

# LC3-UC06E Ceiling loudspeaker, 6W, spring arms

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Invented for life



- ▶ Suitable for speech and music reproduction
- ▶ Light weight ABS material
- ▶ Easy to install
- ▶ Unobtrusive design
- ▶ EN 54-24 certified

The LC3-UC06E is a general purpose, cost-effective 6 W ceiling loudspeaker, suitable for 100 V connection with power tapping of: 6, 3, 1.5 and 0.75 Watt. The optional back-box LC3-CBB fully protects the loudspeaker from dust and dripping water from above, according IP21C. The loudspeaker frame, grill and back-box are manufactured from self-extinguishing ABS according to UL 94V0.

## Certifications and approvals

### 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 BS 5839-8 According to EN 54-24
CE	Declaration of Conformity
Safety	According to EN 60065
UL compliancy	According to UL 94 V 0



### Notice

**To be compliant with EN 54-24: The loudspeaker must be installed with the back-box LC3-CBB.**

Region	Regulatory compliance/quality marks
Europe	DOP CE
Poland	CNBOP

**Installation/configuration notes**

Installation is easy with integral spring arms that securely hold the ceiling loudspeaker in its cut-out. Ceilings from 5 to 25 mm thick can be accommodated. A template is also provided for accurately marking the cut-out in ceiling panels.

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 a ceramic screw-terminal connection block, thermal fuse and heat-resistant high temperature wiring.

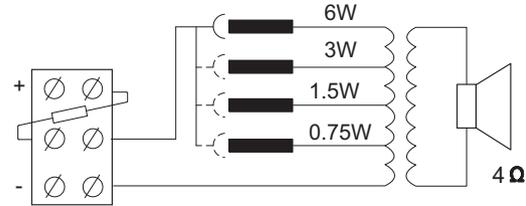
Four primary taps for 100 V are provided on the matching transformer to allow selection of nominal full-power, half-power, quarter-power and one-eighth-power.

The optional back-box (LC3-CBB) protects the rear of the loudspeaker from dust, falling objects, makes the unit vermin proof and prevents sound traveling via the ceiling cavity to adjacent areas.

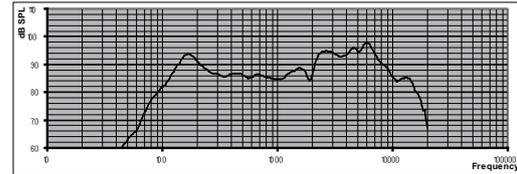
The back-box is assembled with the loudspeaker by means of a snap-in construction and has knock-out holes (11 mm) for two rubber grommets (standard supplied) and for two cable glands (20.5 mm).



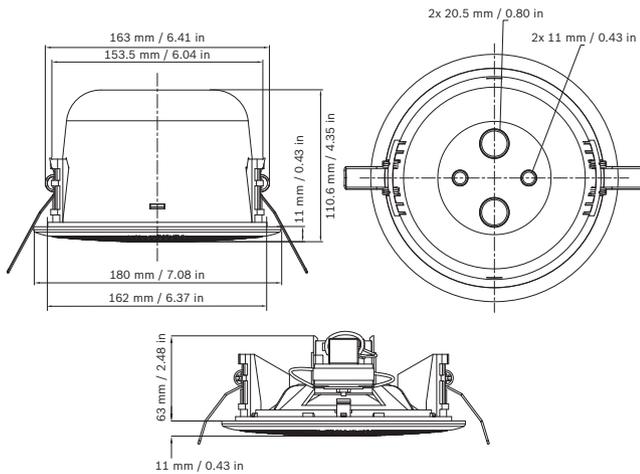
LC3-CBB



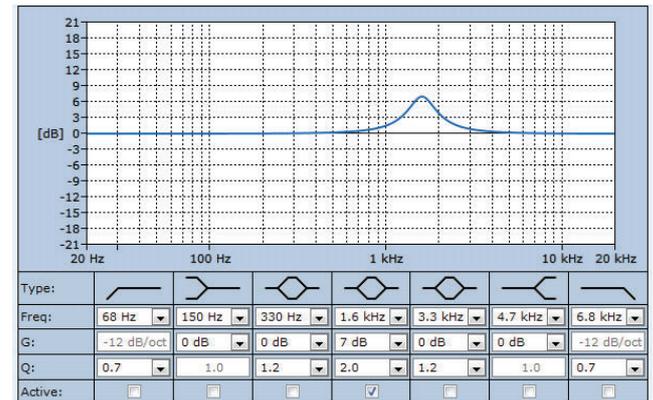
Circuit diagram LC3-UC06E



Frequency-response LC3-UC06E



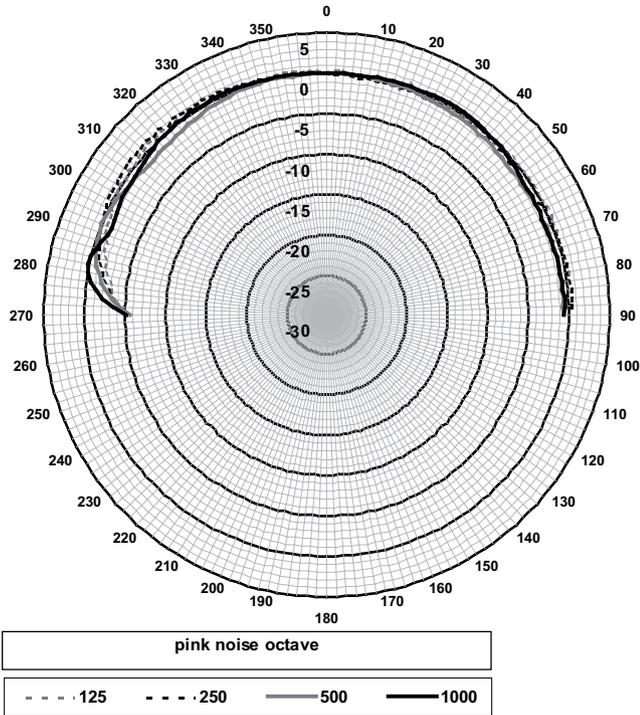
Mechanical diagram LC3-UC06E and LC3-CBB



