

LBC347x/00 Horn and driver loudspeaker range

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BOSCH
Invented for life



- ▶ High efficiency drivers
- ▶ Excellent speech reproduction
- ▶ Easy assembly
- ▶ Water- and dust protected to IP 65
- ▶ Provision for inside mounting of optional supervision boards

Bosch high-efficiency horn loudspeakers provide excellent speech reproduction and sound distribution for a wide scope of outdoor applications. They are ideal for sports grounds, parks, exhibitions, factories and swimming pools.

System overview

This range includes two circular type horns with aperture diameters of 355 mm (14 in) and 490 mm (20 in) and three driver units of 25 W, 35 W and 50 W. The assembly of the horn with the driver (separate ordered) results in an integrated horn loudspeaker. In this way the assembly of horn and driver, LBC3472/00 and LBC3478/00 is identical to the integrated horn loudspeaker LBC3482/00. The assembly of LBC3473/00 and LBC3479/00 is identical to the integrated horn loudspeaker LBC3483/00. The assembly of LBC3474/00 and LBC3479/00 is identical to the integrated horn loudspeaker LBC3484/00.

The horns LBC3478/00 and LBC3479/00 are made from aluminum and the edges of the horns are covered with a PVC profile for protection against impact damage.

The driver units LBC3472/00, LBC3473/00 and LBC 3474/00 have an aluminum inner cone and are provided with steel mounting brackets. The rear cover of the driver units is made from self-extinguishing ABS (Acc. to class UL 94 V 0).

Both horns and drivers are finished in light grey (RAL 7035).



Notice

To reduce packaging volume and cost, the drivers as well as the horns are packaged 6 per box. The minimum order quantity is therefore 6 drivers and 6 horns.

Drivers and horns to be ordered separately.

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.

Safety	Acc. to EN 60065
Water and dust protection	Acc. to IEC 60529, IP 65
Emergency	Acc. to BS 5839-8

Installation/configuration notes

Assembly

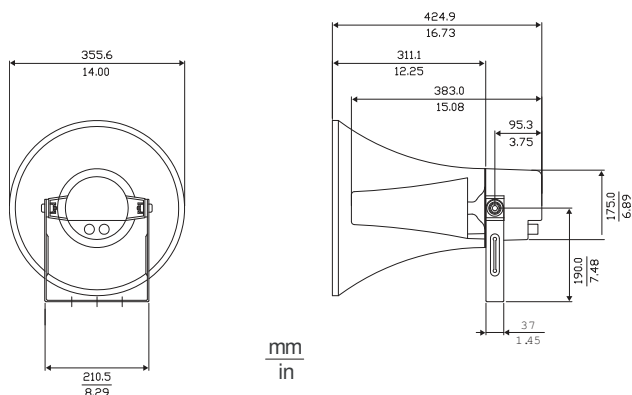
The horn and the driver are assembled by means of 3 screws (standard supplied). A steel mounting bracket is standard fitted onto the driver unit, allowing the sound beam to be accurately directed.

The connection cable is fed out through an ABS cable gland (PG 13.5) in the rear cover of the driver unit. For loop through connection, the rear cover is fitted with a second hole (covered as standard supplied).

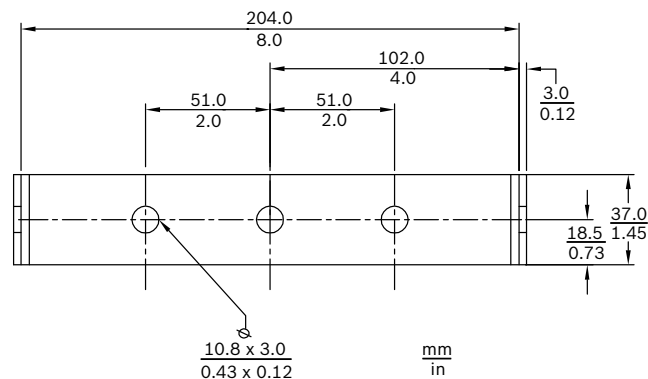
The drivers have provision for mounting the optional line/loudspeaker supervision board.

