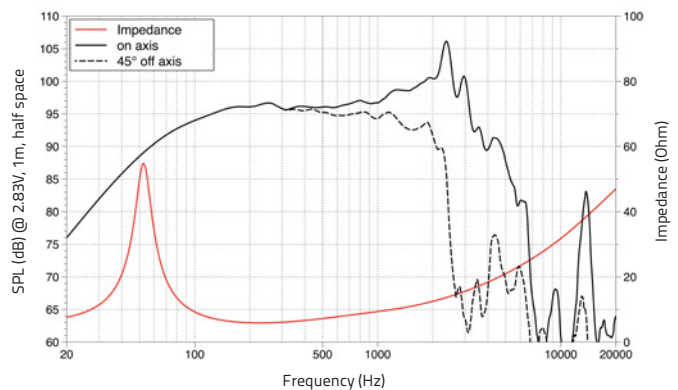
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,3
Resonance frequency	Fs	Hz	52
Moving mass	Mms	g (oz)	51 (1.8)
Compliance	Cms	mm/N	0,18
Force factor	BxL	N/A	13,2
Mechanical Q-factor	Qms		4,7
Electrical Q-factor	Qes		0,50
Total Q-factor	Qts		0,45
Equivalent air volume	Vas	l (ft ³)	72 (2.54)
Voice coil Inductance	Le	mH	0,60
Diaphragm area	Sd	cm ² (in. ²)	531 (82.31)
Reference efficiency	Eta 0	%	2,00

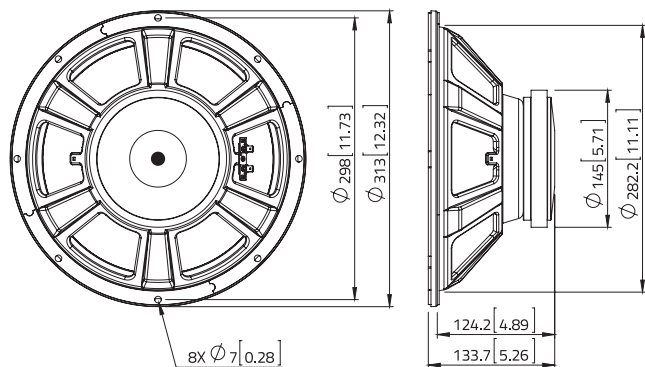
SHIPPING INFORMATION

Net weight	kg (lb.)	3,6 (8)
Multipack size (1)	mm (in.)	356 x 356 x 173 (14 x 14 x 6.8)
Multipack weight	kg (lb.)	4,8 (10.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



NBASS12-30

Lavoce

12" BASS GUITAR WOOFER

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 3 INCH COPPER VOICE COIL
- 98 dB/SPL SENSITIVITY
- 800 WATT PROGRAM POWER HANDLING
- OVERALL BALANCED AND RICH TONE
- SOLID LOW-END AND TIGHT MID-HIGH'S
- EXTREMELY LIGHTWEIGHT

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,3
Program power (1)	W	800
AES Power rating (2)	W	400
Sensitivity (3)	dB	98
Frequency range	Hz	50 ÷ 3000
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x h	mm (in.)	74 x 9 (2.9 x 0.35)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4 (0.16)
Xmech (5)	mm (in.)	12,5 (0.49)
Gap height	mm (in.)	10,5 (0.41)
Voice coil winding height	mm (in.)	18,5 (0.72)
Driver displacement volume	l (ft ³)	2,1 (0.08)

