

KF-3212&BH-3212系统描述:

系统特点:

KF-3212是一款高效的三分频线性阵列**水平覆盖度**可调的音箱，这款音箱是近几年来**尼沃**研发团队智慧的**结晶**、是大胆创新的**硕果**、是线性阵列中的**精品**；它是由2只44芯钹磁高音、4只5寸44芯钹磁中音、2只12寸100芯高性能铁氧体低音单元构成了额定功率为**1500W**的大功率扬声器系统；**尼沃**的工程师根据声波的传输特性，应用了**高压波导**传输原理，在对该箱进行结构设计时分别将低频、中频和高频运用了**预加载**的技术；尤其值得一提的是**中频和高频**采用了**水平覆盖角度**可以**对称55度或者110度**可调，**水平覆盖角度**也可以**非对称25度/55度或55度/25度**可调。因为常规的线性阵列音箱水平覆盖角度是不可以调整的，而不同的应用场合对**水平覆盖角**的要求会有不同。例如，有些剧场是扇形的、有些是圆形的、有些是矩形的、有些是多边形的。就算剧场做了标准的建声设计和装修，如果我们的音箱水平覆盖角度是固定的，就容易产生不必要的声反射和声干涉，造成现场安装和调试的难度，也就会影响**剧场声场**的**均匀度、音质的清晰度、音色的柔美感**。如果这样就很难满足理想的电子扩声设计需求。所以我们针对不同的应用场合采用了**水平覆盖角度**可**对称和非对称**的调节技术。突破了传统线性阵列音箱的技术瓶颈，解决了传统线性阵列音箱解决不了的技术难题。满足了不同场所的电声需求。同样，对于户外扩声也有类似的问题，我们也可以用相同的办法解决。所以此项技术在该领域是处于**领先水平**的。**BH-3212**是与**KF-3212**配套使用的超重低音，该箱是由2只18寸**100芯220磁**高性能铁氧体低音单元构成。为了与**KF-3212**相匹配**BH-3212**的额定功率也为**1200W**。有了**BH-3212**与**KF-3212**相匹配，将人耳的可听音域范围发挥到极致。其澎湃的动力、宽广的音域、动听的音色浑然天成。这一切都要归功于**尼沃**的研发团队。这个团队特别注重实际应用的研究，一切灵感均来源于实践。同时，它也是一个非常执着、专注和值得信赖的团队；这套音箱不愧为当今**高端线性阵列**音箱的代表之作，也是**展迅电声科技**的**旗舰性**产品之一。实为**高端流动演出**的首选之品。经过近十年的不断实践和创新，通过坚持不懈的努力逐渐推出了**高端KF家族系列**的线性阵列产品。先后有**KF-760、BH-760、KF-3212、BH-3212、KF-960、BH-960、KF-950、BH-950、KF-930、BH-930、KF-910、BH-910**等系列产品。该系列产品能够满足室内、室外大大小小的场所扩声，无论是固定安装，还是流动演出的**高端扩声**需求。该系列产品早已被**国家级的剧院、剧团**采用。

系统功放与负载阻抗的匹配关系:

该系统的功放与音箱阻抗之间的匹配关系是这样的：**1、KF-3212**箱内单只高音单元的阻抗为**16欧姆**，两只高音单元在箱体内部是并联关系，这时负载阻抗变为了**8欧姆**。根据设计要求一台两通道的高音功放可以驱动**4只KF-3212**音箱的高音单元。这时功放的负载阻抗为**4欧姆**。**2、KF-3212**箱体内部单只中音单元的阻抗**8欧姆**，在箱体内部是**两两串联、再一并联**的关系，这时负载阻抗为**8欧姆**；根据设计要求一台两通道的中音功放可以驱动**4只KF-3212**音箱的中音单元，这时功放的负载阻抗为**4欧姆**。**3、KF-3212**箱内单只低音单元的阻抗为**8欧姆**，两只低音单元在箱体内部是分别独立各引正负两条线到**8芯**座音箱接线背板，这时负载阻抗为**8欧姆**。根据设计要求一台两通道的低音功放可以驱动**2只KF-3212**音箱的低音单元。这时功放的负载阻抗为**4欧姆**。以**4只KF-3212**音箱为例所需功放为：**1台**高音功放、**1台**中音功放、**2台**低音功放共计**4台**功放。所以切记功放到**KF-3212**音箱的连线必须为独立的**8芯**四对线。否则将会对系统造成不可估量的损毁。**4、BH-3212**音箱阻抗为**4欧姆**，根据设计要求一台两通道的低音功放可以驱动**2只BH-3212**音箱的低音单元。这时功放的负载阻抗为**4欧姆**。以此类推在系统搭配上注意功放与音箱阻抗之间的匹配；避免系统匹配出现错误，造成系统严重损毁。

