

# LC3 Ceiling Loudspeaker Range

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Invented for life



- ▶ Suitable for speech and music reproduction
- ▶ Light weight ABS material
- ▶ Easy to install
- ▶ Optional back-box
- ▶ Unobtrusive design

The LC3-UC06 is a general purpose, cost-effective 6 W ceiling loudspeaker, suitable for 100 V connection with power tapping of: 6, 3 and 1.5 Watt.

The LC3-UC06-LZ is a low impedance (4 Ohm) version ceiling loudspeaker for direct connection to a low impedance amplifier output.

The optional back-box LC3-CBB fully protects the loudspeaker from dust, falling objects and prevents sound traveling via the ceiling cavity to adjacent areas. The loudspeaker frame, grill and back-box are manufactured from self-extinguishing ABS according to UL 94V0.

## Certifications and approvals

All Bosch loudspeakers are designed to withstand operating at their rated power for 100 continuous 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 improved reliability under extreme conditions, leading to higher customer satisfaction, longer operating life, and lessens the chance of failure or performance deterioration.

CE	Declaration of Conformity
Safety	According to EN 60065

Region	Regulatory compliance/quality marks
Europe	CE

## Installation/configuration notes

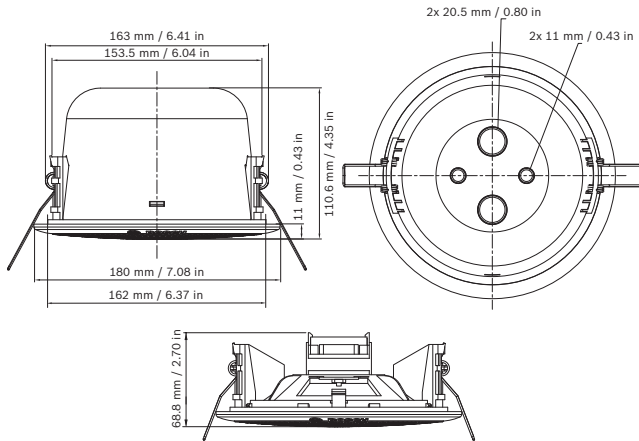
Installation is easy with integral spring arms that securely hold the ceiling loudspeaker in its cut-out. Ceilings from 5 to 25 mm thick can be accommodated. A template is also provided for accurately marking the cut-out in ceiling panels.

The electrical connection is by means of flying leads, with each color connected to a different primary tap of the matching transformer.