Simple power setting

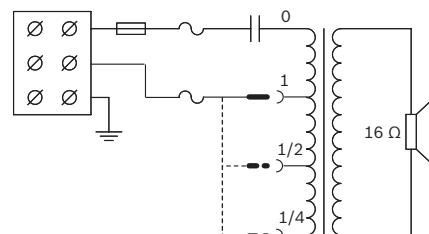
The horn driver has a three-way terminal block with screw connection (including earth). Three primary taps are provided on the matching transformer to allow selection of nominal full-power, half-power or quarter-power radiation (i.e. in 3 dB steps).



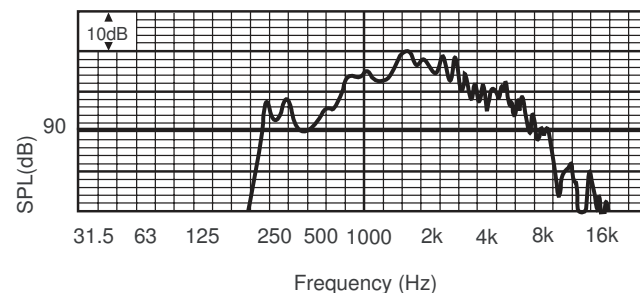
LBC3472/00 with LBC3478/00 dimensions in mm (in)



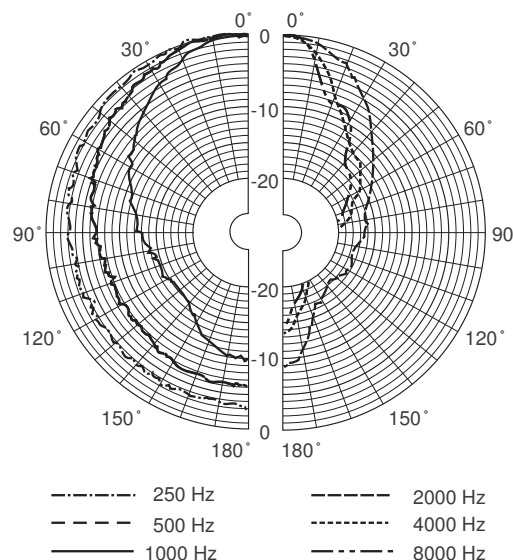
LBC3472/00 bracket dimensions in mm (in)



LBC3472/00 circuit diagram



LBC3472/00 with LBC3478/00 frequency response



LBC3472/00 with LBC3478/00 polar diagram (measured in pink noise)

Octave band sensitivity *

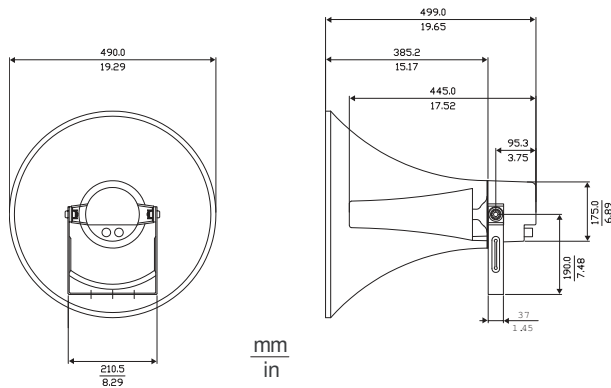
	Octave SPL 1W/1m	Total octave SPL 1W/1m	Total octave SPL Pmax/1m
125 Hz	60.1	-	-
250 Hz	86.6	-	-
500 Hz	100.2	-	-
1000 Hz	106.9	-	-
2000 Hz	104.1	-	-
4000 Hz	99.4	-	-
8000 Hz	87.8	-	-
A-weighted	-	100.1	113.0
Lin-weighted	-	99.8	111.8