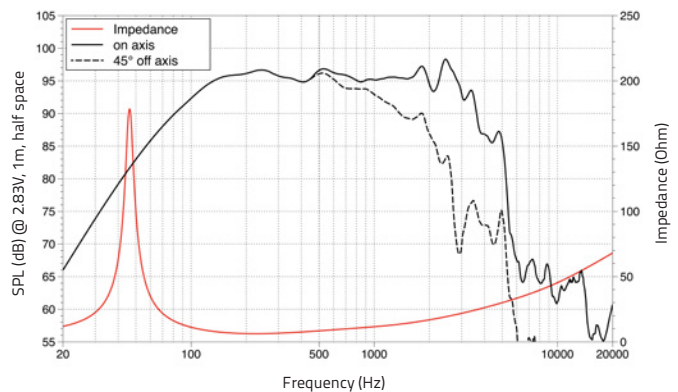
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,4
Resonance frequency	Fs	Hz	46
Moving mass	Mms	g (oz)	66,4 (2.33)
Compliance	Cms	mm/N	0,17
Force factor	BxL	N/A	19,2
Mechanical Q-factor	Qms		9,5
Electrical Q-factor	Qes		0,3
Total Q-factor	Qts		0,28
Equivalent air volume	Vas	l (ft ³)	68,8 (2.43)
Voice coil Inductance	Le	mH	1
Diaphragm area	Sd	cm ² (in. ²)	531 (82.3)
Reference efficiency	Eta 0	%	2,2

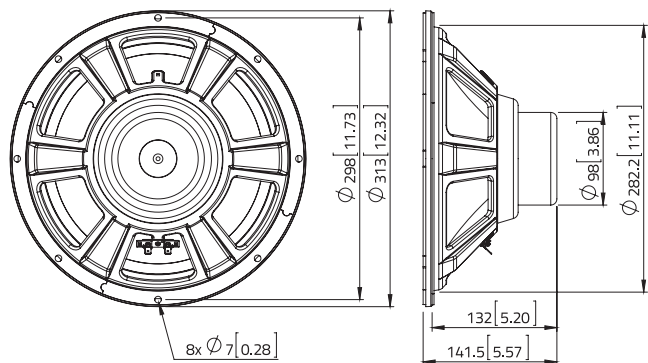
SHIPPING INFORMATION

Net weight	kg (lb.)	2,9 (6.5)
Multipack size (1)	mm (in.)	356 x 356 x 173 (14 x 14 x 6.8)
Multipack weight	kg (lb.)	4,3 (9.4)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



LBASS15-15

Lavoce

15" BASS GUITAR WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 1.5 INCH COPPER VOICE COIL
- 97 dB/SPL SENSITIVITY
- 200 WATT PROGRAM POWER HANDLING
- TRIPLE ROLL SURROUND
- OVERALL BALANCED AND RICH TONE
- SOLID LOW-END AND TIGHT MID-HIGH'S

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,9
Program power (1)	W	200
AES Power rating (2)	W	100
Sensitivity (3)	dB	97
Frequency range	Hz	35 ÷ 4000
Voice coil diameter	mm (in.)	38 (1.5)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	110 x 45 x 17 (43.3 x 15.7 x 6.7)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,7 (0.18)
Xmech (5)	mm (in.)	8,7 (0.34)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	13,3 (0.52)
Driver displacement volume	l (ft ³)	3,3 (0.12)

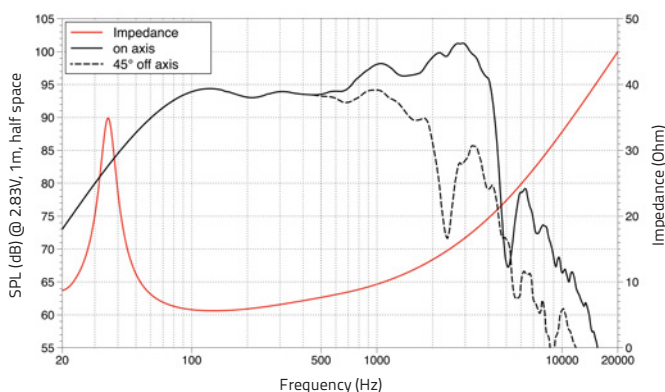
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	37
Moving mass	Mms	g (oz)	66 (2.33)
Compliance	Cms	mm/N	0,27
Force factor	BxL	N/A	9,9
Mechanical Q-factor	Qms		4,7
Electrical Q-factor	Qes		0,88
Total Q-factor	Qts		0,74
Equivalent air volume	Vas	l (ft ³)	284 (10.03)
Voice coil Inductance	Le	mH	0,90
Diaphragm area	Sd	cm ² (in. ²)	855 (132.53)
Reference efficiency	Eta 0	%	1,60

