



LBC 34xx/12 Horn Loudspeakers



- ▶ High efficiency drivers
- ▶ Up to 45 W (max. power)
- ▶ Wide opening angle
- ▶ Excellent speech reproduction
- ▶ Simple power setting
- ▶ Water- and dust protected to IP 65
- ▶ Versatile mounting bracket
- ▶ Comply with international installation and safety regulations

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.

Functions

All four models are for direct connection to a 100 V line output and are finished in light grey (RAL 7035). The horns are water and dust protected.

The horn loudspeakers include a 100 V transformer with taps on the primary winding to allow different power settings. Nominal full-power, half-power or quarter-power radiation (i.e. in 3 dB steps) can easily be selected by connecting the amplifier output to the appropriate tap. A two meter long four-core cable is fitted to the horns. Each core is a different color, and is connected to one of the primary taps on the transformer.

The horn loudspeakers are supplied complete with sturdy adjustable mounting brackets, allowing the sound beam to be accurately directed.

System Overview

The LBC 3481/12 is a circular horn loudspeaker with 15 W (max power) which is made from ABS

The LBC 3491/12 is a rectangular model with 15 W (max power) and is made from ABS.

The 30 W (max power) LBC 3492/12 is a circular loudspeaker with a large horn measuring 354mm in diameter. It is made from a combination of aluminum with ABS for optimum strength and low weight. The edge of the horn is covered with a PVC profile for protection against impact damage.

The 45 W (max power) LBC 3493/12 is a circular loudspeaker with a large horn measuring 400mm in diameter. It is made from a combination of aluminum with ABS for optimum strength and low weight. The edge of the horn is covered with PVC for protection against impact damage.

Certifications and Approvals

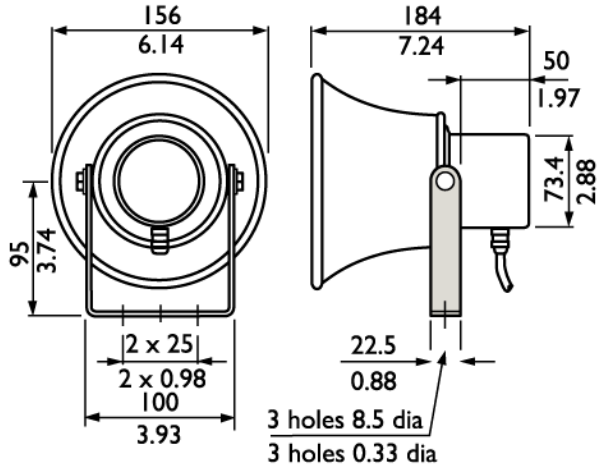
All Bosch loudspeakers are designed to withstand operating at their rated power for 100 hours in accordance with IEC 268-5 Power Handling Capacity (PHC) standards. Bosch has also developed the Simulated Acoustical Feedback Exposure (SAFE) test to demonstrate that they can withstand two times their

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.

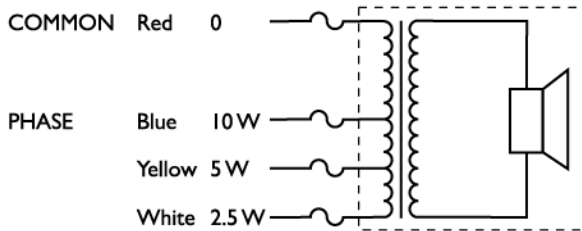
Safety	EN 60065
Self-Extinguishing	according to UL94V0

