

## LC7-UM06E3-AB A/B Ceiling Loudspeaker 6 W



This A/B Ceiling loudspeaker with fire-dome has two independent 6 W loudspeaker systems and is suitable for sound systems where redundancy is requested. In normal situations, both loudspeakers are powered with the same audio signal from independent amplifiers. In case the A-line fails, the other connected loudspeaker receives the signal from line B and the other way around. In mainly small areas, A/B loudspeakers provide an economic and efficient solution compared to installing two separate ceiling loudspeakers.

### 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.

Emergency	According to EN 54-24
Safety	According to IEC/EN 62368-1
Self-extinguishing	According to UL 94 V 0
Water and dust protected	According EN 60529, IP21

- ▶ High efficiency
- ▶ Two independent loudspeaker systems in one housing
- ▶ Standard supplied with metal fire-dome
- ▶ Easy to install with safety cord
- ▶ EN 54-24 certified

### Installation/configuration notes

The assembly is quickly installed into a hole in the ceiling cavity. A separate mounting ring, secured by three integral spring-loaded ceiling locking clamps (for ceilings from 9 to 25 mm thick) holds it in place. The metal fire-dome is clicked into the mounting ring with three leaf springs, before the loudspeaker unit is inserted and held with a bayonet fitting. For extra convenience, a safety cord from the fire dome allows the installer to temporarily hang the loudspeaker unit during installation. This cord also provides reassurance after installation. The fire-dome has two cable entries at the top, covered with rubber grommets (supplied).



Fig. 1: Rear view

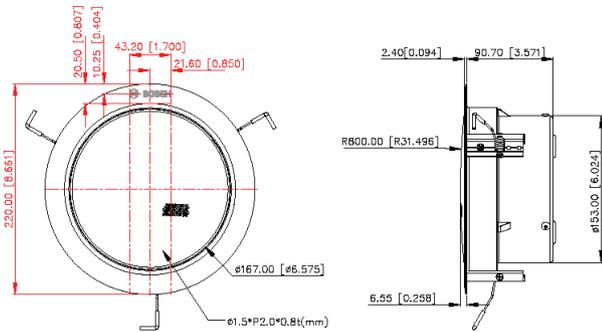


Fig. 2: Dimensions

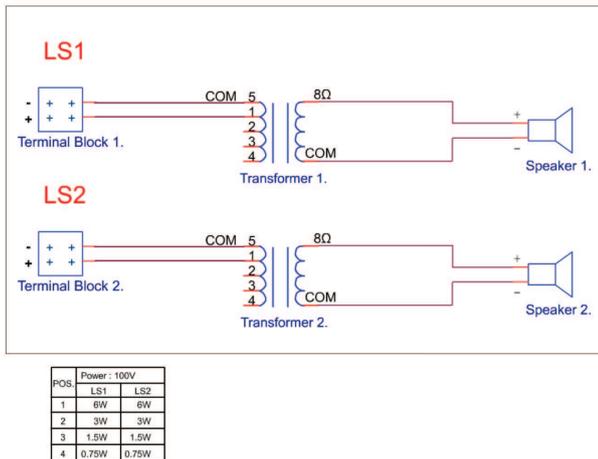


Fig. 3: Circuit diagram

**Parts included**

Quantity	Component
1	A/B Ceiling loudspeaker
1	Metal fire-dome
1	Installation instruction
1	Mounting cut-out template
2	Access restriction plugs

**Technical specifications**

**Electrical\***

Maximum power (W)	2 x 9 W
Rated power (W)	2 x 6 W
Transformer taps 100 V line (W)	0.75 W; 1.5 W; 3 W; 6 W
Sensitivity (1 W, 1 m, 1 kHz octave) (dB)	87 dB