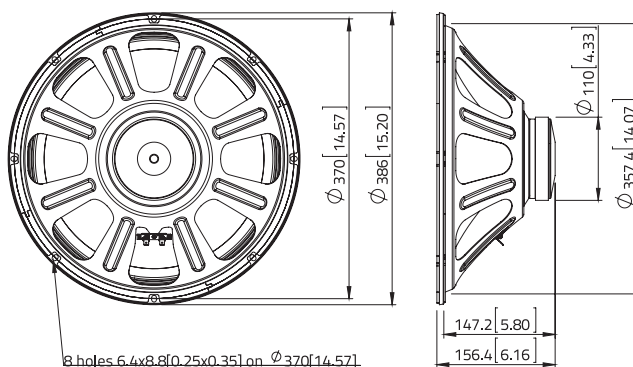
SHIPPING INFORMATION

Net weight	kg (lb.)	4,1 (9.1)
Multipack size (1)	mm (in.)	438 x 438 x 204 (17.2 x 17.2 x 8)
Multipack weight	kg (lb.)	6,2 (13.6)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



FBASS15-20

Lavoce

15" BASS GUITAR WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 2 INCH COPPER VOICE COIL
- 98 dB/SPL SENSITIVITY
- 400 WATT PROGRAM POWER HANDLING
- TRIPLE ROLL SURROUND
- OVERALL BALANCED AND RICH TONE
- SOLID LOW-END AND TIGHT MID-HIGH'S

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	5,9
Program power (1)	W	400
AES Power rating (2)	W	200
Sensitivity (3)	dB	98
Frequency range	Hz	40 ÷ 4000
Voice coil diameter	mm (in.)	51 (2)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	140 x 60 x 17 (5.5 x 2.36 x 0.67)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	4,3 (0.17)
Xmech (5)	mm (in.)	8,4 (0.33)
Gap height	mm (in.)	8,2 (0.32)
Voice coil winding height	mm (in.)	12,6 (0.5)
Driver displacement volume	l (ft ³)	3 (0.1)

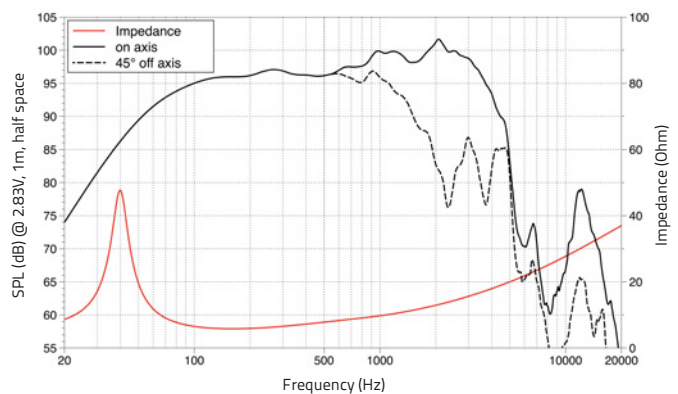
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,3
Resonance frequency	Fs	Hz	40
Moving mass	Mms	g (oz)	70 (2.47)
Compliance	Cms	mm/N	0,23
Force factor	BxL	N/A	12,8
Mechanical Q-factor	Qms		8,7
Electrical Q-factor	Qes		0,56
Total Q-factor	Qts		0,53
Equivalent air volume	Vas	l (ft ³)	234 (8.26)
Voice coil Inductance	Le	mH	0,70
Diaphragm area	Sd	cm ² (in. ²)	855 (132.53)
Reference efficiency	Eta 0	%	2,50