Installation/Configuration Notes

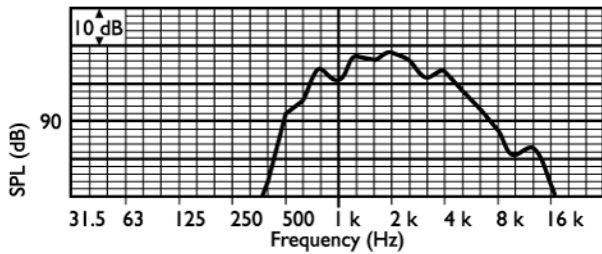
LBC 3481/12



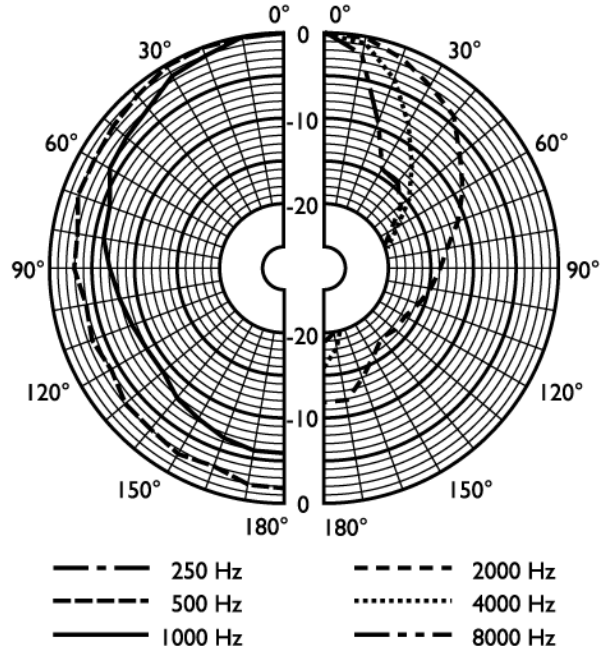
Dimensions (in mm/inch)



Circuit diagram



Frequency response

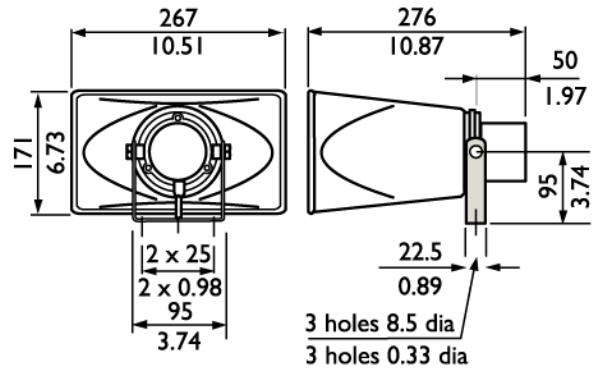


Polar diagram (measured with pink noise)

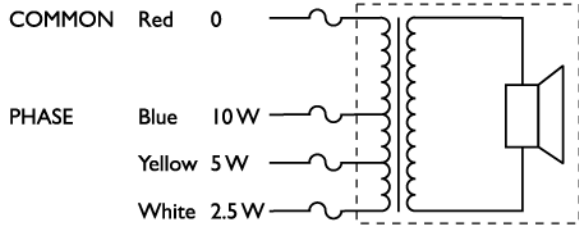
Octave band (Hz)	125	250	500	1k	2k	4k	8k
SPL 1.1	-	-	94	103	105	98	86
SPL max.	-	-	104	113	115	108	96
Q-factor	-	-	1.7	3.5	7.8	25.7	52.5
Efficiency	-	-	1.82	7.08	5.13	0.31	0.01
Hor. angle	-	-	180	160	95	50	30
Vert. angle	-	-	180	160	95	50	30

Quick reference table

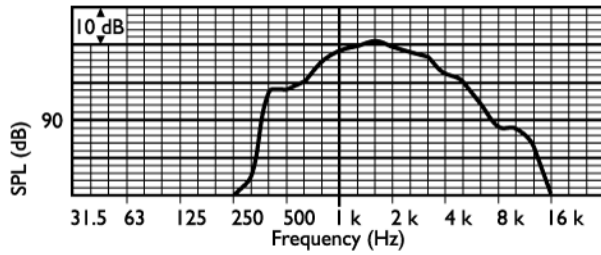
LBC 3491/12



Dimensions (in mm/inch)



