

PRESENTING THE NEW MEMBERS OF BØRRESEN'S FLAGSHIP SPEAKER SERIES

M3 AND M6

The creation of the Børresen M1 loudspeaker was a dream project for chief designer Michael Børresen, but also the most ambitious loudspeaker project to date. The development approach and design philosophy for the M1 was to create a loudspeaker without economic and technological constraints and with unrivalled sound potential.

We had the great pleasure of presenting the prototype of the Børresen M1 in Munich last year and have since successfully brought it to market.

Now, we are ready to expand this dream project with two more M series loudspeaker models, the M3 and the M6, and what better occasion to do so than High End Munich 2023.

The technologies of the M3 and M6 are the same as those of the M1. However, one obvious difference between the M1, and the new M3 and M6 is the larger cabinet size and shape, which allows the use of more driver units.





UNMATCHED MUSICALITY WITH UNIQUE DRIVER CONFIGURATION

The M3 is equipped with 4 unique 4.5" M-series speaker drivers. These drivers are connected in series in pairs so that one pair acts as a bass/midrange and another pair acts as a bass speaker driver. The same principle applies to the M6, which features 6 unique 4.5" M-series speaker drivers.

These drivers are connected in series so that two units work together as bass/midrange drivers and the other 4 units work together as bass speaker drivers. This approach ultimately results in increased speed, precision, and depth, which enriches the speaker with much more musicality.

THE INTERNAL CABINET DESIGN ENHANCES SOUND QUALITY AND BALANCE

The larger cabinet has also improved the ventilation behind the bass/midrange drivers. This provides less compression and thus a much faster and more agile speaker driver, which has a significantly positive impact on the overall sound image. Furthermore, the bass speaker drivers are equipped with a bass reflex section inside the cabinet, which ensures a dynamic and harmonious balance between midrange and bass.

Both the M3 and M6 designs are inspired by the M1 loudspeaker and are a logical extension of design elements that have proven to be not only aesthetically pleasing, but also effective in terms of audio performance.

THE CABINET DESIGN - PERFECT BLEND OF FORM AND FUNCTION

The Børresen M3 and M6 loudspeakers are an impressive example of Audio Group Denmark's commitment to creating aesthetic design that enhances musical performance. A distinctive feature of the cabinet design is the recess on the back, which has a curved shape. This design element is inspired by the Børresen speaker stand and adds an additional touch of sophistication to the overall aesthetic of the speaker.

The base of the speaker has been specially prepared for Ansz Darkz, a technology that helps to better control resonance. This attention to detail not only improves the speaker's sound quality, but also adds to its visual appeal.

Overall, the M3 and M6 speakers are the perfect blend of form and function, which reflects the excellent and highly productive partnership between two great minds in the audio industry - Michael Børresen and Flemming Erik Rasmussen. The sleek and elegant design of these speakers, combined with their outstanding audio performance, makes them a testament to Audio Group Denmark's commitment to audio excellence.