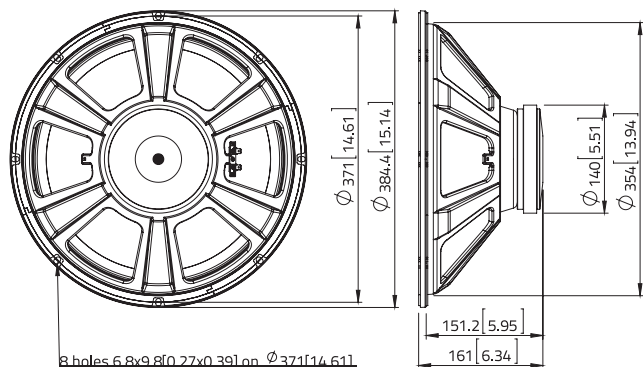
SHIPPING INFORMATION

Net weight	kg (lb.)	4,1 (9.1)
Multipack size (1)	mm (in.)	438 x 438 x 204 (17.2 x 17.2 x 8)
Multipack weight	kg (lb.)	6,2 (13.6)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



NBASS15-30

Lavoce

15" BASS GUITAR WOOFER

NEODYMIUM MAGNET
STEEL BASKET DRIVER



- 3 INCH COPPER VOICE COIL
- 98 dB/SPL SENSITIVITY
- 800 WATT PROGRAM POWER HANDLING
- TRIPLE ROLL SURROUND
- OVERALL BALANCED AND RICH TONE
- SOLID LOW-END AND TIGHT MID-HIGH'S
- EXTREMELY LIGHTWEIGHT

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	380 (15)
Nominal impedance	Ω	8
Minimum impedance	Ω	6
Program power (1)	W	800
AES Power rating (2)	W	400
Sensitivity (3)	dB	98
Frequency range	Hz	40 ÷ 4000
Voice coil diameter	mm (in.)	75 (3)
Chassis material	Steel	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	74 x 9 (2.9 x 0.35)
Coil material	Copper	
Former material	Glass fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	6,6 (0.26)
Xmech (5)	mm (in.)	12,5 (0.47)
Gap height	mm (in.)	10,5 (0.41)
Voice coil winding height	mm (in.)	18,6 (0.73)
Driver displacement volume	l (ft ³)	3,2 (0.1)

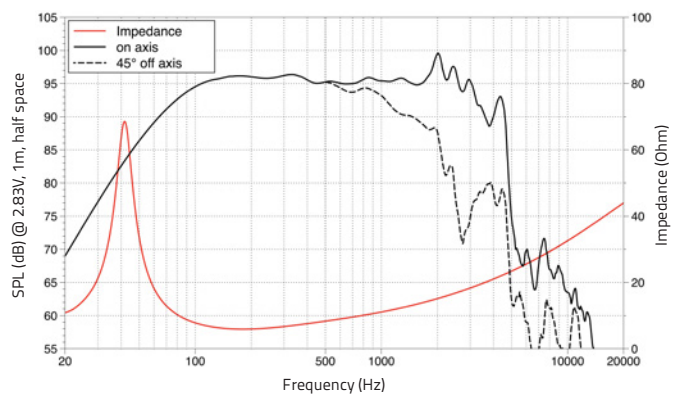
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,2
Resonance frequency	Fs	Hz	42
Moving mass	Mms	g (oz)	107 (3.78)
Compliance	Cms	mm/N	0,14
Force factor	BxL	N/A	19
Mechanical Q-factor	Qms		5
Electrical Q-factor	Qes		0,4
Total Q-factor	Qts		0,37
Equivalent air volume	Vas	l (ft ³)	140 (5)
Voice coil inductance	Le	mH	1,06
Diaphragm area	Sd	cm ² (in. ²)	855 (132.53)
Reference efficiency	Eta 0	%	2,4

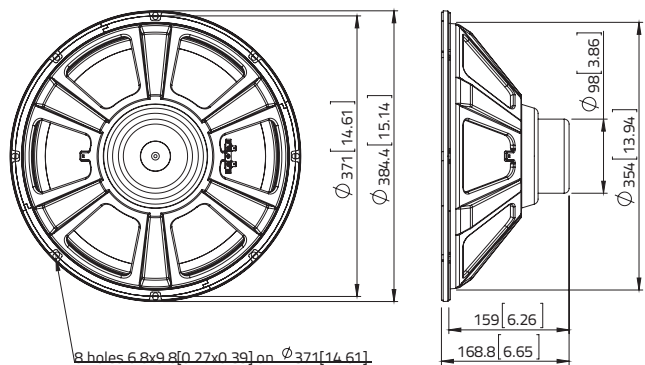
SHIPPING INFORMATION

Net weight	kg (lb.)	3,5 (7.7)
Multipack size (1)	mm (in.)	438 x 438 x 212 (17.2 x 17.2 x 8.3)
Multipack weight	kg (lb.)	5,7 (12.5)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a

