

W24A W28A bi-amplified active loudspeaker systems for professional applications



Designed to provide maximum definition, cleanness and high sound pressure levels, the bi-amplified speaker systems W24A and W28A ensure outstanding sound performance in the most critical sound reinforcement applications.

Suitable for both indoor and outdoor use, their construction details and incredible versatility make them ideal both for sound engineers and musicians. In spite of their compact size and light weight, they boast all the features of much bulkier and heavier systems.

W24A and W28A may be flown using industry standard flying hardware.

The built-in amplifiers and control electronics are optimized for the transducers enabling the systems to produce power with a flat response and extremely low distortion.

- typical features of much bulkier, heavier systems:
 - high sound pressure levels
 - response extended to the extremes of the range
 - very low distortion
 - cleanness of the medium range
 - high dynamics
- construction and components are conform to the highest professional standards for maximum reliability
- complete synergy of acoustic and electronic design elements. Dedicated power amplifiers and control electronics ensure extraordinary performance, improving speakers drive while protecting them from over-excursion under high peak power conditions.
- neodymium-based components (B&C), custom designed to Montarbo specifications, combine high performance with weight savings.
- compact, strong and sturdy cabinet from high grade birch multiply with highly resistant polyurethane paint finish and 1,5 mm thick steel protection grid.
- reinforced with internal steel braces and equipped with flying hardware and ergonomically designed side handles.
- suitable for both indoor and outdoor use, stadiums, arenas, concert halls, medium-to-large theatres and night clubs, large-scale events.

Montarbo





fly-track suspension system

recessed rings for tilt adjustment

ergonomically designed handles



Bi-amplified. W24A and W28A incorporate:

- 2, class AB, Mosfet amplifiers, each one fitted with our exclusive loudspeaker protection circuitry
- 2 independent active dynamic processors, featuring independent time constants and operating thresholds that are sensitive to line voltage, limiting any excessive voice coil movement while also drastically diminishing the effects of power compression under the most demanding operating conditions. Unimpeded operation is guaranteed even when the system is subjected to extreme line voltage excursions
- high slope active electronic crossover (24dB/oct. Linkwitz-Riley) guaranteeing phase coherency and perfect addition of acoustic emissions in the crossover region
- a "soft-start" circuit to reduce the peak current drain at switch-on
- forced cooling provided by a thermostatically controlled low turbulence fan.

- The NEODYMIUM-based custom designed transducers combine high performance with great weight savings:
 - W24A utilizes two 12" neodymium magnet woofers (3" voice coil) for the bass section and a 2" neodymium compression driver (with titanium diaphragm and 3" voice coil) with a constant directivity horn for the mid-high section
 - W28A utilizes two 15" neodymium magnet woofers (3" voice coil) for the bass section and a 2" neodymium compression driver (with titanium diaphragm and an innovative 4" voice coil) with a constant directivity horn for the mid-high section.

In both models the whole mid high range is reproduced with excellent definition. Vocal harmonics and instruments are rendered with plenty of punch and precision, and remain tightly focused even at great distances.

- Each enclosure is reinforced with internal steel braces and embodies side slide guides for standard anchor rings to allow the loudspeaker suspension. On its rear side there are two recessed rings for tilt adjustment of the suspended speaker.

W24A

1050 W continuous
1200 W peak



W28A

1200 W continuous
1550 W peak

stand adaptor

low turbulence tuning ports

highly resistant antiscratch
polyurethane paint

1,5mm steel grill



Bi-amplificati. W24A and W28A incorporano:

- 2 amplificatori a MosFet, classe AB, entrambi dotati di un esclusivo circuito di protezione attiva dei trasduttori
- 2 processori dinamici attivi indipendenti con costanti di tempo indipendenti e soglie di intervento sensibili alla tensione di alimentazione, che impediscono eccessive escursioni delle bobine mobili e riducono drasticamente gli effetti della "power compression" nelle condizioni più severe, garantendo così il corretto funzionamento in presenza di forti escursioni della rete di alimentazione
- crossover elettronico attivo (24dB/oct. Linkwitz-Riley) che garantisce l'allineamento di fase e la perfetta sovrapposizione dell'emissione nella zona d'incrocio
- circuito "soft-start" per ridurre i picchi di corrente all'accensione
- ventilazione forzata mediante ventola a bassa turbolenza a controllo termostatico.