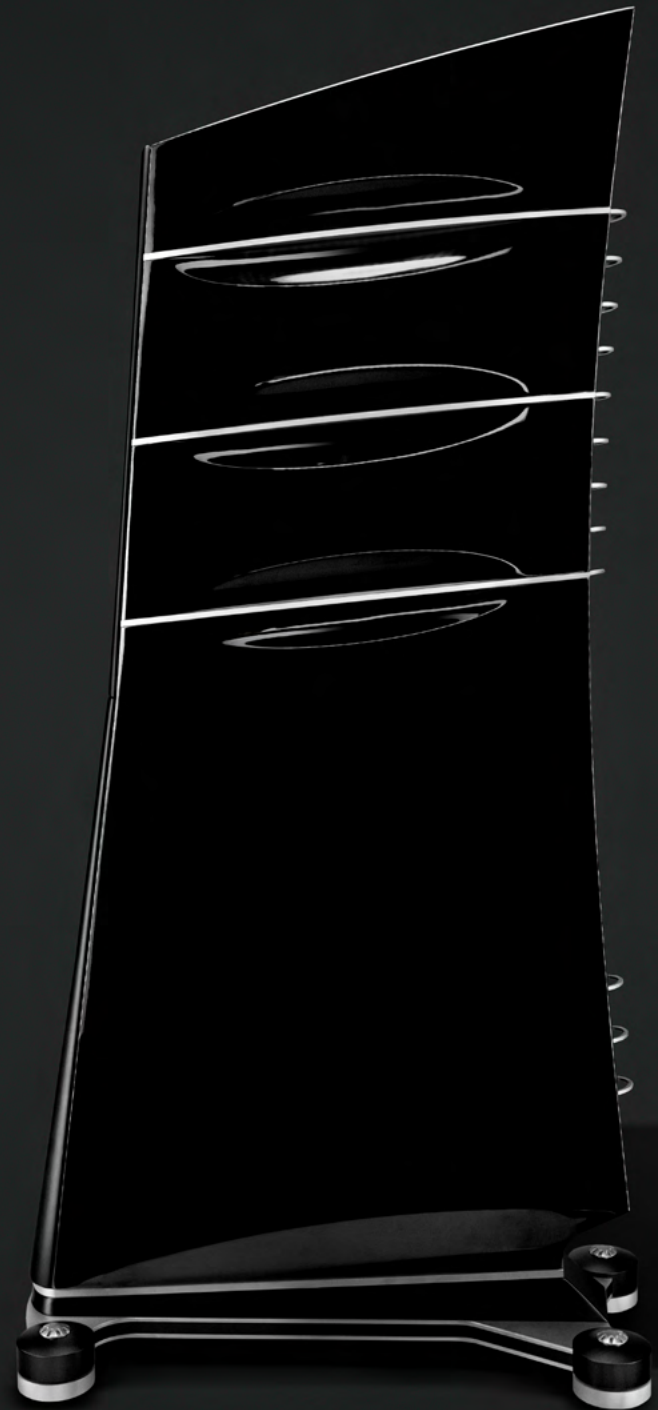
BI-WIRING

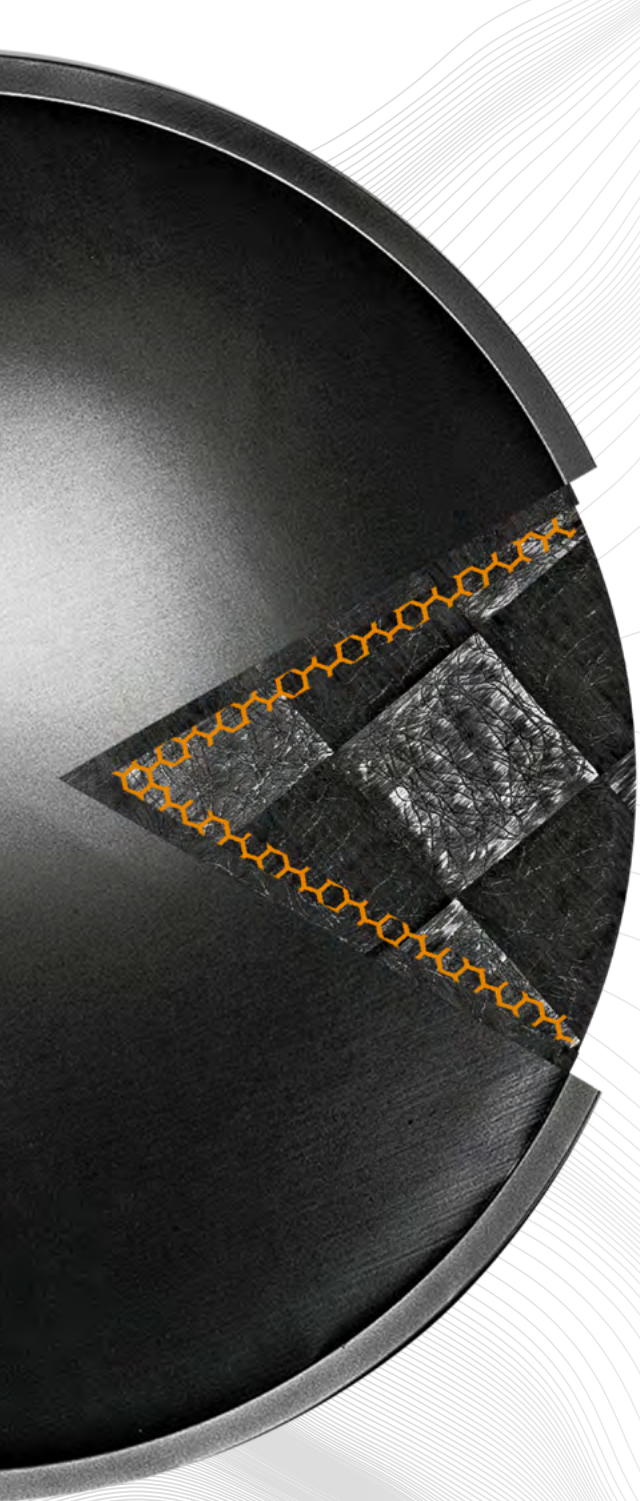
The M3 and M6 are both offering the option of bi-wiring, allowing you to feed the bass and midrange/treble sections individually. This not only provides sufficient power to each section, but also results in a cleaner, more precise sound.

