

Loudspeakers

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LB1-UM06E-1 Metal Cabinet Loudspeaker



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Features

- ▶ Suitable for speech and music reproduction
- ▶ Robust metal enclosure
- ▶ Surface and/or recessed mounting
- ▶ Provision for internal mounting of the optional line/loudspeaker supervision boards
- ▶ Recommended for voice evacuation systems
- ▶ Compliant with international installation and safety regulations
- ▶ EN 54-24 certified
- ▶ BS 5839-8 and EN 60849 compliant

The LB1-UM06E-1 circular metal cabinet emergency loudspeaker delivers professional performance from a robust, yet aesthetically designed metal enclosure. It is an ideal loudspeaker for indoor use in offices, schools, car parks, shopping centers, and in areas where vandalism is a potential hazard.

Functions

Voice alarm

Voice alarm loudspeakers are specifically designed for use in buildings, where the performance of PA systems is subject to official regulations. The LB1-UM06E-1 is designed for voice alarm systems, and is compliant with British Standard BS 5839-8 and EN 60849.

Protection

The loudspeaker has built-in protection to ensure that in the event of a fire damage does not cause failure of the connected circuit. In this way, system integrity is maintained; ensuring loudspeakers in other areas can still be used to inform people of the situation.

Connections and safety

The loudspeaker has a ceramic terminal block, thermal fuse, and heat-resistant, high-temperature wiring. The cabinet has a provision for internally mounting the optional line/loudspeaker supervision board.

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 the speakers can withstand two times their rated power for short durations. This ensures extra reliability under extreme conditions, leading to greater customer satisfaction, longer operating life, and much less chance of failure or performance deterioration.

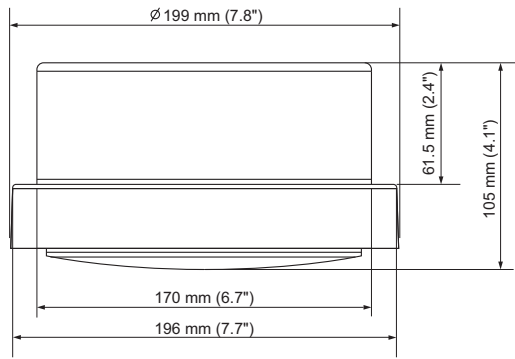
Region	Certification
Europe	CE
Poland	CNBOP
Safety	according to EN 60065
Emergency	according to BS 5839-8
	according to EN 60849
	according to EN 54-24
Water and dust protection	according to EN60529 IP32

Installation/Configuration Notes

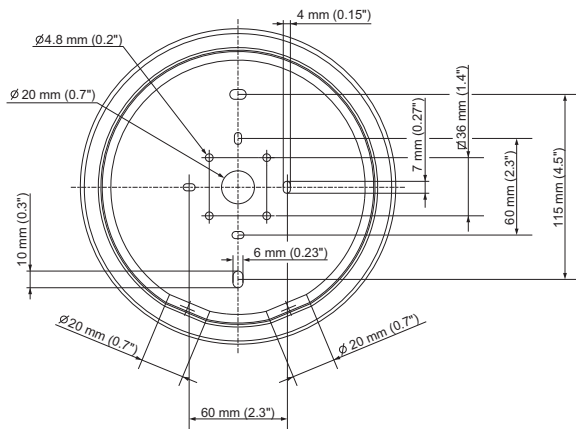
The cabinet is designed for both surface and recessed mounting on walls. The back box provides a selection of mounting holes, even for mounting on U40 and MK installation boxes. The back box has two knockout holes on the top side for two cable glands (not included) for loop-through connection. For extra installation convenience, a safety cord from the back box lets the installer temporarily hang the front grille unit during installation.

The cabinet has a three-way terminal block with screw connections suitable for loop-through wiring (including earth).

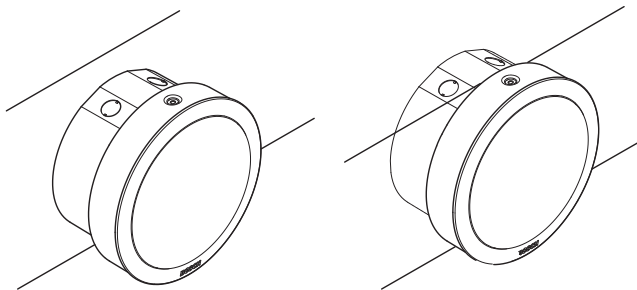
Four primary taps on the matching transformer allow selection of nominal full-power, half-power, quarter-power or eighth power radiation (in 3 dB steps).



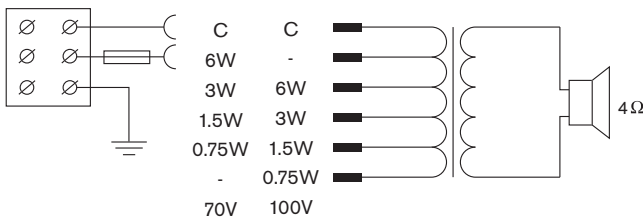
Dimensions in mm (in)



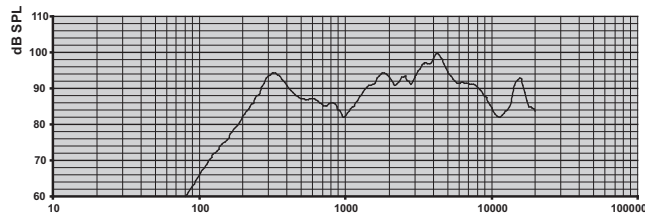
Rear / Installation dimensions in mm (in)



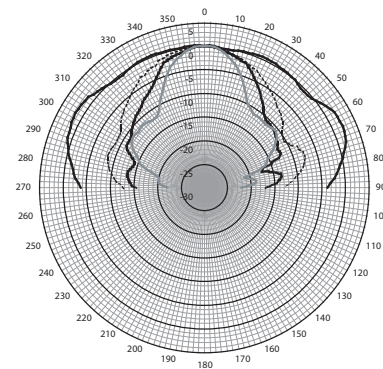
Surface mounted (left) and recessed mounted (right)



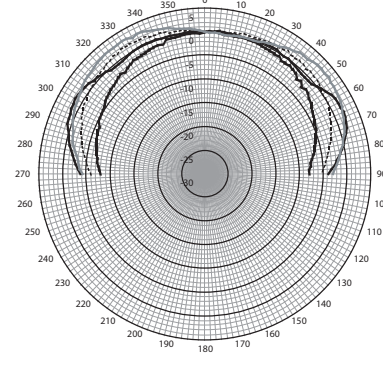
Circuit diagram



Frequency response



— 1000 - - - 2000 — 4000 — 8000



— 125 - - - 250 — 500 — 1000

Polar diagrams (measured with pink noise)

Octave band sensitivity*

	Octave SPL 1W/m	Total octave SPL 1W/m	Total octave SPL Pmax/m
125 Hz	73.3	-	-
250 Hz	90.4	-	-
500 Hz	89.0	-	-
1000 Hz	86.0	-	-
2000 Hz	92.4	-	-
4000 Hz	96.6	-	-
8000 Hz	89.9	-	-
A-weighted	-	89.9	96.8
Lin-weighted	-	90.1	96.0

Octave band opening angles

	Horizontal	Vertical
125 Hz	180	180
250 Hz	180	180
500 Hz	180	180
1000 Hz	180	180
2000 Hz	80	80
4000 Hz	56	56
8000 Hz	40	40

Acoustical performance specified per octave

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

188 | Loudspeakers | Cabinet**Parts Included**

Quantity	Components
1	LB1-UM06E-1
1	Installation instruction

Technical Specifications**Electrical***

Maximum power	9 W
Rated power (PHC)	6 W
Power tapping	6 / 3 / 1.5 / 0.75 W
Sound pressure level at 6 W / 1 W (1 kHz, 1 m)	94 / 86 dB (SPL)
Sound pressure level at 6 W / 1 W (4 kHz, 1 m)	105 / 97 dB (SPL)
Effective frequency range (-10 dB)	160 Hz to 20 kHz
Opening angle at 1 kHz / 4 kHz (-6 dB)	180° / 56°
Rated input voltage	70/100 V
Rated impedance	835/1667 ohm
Connector	3-pole screw block

* Technical performance data acc. to IEC 60268-5

Mechanical

Dimensions (W x D)	199 x 105 mm (7.8 x 4.1 in)
Weight	1.23 kg (2.71 lb)
Color	White (RAL 9010)
Material (back box and grille)	Steel
Speaker size	152.4 mm (6 in)
Magnet weight	53 g (1.9 oz)

Environmental

Operating temperature	-25 °C to +55 °C (-13 °F to +131 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Ordering Information

LB1-UM06E-1 Metal Cabinet Loudspeaker **LB1-UM06E-1**
6 W

LBC 3011/x1 Panel Loudspeakers



Features

- ▶ High-quality speech and music reproduction
- ▶ Two-way system
- ▶ Simple power setting
- ▶ Flush-mounting in walls, ceilings, or furniture
- ▶ Surface-mounting and flush mounting boxes
- ▶ Available with or without integral volume control
- ▶ Compliance with international installation and safety regulations
- ▶ BS 5839-8 compliant

The Bosch panel loudspeakers and matching mounting boxes are ideal for built-in sound installations in shops, department stores, schools, offices, hotels and restaurants. They are manufactured and finished to the same exacting standards as all Bosch public address systems and components, guaranteeing high quality, and compatibility throughout the range.

Functions

The 9 W (max. power) panel is equipped with a woofer and tweeter, enabling excellent quality speech and music reproduction. They are available with or without an integral volume control (LBC 3011/51 and LBC 3011/41, respectively). Nominal output power can be preset to full, half, or quarter-power radiation (in 3 dB steps) by connecting the 100 V line to the appropriate primary taps on the matching transformer via a 3-pole screw connector.

The off-white (RAL 9010) panels are injection-molded from self-extinguishing, high-impact ABS material (according to UL 94V0). They are finished with an attractive perforated metal grill.

The panel loudspeakers flush-mount into rectangular cutouts in cavity walls, ceilings, furniture or custom-made cabinets. The panels have provision on the rear side for mounting an optional line/loudspeaker supervision board.

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 terminal block, thermal fuse, and heat-resistant, high-temperature wiring.

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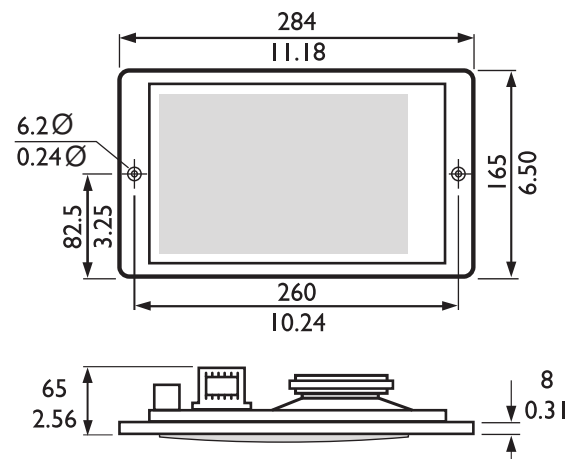
Certifications and Approvals

Voice alarm loudspeakers are specifically designed for use in buildings, where performance of systems for verbal evacuation announcements is governed by regulations. The LBC 3011/x1 is designed for use in voice alarm systems.

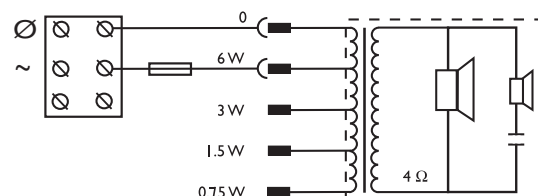
Safety	acc. to EN 60065
Emergency	acc. to BS 5839-8
Self-extinguishing	acc. to UL 94 V0

Installation/Configuration Notes

LBC 3011/41



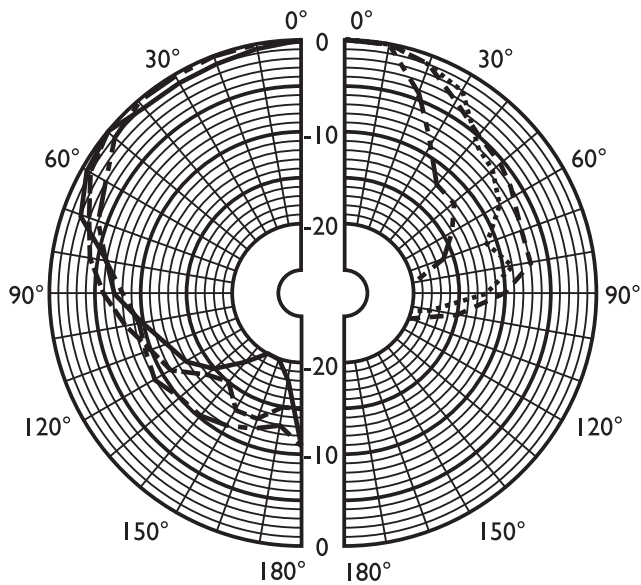
Dimensions in mm (in)



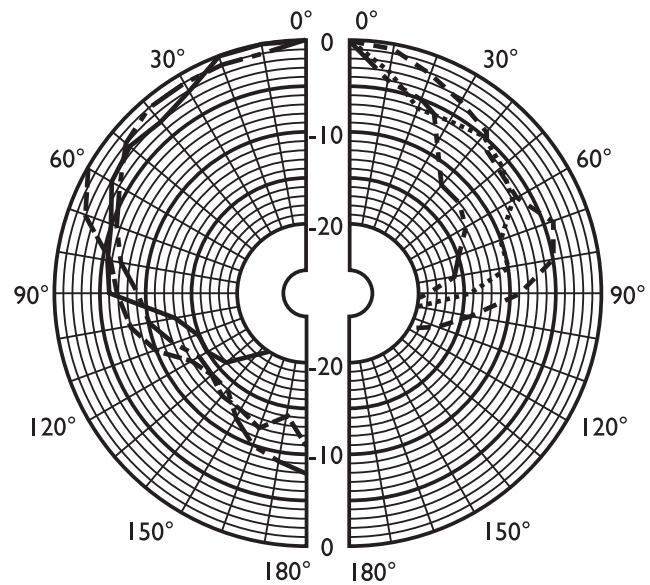
Circuit diagram

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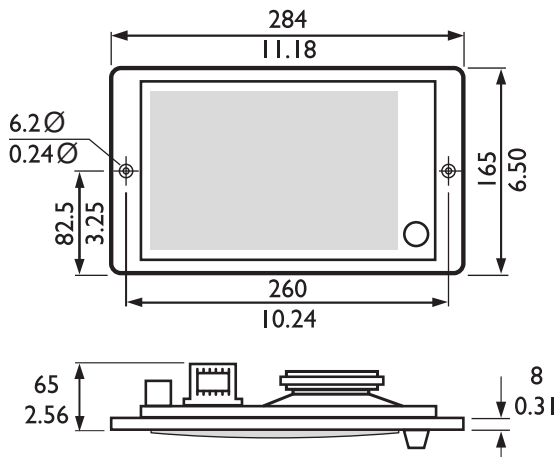


Polar diagram horizontal (measured with pink noise)

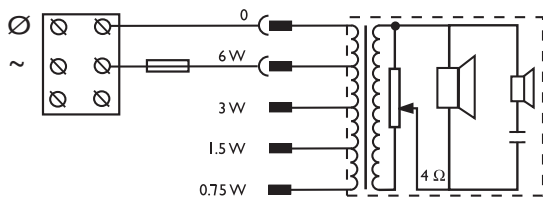


Polar diagram vertical (measured with pink noise)