• L'utilizzo di altoparlanti e driver al NEODIMIO offre la più elevata qualità in un peso estremamente ridotto:

- W24A è dotato di 2 woofer con magneti al neodimio da 12" e di un driver a compressione al neodimio da 2" (con diaframma in titanio e bobina da 3") accoppiato ad una tromba a direttività costante.
- W28A è dotato di 2 woofer con magneti al neodimio da 15" e di un driver a compressione in neodimio da 2" (con diaframma in titanio ed una innovativa bobina da 4") accoppiato ad una tromba a direttività costante

In entrambi i modelli l'intera gamma delle frequenze medio-alte (quindi anche e soprattutto le armoniche della voce) viene riprodotta con eccellente definizione, grandissima precisione ed impatto sonoro. Anche i più piccoli dettagli restano perfettamente 'a fuoco' a qualsiasi distanza.

• Il cabinet è dotato di rinforzi interni in acciaio ed incorpora su entrambi i lati binari per anelli di ancoraggio standard che ne consentono la sospensione. Sulla parte posteriore sono presenti due anelli ad incasso per regolare l'inclinazione della cassa sospesa.



- The control and connection panel of both models is fitted with: balanced XLR input; balanced XLR output (allows parallel connection of other active systems); master volume control and mid-high level control; ground-lift switch; mains Neutrik PowerCon® connector guaranteeing a reliable vibration-proof contact.
- *Il pannello controlli e connessioni di entrambi i modelli dispone di: ingresso XLR bilanciato; uscita XLR bilanciata (consente il collegamento in parallelo di più sistemi); controlli di volume generale e volume medio-alti; selettore ground-lift; presa di alimentazione con connettore Neutrik PowerCon® che garantisce un contatto affidabile anche in presenza di forti vibrazioni.*

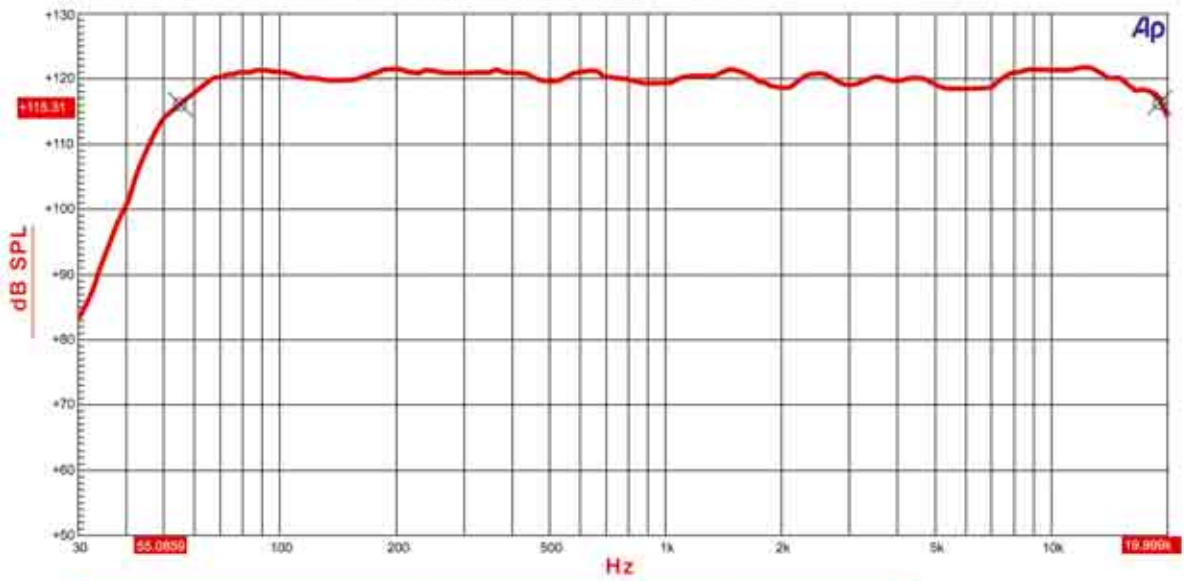


- In applications requiring an extension of the low frequency response, W24A and W28A combine perfectly with the Montarbo biamped active subwoofer 218SA with built-in stereo electronic cross-over.