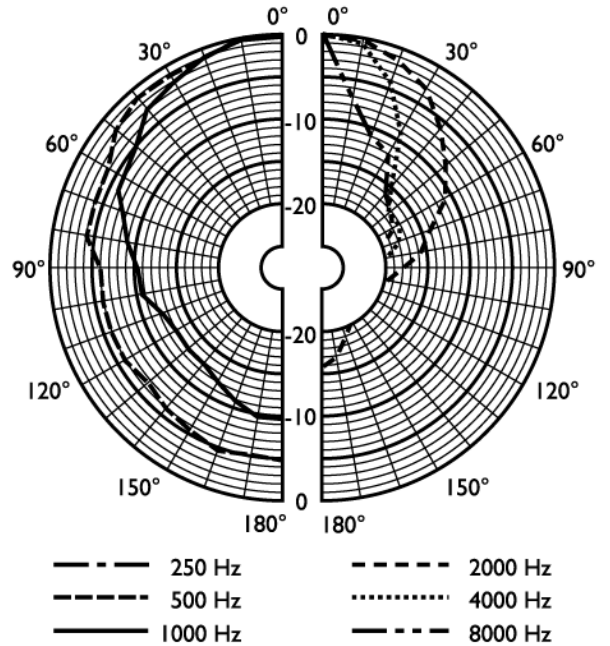
Circuit diagram



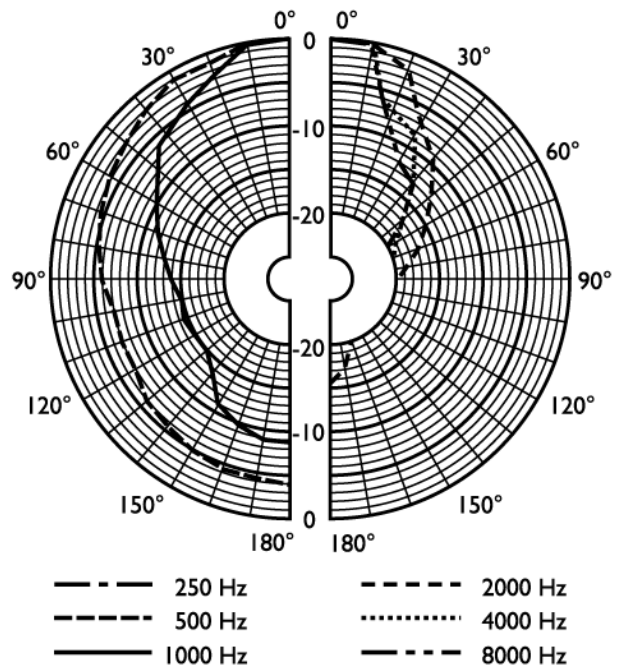
Frequency response

Octave band (Hz)	125	250	500	1k	2k	4k	8k
SPL 1.1	-	-	99	108	111	106	97
SPL max.	-	-	109	118	121	116	107
Q-factor	-	-	2.7	6.5	15.8	40.7	75.9
Efficiency	-	-	3.72	12.3	10	1.23	0.08
Hor. angle	-	-	180	90	55	40	30
Vert. angle	-	-	180	130	80	45	15

Quick reference table

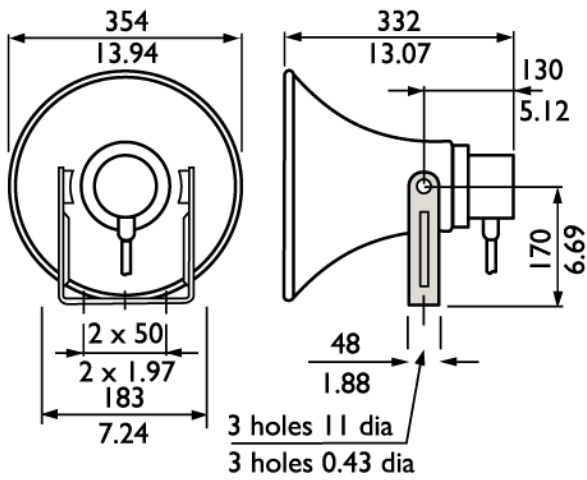


Polar diagram vertical (measured with pink noise)

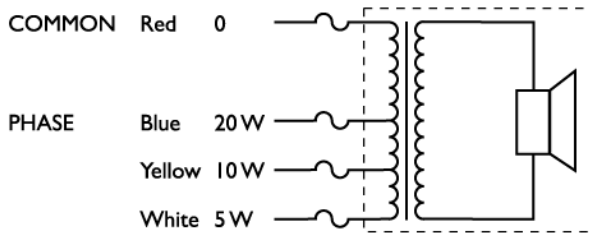


Polar diagram horizontal (measured with pink noise)

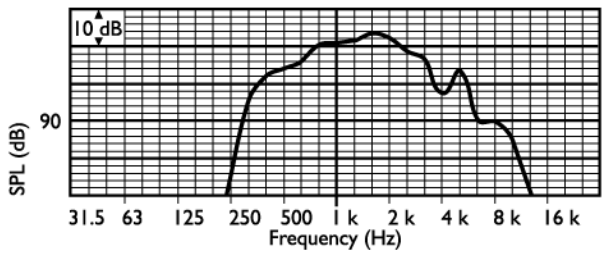
LBC 3492/12



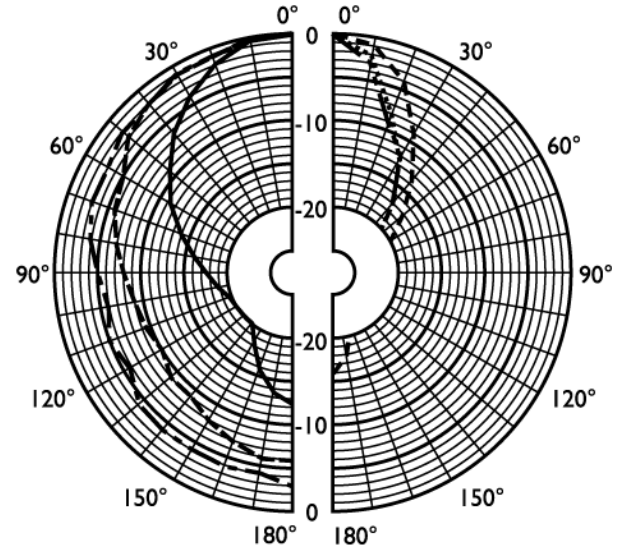
Dimensions (in mm/inch)