These loudspeakers have been designed with two types of bi-wiring in mind. The first is speaker crossover bi-wiring. The frequency between the bass section and the midrange/treble section is optimized, in accordance with the M3 and M6 design, so that it provides best performance.

The second option is active crossover bi-wiring, where you can adjust the crossover frequency yourself. This type of crossover is the optimal solution for fine-tuning your speakers according to your listening room's acoustical properties, allowing you to control the amount of bass and the balance between the bass and midrange/treble.

To further enhance your listening experience, Børresen's sister company, Aavik Acoustics, has developed a high-end Analog Active filter that works seamlessly with these new speaker models, providing the ultimate in precision and clarity.





ZIRCONIUM BASKET

Both the new M3 and M6 loudspeakers feature the M series basket, which is also used in the M1 model. The M series basket is a true breakthrough in loudspeaker technology, as it is a topology-optimized 3D-printed basket made of zirconium. This material ensures maximum rigidity, which results in minimal vibration and resonance. Unlike conventional baskets that merely hold the membrane, the M series basket also absorbs the energy generated by the membrane. To eliminate basket noise, the aim was to design a basket with maximum stiffness. Through computer-optimized finite element designs, a topology-optimized 3D-printed basket made of zirconium was developed. This means best internal damping and resonance control, resulting in outstanding clarity and overall performance.

M-SERIES MEMBRANE

The M series membrane was created with the aim of minimizing noise while maximizing stiffness. Among the various membranes available on the market, the M1, M3, and M6 are equipped with the most advanced and sophisticated technology. The membranes feature unparalleled stiffness and extremely low resonance. To achieve this exceptional performance, Michael Børresen and his team had to develop and assemble all the components in-house, as the technological requirements were unprecedented. They constructed numerous variants and models until they had accomplished their uncompromising goal of achieving a completely new dimension in sound quality.

The result is a membrane that consists of four skins laminated into a single unit: two layers of spread-tow carbon fiber, a layer of aramid honeycomb spacers in between, and a titanium skin with Ansuz Supreme coating.

The combination of all these materials gives this state-of-the-art membrane its unique properties. Spread-tow carbon fiber is designed to ensure a skin with optimum stiffness. This unique feature reduces sound-disturbing vibrations and resonances to an unprecedented low level. This is also true for resonances in the frequency range above 8 kHz. Since the membrane/driver is used up to the 2.5 kHz range, disturbing resonances have been shifted two octaves outside the effective frequency range, ensuring an absolute minimum of resonances.

Titanium has perfect resonance control properties and supports a natural, organic sound of the membrane. With the Ansuz Supreme coating, the skin of the membrane is further acoustically optimized. This coating is applied to the titanium skin in a Hi-PIMS (High Power Impulse Magnetron Sputtering) machine to create the finest and most uniform layer of zirconium, followed by a tungsten layer and a final layer of aluminum chromium nitride. This coating provides the music with a truly impeccable sound quality.



THE PATENTED IRON-FREE MAGNET SYSTEM

To retain the Børresen DNA in the M3 and M6 loudspeakers, it was only appropriate to use Børresen's patented and award-winning iron-free magnet system. This technology reduces the inductance of the drivers by a factor of twelve compared to conventional drivers. This innovation ensures that the M series speakers deliver unparalleled sound quality, allowing listeners to experience music in its purest form.

Silver has much better conductivity than iron or even copper. For this reason, the copper pole rings in the magnet system were replaced with in-house manufactured, handcrafted silver rings. For Michael and his team, it was important to use only the very best both in terms of materials, but also in terms of production processes. For this reason,

all metal components in the M3 and M6 undergo cryogenic treatment, which reduces inductance by an additional 6-8%.

