

LBC3087/41 Ceiling loudspeaker

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Invented for life



- Suitable for speech and music reproduction
- Screw mounting
- Simple power setting
- EN 54-24 certified

Voice alarm loudspeakers are specifically designed for use in buildings where performance of systems for verbal evacuation announcements is governed by regulations. The LBC 3087/41 is designed for use in voice alarm systems and is compliant with British standard BS 5839-8.

Functions

The LBC 3087/41 is an economic flush-mounting ceiling loudspeaker for general-purpose applications. It is a full-range loudspeaker for speech and music reproduction in shops, department stores, schools, offices, sports halls, hotels and restaurants.

The LBC 3087/41 has a single-piece, 6 W, dual-cone loudspeaker. A 100 V matching transformer is mounted on the back of the frame. The circular metal grille is an integrated part of the front, and is finished in an unobtrusive white color (RAL 9010)

The loudspeaker has built-in protection to ensure that, in the event of a fire, damage to the loudspeaker does not result in failure of the circuit to which it is connected. In this way, system integrity is maintained, ensuring loudspeakers in other areas can still be used to inform people of the situation. The loudspeaker has ceramic terminal blocks, thermal fuse and heat-

resistant, high-temperature wiring. It can also be fitted with an optional fire-dome to increase protection of the cable termination.

Certifications and approvals

All Bosch loudspeakers are designed to withstand operating at their rated power for 100 hours in accordance with IEC 268-5 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 extra reliability under extreme conditions, leading to higher customer satisfaction, longer operating life, and much less chance of failure or performance deterioration.

Safety	acc. to EN 60065
Emergency	acc. to BS 5839-8 / EN 60849 / EN 54-24*
Ball-proof	acc. to DIN VDE 0710 part 13
* Water and dust protection	acc. to EN 60529-IP32

**Notice**

* Only in combination with the LBC 3080/01 Fire Dome

Region	Certification
Europe	CE
	CE DOP
	CPD
Poland	CNBOP
	CNBOP

Installation/configuration notes

Installation

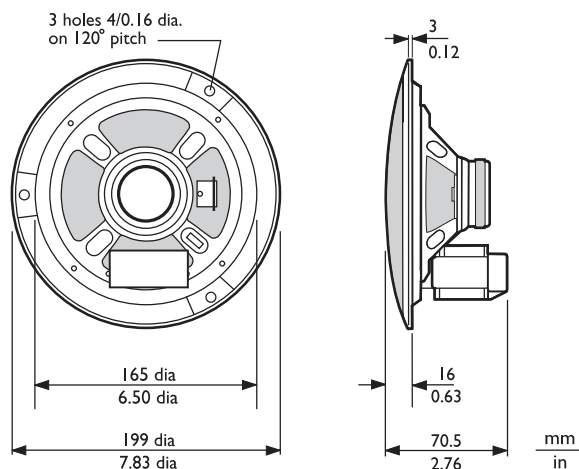
The assembly is quickly installed into a hole in the ceiling cavity and secured with three white-colored screws (supplied). A circular template for marking a 165 mm (6.5 in) diameter hole is included with the loudspeaker.

Terminal Block

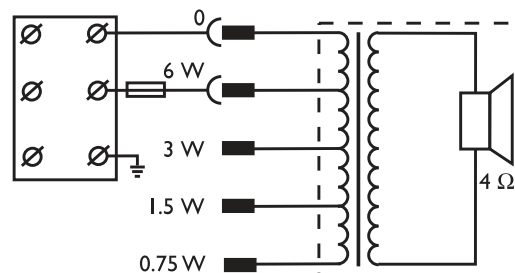
The unit has a three-way terminal block with screw connections suitable for loop-through wiring. Four primary taps are provided on the matching transformer to allow selection of nominal full-power, half-power, quarter-power or eighth power radiation (i.e. in 3 dB steps).

Fire dome

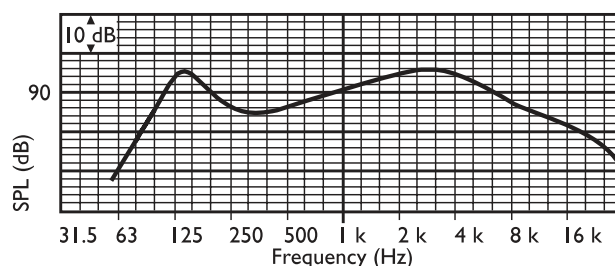
During a fire, the ceiling cavity in which loudspeakers are installed can allow flames to spread throughout a building. To prevent fire entering the cavity via the loudspeaker, the ceiling loudspeaker can be fitted with a protective steel fire dome (LBC 3080/01). This optional fire dome is mounted on the loudspeaker assembly using four self-tapping screws, supplied as standard. There are four knock-out holes; two (2) for rubber grommets (supplied) and two (2) for cable glands. (PG13).