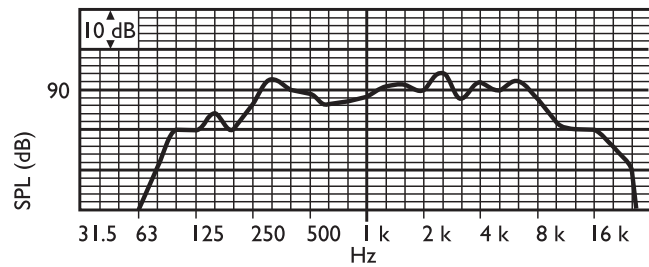
LBC 3011/51



Dimensions in mm (inch)



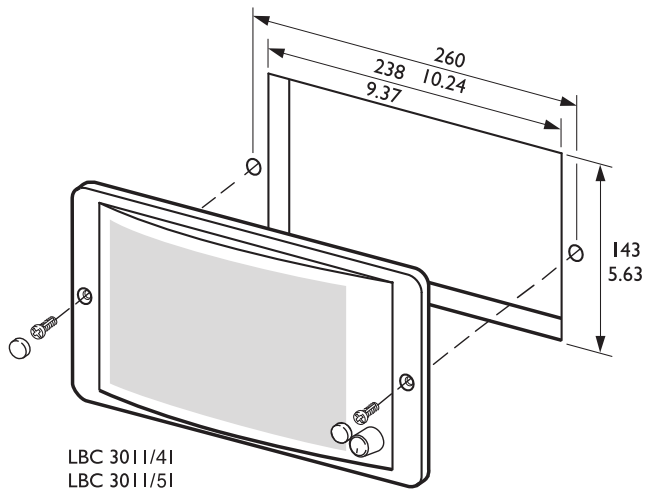
Circuit diagram



Frequency response

	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
SPL 1.1	85	90	88	88	92	90	89
SPL max.	93	98	96	96	100	98	97
Q-factor	5.1	3.9	2.1	3.7	7.4	9.1	31.6
Efficiency	0.08	0.32	0.37	0.21	0.27	0.14	0.03
H. angle	180	180	160	160	115	85	45
V. angle	180	180	160	180	85	100	50

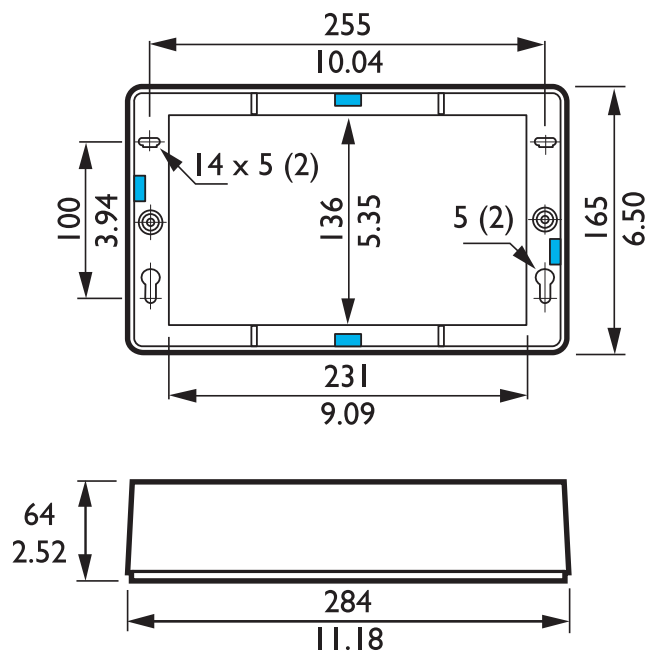
Acoustical performance specified per octave



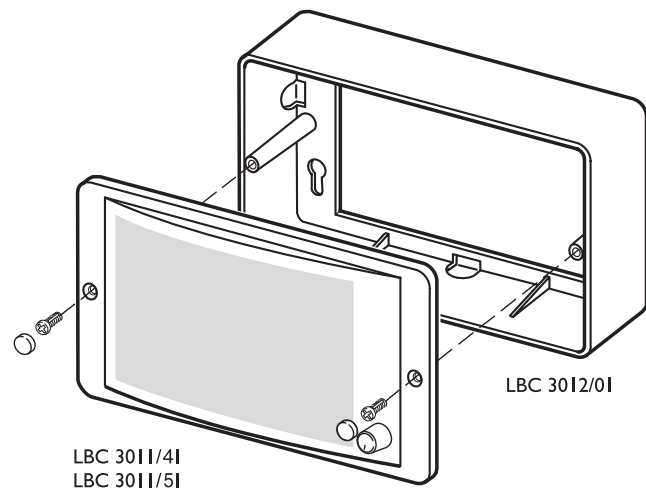
Recessed mounting in walls and ceilings. Dimensions in mm (inch)

Two mounting boxes are available for surface mounting onto hard surfaces or flush-mounting into non-cavity walls. The LBC 3012/01 accommodates the panel loudspeaker for a self-contained unit for surface mounting.

LBC 3012/01 Mounting box for surface mounting

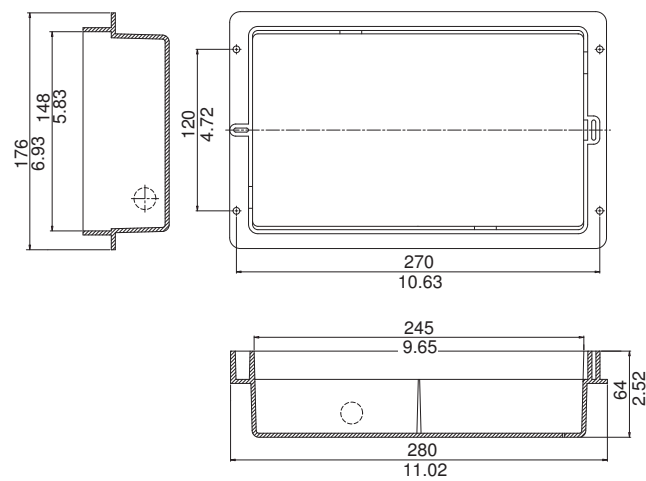


Dimensions in mm (in) with knockout boxes

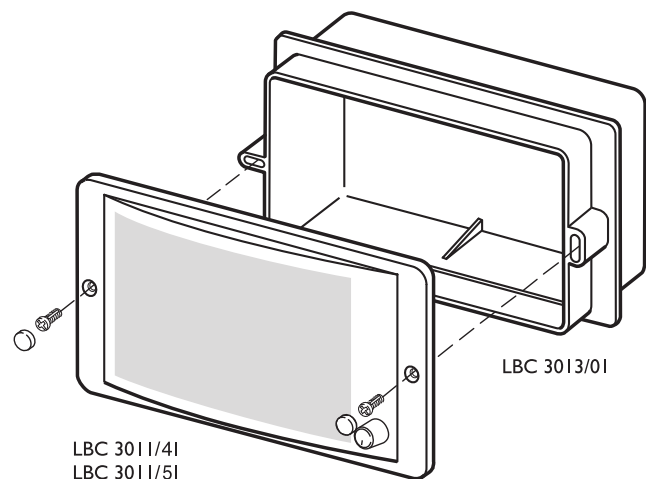


Surface mounting

LBC 3013/01 Mounting box for flush mounting



Dimensions in mm (in)



Flush mounting

Technical Specifications**Electrical* LBC 3011/41 and LBC 3011/51**

Max power	9 W
Rated power (PHC)	6 / 3 / 1.5 / 0.75 W
Sound pressure level at 6 W / 1 W (1 kHz, 1 m)	96 dB / 88 dB (SPL)
Effective frequency range (-10 dB)	75 Hz to 18 kHz
Opening angle	1 kHz / 4 kHz (-6 dB)
horizontal	160° / 85°
vertical	180° / 100°
Rated voltage	100 V
Rated impedance	1667 ohm
Connector	2-pole screw

* Technical performance data acc. to IEC 60268-5

Mechanical

Dimensions (H x W x D)	165 x 284 x 59.5 mm (6.49 x 11.18 x 2.34 inch)
Mounting cut-out (H x W)	143 x 238 mm (5.63 x 9.37 inch)
Weight	1.2 kg (2.64 lb)
Color	White (RAL 9010)
Speaker size	2" / 4"
Magnet weight	48 g / 150 g (1.7 oz / 5.3 oz)

Mechanical LBC 3012/01

Dimensions (H x W x D)	165 x 284 x 64 mm (6.49 x 11.18 x 2.52 inch)
Weight	238 g (8.40 oz)
Color	White (RAL 9010)

Mechanical LBC 3013/01

Dimensions (H x W x D)	176 x 280 x 64 mm (6.49 x 11.18 x 2.52 inch)
Weight	307 g (10.83 oz)
Color	White (RAL 9010)

Environmental

Operating temperature	-25 °C to +55 °C (-13 °F to +131 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Ordering Information

LBC 3011/41 Panel Loudspeaker without Volume Control **LBC3011/41**

LBC 3011/51 Panel Loudspeaker with Volume Control **LBC3011/51**

Accessories

LBC 3012/01 Surface Mounting Box **LBC3012/01**
Surface Mounting Box

LBC 3013/01 Flush Mounting Box **LBC3013/01**
Flush Mounting Box

LBC 3018/01 Metal Cabinet Loudspeaker



Features

- ▶ Suitable for speech and music reproduction
- ▶ Robust metal enclosure
- ▶ Surface and/or recessed mounting
- ▶ Provision for internal mounting of the optional line/loudspeaker supervision boards
- ▶ EN 54-24 certified
- ▶ BS 5839-8 and EN 60849 compliant

The LBC 3018/01 cabinet loudspeaker delivers professional performance from a robust, yet aesthetically designed metal enclosure. It is an ideal loudspeaker for indoor use in offices, schools, car parking, shopping centers and in areas where vandalism is a potential hazard.

The cabinets are equipped with a high efficiency, dual-cone loudspeaker offering a wide frequency range suitable for both speech and music reproduction.

Functions

Voice alarm loudspeakers are specifically designed for use in buildings, where the performance of PA-systems is subject to official regulations. The LBC 3018/01 is designed for voice alarm systems, and is compliant with the EN 54-24 standard.

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 terminal block, thermal fuse, and heat-resistant, high-temperature wiring.

The cabinet has a provision for internally mounting the optional line/loudspeaker supervision board.

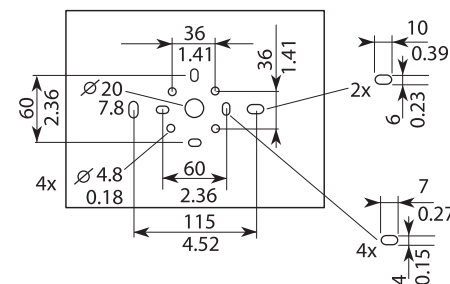
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Certifications and Approvals

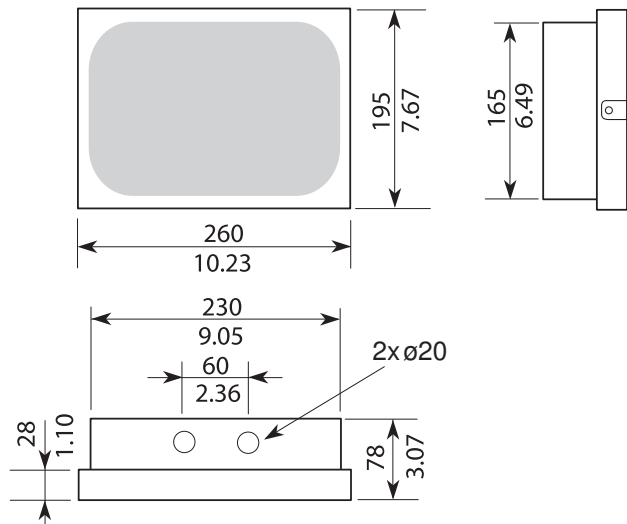
All Bosch loudspeakers are designed to withstand operating at their rated power for 100 continuous hours in accordance with IEC 268-5 Power Handling Capacity (PHC) standards. Bosch has also developed the Simulated Acoustical Feedback Exposure (SAFE) test to demonstrate that they can withstand two times 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.

Region	Certification
Europe	CE
Poland	CNBOP
Safety	acc. to EN 60065
Emergency	acc. to EN 54-24, BS 5839-8 and EN 60849
Water and dust protection	acc. to EN60529 IP32

Installation/Configuration Notes

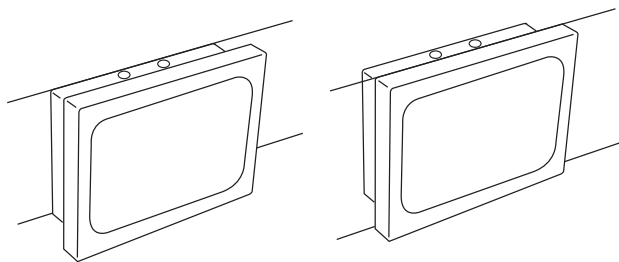


Mounting dimensions in mm (in)



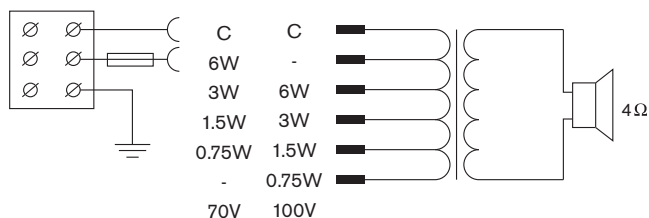
Dimensions in mm (in)

The cabinet is designed for both surface mounting on walls and recessed mounting into brick or concrete walls. The back-box of the cabinet provides a selection of mounting holes, even for mounting onto U40 and MK installation boxes. The back-box has two knockout holes on the topside for two cable glands for loop-through connection. For extra convenience, a safety cord from the back-box lets the installer temporarily hang the front grille unit during installation.

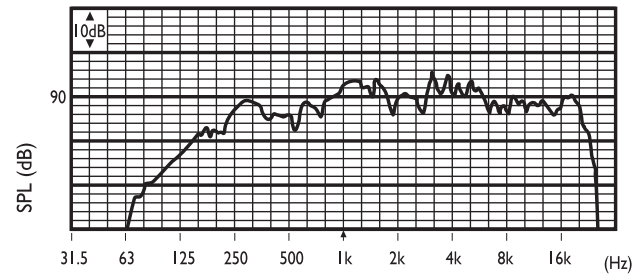


Surface mounted (left) and recessed (right) mounted

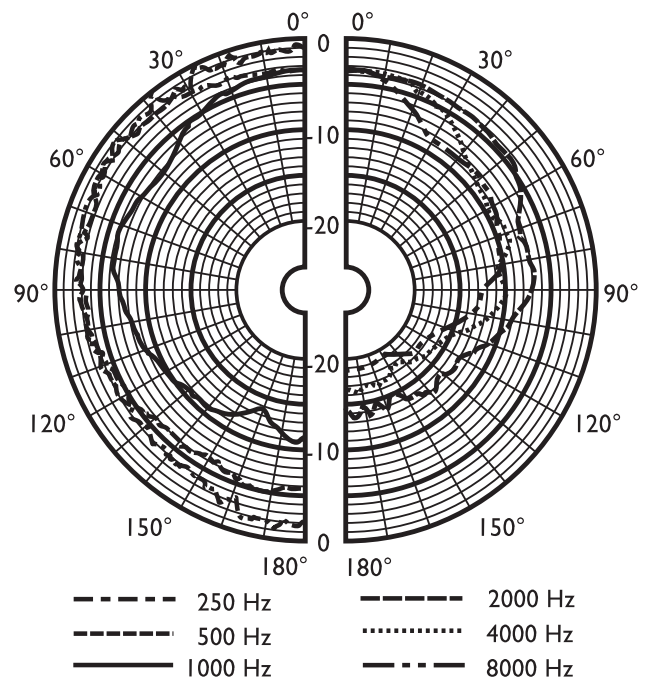
The cabinet has a three-way terminal block with screw connections suitable for loop-through wiring (including earth). Four primary taps are provided on the matching transformer to allow selection of nominal full-power, half-power, quarter-power or eighth power radiation (in 3 dB steps).



