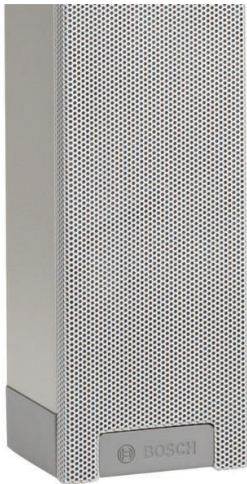


LBC3200/00 Line array loudspeaker, 30W



This loudspeaker, with its good directivity, can handle small and medium indoor environments such as congress venues, meeting rooms, showrooms and canteens. The full frequency range of the LBC 3200/00 makes it ideal for speech as well as music reproduction. Its exceptionally narrow housing (only 8 cm wide) makes it extremely unobtrusive.

System overview

A wall bracket for mounting the line array onto walls and pillars is included with the loudspeaker. It is fully adjustable in two perpendicular planes for accurate positioning. For temporary installations, the LBC 3200/00 can be mounted on an LBC 1259/01 floor stand with an M10 threaded bolt without additional accessories.

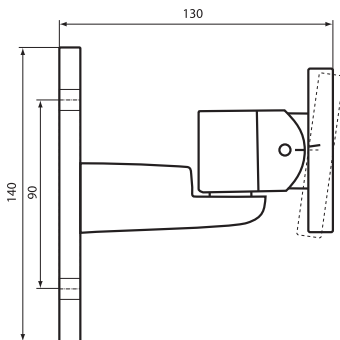


Fig. 1: Dimensions in mm of included mounting bracket (with marked angle).

- ▶ Extended listening area
- ▶ Excellent intelligibility of speech and music
- ▶ Uniform distribution of natural sound throughout the room
- ▶ Ideal combination of advanced acoustics and easy application
- ▶ EN 54-24 certified



Fig. 2: Detail mounting bracket

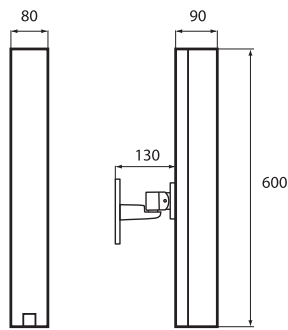


Fig. 3: Dimensions in mm



Fig. 4: Mounted on optional loudspeaker stand (LBC 1259/01)

A three-way, ceramic terminal block with screw connections suitable for loop-through wiring is located in a compartment at the base of the loudspeaker. There is also a switch, which allows the selection of nominal full power (30 W), half power (15 W), or quarter power (7.5 W). The compartment has knockout slots for cables.

Functions

Range of Application

The LBC 3200/00 is part of the XLA 3200 (eXtended Listening Area) range of line array loudspeakers. The positioning of the loudspeaker drivers has resulted in greatly improved audio directivity. The specially developed high quality drivers enable reproduction of remarkably clear, natural sound, giving excellent intelligibility of both speech and music. Greater coverage is achieved, so more people can be reached with perceptually perfect sound. All this makes this small line array loudspeaker very suitable for use in small to medium sized applications.

Easy Installation

The positioning of the drivers in the array generates larger vertical opening angles for high frequencies, reducing the narrow 'beaming' of higher tones. As an example, the vertical opening angle is still 18° at 4 kHz. Having larger vertical opening angles makes installation easier, as the positioning of the loudspeakers is easier because they cover a wider area. An extremely wide horizontal opening angle of 130° at 4 kHz means that a single loudspeaker can provide natural sound reproduction over an extensive listening area.

Suppressed Side Lobes

All conventional column loudspeakers produce a main lobe of sound, which is directed at listeners, and a number of unwanted side lobes. The LBC 3200/00 has highly suppressed side lobes in the vertical plane, typically at least 8 dB of suppression from the 500 Hz octave band at 90°. This provides a much clearer, less colored sound, and greatly reduces the possibilities for acoustic feedback.

Sound Reproduction

The positioning and very high quality of the 2 inch drivers contribute significantly in making the LBC 3200/00 a very efficient line array. With a sound pressure level of 106 dB at 1 m, at 30 W, loud and clear sound reproduction is possible even at a significant distance from the loudspeaker.