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WSF101.70G

Lavoce

10" GUITAR WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 1.8 INCH COPPER VOICE COIL
- 98 dB/SPL SENSITIVITY
- 120 WATT PROGRAM POWER HANDLING
- SMOOTH AND SILKY TONE
- CONTROLLED LOW-END, FAT AND WARM MIDS, DETAILED AND HARMONICALLY RICH HIGHS

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,4
Program power (1)	W	120
AES Power rating (2)	W	60
Sensitivity (3)	dB	98
Frequency range	Hz	100 ÷ 6000
Voice coil diameter	mm (in.)	45 (1.8)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	134 x 60 x 15 (5.28 x 2.36 x 0.59)
Coil material	Copper	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Paper	
Xmax (4)	mm (in.)	2,7 (0.11)
Xmech (5)	mm (in.)	5,2 (0.2)
Gap height	mm (in.)	6 (0.24)
Voice coil winding height	mm (in.)	8,4 (0.33)
Driver displacement volume	l (ft ³)	1,151 (0.041)

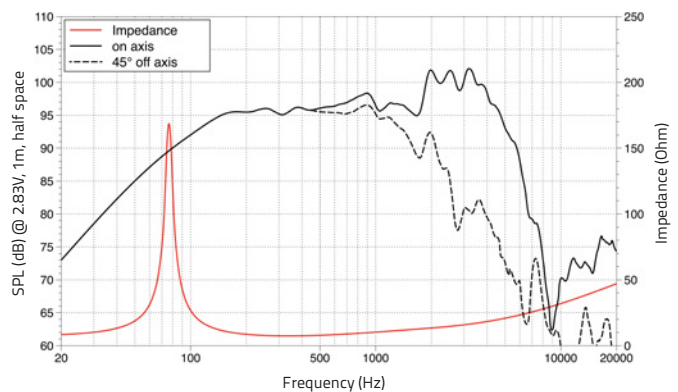
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	7,5
Resonance frequency	Fs	Hz	78
Moving mass	Mms	g (oz)	20,7 (0.73)
Compliance	Cms	mm/N	0,2
Force factor	BxL	N/A	11,9
Mechanical Q-factor	Qms		11,4
Electrical Q-factor	Qes		0,53
Total Q-factor	Qts		0,50
Equivalent air volume	Vas	l (ft ³)	36 (1.3)
Voice coil Inductance	Le	mH	0,51
Diaphragm area	Sd	cm ² (in. ²)	356 (55.18)
Reference efficiency	Eta 0	%	3,06

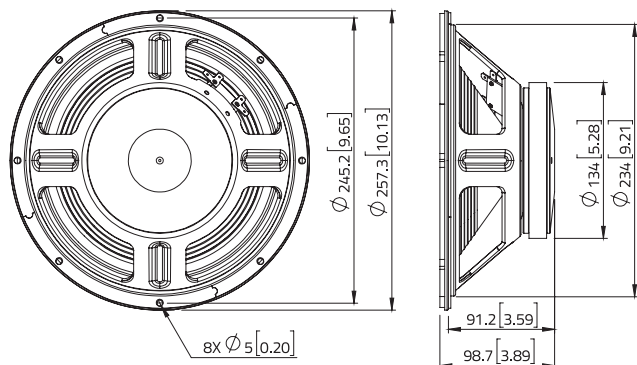
SHIPPING INFORMATION

Net weight	kg (lb.)	2,4 (5.3)
Multipack size (1)	mm (in.)	300 x 300 x 126 (18.1 x 18.1 x 5)
Multipack weight	kg (lb.)	3,2 (7)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_C.a