Circuit diagram



Frequency response



Polar diagram (measured with pink noise)

	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
SPL 1.1	84	93	94	97	97	93
SPL max.	92	101	102	105	105	103
Q-factor	2.5	3.3	7.9	8.5	12.9	14.2
Efficiency	0.32	2.2	4	7.1	5.6	2.5
H. angle	180	180	120	85	55	40
V. angle	180	180	80	110	60	35

Acoustical performance specified per octave

Technical Specifications

Electrical*

Maximum power	9 W
Rated power (PHC)	6 W
Power tapping	6 / 3 / 1.5 / 0.75 W
Sound pressure level at 6 W / 1 W (1 kHz, 1 m)	102 dB / 94 dB (SPL)
Effective frequency Range (-10 dB)	150 Hz to 20 kHz

Opening angle at 1 kHz / 4 kHz (-6 dB)	120 ° / 55 °
Rated voltage	70/100 V
Rated impedance	835/1667 ohm
Connector	3-pole screw terminal block

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

Mechanical

Dimensions (H x W x D)	195 x 260 x 80 mm (7.68 x 10.24 x 3.15 in)
Weight	2.6 kg (5.78 lb)
Color	White (RAL 9010)
Speaker size	152.4 mm (6 in)
Magnet weight	150 g (5.3 oz)

Environmental

Operating temperature	-25 °C to +55 °C (-13 °F to +131 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Ordering Information

LBC 3018/01 Metal Cabinet Loudspeaker **LBC3018/01**
6 W

LB1-UW06-Fx Cabinet Loudspeakers



Features

- ▶ Good speech intelligibility and background music reproduction
- ▶ Finished in white or black
- ▶ MDF construction
- ▶ Mounting brackets for wall or ceiling mounting
- ▶ Complies with international installation and safety regulations

The LB1-UW06-Fx is a 6 W, general-purpose, cost-effective loudspeaker for indoor use. Two brackets, fixed to the rear panel, are provided for quick and easy mounting on a wall or ceiling. The cabinet is available in the colors black or white.

Functions

The robust, solid MDF (medium density fiberboard) enclosures are covered with a durable, easy-to-clean vinyl in a choice of white or black. The ABS fronts are covered with fine woven cloth in matching color.

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.

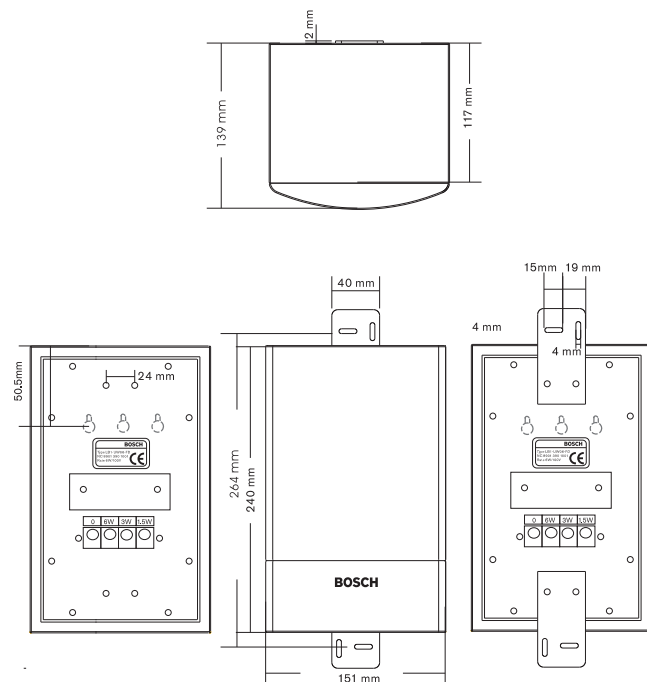
Safety

acc. to EN 60065

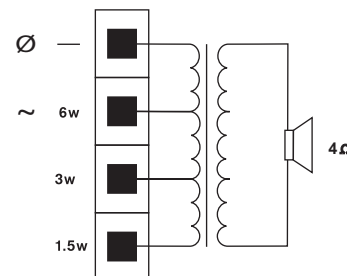
Installation/Configuration Notes

Two mounting brackets, fixed to the rear panel provide easy and quick wall mounting or ceiling mounting. If these are not desired, they can be removed, and the unit can still be wall mounted using the three keyholes in the rear panel.

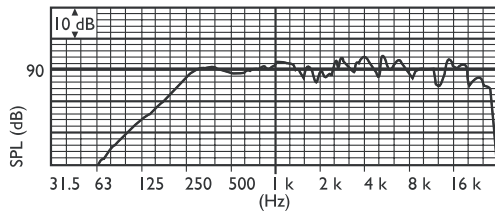
A convenient, easy-to-use, 4-pole push-in terminal block is on the rear panel for on-site wiring. This terminal block has provision for power tapping on the 100 volt matching transformer in the cabinet. It allows selection of nominal full-power, half-power or quarter-power radiation (in 3 dB steps).



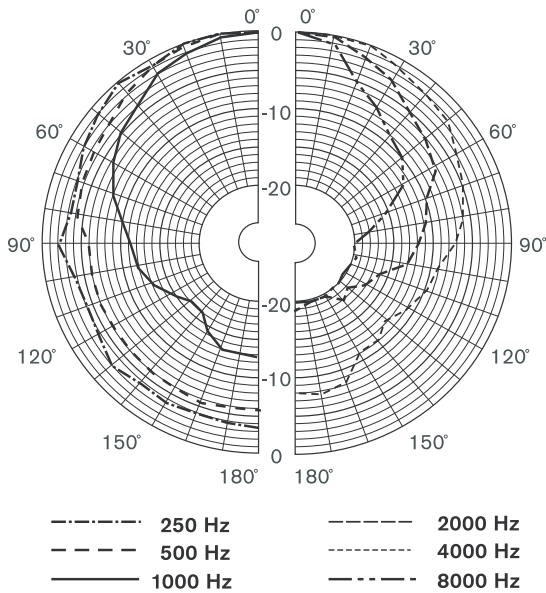
Dimensions in mm



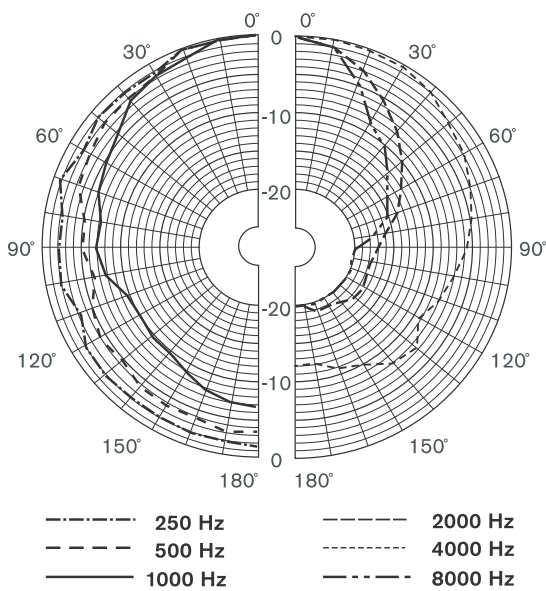
Circuit diagram



Frequency response



Polar diagram horizontal (measured with pink noise)



Polar diagram vertical (measured with pink noise)

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)	100 dB / 92 dB (SPL)
Effective frequency range (-10 dB)	180 Hz to 20 kHz
Opening angle	1 kHz / 4 kHz (-6 dB)
horizontal	165° / 95°
vertical	158° / 73°
Rated input voltage	100 V
Rated impedance	1667 ohm
Connector	4-pole push-in terminal block

* Technical performance data acc. to IEC 60268-5

Mechanical

Dimensions (H x W x D)	240 x 151 x 139 mm (9.4 x 5.9 x 5.5 in)
Weight	1.5 kg (3.3 lb)
Color	Black (D) or white (L)
cabinet / cloth (D)	Matches RAL 9004 / RAL 9004
cabinet / cloth (L)	Matches RAL 9010 / RAL 7044

Environmental

Operating temperature	-25 °C to +55 °C (-13 °F to +131 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Ordering Information

LB1-UW06-FD Unidirectional Cabinet Loudspeaker 6 W, black	LB1-UW06-FD
LB1-UW06-FL Unidirectional Cabinet Loudspeaker 6 W, white	LB1-UW06-FL

LB1-UW06x-x Cabinet Loudspeakers



Features

- ▶ **Good speech intelligibility and background music reproduction**
- ▶ **Available in black or white**
- ▶ **MDF construction**
- ▶ **With or without integral volume control**
- ▶ **Complies with international installation and safety regulations**

The LB1-UW06x-x is a 6 W, general-purpose, cost-effective loudspeaker for indoor use, with or without volume control. Keyholes at the rear are provided for quick and easy wall mounting. The angled front baffle results in a better sound in the listening area. The cabinet is available in black or white.

Functions

The robust, solid MDF (medium density fiber board) enclosures are covered with a durable, easy-to-clean vinyl in a choice of white or black. The ABS fronts are covered with fine woven cloth in matching color. The angled front baffle results in improved high frequency reproduction in the listening area.

The speaker is available with or without a volume control.

Certifications and Approvals

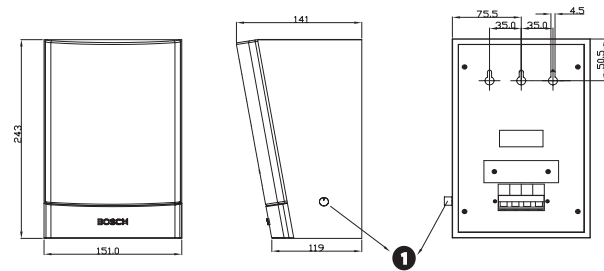
All Bosch loudspeakers are designed to withstand operating at their rated power for 100 hours in accordance with IEC 268-5 Power Handling Capacity (PHC) standards. Bosch has also developed the Simulated Acoustical Feedback Exposure (SAFE) test to demonstrate that they can withstand two times their rated 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 acc. to EN 60065

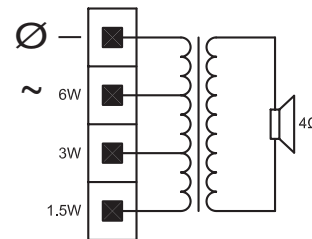
Installation/Configuration Notes

Three keyholes in the rear panel provide easy and quick wall mounting.

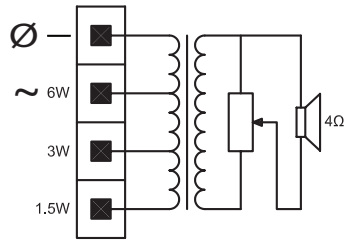
A convenient, easy-to-use, 4-pole push-in terminal block is on the rear panel for on-site wiring. This terminal block has provision for power tapping on the 100-volt, matching transformer in the cabinet. It allows selection of nominal full-power, half-power or quarter-power radiation (in 3 dB steps).



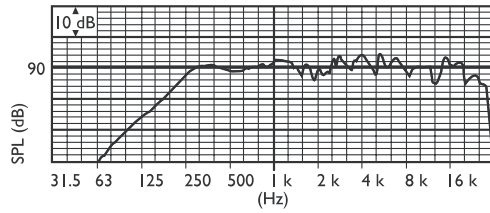
Dimensions LB1-UW06-x in mm showing volume control (1)



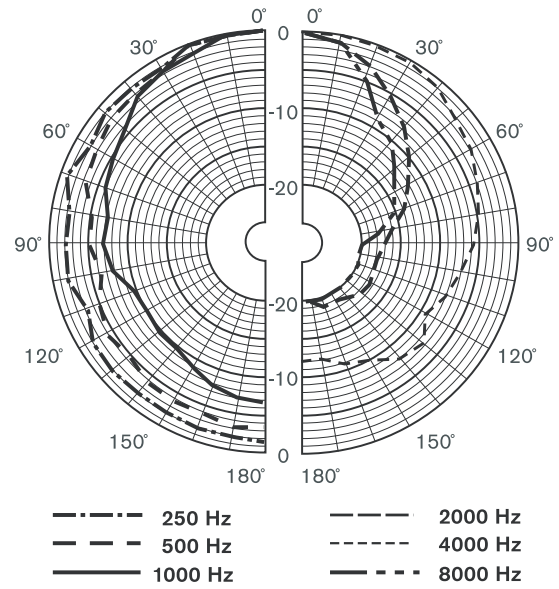
Circuit diagram LB1-UW06-x



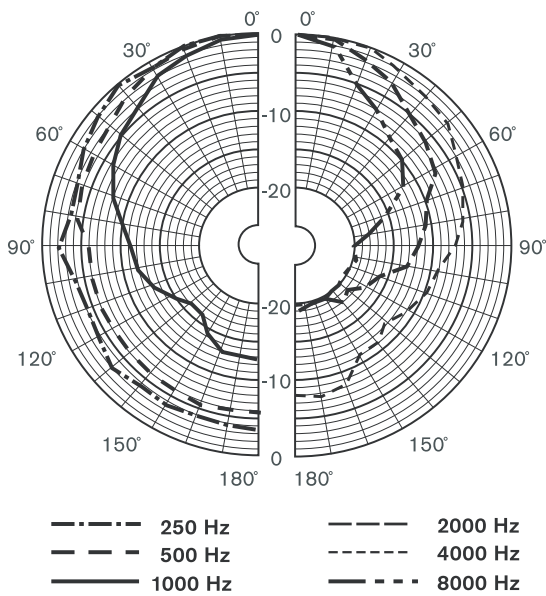
Circuit diagram LB1-UW06V-x



Frequency response



Polar diagram vertical (measured with pink noise)



Polar diagram horizontal (measured with pink noise)

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)	100 dB / 92 dB (SPL)
Effective frequency range	180 Hz to 20 kHz (-10 dB)
Opening angle horizontal	165° / 95°
Opening angle vertical	158° / 73°
Rated input voltage	100 V
Rated impedance	1667 ohm
Connector	4-pole push-in terminal block

* Technical performance data acc. to IEC 60268-5

Mechanical

Dimensions (H x W x D)	243 x 151 x 141/119 mm (9.5 x 5.9 x 5.6/4.7 in)
Weight	0.9 kg (2 lb)
Color cabinet / cloth (D)	Black (D) or white (L)
Color cabinet / cloth (L)	Matches RAL 9004 / RAL 9004 Matches RAL 9010 / RAL 7044

Environmental

Operating temperature	-25 °C to +55 °C (-13 °F to +131 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

200 | Loudspeakers | Cabinet

Ordering Information

LB1-UW06-D Cabinet Loudspeaker 6 W, black	LB1-UW06-D
LB1-UW06V-D Cabinet Loudspeaker with Volume Control 6 W, black.	LB1-UW06V-D
LB1-UW06-L Cabinet Loudspeaker 6 W, white	LB1-UW06-L
LB1-UW06V-L Cabinet Loudspeaker with Volume Control 6 W, white	LB1-UW06V-L

LB1-CW06-x Corner Cabinet Loudspeakers



Features

- ▶ **Good speech intelligibility and background music reproduction**
- ▶ **Special shape for mounting in corners**
- ▶ **Available in black or white**
- ▶ **MDF construction**
- ▶ **Compliance with international installation and safety regulation**

The LB1-CW06-x is a 6 W, general-purpose cost-effective loudspeaker for indoor use. Two brackets with keyholes, fixed on one side provide quick and easy mounting in corners between two walls, or between a wall and ceiling. The cabinet is available in black or white.

Functions

The robust, solid MDF (Medium Density Fiber board) enclosures are covered with a durable, easy-to-clean vinyl in white or black. The ABS fronts are covered with fine woven cloth in matching color.

The cabinet shapes allow installation in corners between walls, and between wall and ceiling.