Cryogenic treatment of all metal components of the loudspeaker results in further significant improvement in conductivity - allowing the finest and most subtle musical details to unfold. Cryogenic treatment of metal components involves subjecting them to extreme cooling. During this process, the crystal structure of the metal contracts more and more. Alloying elements are displaced from the grain structure of the metal, which now becomes very similar to a single crystal. These structural changes in the metal have profound effects on its sound properties.



THE BØRRESEN RIBBON TWEETER

The Børresen ribbon tweeter, which is an essential component of the Børresen DNA, is also included in the M3 and M6 speakers. This closed ribbon tweeter has an efficiency of 94 dB and operates from 2.5 kHz upwards. With a moving mass of just 0.01 grams, it can operate at incredible speed, and capture even the subtlest sonic details of any type of music. The tweeter's tremendous robustness also allows it to handle extremely high transient peaks without causing any ear deafening breakouts. Elaborate finite element methods were employed to optimize the magnetic flux field, driver movement, and overall efficiency and linearity of the tweeter, resulting in a truly exceptional listening experience.

SERIAL CROSSOVER

The M3 and M6 loudspeakers, like all other Børresen models, are equipped with a serial crossover. This unique technology ensures that the drivers receive the same current flow in the crossover area, resulting in phase-locked electrical currents. Unlike traditional parallel filtering, where each driver receives its own frequency and phase content, serial filtering routes the out-of-band currents around the current flows, creating a more coherent system. This innovative approach results in an unparalleled listening experience that takes your musical enjoyment to a new level.

TESLA COIL TECHNOLOGY

In designing the latest M3 and M6 loudspeaker models, Børresen has, as always, placed great emphasis on eliminating unwanted noise to achieve unparalleled musical authenticity. To achieve this benchmark, Børresen has drawn on the technological advancements and innovations of all four individual brands: Ansuz, Aavik, Børresen, and Axxess. By sharing knowledge and technology, all four brands have gained valuable insights that can be leveraged across brands. As a result, Børresen has integrated the most effective Tesla coil technologies from their most advanced existing products into the M3 and M6.

THIRD GENERATION DITHER TECHNOLOGY

The M3 and M6 speakers, manufactured with the utmost precision, employ the cutting-edge analog dither technology that is already a hallmark of Ansuz products. The Ansuz team has taken this technology to the next level with the development of the third-generation of analog dither technology specifically tailored to the M series. In the M3 and M6, active Tesla coils emit pulsating signals at precisely defined frequencies that are sent in anti-phase to amplify the musical signal and eliminate any background noise.

Careful analysis, extensive research, and attentive listening have resulted in this third-generation design, which optimizes the most effective frequencies to elevate the sound image to unprecedented levels of clarity, capturing even the minutest details of the recordings with stunning precision.

INTERNAL WIRING – GOLD SIGNATURE

The M3 and M6 speakers use the Ansuz Gold Signature series, which features by far the most sophisticated and groundbreaking audio cable technology. Gold, when used in the right quantities and in combination with silver and copper, can dramatically improve the sonic potential of loudspeakers. The deliberate use of Gold Signature cables for the internal wiring of the M3 and M6 has been carefully crafted to ensure unparalleled levels of clarity, naturalness, and authenticity in sound reproduction.





BØRRESEN M3 AND M6

LOUDSPEAKER PERFORMANCE AT ITS VERY BEST

Please visit the Børresen website to [find your local dealer](#), contact your dealer, or contact us at sales@audiogroupdenmark.com - we would be delighted to help arrange a personal listening experience for you.

SPECIFICATIONS

FREQUENCY RESPONSE	M3: 25 Hz – 50 kHz
	M6: 20 Hz – 50 kHz
SENSITIVITY	M3: 89 dB/1w
	M6: 89 dB/1w
IMPEDANCE	M3: 8 ohm
	M6: 6 ohm
RECCOMEDED AMP	M3: >50 w
	M6: >50 w
DIMENSIONS (WXDXH)	M3: 428 x 726 x 1540 mm
	M6: 428 x 746 x 1938 mm
WEIGHT	M3: 68 kg
	M6: 86 kg

PRICE:

M3

EURO MSRP: €250.000

USD MSRP: \$280.000

M6

EURO MSRP: €500.000

USD MSRP: \$550.000

 **BØRRESEN**

borresen-acoustics.com