Sensitivity (1 x 1 W, 1 m, 100 Hz - 10 kHz) (dB) acc. EN 54-24	78 dB
Sensitivity (2 x 0.5 W, 1 m, 100 Hz - 10 kHz) (dB) acc. EN 54-24	75 dB
Sound pressure level (rated power, 1 m, 1 kHz octave) (dB)	94 dB
Sound pressure level (1 x 6 W, 4 m, 100 Hz - 10 kHz) (dB) acc. EN54-24	84 dB
Sound pressure level (2 x 6 W, 4 m, 100 Hz - 10 kHz) (dB) acc. EN54-24	88 dB
Frequency range (-10 dB) (Hz)	270 Hz – 20,000 Hz
Octave band coverage angle (1 x 6 W)	
Coverage angle HxV (-6 dB, 500 Hz) (°)	180° x 180°
Coverage angle HxV (-6 dB, 1 kHz) (°)	180° x 180°
Coverage angle HxV (-6 dB, 2 kHz) (°)	170° x 180°
Coverage angle HxV (-6 dB, 4 kHz) (°)	170° x 170°
Octave band coverage angle (2 x 6 W)	
Coverage angle HxV (-6 dB, 500 Hz) (°)	180° x 180°
Coverage angle HxV (-6 dB, 1 kHz) (°)	180° x 180°
Coverage angle HxV (-6 dB, 2 kHz) (°)	170° x 100°
Coverage angle HxV (-6 dB, 4 kHz) (°)	170° x 50°
Rated impedance 100 V line (Ω)	13333 Ω @0.75 W
	6667 Ω @1.5 W
	3333 Ω @3 W
	1667 Ω @6 W
Connector	2 x 2-pole ABS screw terminal block
Acceptable wire gauge	0.5 - 4 mm <sup>2</sup>

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

**Note:**

- The specification data was measured in an anechoic chamber, mounted in an IEC-baffle.
- The reference plane is on the grille surface and perpendicular to the reference axis.

- The reference axis is perpendicular to the center point of the front grille surface.
- The horizontal plane contains the reference axis and is perpendicular to the reference plane.

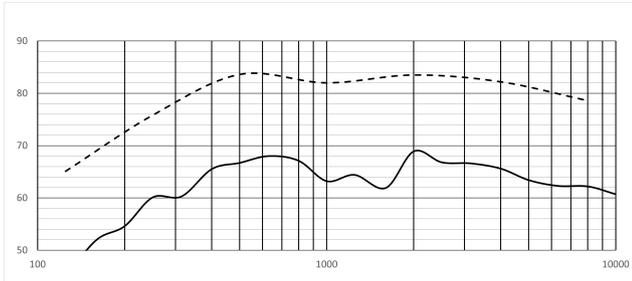


Fig. 4: Frequency response graph (— 1/3<sup>rd</sup> octave dB SPL @1 W(100 Hz – 10 kHz), 4 m; - - 1/1<sup>th</sup> octave dB SPL @1 W(100 Hz – 10 kHz), 1 m)

(1/3) <sup>rd</sup> octave band	dB SPL at 4 m
100	40.0
125	45.2
160	52.0
200	54.6
250	60.1
315	60.3
400	65.5
500	66.7
630	68.0
800	67.1
1000	63.2
1250	64.4
1600	61.9
2000	68.9
2500	66.8
3150	66.6
4000	65.6
5000	63.4
6300	62.3

(1/3) <sup>rd</sup> octave band	dB SPL at 4 m
8000	62.2
10000	60.7

(1/1) <sup>th</sup> octave band	dB SPL at 1 m
125	65.1
250	75.8
500	83.6
1000	82
2000	83.5
4000	82.2
8000	78.6