Certifications and Approvals

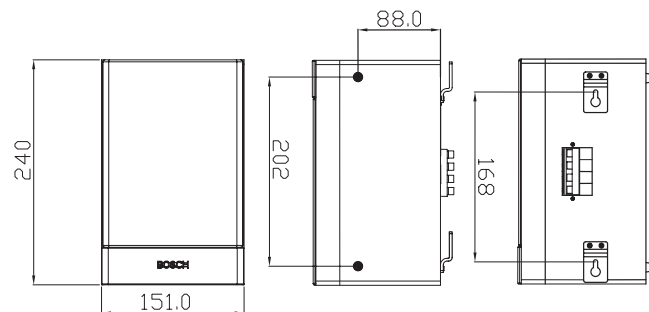
All Bosch loudspeakers are designed to withstand operating at their rated power for 100 hours in accordance with IEC 268-5 Power Handling Capacity (PHC) standards. Bosch has also developed the Simulated Acoustical Feedback Exposure (SAFE) test to demonstrate that they can withstand two times their rated 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 acc. to EN 60065

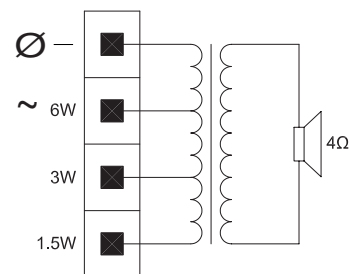
Installation/Configuration Notes

Two keyhole brackets at one side of the cabinet are provided for easy and quick wall mounting. The other side of the cabinet is provided with two rubber feet for absorbing unwanted vibrations and secure mounting.

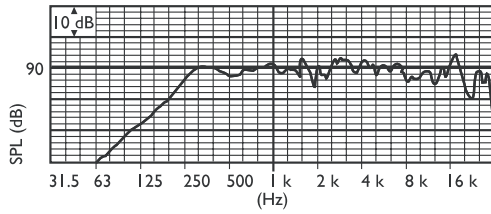
A convenient easy-to-use, 4-pole push-in terminal block is present on the side for on-site wiring. This terminal block has provision for power tapping on the 100-volt, matching transformer in the cabinet. It allows selection of nominal full-power, half-power, or quarter-power radiation (in 3 dB steps).



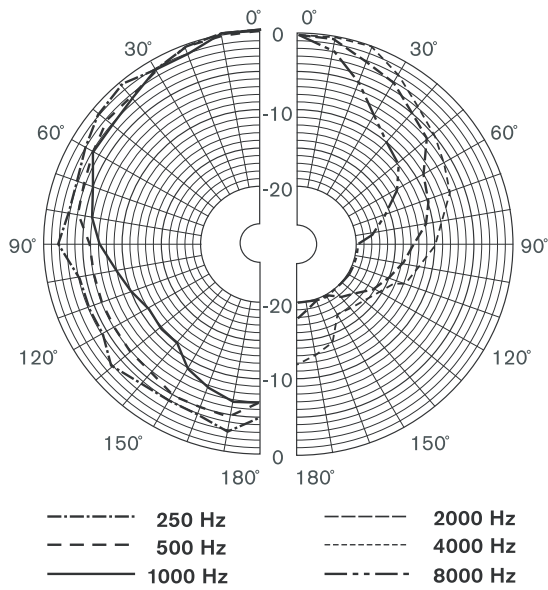
Dimensions in mm



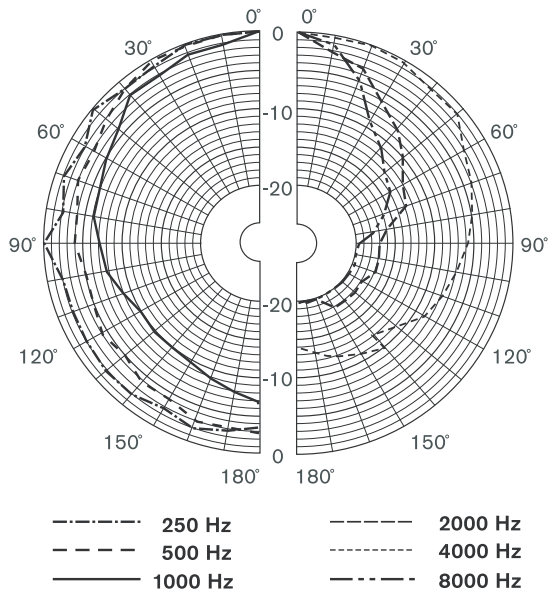
Circuit diagram



Frequency response



Polar diagram horizontal (measured with pink noise)



Polar diagram vertical (measured with pink noise)

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)
Effective frequency range (-10 dB)	180 Hz to 20 kHz
Opening angle	1 kHz / 4 kHz (-6 dB)
horizontal	165° / 95°
vertical	150° / 75°
Rated input voltage	100 V
Rated impedance	1667 ohm
Connector	4-pole push-in terminal block

* Technical performance data acc. to IEC 60268-5

Mechanical

Dimensions (H x W x D)	240 x 151 x 138 mm (9.5 x 5.9 x 5.6 in)
Weight	0.8 kg (1.8 lb)
Color	Black (D) or white (L)
cabinet / cloth (D)	Matches RAL 9004 / RAL 9004
cabinet / cloth (L)	Matches RAL 9010 / RAL 7044

Environmental

Operating temperature	-25 °C to +55 °C (-13 °F to +131 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Ordering Information

LB1-CW06-D Corner Cabinet Loudspeaker 6 W, black	LB1-CW06-D
LB1-CW06-L Corner Cabinet Loudspeaker 6 W, white	LB1-CW06-L

LB1-UW12-x Cabinet Loudspeakers



Features

- ▶ **Good speech intelligibility and background music reproduction**
- ▶ **Available in black or white**
- ▶ **MDF construction**
- ▶ **Complies with international installation and safety regulations**

The LB1-UW12-x is a 12 W, general-purpose, cost-effective loudspeaker for indoor use. Keyholes at the rear provide quick and easy wall mounting. The angled front baffle results in a better sound in the listening area. The cabinet is available in black or white.

Functions

The robust, solid MDF (Medium Density Fiber board) enclosures are covered with a durable, easy-to-clean vinyl in a choice of white or black. The ABS fronts are covered with fine woven cloth in matching color.

The angled front baffle results in improved high frequency reproduction in the listening area.

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

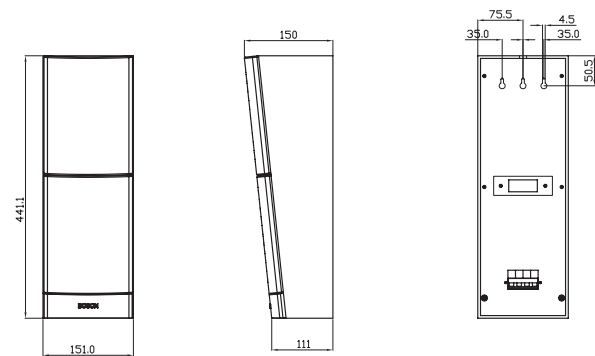
extreme conditions, leading to higher customer satisfaction, longer operating life, and much less chance of failure or performance deterioration.

Safety

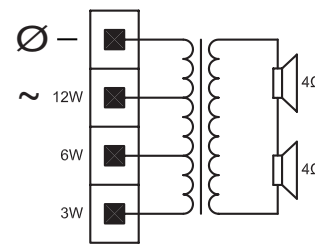
acc. to EN 60065

Installation/Configuration Notes

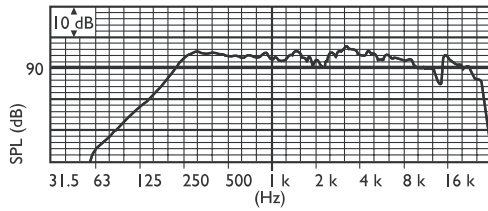
Three keyholes in the rear panel provide easy and quick wall mounting. A convenient easy-to-use, 4-pole push-in terminal block is present on the rear panel for on-site wiring. This terminal block has provision for power tapping on the 100-volt, matching transformer in the cabinet. It allows selection of nominal full-power, half-power or quarter-power radiation (in 3 dB steps).



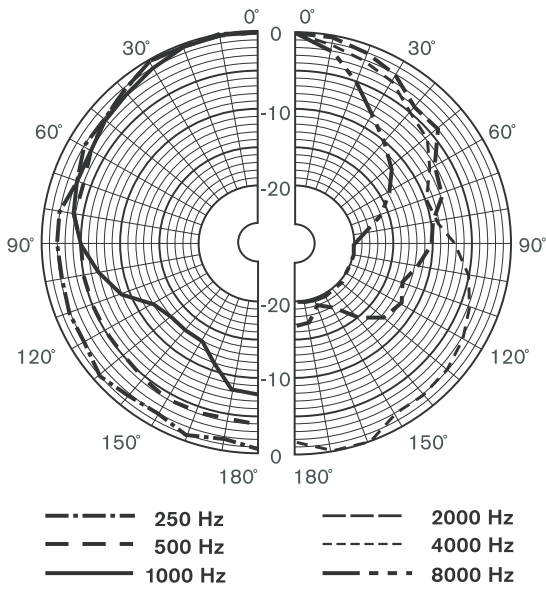
Dimensions in mm



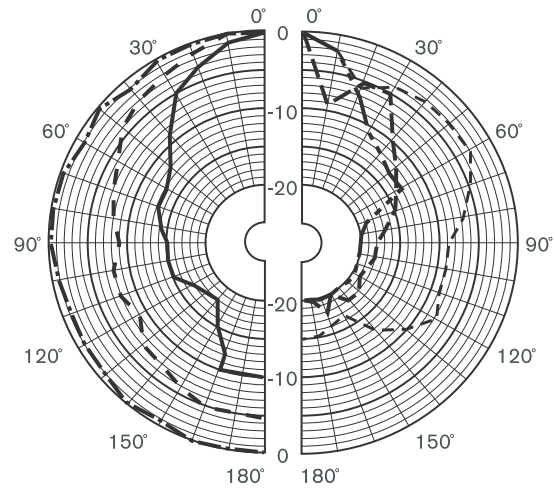
Circuit diagram



Frequency response



Polar diagram horizontal (measured with pink noise)



Polar diagram vertical (measured with pink noise)

Technical Specifications

Electrical*

Maximum power	18 W
Rated power	12 / 6 / 3 W
Sound pressure level at 12 W / 1 W (1 kHz, 1 m)	104 / 93 dB (SPL)
Effective frequency range (-10 dB)	160 Hz to 20 kHz
Opening angle	1 kHz / 4 kHz (-6 dB)
horizontal	195° / 95°
vertical	69° / 17°
Rated input voltage	100 V
Rated impedance	833 ohm
Connector	4-pole push-in terminal block

* Technical performance data acc. to IEC 60268-5

Mechanical

Dimensions (H x W x D)	441 x 151 x 150/111 mm (17.4 x 5.9 x 5.9/4.4 in)
Weight	2.5 kg (5.5 lb)
Color	Black (D) or white (L)
cabinet / cloth (D)	Matches RAL 9004 / RAL 9004
cabinet / cloth (L)	Matches RAL 9010 / RAL 7044

Environmental

Operating temperature	-25 °C to +55 °C (-13 °F to +131 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Ordering Information

LB1-UW12-D Cabinet Loudspeaker 12 W, black	LB1-UW12-D
LB1-UW12-L Cabinet Loudspeaker 12 W, white	LB1-UW12-L

LB1-BW12-x Bidirectional Cabinet Loudspeakers



Features

- ▶ **Good speech intelligibility and background music reproduction**
- ▶ **Wedge shaped design**
- ▶ **Available in black or white**
- ▶ **MDF construction**
- ▶ **Complies with international installation and safety regulations**

The LB1-BW12-x is a 12 W, cost-effective, bidirectional loudspeaker for indoor use. The baffle design creates a wide opening angle, making this loudspeaker very suitable for use in long corridors. Keyholes at the rear provide quick and easy wall mounting. The cabinet is available in black or white.

Functions

The robust, solid MDF (Medium Density Fiber board) enclosures are covered with a durable, easy-to-clean vinyl in a choice of white or black. The ABS fronts are covered with fine woven cloth in matching color.

The cabinets have two dual cone loudspeaker drivers, mounted on an angled baffle, providing a wide opening angle. This model is intended for use in long corridors, such as in shopping arcades.

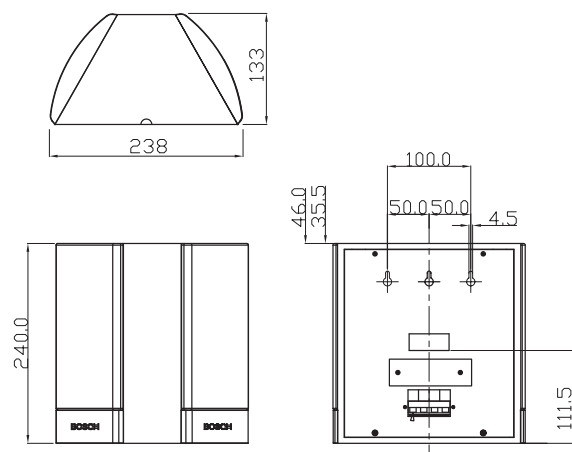
Certifications and Approvals

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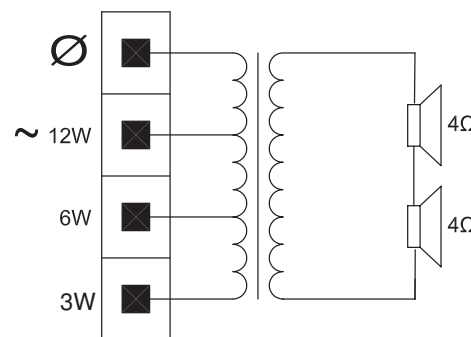
Safety acc. to EN 60065

Installation/Configuration Notes

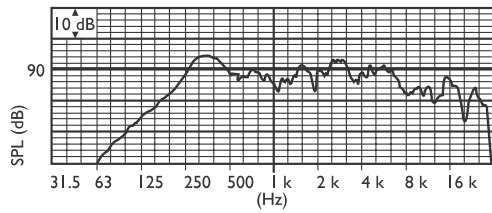
Three keyholes in the rear panel provide easy and quick wall mounting. A convenient, easy-to-use, four-pole push-in terminal block is present on the rear panel for on-site wiring. This terminal block has provision for power tapping on the 100-volt, matching transformer in the cabinet. It allows selection of nominal full-power, half-power or quarter-power radiation (in 3 dB steps).