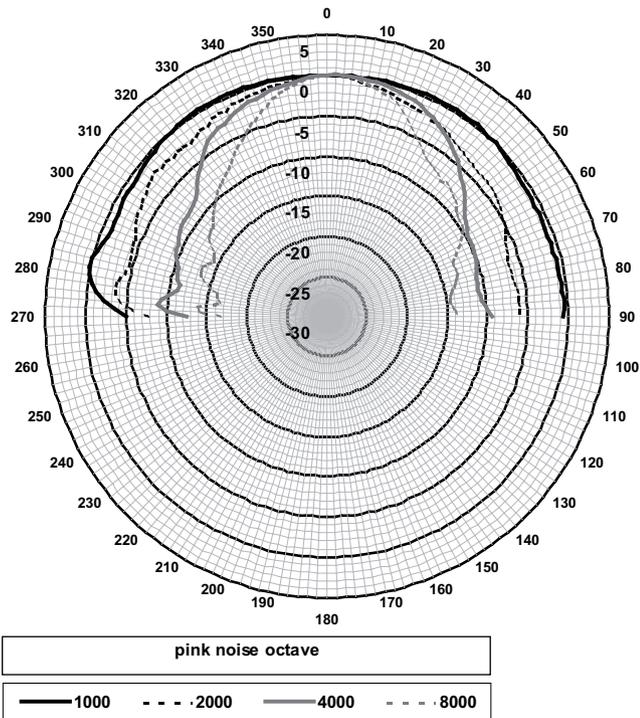
LC3-UC06E specified active equalization required for EN 54-24



LC3-UC06E and LC3-CBB



LC3-UC06E horizontal/vertical polar diagram (low frequency). Normalized at 0-degrees axis



LC3-UC06E horizontal/vertical polar diagram (high frequency). Normalized at 0-degrees axis

## Octave band sensitivity LC3-UC06E \*

	Octave SPL 1W/1m	Total octave SPL 1W/1m	Total octave SPL Pmax/1m
125 Hz	91.3	-	-
250 Hz	89.1	-	-
500 Hz	86.2	-	-
1000 Hz	85.5	-	-
2000 Hz	89.4	-	-
4000 Hz	93.2	-	-
8000 Hz	92.7	-	-
A-weighted	-	88.0	94.7
Lin-weighted	-	89.0	96.0

## Octave band opening angles LC3-UC06E

	Horizontal	Vertical
125 Hz	180	180
250 Hz	180	180
500 Hz	180	180
1000 Hz	180	180
2000 Hz	180	180
4000 Hz	85	85
8000 Hz	56	56

Acoustical performance specified per octave

\* (all measurements are done with a pink noise signal; the values are in dB SPL)

## Parts included

Quantity	Component
1	LC3-UC06 Ceiling Loudspeaker
1	Installation Instruction
1	Ceiling cut-out template

## Technical specifications

## Electrical

	LC3-UC06E
Description	Ceiling loudspeaker
Maximum power	9 W
Rated power	6 W (6/3/1.5/0.75 W)
Sound pressure level at 6 W power / 1 W	94 dB / 86 dB (SPL)

(1 kHz, 1 m)

Sound pressure level at 6 W power / 1 W (1 kHz, 4 m)	85 dB / 78 dB (SPL)	
Opening angle at 1 kHz / 4kHz (-6 dB)	180° / 85°	
Effective frequency range (-10 dB)	90 Hz to 20 kHz	
Rated voltage	100 V	
Rated impedance	6 W	1667 Ohm
	3 W	3333 Ohm
	1.5 W	6667 Ohm
	0.75 W	13333 Ohm
Electrical connection	3-pole ceramic screw terminal block	
Acceptable wire gauge	0.5 – 3 mm <sup>2</sup>	

## Mechanical

	LC3-UC06E	LC3-CBB
Description	Ceiling Loudspeaker	Back-Box
Diameter	180 mm (7.08 in)	148 mm (5.82 in)
Mounting cut-out	167 mm (6.57 in)	-
Max. ceiling thickness	5 to 25 mm (0.19 to 0.98 in)	-
Maximum depth	63 mm (2.48 in)	96.3 mm (3.79 in)
Material (frame, front grille)	ABS	ABS
Weight	538 g (1.19 lb)	110 g (0.24 lb)
Color	White (RAL 9010)	White (RAL 9010)

## Environmental

Operating temperature	-25 °C to +55 °C (-13 °F to +131 °F)
Storage and transport temperature	-40 °C 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/0336
EN 54-24:2008  Loudspeaker for voice alarm systems for fire detection and fire alarm systems for buildings  Ceiling loudspeaker LC3-UC06E with enclosure LC3-CBB Type A DoP: LP022926

**Ordering information****Ceiling loudspeaker, 6W, spring arms**

Ceiling loudspeaker 6 W, circular ABS grille and frame, ceiling mounted by 2 integral spring arms, EN54-24 certified, white RAL 9010.

Order number **LC3-UC06E**

**Accessories****Back box for LC3 speaker**

Back box for LC3 ceiling speakers, fully protects the loudspeaker from dust and dripping water, makes the unit vermin proof and prevents sound traveling via the ceiling cavity to adjacent areas, white RAL 9010.

Order number **LC3-CBB**

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