The high-quality loudspeaker drivers used in the LBC 3200/00 give excellent, natural sound reproduction of frequencies ranging from 190 Hz to 18 kHz. This ensures that all important frequencies for superb speech intelligibility are heard in the listening area.

Emergency Compliant

The loudspeakers ceramic terminal block, thermal fuse and heat-resistant, high-temperature wiring ensures that, in the event of a fire, damage to the loudspeaker does not result in failure of the circuit to which it is connected. This maintains system integrity, ensuring that loudspeakers within the same loudspeaker zone in other areas can still be used to inform people of the situation.

Regulatory information

Quality assurance

All Bosch loudspeakers are designed to withstand operating at their rated power for 100 hours in accordance with IEC 60268-5 Power Handling Capacity (PHC) standards. Bosch has also developed the Simulated Acoustical Feedback Exposure (SAFE) test to demonstrate that they can withstand two times their rated power for short durations. This ensures improved reliability under extreme conditions, leading to higher customer satisfaction, longer operating life, and lessens the chance of failure or performance deterioration.

Safety	according to IEC/EN 62368-1
Emergency	according to EN 54-24 according to BS 5839-8
Impact	according to EN 50102, IK 07
Water and dust protection	according to IEC/EN 60529, IP21C

Installation/configuration notes

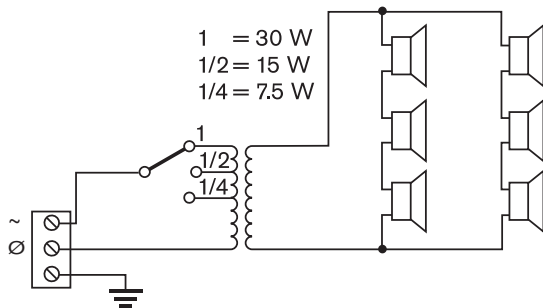


Fig. 5: Circuit diagram

Parts included

Quantity	Component
1	LBC 3200/00 Line array indoor loudspeaker
1	Wall mounting bracket

Technical specifications

Electrical*

Maximum power (W)	45 W
Rated power (W)	30 W
Transformer taps (W)	15 W; 7.5 W; 30 W

Sensitivity (1 W, 1 m, 1 kHz octave) (dB)	91 dB
Sensitivity (1 W, 4 m, 100 Hz - 10 kHz) (dB), acc. EN54-24	76 dB
Sound pressure level (rated power, 1 m, 1 kHz octave) (dB)	106 dB
Sound pressure level (rated power, 4 m, 100 Hz - 10 kHz) (dB), acc. EN54-24	91 dB
Frequency range (-10 dB) (Hz)	190 Hz – 18,000 Hz
Coverage angle HxV (-6 dB, 500 Hz) (°)	360° x 120°
Coverage angle HxV (-6 dB, 1 kHz) (°)	220° x 70°
Coverage angle HxV (-6 dB, 2 kHz) (°)	190° x 32°
Coverage angle HxV (-6 dB, 4 kHz) (°)	130° x 18°
Rated impedance 100 V line (Ω)	333 Ω @30 W
	667 Ω @15 W
	1333 Ω @7.5 W

*Technical performance data acc. to IEC 60268-5

Note:

- The specification data was measured in an anechoic chamber, free-field.
- The reference plane is on the grille surface and perpendicular to the reference axis.
- The reference axis is perpendicular to the acoustic center point of the front grille surface.
- The horizontal plane contains the reference axis and is perpendicular to the reference plane.