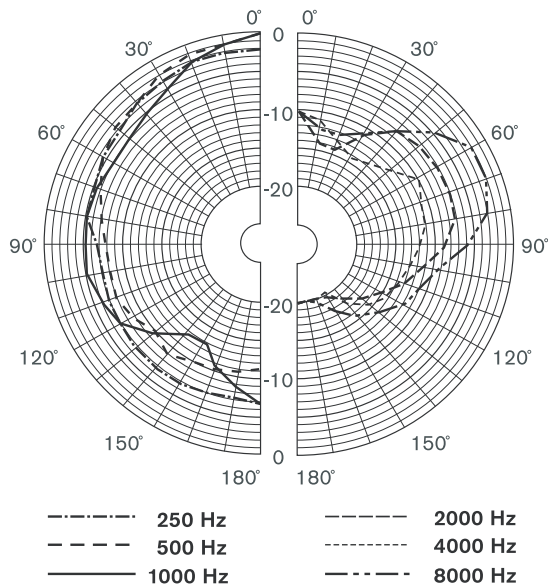
Dimensions in mm



Circuit diagram



Frequency response



Polar diagram (measured with pink noise)

Environmental

Operating temperature	-25 °C to +55 °C (-13 °F to +131 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Ordering Information

LB1-BW12-D Bi-Directional Cabinet Loudspeaker 12 W, black	LB1-BW12-D
LB1-BW12-L Bi-Directional Cabinet Loudspeaker 12 W, white	LB1-BW12-L

Technical Specifications

Electrical*

Maximum power	18 W
Rated power	12 / 6 / 3 W
Sound pressure level at 12 W / 1 W (1 kHz, 1 m)	97 / 86 dB (SPL)
Effective frequency range (-10 dB)	140 Hz to 20 kHz
Opening angle at 1 kHz / 4 kHz (-6 dB)	270° / 165°
Rated input voltage	100 V
Rated impedance	833 ohm
Connector	4-pole push-in terminal block

* Technical performance data acc. to IEC 60268-5

Mechanical

Dimensions (H x W x D)	240 x 238 x 133 mm (9.4 x 9.3 x 5.24 in)
Weight	1.5 kg (3.3 lb)
Color	Black (D) or white (L)
cabinet / cloth (D)	Matches RAL 9004 / RAL 9004
cabinet / cloth (L)	Matches RAL 9010 / RAL 7044

LB2-UCxx-x Premium-sound Cabinet Loudspeaker Range

4



Features

- ▶ **High-fidelity music and speech reproduction**
- ▶ **Selectable 8 ohm, 70 V and 100 V inputs**
- ▶ **Compact yet robust ABS enclosure**
- ▶ **Supplied with adjustable mounting bracket**
- ▶ **Complies with international installation and safety regulations**

The LB2-UCxx-x Premium-sound cabinet loudspeakers are intended for clear reproduction of speech, foreground and background music to be used in general indoor and outdoor applications. The Premium-sound cabinet loudspeaker range consists of a 15 W and 30 W model, available in a light or dark color. The loudspeakers have selectable 8 ohm, 70 V and 100 V inputs.

Typical applications are: theme bars, music restaurants, theme parks, retail outlets, audio visual, boardrooms and offices, exhibition areas, showrooms, fitness centre's and presentation environments.

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 the speakers can withstand two times their rated power for short durations. This ensures extra reliability

under extreme conditions, leading to greater customer satisfaction, longer operating life, and much less chance of failure or performance deterioration.

Safety	acc. to EN 60065
Water protection	acc. to EN 60529 IP x4
Self extinguishing	acc. to UL94 V 0

Installation/Configuration Notes

The cabinets include a built-in transformer that offers a selection of nominal full power, half power, quarter power or eight power radiation (i.e. in 3 dB steps) for 70 V, 100 V or 8 Ohm bypass.

Selection is done by a convenient switch on the rear enclosure.

A two meter long twin-core loudspeaker cable (in matching color with the cabinet) is connected to the loudspeaker. The core ends are stripped ready for use.

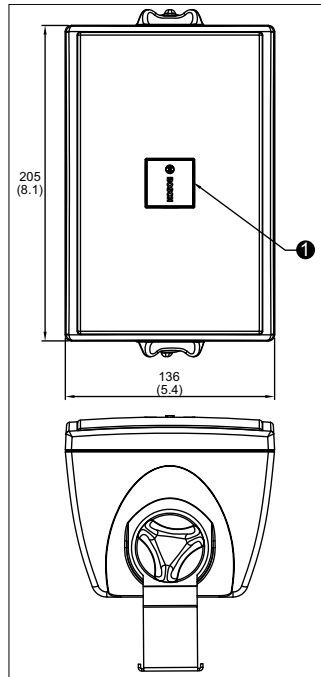
The cabinets can be mounted horizontally to allow the loudspeaker to be directed up or down, or vertically to allow left and right rotation by means of a steel U-shaped wall bracket (standard supplied).

The rotatable logo can be easily adjusted to match the mounting orientation.



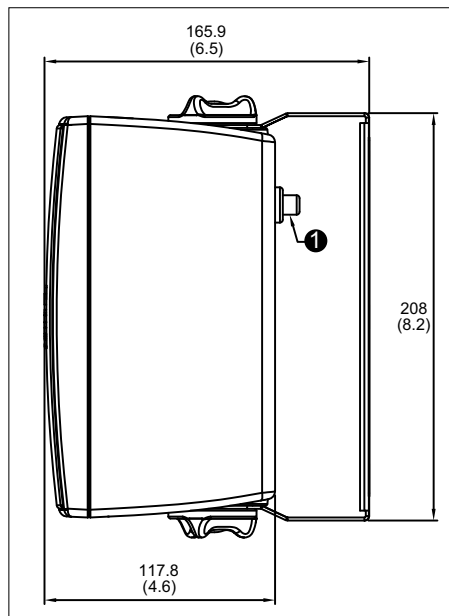
Rear view LB2-UC15-30-D/L

LB2-UC15-D/L



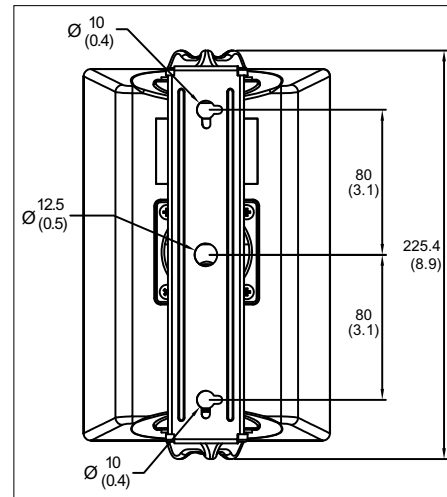
1 Rotatable logo

Mechanical diagram: front and top view in mm (in.)

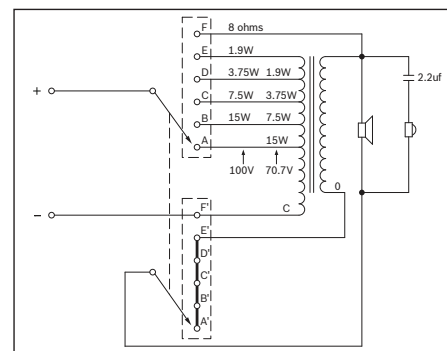


1 Power tapping switch

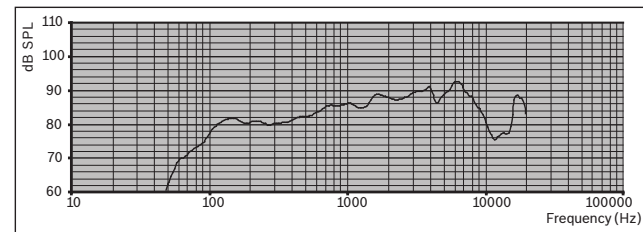
Mechanical diagram: side view in mm (in.)



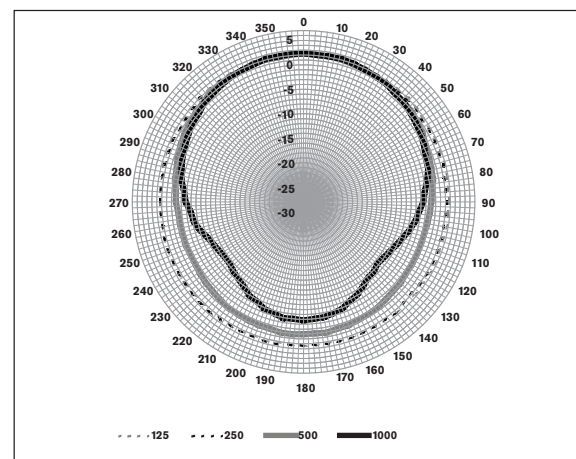
Mechanical diagram: rear view in mm (in.)



Circuit diagram



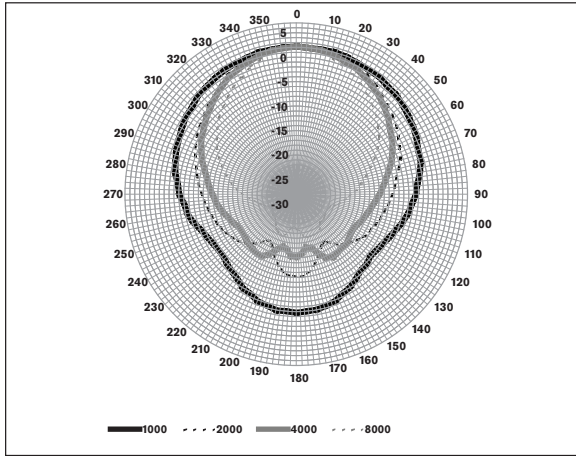
Frequency response



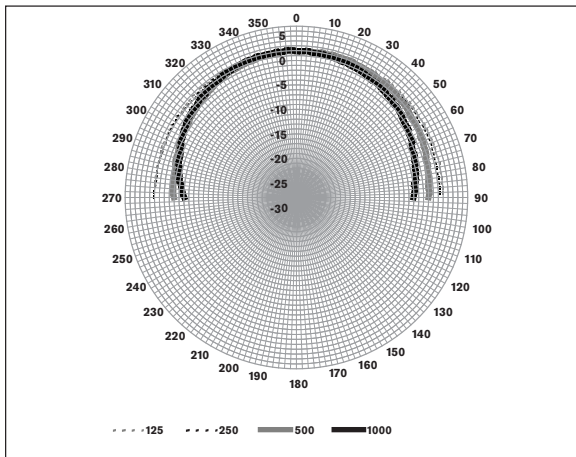
Polar diagram horizontal

210 | Loudspeakers | Cabinet

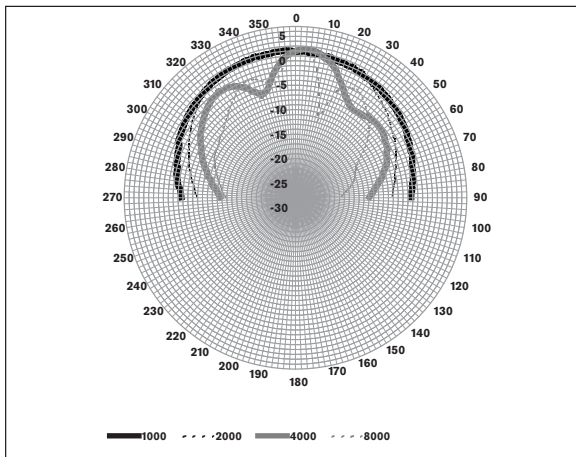
4



Polar diagram horizontal



Polar diagram vertical



Polar diagram vertical

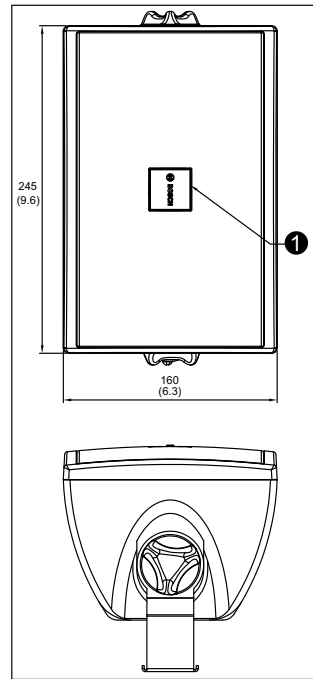
4000 Hz	88.9	-	-
8000 Hz	88.8	-	-
A-weighted	-	84.7	95.9
Lin-weighted	-	85.0	95.6

Octave band opening angles		
	Horizontal	Vertical
125 Hz	360	> 180
250 Hz	360	> 180
500 Hz	360	> 180
1000 Hz	179	168
2000 Hz	115	121
4000 Hz	101	35
8000 Hz	76	44

Acoustical performance specified per octave

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

LB2-UC30-D/L

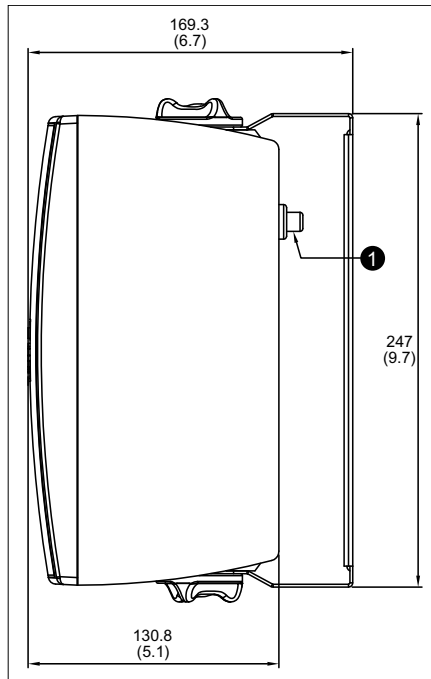


1 Rotatable logo

Mechanical diagram: front and top view in mm (in.)

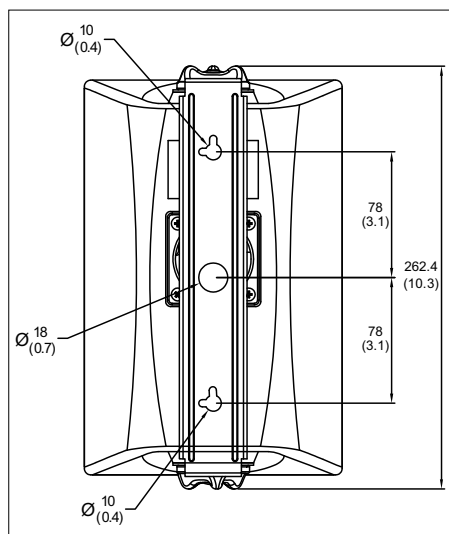
Octave band sensitivity *

	Octave SPL 1W/1m	Total octave SPL 1W/1m	Total octave SPL Pmax/1m
125 Hz	80.6	-	-
250 Hz	80.4	-	-
500 Hz	82.7	-	-
1000 Hz	85.9	-	-
2000 Hz	87.8	-	-

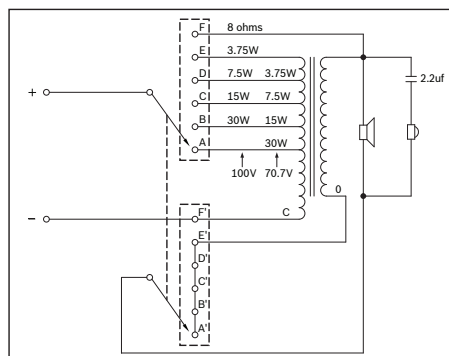


1 Power tapping switch

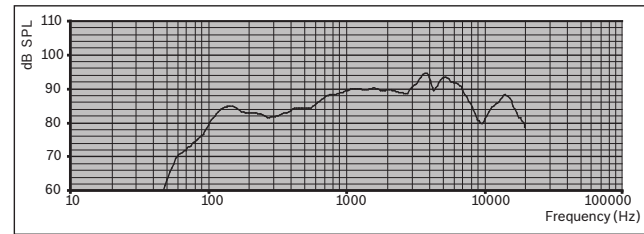
Mechanical diagram: side view in mm (in.)



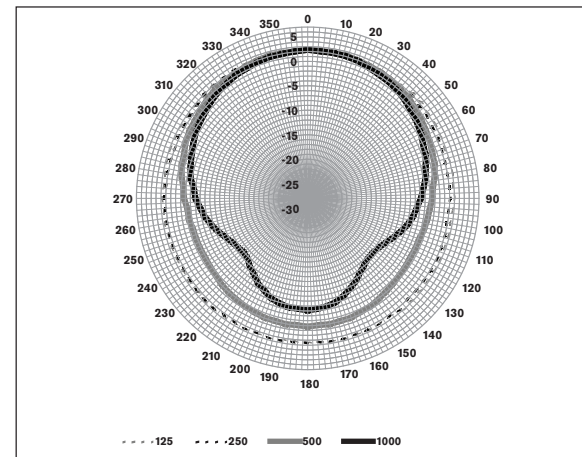
Mechanical diagram: rear view in mm (in.)