WSF121.70G

Lavoce

12" GUITAR WOOFER

FERRITE MAGNET
STEEL BASKET DRIVER



- 1.8 INCH COPPER VOICE COIL
- 99 dB/SPL SENSITIVITY
- 200 WATT PROGRAM POWER HANDLING
- SMOOTH AND SILKY TONE
- CONTROLLED LOW-END, FAT AND WARM MIDS, DETAILED AND HARMONICALLY RICH HIGHS

GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	300 (12)
Nominal impedance	Ω	8
Minimum impedance	Ω	7,3
Program power (1)	W	200
AES Power rating (2)	W	100
Sensitivity (3)	dB	99
Frequency range	Hz	70 ÷ 5000
Voice coil diameter	mm (in.)	45 (1.8)
Chassis material	Steel	
Magnet material	Ferrite	
Magnet dimensions OD x ID x h	mm (in.)	155 x 80 x 20 (6.14 x 3.15 x 0.79)
Coil material	Copper	
Former material	Polyimide	
Cone material	Water Proof Treated Paper	
Surround material	Paper	
Xmax (4)	mm (in.)	2,3 (0.09)
Xmech (5)	mm (in.)	6,3 (0.25)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	8,6 (0.34)
Driver displacement volume	l (ft ³)	2,2 (0.08)

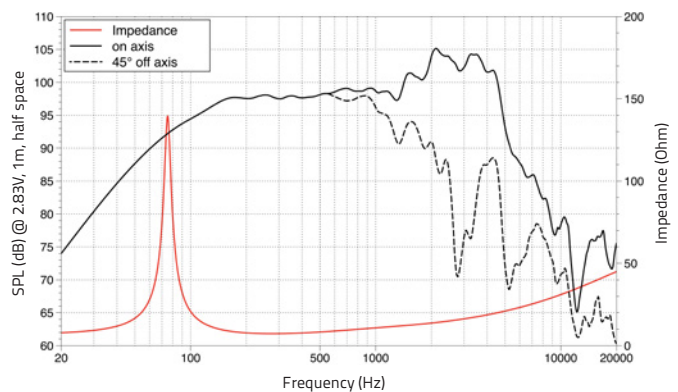
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	6,6
Resonance frequency	Fs	Hz	75
Moving mass	Mms	g (oz)	33,2 (1.17)
Compliance	Cms	mm/N	0,13
Force factor	BxL	N/A	13,5
Mechanical Q-factor	Qms		11,0
Electrical Q-factor	Qes		0,56
Total Q-factor	Qts		0,54
Equivalent air volume	Vas	l (ft ³)	48 (1.7)
Voice coil Inductance	Le	mH	0,57
Diaphragm area	Sd	cm ² (in. ²)	506 (78.43)
Reference efficiency	Eta 0	%	3,50

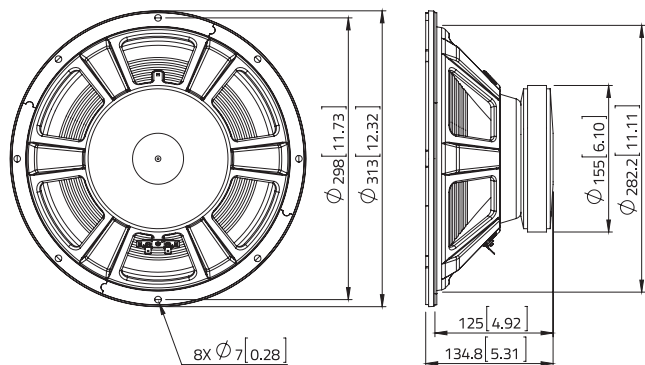
SHIPPING INFORMATION

Net weight	kg (lb.)	3,2 (7)
Multipack size (1)	mm (in.)	356 x 356 x 173 (14 x 14 x 6.8)
Multipack weight	kg (lb.)	4,1 (9.1)

FREQUENCY RESPONSE



DIMENSIONS mm (in.)



(1) Program power is defined as 3 dB greater than AES Power. (2) Tested for two hours using a continuous, band-limited pink noise signal as per AES 2-1984 Rev. 2003. Loudspeaker tested in free air. (3) From T/S parameters, measured with Klippel DA LPM module. (4) The Xmax is calculated as: $(Hvc - Hg)/2 + Hg/4$. Hvc is the voice coil height and Hg the gap height. (5) The Xmech is calculated as: $(Hvc - Hg)/2 + (Hg - 2)$. Hvc is the voice coil height and Hg the gap height. (6) Thiele-Small parameters are measured after preconditioning: a) at 20°C - 22°C, 50% humidity for 2 hours; b) by Klippel LSI measurement.

