

The 24S-D loudspeaker



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The 24S-D is a high performance full range 2-way passive loudspeaker housing two 12" drivers in a bass-reflex enclosure with a 1.4" exit compression driver mounted onto a large rotatable CD horn, intended for a wide range of permanently installed applications. The 24S-D is the wider horizontal dispersion option of the 24S loudspeaker. The dipolar arrangement of the 12" drivers results in directivity control down to approximately 500 Hz in the same plane as the dipole. The specially designed ports with optimized flow characteristics and a large cabinet volume provide a significant low frequency reproduction.

With a frequency response extending from 55 Hz to 18 kHz, the 24S-D can be used as a stand-alone, full range system, or supplemented with d&b subwoofers. It can be ground stacked, flown individually, or flown in a cluster. The rotatable HF horn can be rotated by 90° to enable horizontal orientation.

The loudspeaker cabinet is constructed from marine plywood, and has an impact resistant paint finish. The front of the loudspeaker cabinet is protected by a rigid metal grill. The top, bottom and both side panels each incorporate a pair of M10 threaded inserts for attaching d&b rigging hardware. The loudspeakers are Ball Impact Resistant according to DIN 18032-3 for sports and multipurpose halls. The Weather Resistant option enables the operation of loudspeakers in changing ambient conditions, and features a fixed cable. The 24S-D can also be supplied in any RAL colour. This Special Colour option can be provided for rigging accessories.

d&b amplifiers

The d&b audiotechnik loudspeaker range is designed exclusively for operation with d&b amplifiers. These provide power as well as comprehensive control and protection functions tailored to achieve the performance, reliability and longevity associated with the d&b System approach.

The installation specific d&b 30D amplifier is recommended to drive the 24S-D. The d&b D80 and D20 amplifiers can also be used with the appropriate loudspeaker configuration selected.

System data

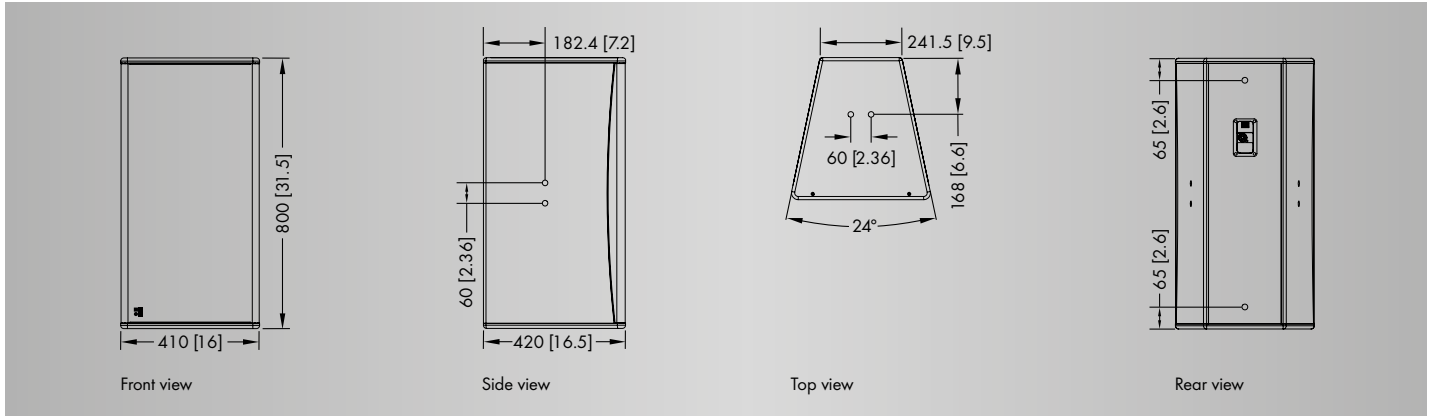
Frequency response (-5 dB standard)	55 Hz - 18 kHz
Frequency response (-5 dB CUT mode)	90 Hz - 18 kHz
Max. sound pressure (1 m, free field) ¹	
with D20/30D	137 dB
with D80	137 dB

Loudspeaker data

Nominal impedance	4 ohms
Power handling capacity (RMS/peak 10 msec)	500/2000 W
Nominal dispersion angle	110° x 45° rotatable
Components	2 x 12" driver with neodymium magnet
.....	1.4" exit compression driver
.....	Passive crossover network
Connections	1 x NL4
.....	1 x screw terminal block
.....	31.5 x 16 x 16.5"
Weight	33 kg (73 lb)

¹ Broadband measurement, pink noise, crest factor 4, peak measurement, linear weighting

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24S-D cabinet dimensions in mm [inch]

Features and benefits

- Installation specific high performance point source loudspeaker
- Compact and powerful performance in a single box
- 2-way passive design with 2 x 12" LF drivers and a 1.4" exit HF driver on a rotatable CD horn
- Extended LF performance from large cabinet volume
- Dipolar arrangement of the LF drivers provide increased constant directivity control down to lower frequencies in the same plane as the dipole
- Extended frequency response allows use as stand-alone, full range system
- Unobtrusive cabinet design ensures visual integration within any permanent installation

Applications

- Music and live program reinforcement for permanent installations
- Live performance venues
- Night clubs
- Houses of Worship
- Sporting venues
- Multipurpose suites

Architectural specifications

The 2-way dipolar, passive loudspeaker shall consist of two 12" low frequency drivers with a neodymium magnet assembly and one 1.4" exit neodymium compression driver mounted to a rotatable CD horn and a passive crossover network.

The loudspeaker shall only be operated by a dedicated, compatible controller amplifier.

The cabinet enclosure shall be made from marine plywood with an impact resistant black paint finish.

Special colours according to RAL table and a weather resistant option shall be available upon request.

The drivers shall be protected by a rigid metal grill backed by an acoustically transparent foam.

The cabinet shall incorporate two M10 threaded inserts on the top, bottom, side and rear panels for the secure attachment of dedicated mounting brackets.

The connection panel on the back shall be recessed and fitted with one speakon NL4 M socket and a two pole screw terminal block.

A cover plate for protection of the connection panel shall be included.

The HF horn shall have a nominal dispersion of $110^\circ \times 45^\circ$ (h x v).

The power handling capacity shall be 500 W RMS and 2000 W peak (10 ms). The frequency response (-5 dB) measured on axis shall be 55 Hz to 18 kHz with a maximum sound pressure of at least 137 dB.

The dimensions (W x H x D) shall not exceed 410 x 800 x 420 mm (16" x 31.5" x 16.5") and shall weigh no more than 33 kg (73 lb).

The loudspeaker shall be the 24S-D by d&b audiotechnik GmbH & Co. KG.