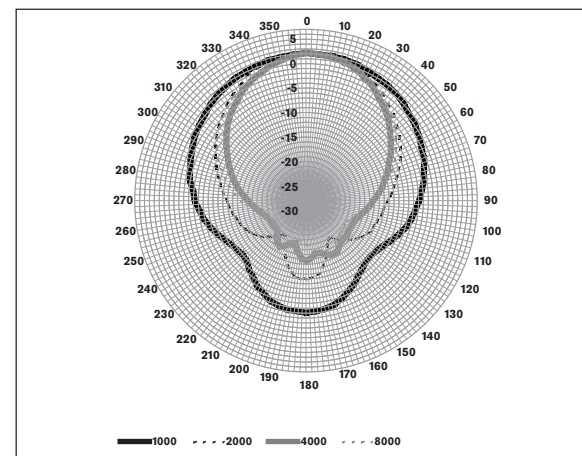
Circuit diagram



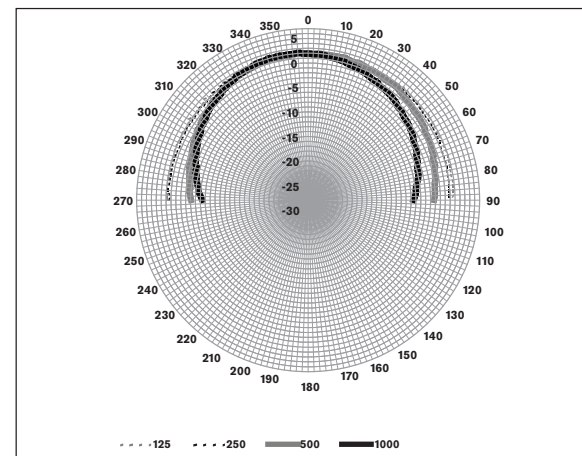
Frequency response



Polar diagram horizontal



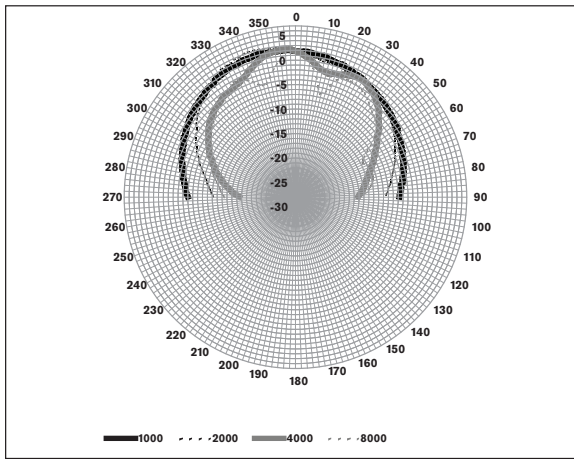
Polar diagram horizontal



Polar diagram vertical

212 | Loudspeakers | Cabinet

4



Polar diagram vertical

Octave band sensitivity *

	Octave SPL 1W/1m	Total octave SPL 1W/1m	Total octave SPL Pmax/1m
125 Hz	83.2	-	-
250 Hz	82.6	-	-
500 Hz	85.1	-	-
1000 Hz	89.5	-	-
2000 Hz	89.8	-	-
4000 Hz	92.8	-	-
8000 Hz	88.6	-	-
A-weighted	-	87.5	100.9
Lin-weighted	-	87.6	100.5

Octave band opening angles

	Horizontal	Vertical
125 Hz	360	> 180
250 Hz	360	> 180
500 Hz	360	> 180
1000 Hz	160	150
2000 Hz	97	116
4000 Hz	81	90
8000 Hz	93	52

Acoustical performance specified per octave

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

Parts Included

Quantity	Components
1	LB2-UCxx-x
1	Mounting bracket
1	Installation instruction

Technical Specifications

Electrical*

Product	LB2-UC15-(D/L)	LB2-UC30-(D/L)
Description	Premium-sound Cabinet Loudspeaker	Premium-sound Cabinet Loudspeaker
Maximum power	22.5 W	45 W
Rated power (PHC)	15 W	30 W
Power tapping	15 / 7.5 / 3.75 / 1.9 W	30 / 15 / 7.5 / 3.75 W
Sound pressure level at rated power / 1 W (1 kHz, 1 m)	98/86 dB (SPL)	105/90 dB (SPL)
Effective frequency range (-10 dB)	95 Hz to 19.5 kHz	100 Hz to 18.5 kHz
Opening angle at 1 kHz / 4 kHz (-6 dB)	179° / 101° (hor.) 168° / 35° (ver.)	160° / 81° (hor.) 150° / 90° (ver.)
Rated input voltage	11/70/100 V	15.5/70/100 V
Rated impedance	8 / 326 / 667 ohm	8 / 163 / 333 ohm
Transducers	101.6 mm (4") woofer, 13 mm (0.51") dome tweeter	127 mm (5") woofer, 13 mm (0.51") dome tweeter
Connection	2 m (78.8 in.) two-wire cable	2 m (78.8 in.) two-wire cable

* Technical performance data acc. to IEC 60268-5

Mechanical

Dimensions (H x W x D)	205 x 136 x 117 mm (8.07 x 5.35 x 4.60 in)	250 x 160 x 140 mm (9.84 x 6.30 x 5.51 in)
Weight	Approx. 1.9 kg (4.18 lb)	Approx. 2.4 kg (5.29 lb)
Color	White (RAL 9010) (L) or Charcoal (RAL 7021) (D)	White (RAL 9010) (L) or Charcoal (RAL 7021) (D)

Environmental

Operating temperature	-25 °C to +55 °C (-13 °F to +131 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Ordering Information

LB2-UC15-D Premium-sound Cabinet Loudspeaker 15 W, ABS charcoal	LB2-UC15-D
LB2-UC15-L Premium-sound Cabinet Loudspeaker 15 W, ABS white	LB2-UC15-L
LB2-UC30-D Premium-sound Cabinet Loudspeaker 30 W, ABS charcoal	LB2-UC30-D
LB2-UC30-L Premium-sound Cabinet Loudspeaker 30 W, ABS white	LB2-UC30-L

LB1-UMx0E Premium-sound Cabinet Loudspeaker Range



Features

- ▶ **High-fidelity music and speech reproduction**
- ▶ **Selectable 8 ohm, 70 V and 100 V inputs**
- ▶ **Compact yet robust aluminum extruded enclosure**
- ▶ **Supplied with adjustable wall-mounting bracket**
- ▶ **Self-restoring overload protection**
- ▶ **Provision for internal mounting of the optional line / loudspeaker supervision board**
- ▶ **Complies with international installation and safety regulations**
- ▶ **BS 5839-8 and EN 60849 compliant**

The Premium-sound range of cabinets is intended for clear reproduction of speech, foreground and background music to be used in general indoor and outdoor applications. The range comprises two models, offering a choice of 20 W or 50 W power handling capacity. The enclosures are made from aluminum with ABS top and bottom covers and are available in charcoal (D) and white (L).

Typical applications for these products are: theme bars, music restaurants, theme parks, retail outlets, audio visual, boardrooms and offices, exhibition areas and presentation environments, fitness centre.

Its excellent sound reproduction capability is attributed the superb to the use of high-quality driver components and crossover network design.

A self-restoring passive element protects the high frequency driver against incidental overload.

The cabinets can be used as VA (Voice-Alarm) and are compliant with BS 5839-8 and EN 60849 standards.

A three-way ceramic terminal block with screw connections suitable for loop-through wiring is located in the compartment in the base of the unit.

An easy to install, sturdy wall mounting bracket is standard supplied. The same bracket can be used in combination with the universal floor stand LBC 1259/00 for temporary installations.

All models are supplied with a built-in 70/100 V transformer with taps on the primary winding for full-power, half-power, quarter-power and one-eighth power radiation. These taps are connected to a rotary vari-tap switch located in the compartment in the base of the enclosure, to allow simple output power setting. A low ohmic connection is also provided on the vari-tap switch.

4

Functions

Voice alarm

Voice alarm loudspeakers are specifically designed for use in buildings, where the performance of Public Address systems is subject to official regulations. The LB1-UMx0E-x are designed for voice alarm systems, and are compliant with British Standard BS 5839-8 and EN 60849.

Protection

The loudspeakers have built-in protection to ensure that in the event of a fire damage does not cause failure of the connected circuit. In this way, system integrity is maintained; ensuring loudspeakers in other areas can still be used to inform people of the situation.

Connections and safety

The loudspeakers have a ceramic terminal block, thermal fuse, and heat-resistant, high-temperature wiring. The cabinets have a provision for internally mounting the optional line/loudspeaker supervision board.

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 the speakers can withstand two times their rated power for short durations. This ensures extra reliability under extreme conditions, leading to greater customer satisfaction, longer operating life, and much less chance of failure or performance deterioration.

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Safety	according to EN 60065
Emergency	according to BS 5839-8
	according to EN 60849
Water and dust protection	according to EN 60529 IP 65
Self-extinguishing ABS	according to UL 94 V 0
Wind-force	according to NEN 6702:2007 + A1: 2008, Bft11

4

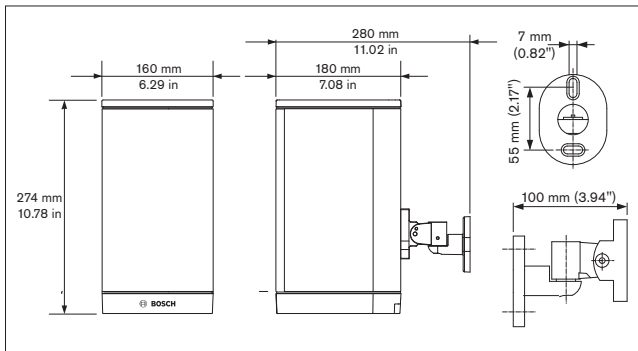
Installation/Configuration Notes

LB1-UMx0E-D/L

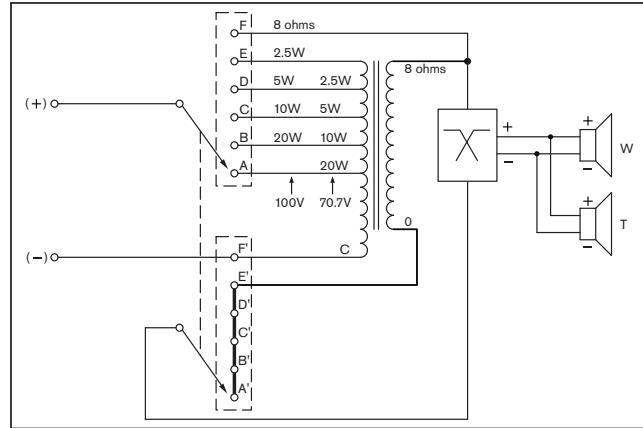


Mounting bracket

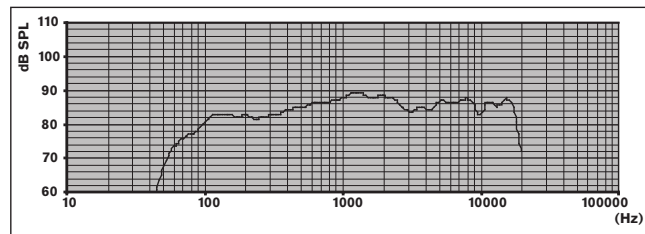
LB1-UM20E-D/L



Dimensions

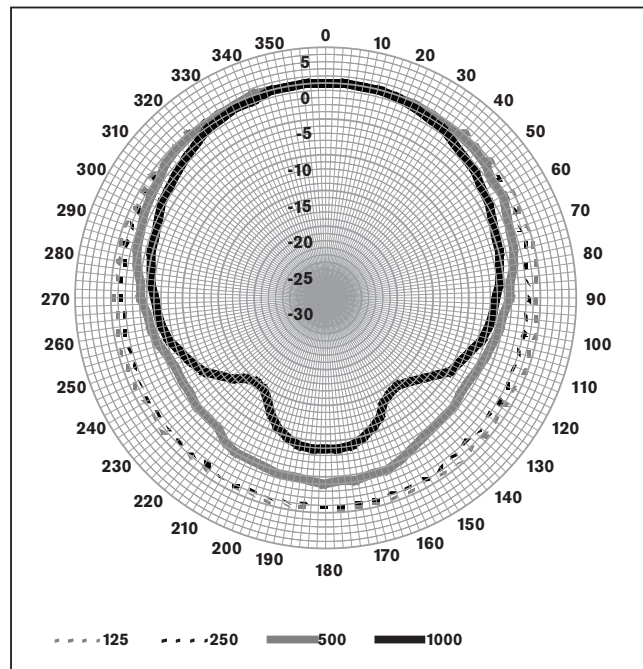


Circuit diagram

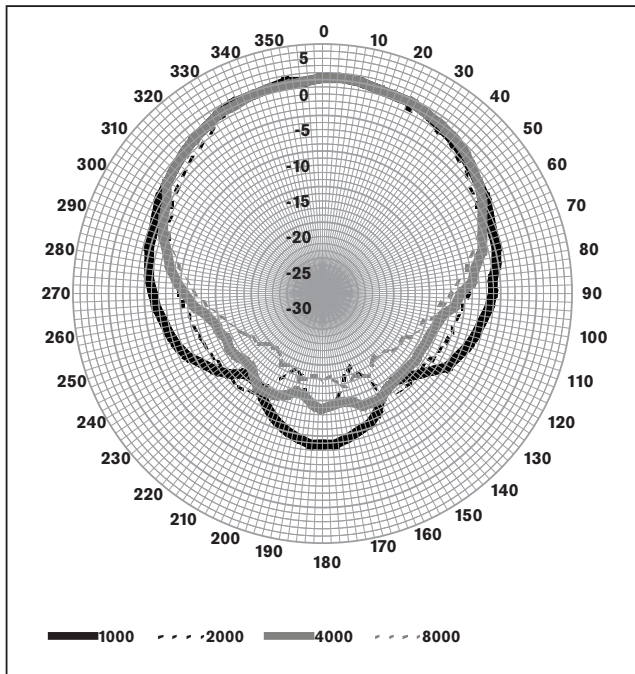


Frequency response

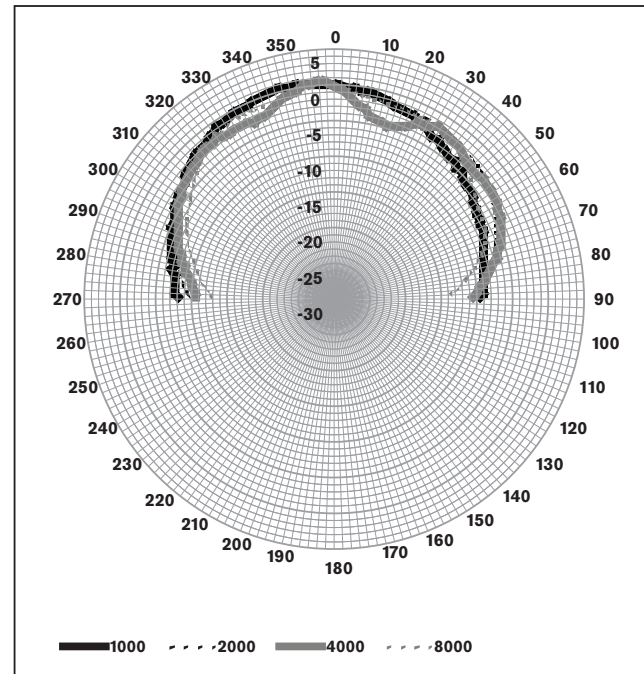
LB1-UM20E-D/L



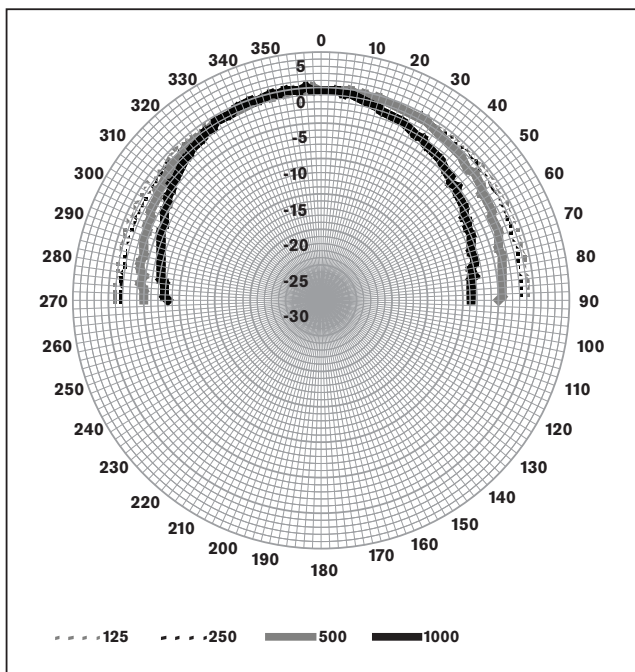
Polar diagram horizontal



Polar diagram horizontal



Polar diagram vertical



Polar diagram vertical

Octave band sensitivity*

	Octave SPL 1W/1m	Total octave SPL 1W/1m	Total octave SPL Pmax/1m
125 Hz	82.5	-	-
250 Hz	82.5	-	-
500 Hz	85.4	-	-
1000 Hz	88.2	-	-
2000 Hz	88.0	-	-
4000 Hz	85.5	-	-
8000 Hz	86.3	-	-
A-weighted	-	84.1	96.4
Lin-weighted	-	85.0	97.4