Octave band opening angles

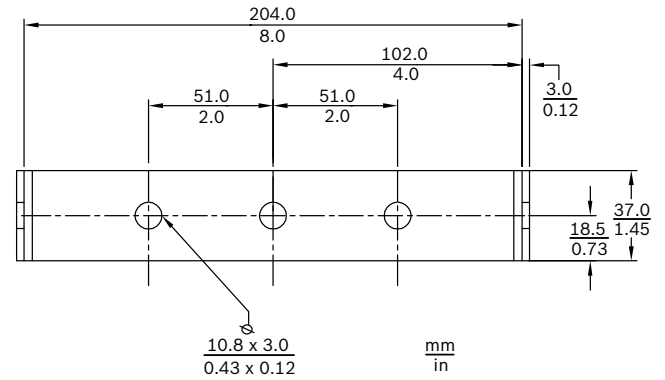
	Horizontal	Vertical
125 Hz	-	-
250 Hz	360	360
500 Hz	120	120
1000 Hz	75	75
2000 Hz	43	43
4000 Hz	25	25
8000 Hz	22	22

LBC3472/00 with LBC3478/00. Acoustical performance specified per octave

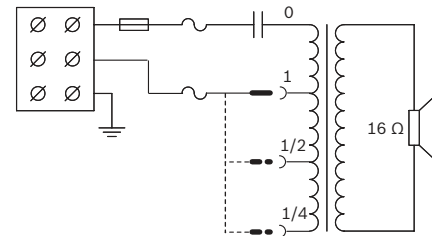
- * All measurements are done with a pink noise signal; the values are in dB SPL.



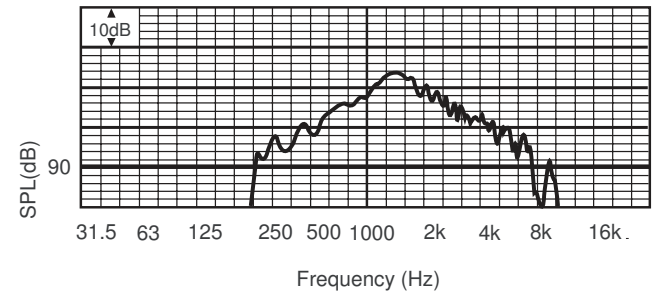
LBC3473/00 with LBC3479/00 dimensions in mm (in)



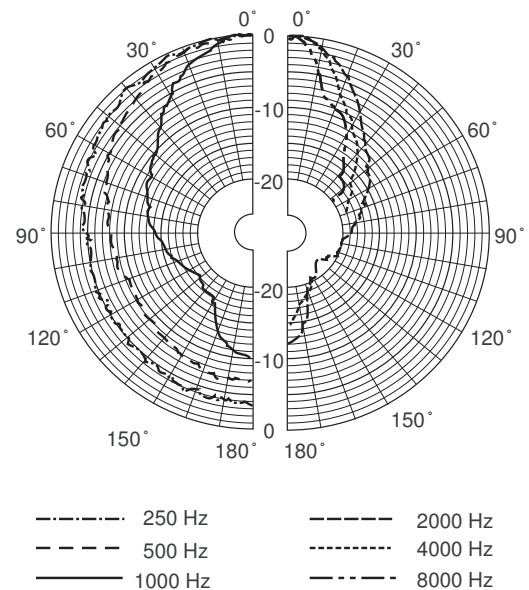
LBC3473/00 bracket dimensions in mm (in)



LBC3473/00 circuit diagram



LBC3473/00 with LBC3479/00 frequency response



LBC 3473/00 with LBC3479/00 polar diagram (measured in pink noise)

Octave band sensitivity *

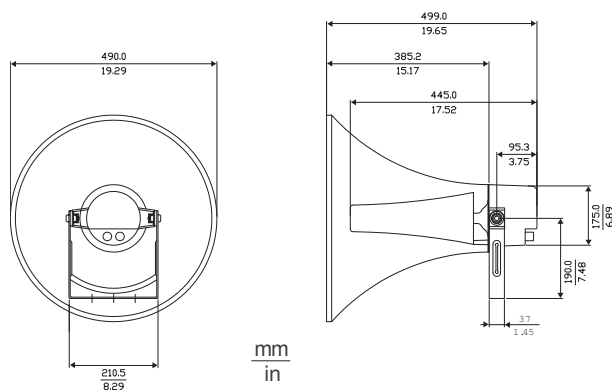
	Octave SPL 1W/1m	Total octave SPL 1W/1m	Total octave SPL Pmax/1m
125 Hz	74.0	-	-
250 Hz	91.7	-	-
500 Hz	102.5	-	-
1000 Hz	111.3	-	-
2000 Hz	106.5	-	-
4000 Hz	99.9	-	-
8000 Hz	92.6	-	-
A-weighted	-	103.5	117.1
Lin-weighted	-	103.4	115.6