箱体结构:

箱体板材是采用优质的**多层的实木夹板**。箱体内部喇叭单元呈**V字形**结构排列，结合声学原理，中音波导板是使用特殊的有机材料制作而成。充分利用箱体内部空间，将声学原理发挥到淋漓尽致。箱体表面处理采用**环保(ROHS)**的化工材料-----全天候水性油漆；可在恶劣的自然环境下使用。

安装方式:

KF-3212& BH-3212有两种安装方式：吊装件都是采用优质的**T6061**铝型材。一种是用**葫芦**将**KF-3212**吊装在**TRASS**或**雷亚**架上；另一种是，也可以选择将超低音**BH-3212**加装与**KF-3212**匹配的铝型材，这样**KF-3212**就可以安装在**BH-3212**上面放在舞台上。（**BH-3212**正常标配是不带铝型材，需要时须与业务人员特别说明。）**不锈钢**插销连接，简单方便。

应用范围:

即可用于**高端大型**的流动演出，也可用于**剧院剧场、体育场馆**等场所的固定安装。



amplifier and speaker impedance; avoid system matching error, otherwise it will cause serious damage to the system.

Enclosure structure:

Enclosure is made of high quality multi-layer plywood. Speaker drivers inside the box was "V" structural arrangement, combined with acoustics principles, middle frequency waveguide panel makes use of a special organic material. Make full use of the space inside the cabinet and make the acoustics principles to the fullest. Using environmentally-friendly (ROSH) chemical materials for enclosure surface treatment---all-weather water-based paint; It can be used in the rugged natural environment.

Installation method:

There have two installation methods for KF-3212 & BH-3212: the flying accessories are made of high quality aluminum **T6061** profiles. One is to use hoist lifting the **KF-3212** in **TRASS** or layer rack; the other is you can choose to install SUB **BH-3212** aluminum profiles with matching **KF-3212**, so **KF-3212** can be installed above **BH-3212** on the stage. (BH-3212 is no with aluminum profiles in Normal standard, and you must confirm with sales person for special instructions if you need.) Stainless steel bolt connection, very simple and convenient.

Applications:

This system is suitable for high-end Large Concerts Touring, and also can be fixed installation for Theater, and Stadium etc.

TECHNICAL INFORMATION

Model	KF-3212	BH-3212
Power-Watts	1500W(RMS)/3750W(PGM)	1200W(RMS)/3000W (PGM)
Sensitivity (dB SPL 1W/1M)	LF 100dB MF 110dB HF 116dB	103dB
Impedance(ohms)	LF 8Ω MF 8Ω HF 16Ω	4Ω
Frequency Response	LF:50Hz~500Hz MF:500Hz~2.5KHz HF:2.5KHz~19KHz	25Hz~150Hz
Horizontal symmetry	55°or110°	/
Horizontal dissymmetry	25°/55°or 55°/25°	/
Vertical	10°	/
Loudspeaker and loading	LF 2×12"High pass vented box MF 4×5" HF 2×1"Exit horn loaded	LF 2×18"High pass vented box /
Weight (kg)	87kg	90kg
Dimensions(W×D×H)	876×690×356mm	1100×835×596mm
Packing(W×D×H)	1076×889×656mm	1180×915×690mm

KF-3212 & BH-3212 SYSTEM DESCRIPTION:

System Features:

KF-3212 is a highly efficient three-way adjustable horizontal coverage line array, this speaker is **crystallization** of wisdom, is the **fruit** of bold innovation, is the **high-quality goods** in line array by **Neworll** research and development team in recent years; it is composed of **two** Neo HF drivers with VC Φ44mm, **four 5 inch** Neo MF drivers with VC Φ44mm, **two 12 inch** LF unit with VC Φ100mm and high-performance magnet , it is constitute the rated power of **1500W** high power loudspeakers system; **Neworll's** engineers according to sound wave transmission characteristics, the application of **high pressure waveguide** transmission principle, in the structural design of the box, it is use of **pre-loaded** technology on low frequency, middle frequency and high frequency respectively; In particular, it is worth mentioning that the **middle and high frequency section, which use of adjustable horizontal coverage angle with 55°/110° symmetric, 25°/ 55° or 55°/ 25° asymmetric**. Because conventional line array speakers horizontal coverage angle cannot be adjusted, and **different applications location for horizontal coverage angle of the requirements will be different**. For example, some of the theater is fan-shaped, circular, rectangular, and polygonal. Even made standard architectural acoustics design and decoration, if our speaker with fixed horizontal coverage angle so that it is easy to produce unnecessary acoustic reflexion and acoustic interference, resulting in difficulty of installation and debugging on site, **but also will affect on the sound field uniformity and timbre clarity**. If so it is difficult to meet the needs of ideal electronic sound reinforcement design. **So we focused on different applications place using adjustment technology that the horizontal coverage angle can be adjusted through symmetric and asymmetric. Break through the bottleneck of traditional line array speakers, to solve the traditional linear array speakers technical problems that cannot solve**. Meet the Electro-acoustic needs of different places. Similarly, for outdoor sound reinforcement has a similar problem, we can also use the same solution. **So this technology in this area is leading level**. Super bass **BH-3212** is supporting the use of the **KF-3212**, **BH-3212** is composed of **two 18inch** LF units with VC Φ100mm, **220** high-performance magnet, **BH-3212** rated power of 1200W for matching the **KF-3212**; There is **BH-3212** match with **KF-3212** so that the frequency response of the human ear became most wide. With surging power, wide-range and natural timbre fusion together become the best. This is all thanks to Neworll research and development team. The team pays special attention to the study of practical application; all inspiration is derived from the practice. At the same time, it is also a very dedicated, focused and trustworthy team; This speaker is worthy of representative for high -end line array speaker in nowadays, also it is one of flagship product of Newshow Electroacoustic Co., Ltd. It is first choice for high-end concerts touring. After nearly a decade of continuous practice and innovation, through the unremittingly efforts, we have gradually introduced a line array **KF family series of high-end** products. There have **KF-760, BH-760, KF-3212, BH-3212, KF-960, BH-960, KF-950, BH-950, KF-930, BH-930, KF-910, BH-910** and other series products. This series of products meet the needs of the high-end sound reinforcement requirements for fixed installation or concerts touring both indoor and outdoor. The series has already been adopted by national theater troupe.

Matching relations between amplifier system and load impedance:

the system matching relationship between the amplifier and speaker impedance is such that: 1, One piece HF driver impedance is **16 ohms** inside **KF-3212** cabinet , two HF drivers is parallel relationship inside the cabinet, then load impedance into **8 ohms**. According to the design requirements of one set two channel HF amplifier can power HF drivers of **four pieces KF-3212** speakers. Then amplifier load impedance into **4 ohms**. 2, One piece MF driver impedance is **8 ohms** inside **KF-3212** cabinet, two MF drivers is **two tandem relationship** and then **one parallel relationship** inside the cabinet, this time load impedance into **8 ohms**. According to the design requirements of one set two channel MF amplifier can power MF drivers of **four pieces KF-3212** speaker. Then amplifier load impedance into **4 ohms**. 3, One piece LF unit impedance is **8 ohms** inside **KF-3212** cabinet, two LF units in the cabinet interior, each LF unit connect positive pole or negative pole two wires independently to speaker wiring back panel of the **8-core** speakon socket, and then the load impedance is **8 ohms**. According to the design requirements of one set two channel LF amplifier can drive LF units of **two pieces KF-3212** speakers. Then amplifier load impedance is **4 ohms**. For example, according to **four pieces KF-3212** speakers, total amplifier is required: **one set** HF amplifier, **one set** MF amplifier, **two sets** LF amplifiers, and total is **four sets** amplifiers. So do remember the connecting cable from amplifier to **KF-3212** speaker must be independent of the **8-core** speaker cable. Otherwise it will cause incalculable damage to the system. **④, BH-3212** speaker as independent **4 ohms** setting, according to the design requirements of one set two channel LF amplifier can drive LF unit of **two pieces BH-3212** speakers. Then amplifier load impedance is **4 ohms**. So pay attention to the system matching between the