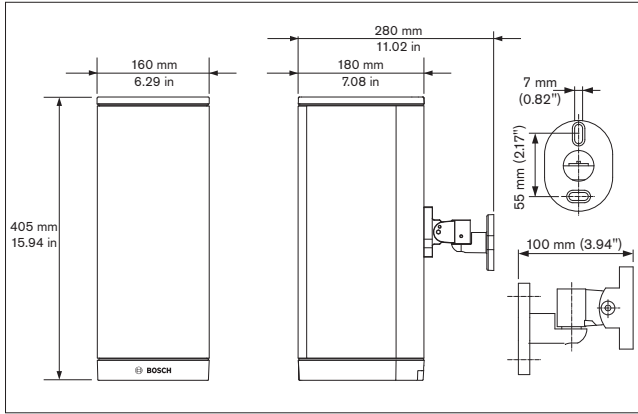
Octave band opening angles

	Horizontal	Vertical
125 Hz	360	360
250 Hz	360	360
500 Hz	206	360
1000 Hz	174	127
2000 Hz	128	141
4000 Hz	136	141
8000 Hz	132	117

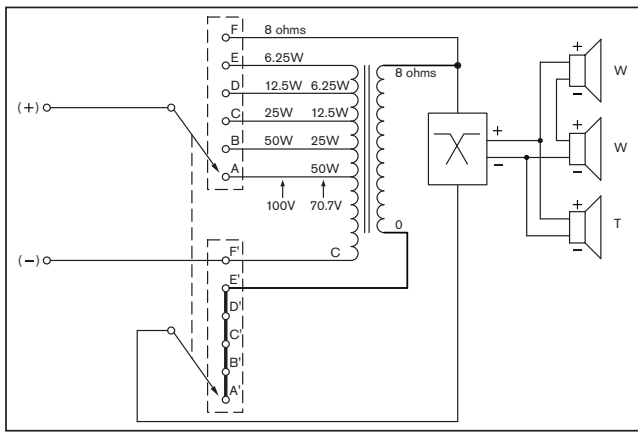
Acoustical performance specified per octave

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

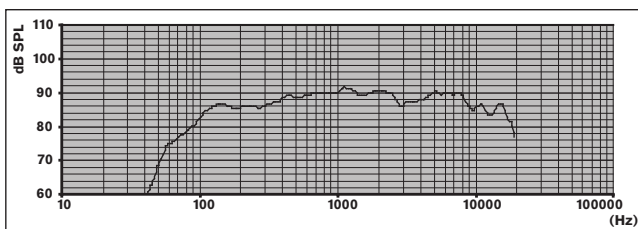
LB1-UM50E-D/L



Dimensions

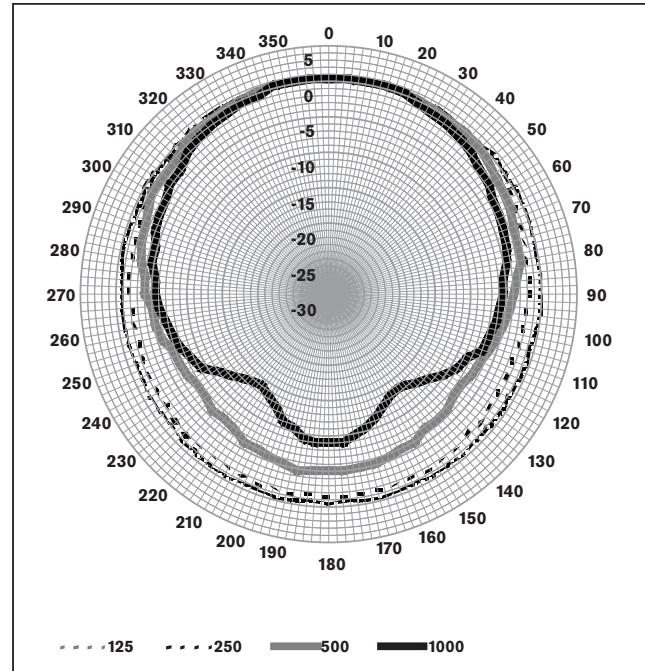


Circuit diagram

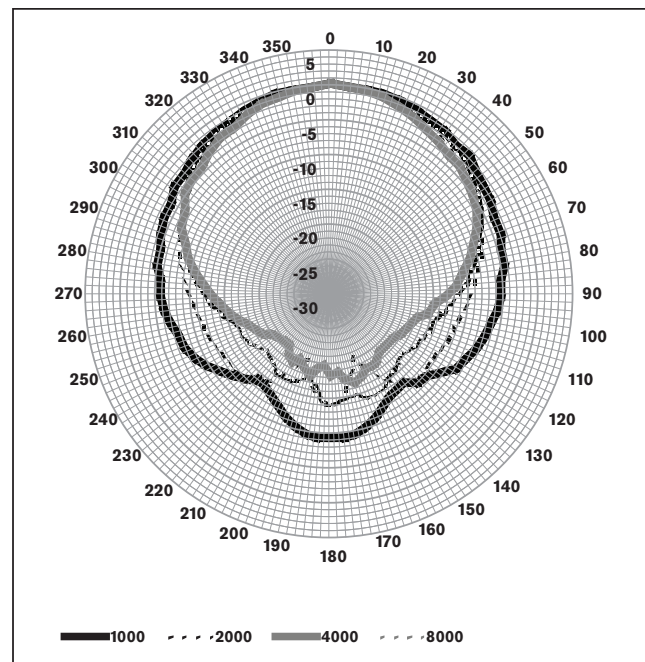


Frequency response

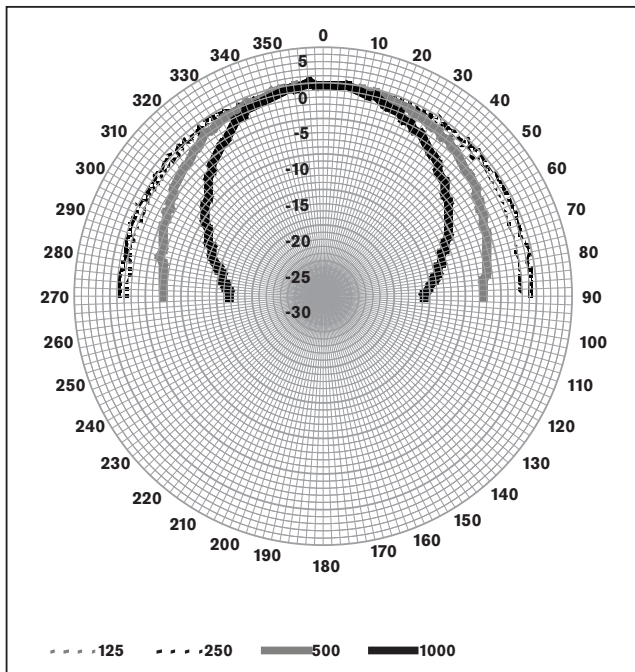
LB1-UM50E-D/L



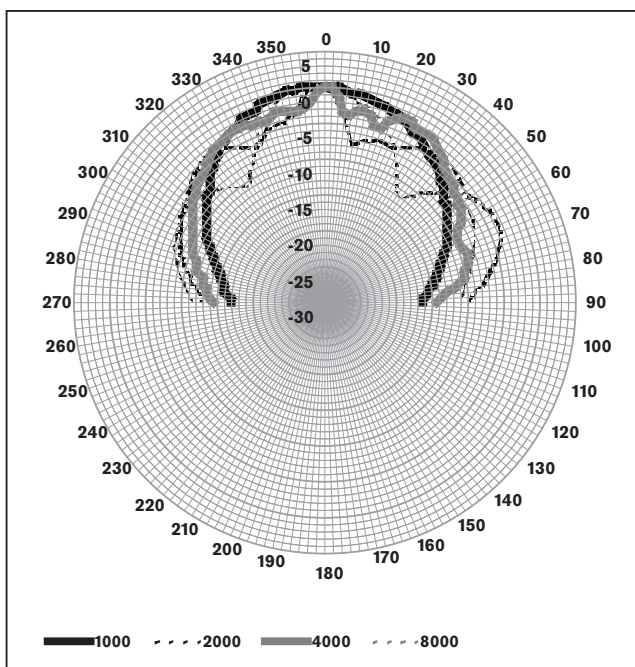
Polar diagram horizontal



Polar diagram horizontal



Polar diagram vertical



Polar diagram vertical

Octave band sensitivity*

	Octave SPL 1W/1m	Total octave SPL 1W/1m	Total octave SPL Pmax/1m
125 Hz	85.3	-	-
250 Hz	86.1	-	-
500 Hz	89.0	-	-
1000 Hz	90.7	-	-
2000 Hz	90.1	-	-
4000 Hz	88.5	-	-
8000 Hz	89.0	-	-
A-weighted	-	86.7	102.9
Lin-weighted	-	87.6	102.9

Octave band opening angles

	Horizontal	Vertical
125 Hz	360	> 180
250 Hz	360	> 180
500 Hz	209	142
1000 Hz	186	84
2000 Hz	126	47
4000 Hz	126	62
8000 Hz	119	95

Acoustical performance specified per octave

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

Parts Included

Quantity	Components
1	LB1-UMxOE-x
1	Mounting bracket
1	Installation instruction

Technical Specifications

Electrical*

Product	LB1-UM20E-(D/L)	LB1-UM50E-(D/L)
Description	Premium-sound Cabinet Loudspeaker	Premium-sound Cabinet Loudspeaker
Maximum power	30 W	75 W
Rated power (PHC)	20 W	50 W
Power tapping	20 / 10 / 5 / 2.5 W	50 / 25 / 12.5 / 6.25 W
Sound pressure level at rated power / 1 W (1 kHz, 1 m)	101 dB / 88 dB (SPL)	108 dB / 91 dB (SPL)
Effective frequency range (-10 dB)	90 Hz to 20 kHz	90 Hz to 20 kHz
Opening angle at 1 kHz / 4 kHz (-6 dB)		
horizontal	174° / 136°	186° / 126°

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vertical	127° / 141°	84° / 62°
Rated input voltage	12.65 / 70 / 100 V	20 / 70 / 100 V
Rated impedance	8 / 250 / 500 ohm	8 / 100 / 200 ohm
Connector	3-pole screw block	3-pole screw block

* Technical performance data acc. to IEC 60268-5

Mechanical

Product	LB1-UM20-(D/L)	LB1-UM50-(D/L)
Dimensions (W x D)	274x160x180mm (10.78x6.29x7.08in)	405x160x180mm (15.94x6.29x7.08in)

Loudspeaker diameter

Woofers	134.5 mm (5 in)	134.5 mm (5 in)
Dome tweeter	25.4 mm (1 in)	25.4 mm (1 in)

Material

Cabinet	Aluminum	Aluminum
Front grille	Aluminum	Aluminum
Top and bottom	ABS	ABS
Color	White (RAL 9010) (L) or Charcoal (RAL 7021) (D)	White (RAL 9010) (L) or Charcoal (RAL 7021) (D)
Weight	3.88 kg (8.55 lb)	5.58 kg (12.30 lb)

Environmental

Operating temperature	-25 °C to +55 °C (-13 °F to +131 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Ordering Information

LB1-UM20E-D Premium-sound Cabinet Loudspeaker 20 W Charcoal metal housing, for indoor and outdoor use	LB1-UM20E-D
LB1-UM20E-L Premium-sound Cabinet Loudspeaker 20 W White metal housing, for indoor and outdoor use	LB1-UM20E-L
LB1-UM50E-D Premium-sound Cabinet Loudspeaker 50 W Charcoal metal housing, for indoor and outdoor use	LB1-UM50E-D
LB1-UM50E-L Premium-sound Cabinet Loudspeaker 50 W White metal housing, for indoor and outdoor use	LB1-UM50E-L

Accessories

LBC 1259/01 Universal Floorstand Lightweight aluminum construction, foldable, M10 x 12 reducer flange.	LBC1259/01
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LB3-PCx50 Premium Cabinet Loudspeakers



Features

- ▶ High-quality music and speech reproduction
- ▶ Weatherized, suited for sheltered outside use
- ▶ Prepared for Bosch WLS, EOL and DMY pcb's
- ▶ Attachment points for (suspended) mounting, pole mount
- ▶ BS 5839-8 compliant
- ▶ EN54-24 certified

The Bosch premium loudspeakers are full range passive loudspeakers for a wide range of applications where high output, wide controlled dispersion and wide frequency are required, as well as the flexibility of mounting inside and sheltered outside.

The Bosch line of large premium loudspeakers consists of two sizes; 12" and 15" models. All models feature a two-way loudspeaker in a molded ABS VO enclosure. The loudspeakers have a 1" compression driver coupled to an impedance transformer with constant directivity characteristics and a direct radiating 12" or 15" loudspeaker.

Typical uses include fixed installations in auditoriums, conference venues, community centers, theaters, areas of assembly, factories multipurpose halls and sports facilities.

A self-restoring protection device protects the high-frequency driver against incidental overload. The transformer accepts signals between 40 Hz and 22 kHz at 100 V or 70 V.

System Overview

The LB3-PC250 features a 12" woofer and 1" exit compression driver. The LB3-PC350 features a 15" woofer and 1" exit compression driver.

The premium loudspeaker is fitted with a specially designed horn that provides constant coverage independent of frequency. The handle locations and position of rig-points are placed to make the loudspeaker easy to carry and align when installing. There is an integrated pole mount on the bottom of the cabinet and a weather-resistant steel grille. All screws and bolts are stainless steel or treated to resist rust. The cabinet has been designed to provide the possibility of mounting the loudspeaker close to a side wall or on the floor. The enclosure features high dampening, is impact resistant and weather proof (sheltered).

The LB3-PC250 and LB3-PC350 are suited for locations where high sound pressure, wide-band audio is needed and where there is no mains power or where active loudspeakers are not desired, like outside applications or applications where the benefits of the 100 V technique comes into play like easy connection of multiple speakers and long cable runs.

The LB3-PC250 and LB3-PC350 have a 100/70 V transformer with power tapping. The speakers are weatherproof (IP44, able to be mounted sheltered outside).

Functions

The loudspeaker has two SPEAKON connectors wired in parallel. The input from the SPEAKON is available under a waterproof cover at the rear side of the loudspeaker. To protect against moisture, dirt and tampering a splash proof cover is fitted over the control part of the rear panel. Below the cover you can find the input from the SPEAKON, you can choose to wire either channel 1 or channel 2 to the ceramic terminal block. Alternatively it is possible to wire E30 wire directly through PG11 waterproof feed through to the ceramic block (with thermal fuse). The loudspeaker has two PG11 locations to enable loop-through of direct wires. From the ceramic block it is possible to select the speaker tapping. Full, half and quarter power is available at 100 V and 70 V.