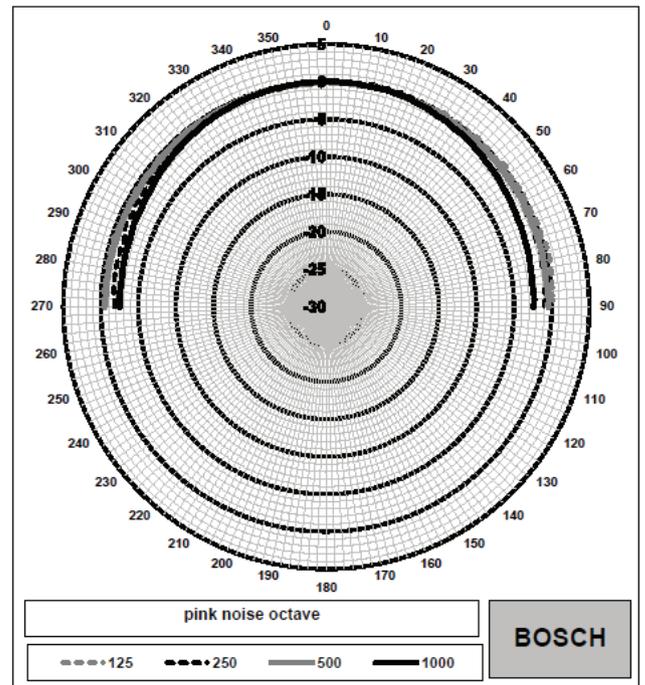


Fig. 5: Polar diagram (low frequency part)

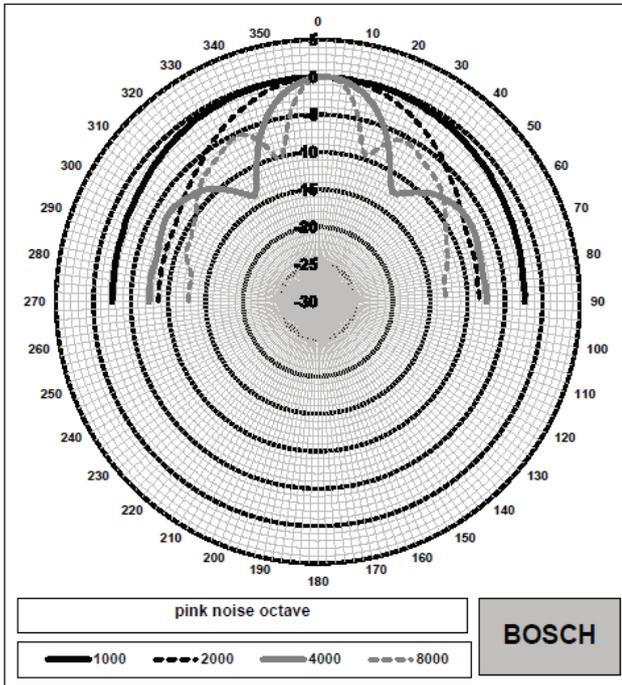


Fig. 6: Polar diagram (high frequency part)

**Mechanical**

Dimensions (Ø x D) (mm)	220 mm x 95 mm
Dimensions (Ø x D) (in)	8.66 in x 3.74 in
Weight (kg)	1.78 kg
Weight (lb)	3.92 lb
Allowable ceiling thickness	9 mm - 25 mm
Mounting cut-out	207 mm
Color (RAL) (Ceiling speaker)	RAL 9003 Signal white
Color in RAL (Fire-dome)	RAL 3000 Flame red

**Environmental**

Operating temperature (°C)	-10 °C – 55 °C
Operating temperature (°F)	14 °F – 131 °F
Storage temperature (°C)	-40 °C – 70 °C
Storage temperature (°F)	-40 °F – 158 °F

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Transportation temperature (°C)	-40 °C – 70 °C
Transportation temperature (°F)	-40 °F – 158 °F
Operating relative humidity, non-condensing (%)	0% – 95%

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Bosch Security Systems BV Torenallee 49, 5617 BA Eindhoven, the Netherlands 18 1438-CPR-0580
EN 54-24:2008  Loudspeaker for voice alarm systems for fire detection and fire alarm systems for buildings  A/B Ceiling Loudspeaker 6 W, with fire-dome LC7-UM06E3-AB Type A DoP: DECL DoP EUR EN54-24 LC7-UM06E3-AB

**Ordering information**

**LC7-UM06E3-AB A/B Ceiling Loudspeaker 6 W**  
 A/B Ceiling loudspeaker with two independent loudspeaker systems including metal fire dome  
 Order number **LC7-UM06E3-AB | F.01U.326.610**