

The CCL12 loudspeaker



The CCL12 is a compact cardioid line array loudspeaker for small to medium-scale sound reinforcement. When the CCL Flying frame is used, up to 24 cabinets can be flown in vertical columns producing an 120° constant directivity dispersion pattern in the horizontal plane.

The cabinet is a 2-way passive design housing 2 x 7" neodymium forward LF drivers, 2 x 5" neodymium side firing LF drivers and two 1.75" HF compression drivers mounted to a dedicated wave shaping device. The cylindrical wave segments of each cabinet couple without gaps and sum up coherently. Splay angles between adjacent cabinets can be set in the range from 0° to 14° in 1° increments.

All components are arranged symmetrically around the center axis of the cabinet to produce a perfect symmetrical dispersion pattern. This setup allows for a crossover design with a well defined overlap of adjacent frequency bands resulting in a very consistent and accurate horizontal dispersion.

Due to the arrangement of the forward and sideward LF drivers in combination with their processing functions, the directivity is maintained across the entire operating bandwidth.

The frequency response extends from 60 Hz to above 18 kHz.

The cabinet enclosure is injection molded (ABS Polycarbonate) and has an impact and weather protected 2K finish. The front baffle as well as the side and rear ports of the cabinet incorporate a rigid metal grill backed by an acoustically transparent and water repellent fabric. Each side panel incorporates a handle while two additional support handles are provided at the rear.

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 d&b D40 amplifier is recommended to drive the CCL12 loudspeaker with the appropriate loudspeaker setup selected.

The d&b D90, D80 and D20 as well as the 30Da mplier can also be used.

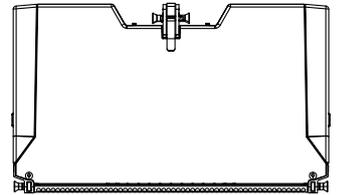
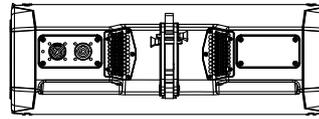
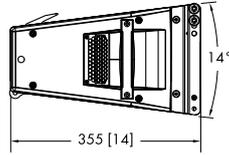
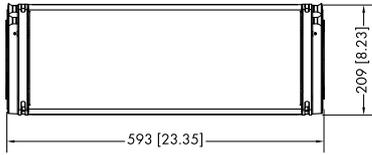
Sytem data

Frequency response (-5 dB standard)	60 Hz - 18 kHz
Frequency response (-5 dB CUT mode)	90 Hz - 18 kHz
Frequency response (-10 dB standard, IEC60268)	55 Hz - 18 kHz
Frequency response (-10 dB CUT mode, IEC60268)	80 Hz - 18 kHz
Max. sound pressure (1 m, free field)
With D20/D40/D80/D90/30D	136 dB
..... (SPLmax: Broadband signal IEC60268)

Loudspeaker data

Nominal impedance	10 ohms
Power handling capacity(RMS/peak 10 ms)
.....	400/1200 W
Nominal horizontal dispersion angle	120°
Splay angle setting	0 ... 14° (1° increment)
Components	2 x 7" front LF driver
.....	2 x 5" side LF driver
.....	Two 10.2 x 63 mm exit HF compression drivers with 1.75" coil
.....	Passive crossover network
Connections	NLT4 F/M
Pin assignment	1+/1-
Weight	17.6 kg (38.8 lb)

The CCL12 loudspeaker



CCL12 cabinet dimensions in mm [inch]

Applications

- Small and medium scale sound reinforcement applications
- Concert halls
- Houses of Worship
- Theaters
- Clubs and live music venues

Features and benefits

- Constant directivity behavior over the entire operating range using cardioid techniques in the lower range
- Exceptional broadband headroom
- Requires only one amplifier channel
- ArrayProcessing optimizes the level and tonal balance over the complete audience listening area
- For short arrays where ArrayProcessing is not required, two loudspeakers can be linked and driven in the Line/Arc mode
- Efficient cabling system and amplifier rack assemblies
- Effective transport solutions

Architectural specifications

The loudspeaker system shall be a bipolar 2-way design with passive crossover network consisting of two forward 7" LF neodymium drivers in a vented enclosure radiating to the front, two sideward 5" LF neodymium drivers and two coaxially mounted 10.2 x 63 mm exit HF compression drivers with 1.75" voicecoils, coupled to a waveshaping device. The loudspeaker shall only be operated by a dedicated, compatible controller amplifier.

The loudspeaker shall produce a cylindrical wave segment suitable for use as an element in a line array and maintain an extremely accurate horizontal dispersion pattern of 120° over its entire operating bandwidth. The enclosure shall be injection molded (ABS polycarbonate) with an impact resistant and weather protecting 2K finish. The cabinet front baffle as well as and side and rear ports shall be protected by a rigid, perforated steel grill backed with acoustically transparent and water repellent fabric. Each side panel shall incorporate a handle while two additional support handles shall be provided on the rear.

The cabinet shall incorporate a three point rigging system for the assembly of vertical line source arrays of up to 24 cabinets in connection with a dedicated flying frame.

The power handling shall be 400/1200 W (RMS/peak 10 ms). The frequency response (-5 dB) measured on axis shall extend from 60 Hz - 18 kHz with maximum sound pressure level (SPL_{max peak/1 m}) of at least 136 dB. The horizontal dispersion shall be 120°, while the vertical splay angle shall be adjustable in a range of 0° - 14° in 1° increments. The connection panel on the back shall be recessed and fitted with speakON NLT4 F/M sockets.

The dimensions (W x H x D) shall not exceed 593 x 209 x 355 mm (23.35" x 8.23" x 14") and shall weigh no more than 17.6 kg (38.8 lb).

The loudspeaker shall be the CCL12 by:
d&b audiotechnik GmbH & Co. KG.