- *Nelle applicazioni che richiedono un ulteriore rinforzo della gamma grave l'abbinamento ottimale è con il subwoofer attivo biamplificato Montarbo 218SA, con crossover elettronico stereo incorporato.*

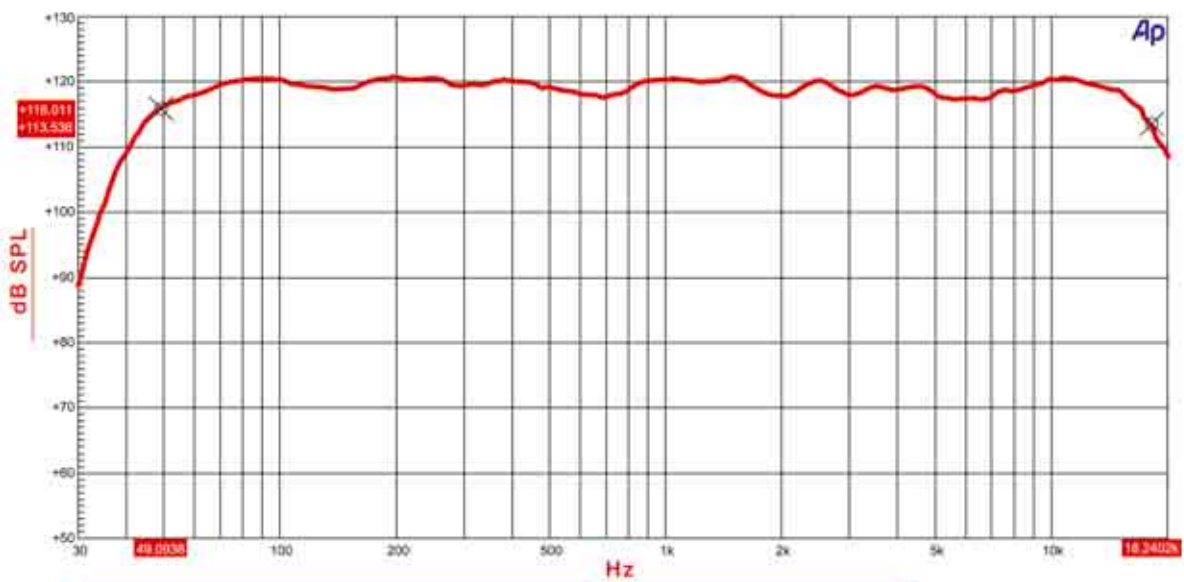


W24A on axis frequency response at 1,8 meters, HF control set at -2dB



Data	Cursor 1	Cursor 2
DSP Anlr.Level AI Smooth	+115,076 dB	+115,310 dB A2

W28A on axis frequency response at 2 meters, HF control set at -2dB



Data	Cursor 1	Cursor 2
DSP Anlr.Level AI Smooth	+116,011 dB	+113,536 dB A2

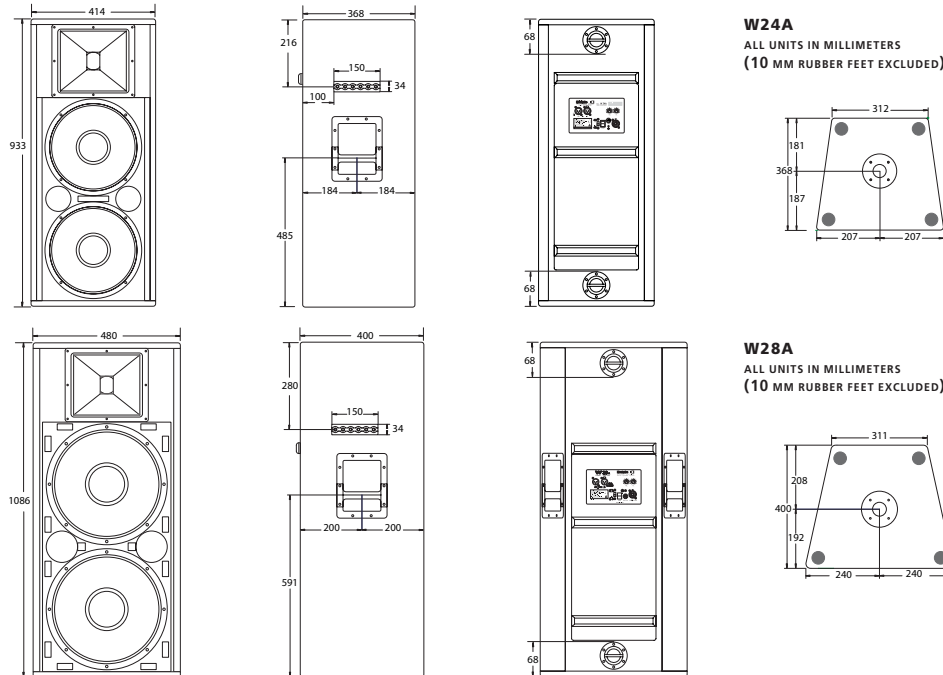
Specifications

W24A

W28A

• Enclosure	2-way bass reflex	2-way bass reflex
Components:	custom designed	custom designed
- bass	2 x 12" neodymium magnet, high efficiency B&C woofers (3" voice coil)	2 x 15" neodymium magnet, high efficiency B&C woofers (3" voice coil)
- mid/high	2" neodymium driver (B&C), with titanium diaphragm and 3" voice coil constant directivity horn (60°H x 40V°)	2" neodymium driver (B&C), with titanium diaphragm and 4" voice coil constant directivity horn (60°H x 40V°)
Impedance	4 ohm (bass) / 8 ohm (mid/high)	4 ohm (bass) / 8 ohm (mid/high)
Frequency response:	50Hz ÷ 20kHz	45Hz ÷ 20kHz
- bass	50Hz ÷ 1000Hz	45Hz ÷ 900Hz
- mid/high	1000Hz ÷ 20kHz	900Hz ÷ 20kHz
Sensitivity:	103 dB SPL @ 1W/1m on axis	106 dB SPL @ 1W/1m on axis
Max. SPL:	134 dB	137 dB
• Active electronic x-over	24dB/oct Linkwitz-Riley filter	24dB/oct Linkwitz-Riley filter
Crossover frequency:	1000Hz	900Hz
• Built-in amplifiers:	2 class AB, MosFet amplifiers 2 independent dynamic processors thermostatically controlled low turbulence fan	2 class AB, MosFet amplifiers 2 independent dynamic processors thermostatically controlled low turbulence fan
Max. output power:	1050 W continuous / 1450 W peak	1200 W continuous / 1550 W peak