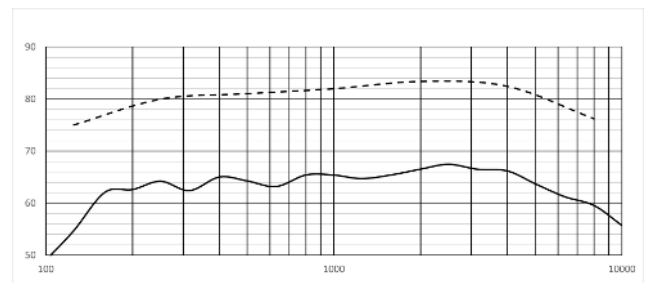


Fig. 6: Frequency response graph (— (1/3)rd octave dB SPL @1 W(100 Hz – 10 kHz), 4 m; -- (1/1)th octave dB SPL @1 W(100 Hz – 10 kHz), 1 m)

(1/3) rd octave band	dB SPL at 4 m
100	49

(1/3) rd octave band	dB SPL at 4 m
125	54.7
160	62.1
200	62.6
250	64.2
315	62.4
400	65
500	64.3
630	63.2
800	65.4
1000	65.4
1250	64.7
1600	65.5
2000	66.5
2500	67.5
3150	66.5
4000	66.2
5000	63.7
6300	61.3
8000	59.5
10000	55.7

(1/1) th octave band	dB SPL at 1 m
125	75
250	80
500	81
1000	82
2000	83.4
4000	82.5
8000	76.2

