



LBC 3087/41 Ceiling Loudspeaker



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 BS5839 part 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

- ▶ Suitable for speech and music reproduction
- ▶ Increased sensitivity
- ▶ Flush-mounted in ceilings
- ▶ Screw mounting
- ▶ Simple power setting
- ▶ Optional certified fire dome
- ▶ Unobtrusive white metal grille
- ▶ Ball-proof
- ▶ Complies with international installation and safety regulations
- ▶ BS5839 part 8 compliant

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 | EN 60065 |
| EVAC compliant acc. to | BS5839 part 8 |

Installation/Configuration Notes

Installation

The assembly is quickly installed into a hole in the ceiling cavity and secured with three white-colored screws (supplied).

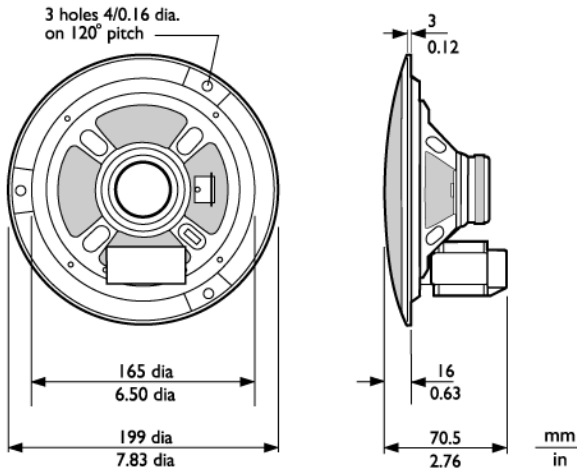
A circular template for marking a 165 mm (6.5 in) diameter hole is included with the loudspeaker.

Terminal Block

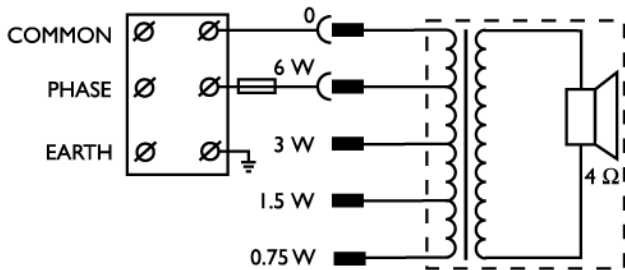
The unit has a three-way terminal block with screw connections suitable for loop-through wiring. Four primary taps are provided on the matching transformer to allow selection of nominal full-power, half-power, quarter-power or eighth power radiation (i.e. in 3 dB steps).

Fire dome

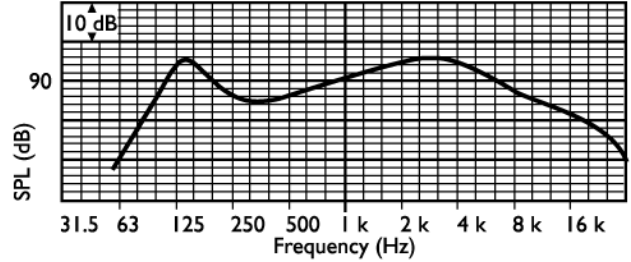
During a fire, the ceiling cavity in which loudspeakers are installed can allow flames to spread throughout a building. To prevent fire entering the caving via the loudspeaker, the ceiling loudspeaker can be fitted with a protective steel fire dome (LBC 3080/01). This optional fire dome is mounted on 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).



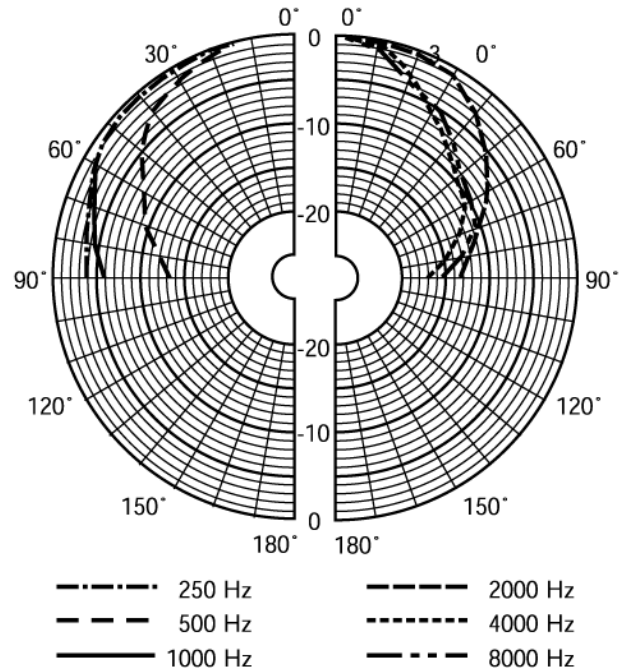
Dimensions



Circuit diagram



Frequency response



Polar diagram (measured with pink noise)

| Octave band (Hz) | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
|------------------|-----|-----|-----|------|------|-----|------|
| SPL 1.1 | 94 | 91 | 86 | 89 | 94 | 94 | 86 |
| SPL max. | 102 | 99 | 94 | 97 | 102 | 102 | 94 |
| 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 |
| Hor. angle | 170 | 150 | 180 | 160 | 100 | 65 | 55 |
| Vert. angle | 170 | 150 | 180 | 160 | 100 | 65 | 55 |

Quick reference table

Parts Included

| Quantity | Component |
|----------|---------------------------------|
| 1 | LBC 3087/41 Ceiling Loudspeaker |
| 3 | White Colored Screws |
| 1 | 165 mm Circular Template |

Technical Specifications

Electrical*

| | |
|--|-------------------------------------|
| Max. Power | 9 W |
| Rated Power (PHC) | 6 W (6 - 3 - 1.5 - 0,75 W) |
| Sound Pressure Level at 6 W/1 W (at 1 kHz, 1 m) | 97 dB / 89 dB (SPL) |
| Effective Frequency Range | 80 Hz to 18 kHz(-10 dB) |
| Opening Angle | 160° / 65° (at 1 kHz/ 4 kHz, -6 dB) |
| Rated Voltage | 100 V |
| Rated Impedance | 1667 ohm |
| Speaker Size | 152.4 mm (6 in) |
| Magnet Weight | 2.8 oz |

Mechanical

| | |
|-----------------------------------|---------------------------------|
| Connection | 3-pole screw connector |
| Dimensions (dia x max. depth). | 199 x 70.5 mm (7.8 x 2.8 in) |
| Mounting Cut-Out Dia. | 165+5 mm (6.5+0.20 in) |
| Color | White (RAL 9010) |
| Weight | 720 g (1.6 lb) |

Environmental

Ambient Temperature -25°C to +55 °C (-13°F to 131°F)

*) Technical performance data acc. to IEC 60268-5

Ordering Information

Model | Description

LBC 3087/41 Ceiling Loudspeaker

Hardware Accessories

LBC 3080/01 Fire Dome

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