Octave band opening angles

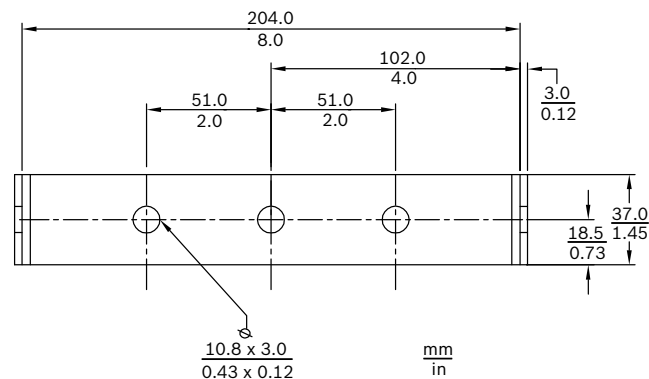
	Horizontal	Vertical
125 Hz	-	-
250 Hz	179	179
500 Hz	93	93
1000 Hz	55	55
2000 Hz	37	37
4000 Hz	26	26
8000 Hz	15	15

LBC3473/00 with LBC3479/00 Acoustical performance specified per octave

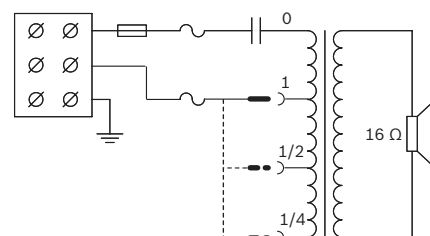
- * All measurements are done with a pink noise signal; the values are in dB SPL.



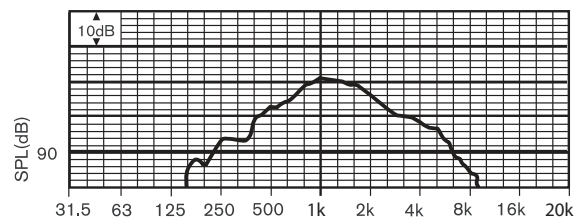
LBC3474/00 with LBC3479/00 dimensions in mm (in)



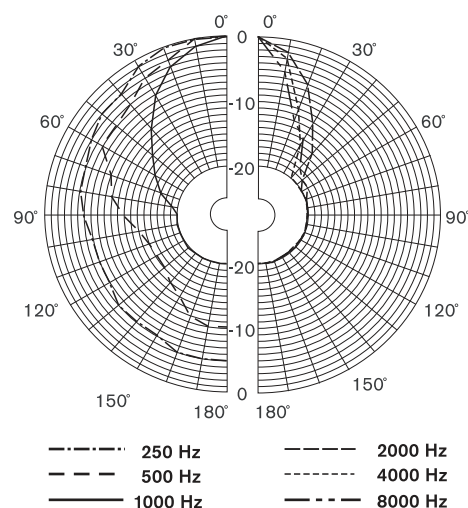
LBC3474/00 bracket dimensions in mm (in)



LBC3474/00 circuit diagram



LBC3474/00 with LBC3479/00 frequency response



LBC3474/00 with LBC3479/00 polar diagram (measured in pink noise)

Octave band sensitivity *

	Octave SPL 1W/1m	Total octave SPL 1W/1m	Total octave SPL Pmax/1m
125 Hz	84.3	-	-
250 Hz	99.0	-	-
500 Hz	105.2	-	-
1000 Hz	111.0	-	-
2000 Hz	106.2	-	-
4000 Hz	99.2	-	-
8000 Hz	91.2	-	-
A-weighted	-	103.3	117.7
Lin-weighted	-	103.5	116.3

Octave band opening angles

	Horizontal	Vertical	
125 Hz	-	-	
250 Hz	179	179	
500 Hz	93	93	
1000 Hz	55	55	
2000 Hz	37	37	
4000 Hz	26	26	
8000 Hz	15	15	

LBC3474/00 with LBC3479/00 acoustical performance specified per octave

- * All measurements are done with a pink noise signal; the values are in dBSPL.