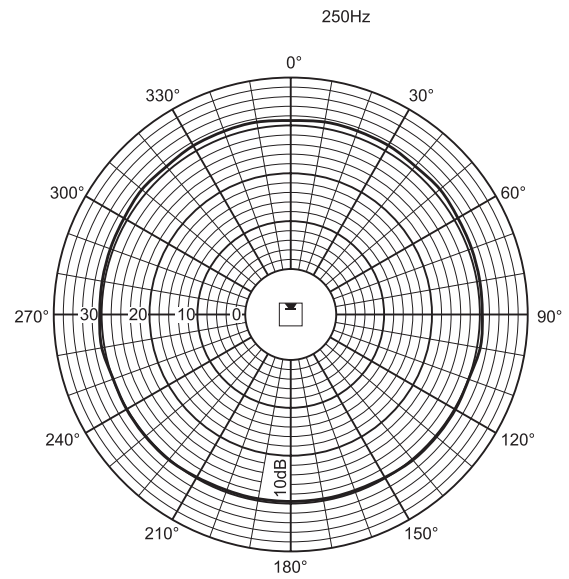


Fig. 7: Polar diagram horizontal 250 Hz

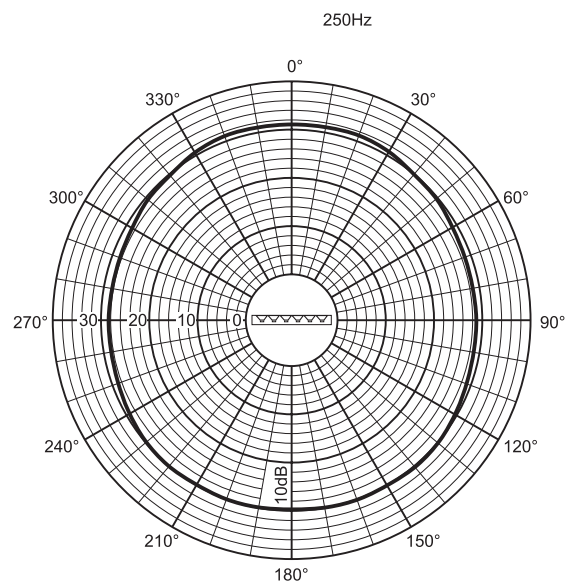


Fig. 8: Polar diagram vertical 250 Hz

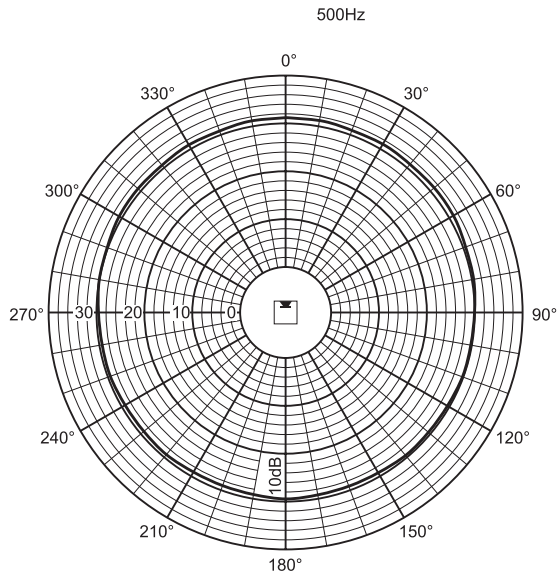


Fig. 9: Polar diagram horizontal 500 Hz

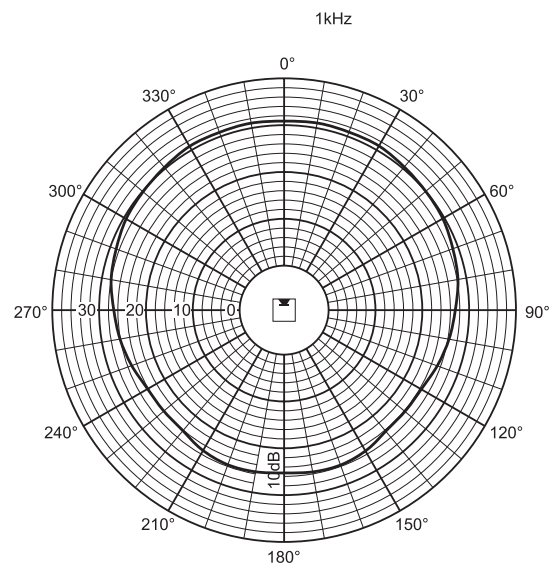


Fig. 11: Polar diagram horizontal 1 kHz

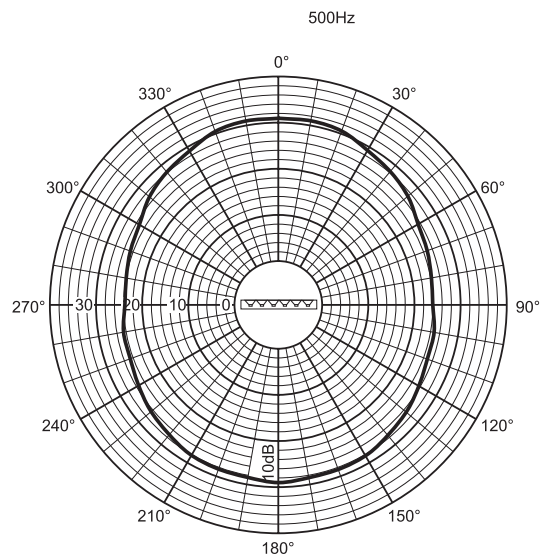


Fig. 10: Polar diagram vertical 500 Hz

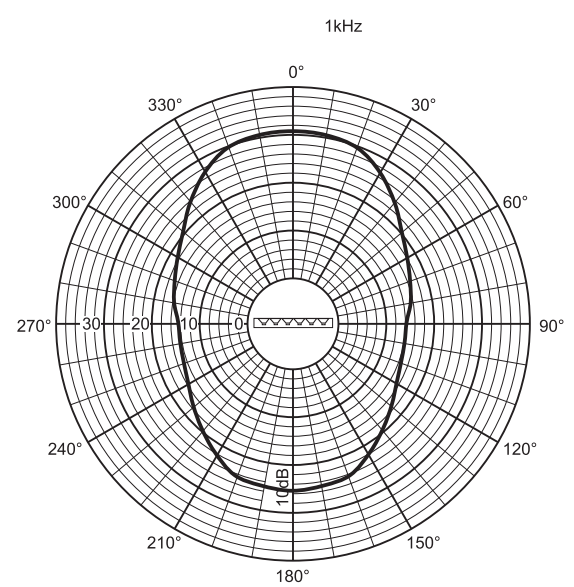


Fig. 12: Polar diagram vertical 1 kHz

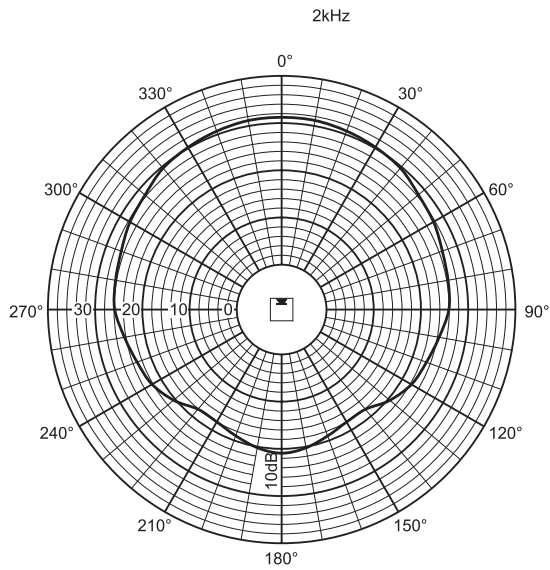


Fig. 13: Polar diagram horizontal 2 kHz

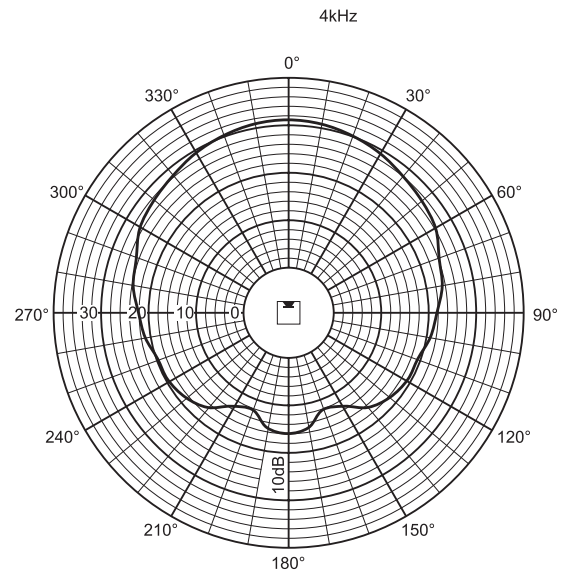


Fig. 15: Polar diagram horizontal 4 kHz

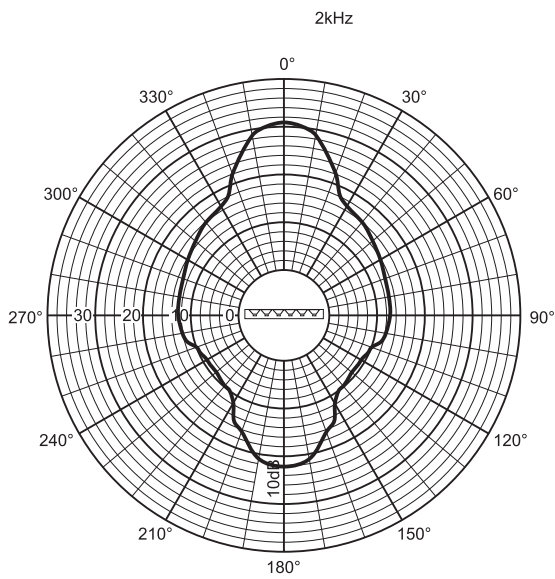


Fig. 14: Polar diagram vertical 2 kHz

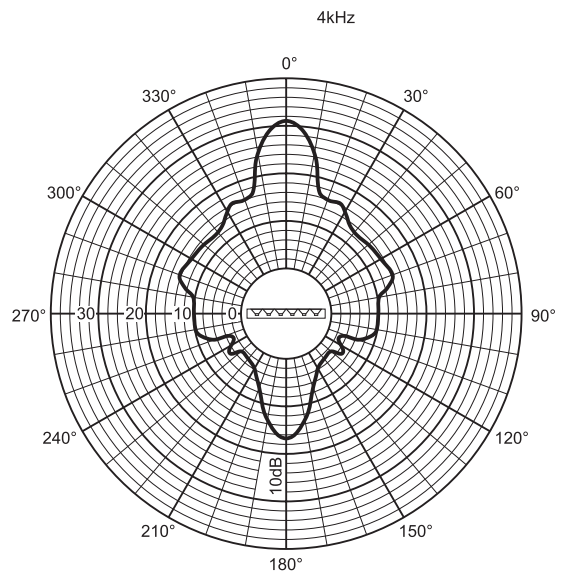