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



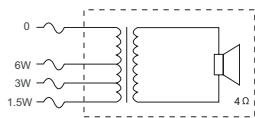
Mechanical diagram LC3-UC06 and LC3-CBB



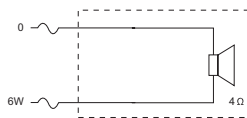
LC3-UC06 and LC3-CBB



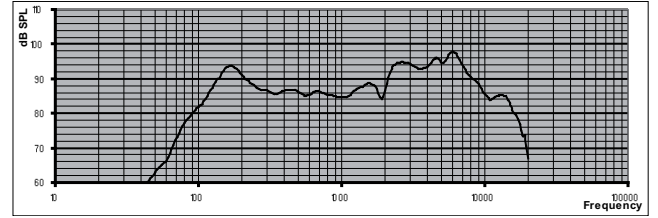
LC3-CBB



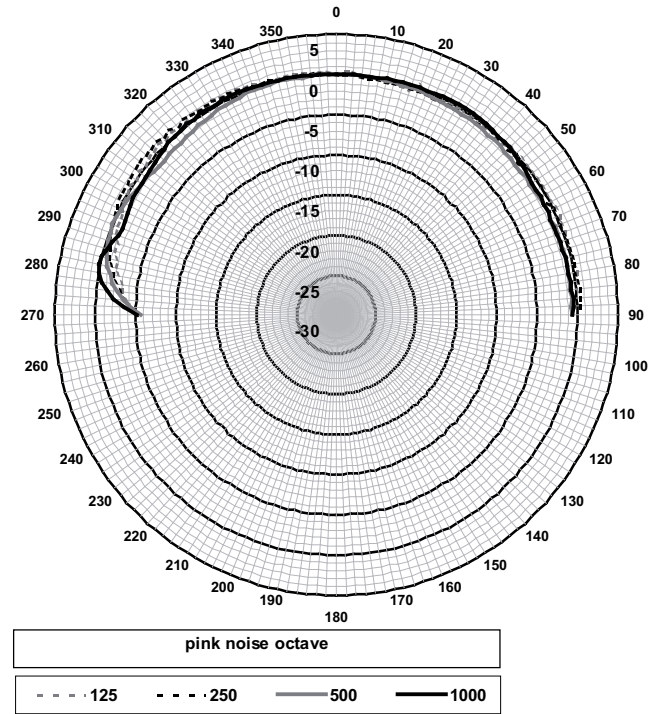
Circuit diagram LC3-UC06



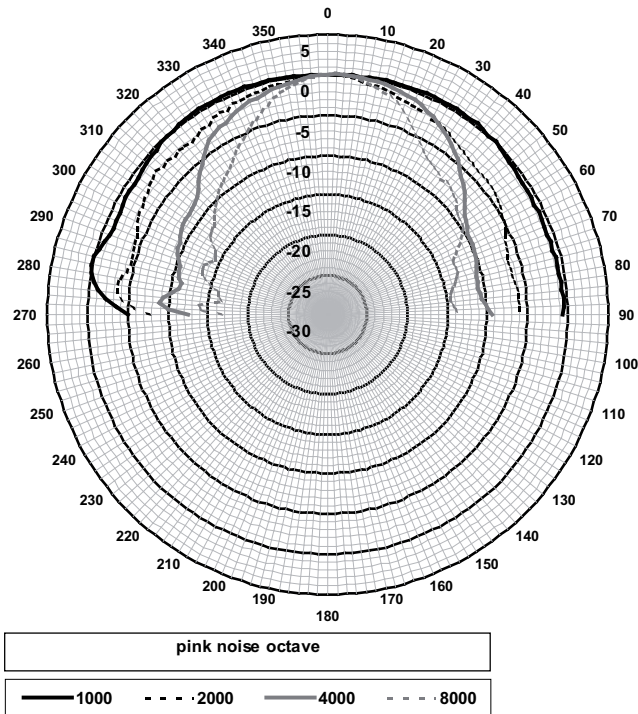
Circuit diagram LC3-UC06-LZ



Frequency response LC3-UC06



LC3-UC06 horizontal/vertical polar diagram (low frequency). Normalized at 0-degrees axis.



LC3-UC06 horizontal/vertical polar diagram (low frequency). Normalized at 0-degrees axis.

Octave band sensitivity LC3-UC06 \*

	Octave SPL 1W/1m	Total octave SPL 1W/1m	Total octave SPL Pmax/1m
125 Hz	90.7	-	-
250 Hz	89.7	-	-
500 Hz	86.3	-	-
1000 Hz	85.9	-	-
2000 Hz	91.4	-	-
4000 Hz	94.5	-	-
8000 Hz	93.4	-	-
A-weighted	-	89.1	95.9
Lin-weighted	-	89.7	96.7

Octave band opening angles LC3-UC06

	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)

### Technical specifications

#### Electrical\*

	LC3-UC06	LC3-UC06-LZ
Description	Ceiling loudspeaker	
Maximum power	9 W	9 W
Rated power	6 W (6/3/1.5 W)	6 W
Sound pressure level at 6 W power / 1 W (1 kHz, 1 m)	94 dB / 86 dB (SPL)	94 dB / 86 dB (SPL)
Sound pressure level at 6 W power / 1 W (4 kHz, 1 m)	103 dB / 95 dB (SPL)	103 dB / 95 dB (SPL)
Opening angle at 1 kHz / 4kHz (-6 dB)	180° / 85°	180° / 85°
Effective frequency range (-10 dB)	90 Hz to 20 kHz	90 Hz to 20 kHz
Rated voltage	100 V	4.9 V
Rated impedance	1667 Ohm	4 Ohm
Electrical connection	Flying leads: Length is 150 mm (5.90 in)	

\*Technical performance according to IEC 60268-5

#### Mechanical

	LC3-UC06	LC3-UC06-LZ
Description	Ceiling Loudspeaker	
Diameter	180 mm (7.08 in)	180 mm (7.08 in)
Mounting cut-out	167 mm (6.57 in)	167 mm (6.57 in)
Max. ceiling thickness	5 to 25 mm (0.19 to 0.98 in)	5 to 25 mm (0.19 to 0.98 in)
Maximum depth	59 mm (2.32 in)	59 mm (2.32 in)
Material (frame, front grille)	ABS	ABS
Weight	475 g (1.04 lb)	337 g (0.74 lb)
Color	White (RAL 9010)	White (RAL 9010)

	LC3-CBB
Description	Back-Box
Diameter	148 mm (5.82 in)
Maximum depth	96.3 mm (3.79 in)
Material	ABS
Weight	110 g (0.24 lb)
Color	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%

### Ordering information

#### Ceiling loudspeaker, 6W

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

Order number **LC3-UC06**

#### Ceiling loudspeaker, 6W, 4Ω

Ceiling loudspeaker 6 W, low impedance (4 ohm) version, circular ABS grille and frame, ceiling mounted by 2 integral spring arms, white RAL 9010.

Order number **LC3-UC06-LZ**

### 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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