Technical specifications

LBC3472/00 and LBC3478/00 Electrical*

Maximum power	37.5 W
Rated power	25 / 12.5 / 6.25 W
Sound pressure level at 25 W / 1 W (1 kHz, 1 m)	121 dB / 107 dB (SPL)
Effective frequency range (-10 dB)	550 Hz to 5 kHz
Opening angle at 1 kHz/4 kHz (-6 dB)	70° / 25°
Rated voltage	100 V

Rated impedance	400 ohm
Connector	Screw terminal block

* Technical performance data according to IEC 60268-5

Mechanical

Dimensions (L x Dmax)	Horn: 355 x 311 mm (14 x 12.2 in) Driver: 383 x 175 mm (15 x 6.9 in)
Weight	Horn: 0.7 kg (1.54 lb) Driver: 2.9 kg (6.38 lb)
Color	Light grey (RAL 7035)
Cable diameter	6 mm to 12 mm (0.24 in to 0.47 in)

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%

LBC3473/00 and LBC3479/00 Electrical*

Maximum power	52.5 W
Rated power	35 / 17.5 / 8.75 W
Sound pressure level at 35 W / 1 W (1 kHz, 1 m)	127 dB / 112 dB (SPL)
Effective frequency range (-10 dB)	380 Hz to 5 kHz
Opening angle at 1 kHz/4 kHz (-6 dB)	50° / 25°
Rated voltage	100 V
Rated impedance	286 ohm
Connector	Screw terminal block

* Technical performance data according to IEC 60268-5

Mechanical

Dimensions (L x Dmax)	Horn: 499 x 385 mm (19.64 x 15.16 in) Driver: 445 x 175 mm (17.5 x 6.88 in)
Weight	Horn: 1 kg (2.20 lb) Driver: 3.5 kg (7.70 lb)
Color	Light grey (RAL 7035)
Cable diameter	6 mm to 12 mm (0.24 in to 0.47 in)

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%

LBC3474/00 and LBC 3479/00 Electrical *

Maximum power	75 W
Rated power	50 / 25 / 12.5 W
Sound pressure level at 50 W / 1 W (1 kHz, 1 m)	127 dB / 110 dB (SPL)
Effective frequency range (-10 dB)	350 Hz to 4 kHz
Opening angle at 1 kHz/4 kHz (-6 dB)	60° / 28°
Rated voltage	100 V
Rated impedance	200 ohm
Connector	Screw terminal block

* Technical performance data according to IEC 60268-5

Mechanical

Dimensions (L x Dmax)	Horn: 499 x 385 mm (19.64 x 15.16 in) Driver: 445 x 175 mm (17.5 x 6.88 in)
Weight	Horn: 1 kg (2.20 lb) Driver: 5 kg (11 lb)
Color	Light grey (RAL 7035)
Cable diameter	6 mm to 12 mm (0.24 in to 0.47 in)

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

LBC3472/00 Horn driver unit, 25W

Horn driver 25 W, for use with LBC3478/00 (14") or LBC3479/00 (20") horns, light gray RAL 7035.
Order number **LBC3472/00**

LBC3473/00 Horn driver unit, 35W

Horn driver 35 W, for use with LBC3478/00 (14") or LBC3479/00 (20") horns, light gray RAL 7035.
Order number **LBC3473/00**

LBC3474/00 Horn driver assembly, 50W

Horn driver 50 W, for use with LBC3478/00 (14") or LBC3479/00 (20") horns, light gray RAL 7035.
Order number **LBC3474/00**

LBC3478/00 Horn, 14", without driver

Horn 14" without driver, aluminum material, for use with horn drivers LBC3472/00 (25 W), LBC3473/00 (35 W), and LBC3474/00 (50 W), light gray RAL 7035.
Order number **LBC3478/00**

LBC3479/00 Horn, 20", assembly part

Horn 20" without driver, aluminum material, for use with horn drivers LBC3472/00 (25 W), LBC3473/00 (35 W), and LBC3474/00 (50 W), light gray RAL 7035.
Order number **LBC3479/00**

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