Fig. 16: Polar diagram vertical 4 kHz

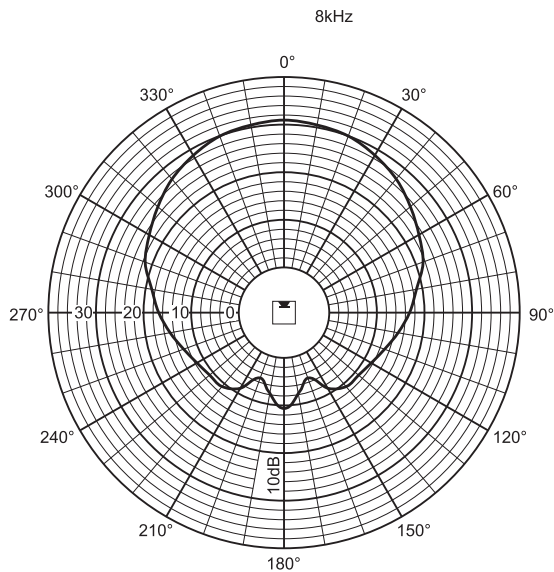


Fig. 17: Polar diagram horizontal 8 kHz

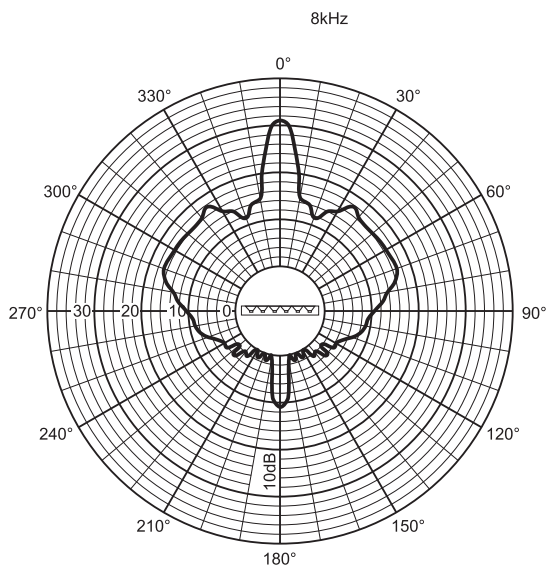


Fig. 18: Polar diagram vertical 8 kHz


Mechanical

Dimensions (H x W x D) (mm)	600 mm x 80 mm x 90 mm
Dimensions (H x W x D) (in)	23.62 in x 3.15 in x 3.54 in
Weight (kg)	3 kg

Weight (lb)	6.60 lb
Color (RAL)	RAL 9022 Pearl light gray
Connector type	Screw terminal block

Environmental

Operating temperature (°C)	-25 °C – 55 °C
Operating temperature (°F)	-13 °F – 131 °F
Storage temperature (°C)	-40 °C – 70 °C
Storage temperature (°F)	-40 °F – 158 °F
Transportation temperature (°C)	-40 °C – 70 °C
Transportation temperature (°F)	-40 °F – 158 °F
Operating relative humidity, non-condensing (%)	<95%

 1438
Bosch Security Systems BV Torenallee 49, 5617 BA Eindhoven, the Netherlands 12 1438-CPR-0254
EN 54-24:2008 Loudspeaker for voice alarm systems for fire detection and fire alarm systems for buildings Line Array 30 W LBC3200/00 Type A DoP: LP052913

Ordering information

LBC3200/00 Line array loudspeaker, 30W
 Line array loudspeaker for small and medium indoor environments, 30 W, extended listening area, aluminum extruded enclosure, EN54-24 certified, light gray, swivel wall-mounting bracket included.
 Order number **LBC3200/00 | F.01U.505.999**

Accessories
LBC1259/01 Universal floorstand
 Universal floor stand lightweight aluminum construction, foldable, M10 x 12 reducer flange.
 Order number **LBC1259/01 | F.01U.162.979**



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