- bass	800 W continuous (4 ohms / 0.1% THD) 1100 W peak	900 W continuous (4 ohms / 0.1% THD) 1200 W peak
- mid/high	250 W continuous (8 ohms / 0.1% THD) 350 W peak	300 W continuous (8 ohms / 0.1% THD) 350 W peak
Frequency response:	35Hz ÷ 25kHz +0/-1dB	35Hz ÷ 25kHz +0/-1dB
Input impedance:	10kOhms (balanced)	10kOhms (balanced)
Input sensitivity:	0dB (775mV)	0dB (775mV)
Noise referred to input:	-108dB (A weighted)	-108dB (A weighted)
• Connections:	Balanced 3-pin XLR (male + female) wired in parallel Neutrik PowerCon®	Balanced 3-pin XLR (male + female) wired in parallel Neutrik PowerCon®
• Dimensions:	W 41,4 x H 94,3 x D 36,8 cm	W 48 x H 109,6 x D 40 cm
• Weight:	46 kg	50,5 kg

Both models come supplied with: 10-meter screened signal cable (XLR- XLR); Neutrik PowerCon® connector



Elettronica Montarbo srl
40057 Cadriano Granarolo Emilia Bologna (Italy)
phone: +39 051 766437 fax: +39 051 765226
e-mail: mail@montarbo.com internet: www.montarbo.com

Designed and manufactured in Italy by:

Montarbo



The contents of this publication are ©2005 by Elettronica Montarbo srl. Data, text and pictorial material may not be reproduced in any manner without prior written permission of Elettronica Montarbo srl. All rights reserved. Printed in Italy. The information contained in this data sheet has been carefully drawn up and checked, however no responsibilities will be assumed for any inexactitude. Specifications and features are subject to change without prior notice. The trademarks Neutrik Combo® and Power Con® are property of Neutrik.

- **Common construction features:**
 - high grade phenyl-glued birch multiply;
 - 2-component, antiscratch, polyurethane paint;
 - powder coated 1,5 mm steel protection grille;
 - side carrying handles;
 - internal steel braces;
 - industry standard fly-track suspension system;
 - recessed rings for tilt adjustment of the suspended enclosure;
 - stand adaptor.