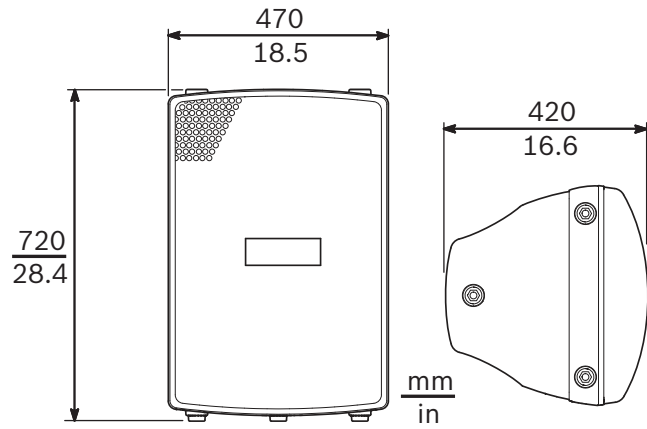
The cover has a dedicated location for the EOL (End Of Line) LED, if the Bosch EOL pcb is used, the Bosch proprietary line supervision set for individual loudspeaker monitoring or line monitoring can also be used at this location. Internally the loudspeaker has a dedicated notch filter to filter out a 20 kHz pilot-tone. This will reduce the 20 kHz pilot-tone. The filter is bypassed by a bridge as standard delivery.

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Safety features include a thermal fuse in the transformer, thermal fuse at the ceramic input block in accordance with evacuation standards and an auto resetting current limiting circuit between the HF filter output and the HF driver.

The coverage of the speaker is 90° x 60° (H x V).

Wires are connected from the drivers to the metal rear panel, where a hoist/tether point for safety wire is located.



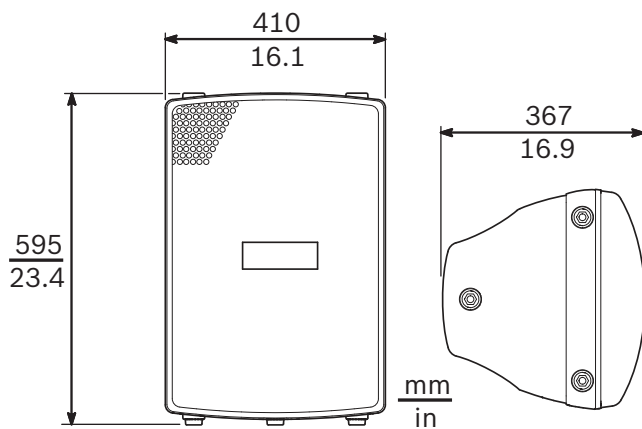
Dimensions LB3-PC350

Certifications and Approvals

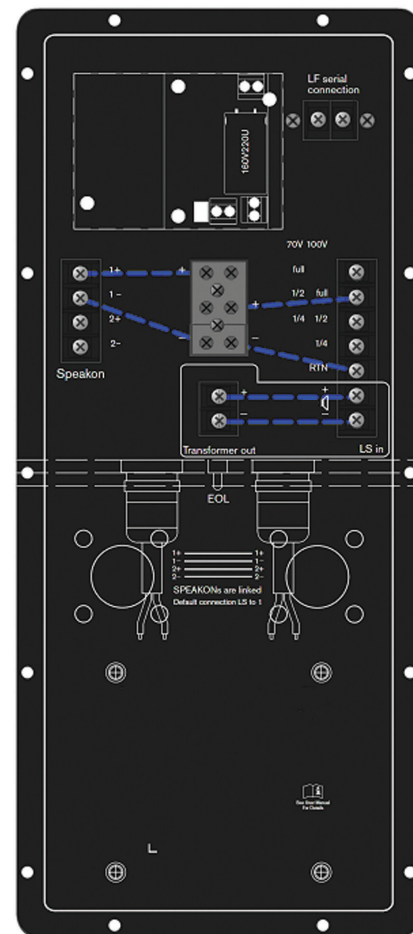
All Bosch loudspeakers are designed to withstand operating at their rated power for 100 hours in accordance with IEC 268-5 Power Handling Capacity (PHC) standards. Bosch has also developed the Simulated Acoustical Feedback Exposure (SAFE) test to demonstrate that the speakers can withstand two times their rated power for short durations. This ensures extra reliability under extreme conditions, leading to greater customer satisfaction, longer operating life, and much less chance of failure or performance deterioration.

Region	Certification
Poland	CNBOP
Safety	According to EN 60065
Emergency	According to BS 5839-8
	According to EN 60849
Water and dust protection	According to EN 60529 IP44
Self-extinguishing ABS	According to UL 94 V 0

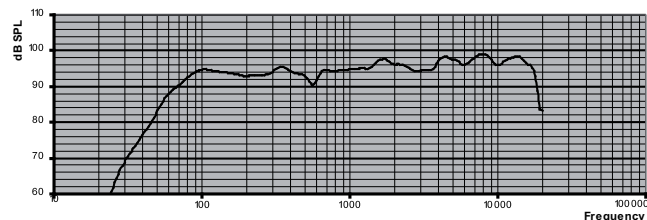
Installation/Configuration Notes



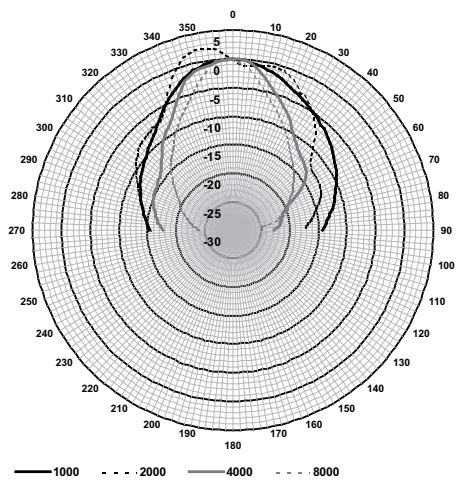
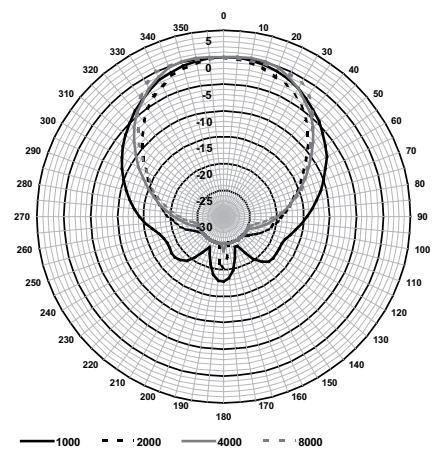
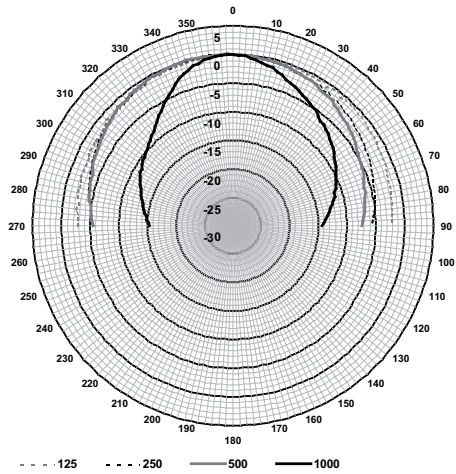
Dimensions LB3-PC250



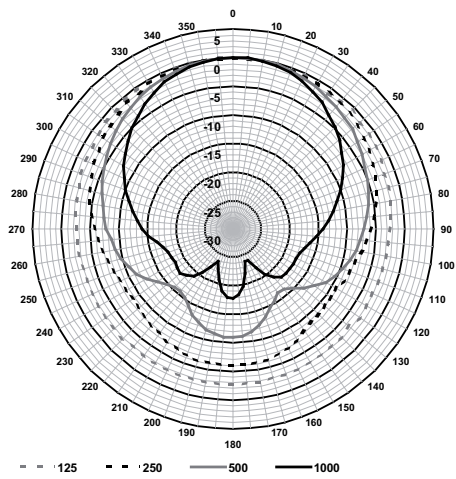
Connection panel on the rear side



Frequency response LB3-PC250



Vertical polar diagrams of LB3-PC250 (pink noise octave, normalized at 0° axis)



Horizontal polar diagrams of LB3-PC250 (pink noise octave, normalized at 0° axis)

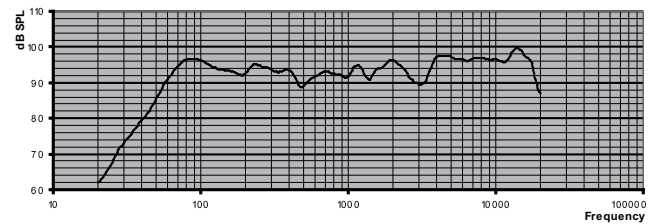
Octave band sensitivity *

	Octave SPL 1W/1m	Total octave SPL 1W/1m	Total octave SPL Pmax/1m
125 Hz	92.8	-	-
250 Hz	93.3	-	-
500 Hz	93.6	-	-
1000 Hz	94.7	-	-
2000 Hz	97	-	-
4000 Hz	96.8	-	-
8000 Hz	98	-	-
A-weighted	-	93.7	-
Lin-weighted	-	95.1	-

Octave band opening angles

	Horizontal	Vertical
125 Hz	360	360
250 Hz	183	180
500 Hz	152	162
1000 Hz	100	70
2000 Hz	77	66
4000 Hz	87	44
8000 Hz	86	32

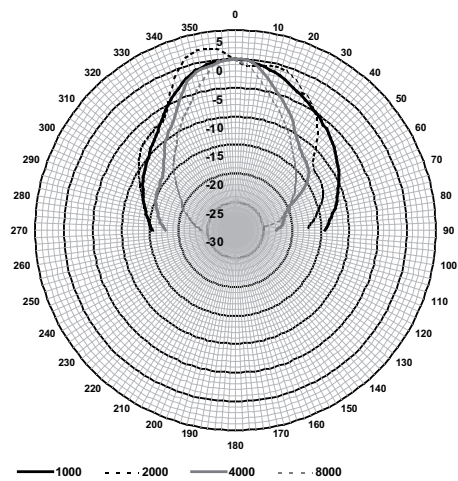
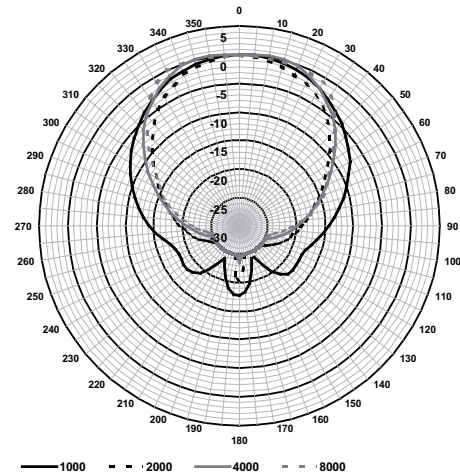
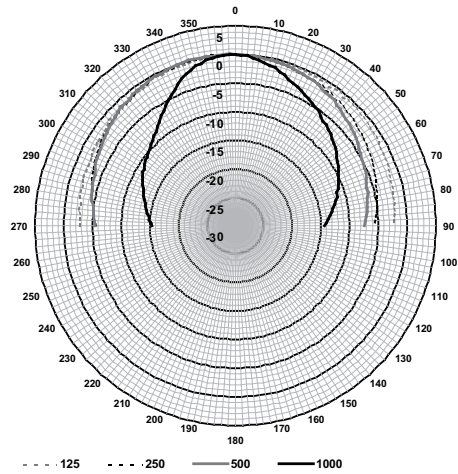
LB3-PC250. Acoustical performance specified per octave.
*all measurements are done with a pink noise signal; the values are in dB SPL



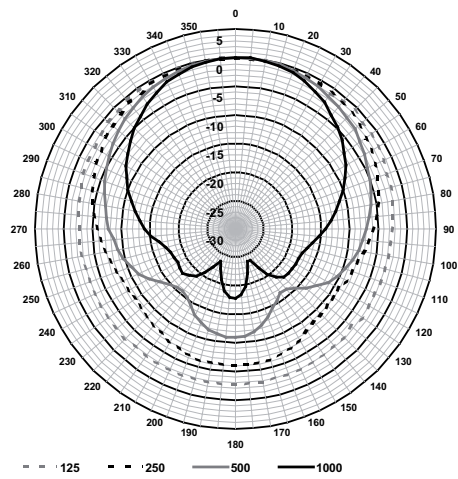
Frequency response LB3-PC350

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4



Vertical polar diagrams of LB3-PC350 (pink noise octave, normalized at 0° axis)



Horizontal polar diagrams of LB3-PC350 (pink noise octave, normalized at 0° axis)

Octave band sensitivity *

	Octave SPL 1W/1m	Total octave SPL 1W/1m	Total octave SPL Pmax/1m
125 Hz	93.3	-	-
250 Hz	93.8	-	-
500 Hz	93.0	-	-
1000 Hz	93.6	-	-
2000 Hz	95.2	-	-
4000 Hz	96.6	-	-
8000 Hz	98.4	-	-
A-weighted	-	93.3	-
Lin-weighted	-	95.3	-

Octave band opening angles

	Horizontal	Vertical
125 Hz	360	360
250 Hz	183	180
500 Hz	152	162
1000 Hz	100	70
2000 Hz	77	66
4000 Hz	87	44
8000 Hz	86	32

LB3-PC350. Acoustical performance specified per octave.
*all measurements are done with a pink noise signal; the values are in dB SPL

Parts Included

Quantity	Components
1	LB3-PCx50
1	Installation instruction

Technical Specifications

Electrical*

Product	LB3-PC250	LB3-PC350
Description	Premium 250 W Cabinet Loudspeaker	Premium 350 W Cabinet Loudspeaker
Maximum power	500 W	700 W
Rated power (PHC)	250 W	350 W
Power tapping	250 / 125 / 62.5 W	350 / 175 / 87.5 W
Sound pressure level at rated power / 1 W (1 kHz, 1 m)	117 dB / 94 dB (SPL)	122 dB / 97 dB (SPL)
Effective frequency range (-10 dB)	55 Hz to 18 kHz	48 Hz to 18 kHz
Opening angle at 1 kHz / 4 kHz (-6 dB)		
horizontal	100° / 87°	100° / 87°
vertical	70° / 44°	70° / 44°
Rated input voltage	70 / 100 V	70 / 100 V
Rated impedance	20 / 40 ohm	14 / 29 ohm

* Technical performance data acc. to IEC 60268-5

Mechanical

Product	LB3-PC250	LB3-PC350
Dimensions (WxDxH)	410x367x595 mm (16.1x16.9x23.4 in)	470x420x720 mm (18.5 x16.6x28.4 in)
Connectors	SPEAKON 3-pole ceramic screw block	SPEAKON 3-pole ceramic screw block
Loudspeaker diameter		
Woofer	305 mm (12 in)	381 mm (15 in)
Driver	25.4 mm (1 in)	25.4 mm (1 in)
Material		
Cabinet	ABS VO	ABS VO
Front grille	Powder coated steel	Powder coated steel
Color	Charcoal (RAL 7021) (D)	Charcoal (RAL 7021) (D)
Weight	19 kg (42 lb)	34 kg (74 lb)

Environmental

Operating temperature	-10 °C to +40 °C (-14 °F to +104 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Ordering Information

LB3-PC250 Premium 250W Cabinet Loudspeaker 12", 250 W premium loudspeaker	LB3-PC250
LB3-PC350 Premium 350W Cabinet Loudspeaker 15", 350 W premium loudspeaker	LB3-PC350