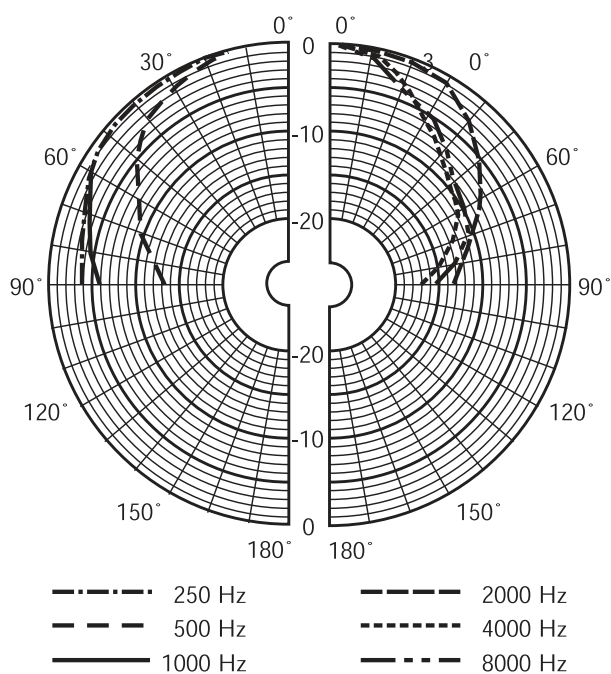
Dimensions in mm (in)



Circuit diagram



Frequency response



Polar diagram (measured with pink noise)

	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
SPL 1.1	94	91	86	89	94	94	86
SPL max.	102	99	94	97	102	102	94

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Q-factor	3	4.7	2.3	4.5	6.6	11	17
Efficiency	1.1	0.4	0.2	0.22	0.48	0.3	0.03
H. angle	170	150	180	160	100	65	55
V. angle	170	150	180	160	100	65	55

Acoustical performance specified per octave

Parts included

Quantity	Component
1	LBC 3087/41 Ceiling Loudspeaker
3	White colored screws
1	165 mm circular template

Technical specifications

Electrical*

Maximum power	9 W	
Rated power	6 / 3 / 1.5 / 0.75 W	
Sound pressure level at 6 W / 1 W (1 kHz, 1 m)	97 dB / 89 dB (SPL)	
Sound pressure level at 6 W / 1 W (1 kHz, 4 m)	85 dB / 79 dB (SPL)	
Effective frequency range (-10 dB)	80 Hz to 18 kHz	
Opening angle at 1 kHz / 4 kHz (-6 dB)	160° / 65°	
Rated voltage		100 V
Rated impedance	6 W	1667 Ohm
	3 W	3333 Ohm
	1.5 W	6667 Ohm
	0.75 W	13333 Ohm
Connector	3-pole screw terminal block	

* Technical performance data acc. to IEC 60268-5

Mechanical

Diameter	199 mm (7.8 in)
Maximum depth	70.5 mm (2.8 in)
Mounting cut-out	165 + 5 mm (6.5 + 0.20 in)
Speaker diameter	152.4 mm (6 in)
Weight	720 g (1.6 lb)

Color	White (RAL 9010)
Magnet weight	80 g (2.8 oz)

Environmental

Operating temperature	-25 to +55 °C (-13 °F to +131 °F)
Storage and transport temperature	-40 to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Note:

- The specification data is measured in an anechoic chamber, on a standard baffle
- The reference axis is perpendicular to the center point of the front grille
- The reference plane is perpendicular to the center of the reference axis
- The horizontal plane is perpendicular to the center of the reference plane

 1438
Bosch Security Systems BV Torenallee 49, 5617 BA Eindhoven, the Netherlands 13 1438/CPD/0335
EN 54-24:2008 Loudspeaker for voice alarm systems for fire detection and fire alarm systems for buildings Ceiling Loudspeaker 6 W and accessories LBC3087/41 and LBC3080/01 Type A DoP: LP052915

CE-label

Ordering information

Ceiling loudspeaker

Ceiling loudspeaker, 6 W, integrated circular metal grille, screw mounted with 3 white screws (included), white RAL 9010.

Order number **LBC3087/41**

Accessories

METAL FIRE DOME

Metal fire dome for the LBC 3087/41, LBC 3090/01, LBC 3090/31, LHM 0606/00, LHM 0606/10, and LHM 0626/00 ceiling loudspeakers, EN54-24 certified, flame red RAL 3000.

Order number **LBC3080/01**

METAL FIRE DOME (WHITE)

Metal fire dome for LBC 3087/41, LBC 3090/01, LBC 3090/31, LHM 0606/00, LHM 0606/10 and LHM 0626/00 ceiling loudspeakers, white RAL 9010.

Order number **LBC3080/11**

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