All specifications subject to change without notice_B.a



TECHNICAL SUPPORT

At Lavoce we want to make it easy for our customers to select, test and use our products. From making available downloadable simplified 3D drawings to aid initial concepts, to making available suggested cabinet designs to use, test or sell our products, we want to ensure your experience of using Lavoce is focussed on delivering the very best performance.



SUGGESTED CABINET DESIGNS

From our support page www.lavocespeakers.com/support/ you can download detailed PDF's of the following selection of subwoofer and full range system suggested cabinet designs. These are comprehensive and optimised designs which are free to use, and include detailed drawings, frequency response graphs, and passive crossover network drawings for the full range systems.

SUBWOOFER CABINET DESIGNS

Subwoofer Cabinet	Design style	Subwoofer
Baseline 118H	1 x 18" Horn loaded (1200W)	SAF184.02 (Ferrite) or SAN184.02 (Neo)
Baseline 118R	1 x 18" Bass reflex (1200W or 1500W)	SAF184.04 (Ferrite) or SAN184.03 (Neo) SAF184.02 (Ferrite) or SAN184.02 (Neo)
Baseline 218R	2 x 18" Bass reflex (2400W)	SAF184.02 (Ferrite) or SAN184.02 (Neo)
Baseline 121RN	1 x 21" Bass reflex (1700W)	SAN214.50 (Neo)

12" FULL RANGE SYSTEM DESIGNS

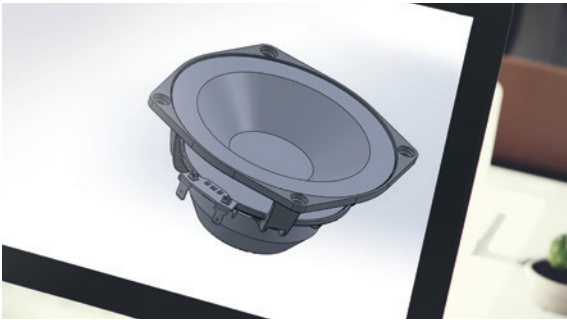
Full Range System	12" Woofer	Compression driver	Horn
Sistema F123.10N	WAF123.00 (Ferrite, 500W)	DN10.17T (Neo 1" Exit, 60W)	HD1004
Sistema N123.10N	WAN123.00 (Neo, 500W)	DN10.17T (Neo 1" Exit, 60W)	HD1004
Sistema F123.14N	WAF123.00 (Ferrite, 500W)	DN14.25T (Neo 1.4" Exit, 80W)	HD1403
Sistema N123.14N	WAN123.00 (Neo, 500W)	DN14.25T (Neo 1.4" Exit, 80W)	HD1403

15" FULL RANGE SYSTEM DESIGNS

Full Range System	15" Woofer	Compression driver	Horn
Sistema F153.10N	WAF153.00 (Ferrite, 500W)	DN10.17T (Neo 1" Exit, 60W)	HD1004
Sistema N153.10N	WAN153.00 (Neo, 500W)	DN10.17T (Neo 1" Exit, 60W)	HD1004
Sistema F153.14N	WAF153.00 (Ferrite, 500W)	DN14.25T (Neo 1.4" Exit, 80W)	HD1403
Sistema N153.14N	WAN153.00 (Neo, 500W)	DN14.25T (Neo 1.4" Exit, 80W)	HD1403



TECHNICAL SUPPORT



SIMPLIFIED 3D DRAWINGS

We know how useful it can be for our customers to have simplified 3D drawings easily available, so we have added a link to download them on every product page on our website www.lavocespeakers.com.



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To find out where to go to service your speaker, to download guides on reconing a Lavoce LF transducer or replacing the diaphragm assembly in a Lavoce HF compression driver, please visit our support page www.lavocespeakers.com/support/.



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