Bosch loudspeakers offer a combination of quality, performance and innovation in public address. They are the result of over half a century’s experience in professional audio, and meet virtually all sound reinforcement system requirements.

**Functions**

A flush-mounting ceiling loudspeaker is available for general purpose applications. This full-range loudspeaker offers a high sound pressure level and a wide frequency range, and is suitable for both speech and music reproduction in shops, department stores, schools, offices, sports halls, hotels and restaurants. The loudspeaker assembly consists of a single-piece, 6 W dual-cone loudspeaker and frame, with a 100 V matching transformer mounted on the back. A circular metal grille is integrated with the front. The appearance and neutral white colour have been selected to be unobtrusive in virtually all interiors. A dust cover protects the rear.

**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.

<table>
<thead>
<tr>
<th>Region</th>
<th>Regulatory compliance/quality marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>CE DECL EC LBC3090_31</td>
</tr>
</tbody>
</table>

- Suitable for speech and music reproduction
- Increased sensitivity
- Flush-mounting in ceiling cavity
- Easy to install
- Simple power setting
Installation/configuration notes

Installation
The assembly can be simply and quickly installed into a hole in the ceiling cavity and secured by two integral spring-loaded ceiling locking clamps (for ceilings and wall boards from 9 to 25 mm thick). A circular template for marking a 172 mm (6.7 in) diameter hole is included with the loudspeaker.

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

LBC3080/01 Fire Dome
During a fire, the ceiling cavity can allow fire or smoke to spread throughout a building. To inhibit fire entering the cavity via the ceiling loudspeaker, it can be fitted with an LBC3080/01 steel fire dome. This is mounted on the loudspeaker assembly using four self-tapping screws supplied with the fire dome. The fire dome has knock-out holes for two grommets (supplied) and two cable glands (PG 13).

Dimensions in mm (in)

Circuit diagram

Polar diagram (measured with pink noise)

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>125 Hz</th>
<th>250 Hz</th>
<th>500 Hz</th>
<th>1 kHz</th>
<th>2 kHz</th>
<th>4 kHz</th>
<th>8 kHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPL 1.1</td>
<td>94</td>
<td>91</td>
<td>88</td>
<td>91</td>
<td>93</td>
<td>96</td>
<td>92</td>
</tr>
<tr>
<td>SPL max.</td>
<td>102</td>
<td>99</td>
<td>96</td>
<td>99</td>
<td>101</td>
<td>104</td>
<td>100</td>
</tr>
<tr>
<td>Q-factor</td>
<td>4.8</td>
<td>5</td>
<td>3</td>
<td>3.4</td>
<td>6.3</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>Efficiency</td>
<td>0.66</td>
<td>0.32</td>
<td>0.27</td>
<td>0.47</td>
<td>0.4</td>
<td>0.28</td>
<td>0.1</td>
</tr>
<tr>
<td>H. angle</td>
<td>150</td>
<td>140</td>
<td>180</td>
<td>160</td>
<td>140</td>
<td>55</td>
<td>45</td>
</tr>
<tr>
<td>V. angle</td>
<td>150</td>
<td>140</td>
<td>180</td>
<td>160</td>
<td>140</td>
<td>55</td>
<td>45</td>
</tr>
</tbody>
</table>

Acoustical performance specified per octave

LBC3080/01 Fire Dome

Frequency response
LBC3090/31 Ceiling loudspeaker 6W metal with clamps

**Parts included**

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LBC3090/31 Ceiling Loudspeaker</td>
</tr>
<tr>
<td>1</td>
<td>172 mm circular template</td>
</tr>
</tbody>
</table>

**Technical specifications**

**Electrical**

- **Maximum power**: 9 W
- **Rated power**: 6 / 3 / 1.5 W
- **Sound pressure level at 6 W / 1 W (1 kHz, 1 m)**: 99 dB / 91 dB (SPL)
- **Sound pressure level at 6 W / 1 W (4 kHz, 1 m)**: 104 dB / 96 dB (SPL)
- **Effective frequency range (-10 dB)**: 70 Hz to 18 kHz
- **Opening angle at 1 kHz/4 kHz (-6 dB)**: 160° / 55°
- **Rated voltage**: 100 V
- **Rated impedance**: 1667 ohm
- **Connector**: 2-pole screw terminal block

* Technical performance data acc. to IEC 60268-5

**Mechanical**

- **Diameter**: 199 mm (7.8 in)
- **Maximum depth**: 89 mm (3.5 in)
- **Mounting cut-out**: 172 mm (6.5 in)

**Environmental**

- **Operating temperature**: -25 ºC to +55 ºC (-13 ºF to +131 ºF)
- **Storage and transport temperature**: -40 ºC to +70 ºC (-40 ºF to +158 ºF)
- **Relative humidity**: <95%

**LBC3080/01**

- **Diameter**: 147 mm (5.8 in)
- **Maximum depth**: 87 mm (3.4 in)
- **Weight**: 360 g (0.8 lb)
- **Color**: Flame red (RAL 3000)
- **Certified B15**: acc. to DIN 4102

**Ordering information**

LBC3090/31 Ceiling loudspeaker 6W metal with clamps

Ceiling loudspeaker, 6 W, integrated circular metal grille, two spring-loaded clamps for ceiling mounting, protective dust cover, two-way screw terminal block, white RAL 9010.

Order number **LBC3090/31**

**Accessories**

LBC1256/00 Ceramic connection adapter

Emergency connection adapter, 3-pole screw ceramic connector with a pre-mounted thermal fuse, to be installed in series with the 100 V primary connection of a loudspeaker unit, set of 100 pieces.

Order number **LBC1256/00**

LBC3080/01 Metal fire dome

Metal fire dome for the LBC3087/41, LBC3090/01, LBC3090/31, LHM0606/00, LHM0606/10, and LHM0626/00 ceiling loudspeakers, EN54-24 certified, flame red RAL 3000.

Order number **LBC3080/01**

LBC3080/11 Metal fire dome, white

Metal fire dome for LBC3087/41, LBC3090/01, LBC3090/31, LHM0606/00, LHM0606/10 and LHM0626/00 ceiling loudspeakers, white RAL 9010.

Order number **LBC3080/11**
LBC3090/31 Ceiling loudspeaker 6W metal with clamps

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