Circuit diagram



Frequency response

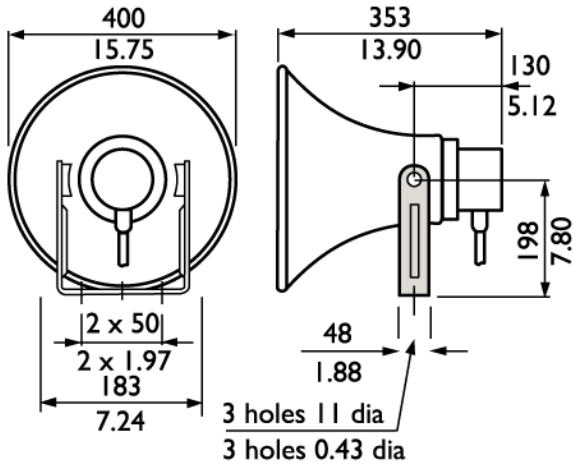


Polar diagram (measured with pink noise)

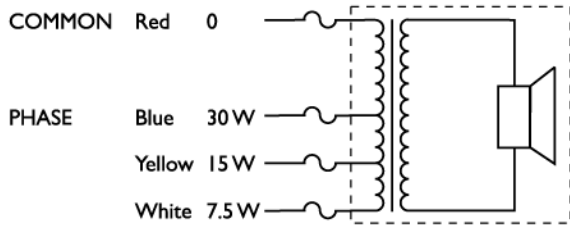
Octave band (Hz)	125	250	500	1k	2k	4k	8k
SPL 1.1	-	93	105	110	112	104	90
SPL max.	-	106	118	123	125	117	103
Q-factor	-	2.2	3.5	10.7	30.9	57.5	75.9
Efficiency	-	1.15	11.22	11.75	6.46	0.55	0.02
H. angle	-	180	145	80	45	35	30
V. angle	-	180	145	80	45	35	30

Quick reference table

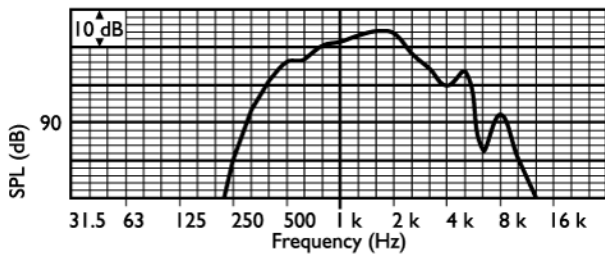
LBC 3493/12



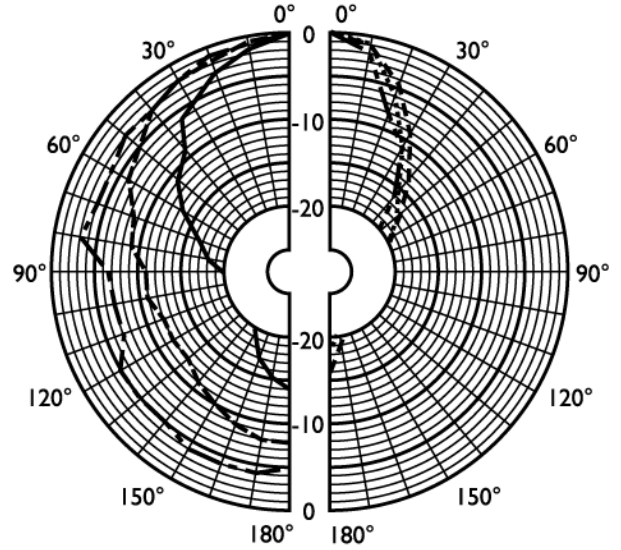
Dimensions (in mm/inch)



Circuit diagram



Frequency response



Polar diagram (measured with pink noise)

Octave band (Hz)	125	250	500	1k	2k	4k	8k
SPL 1.1	-	92	105	111	112	104	90
SPL max.	-	107	120	126	127	119	105
Q-factor	-	2.6	5.1	15.1	37.2	61.7	74.1
Efficiency	-	0.78	7.76	10.47	5.37	0.41	0.02
H. angle	-	180	120	70	45	40	30
V. angle	-	180	120	70	45	40	30

Quick reference table

Parts Included

Quantity	Components
1	LBC 34xx/12 Horn loudspeaker

Ordering Information

Model | Description

- LBC 3481/12 Horn Loudspeaker, Circular, 10 W
- LBC 3491/12 Horn Loudspeaker, Rectangular, 10 W
- LBC 3492/12 Horn Loudspeaker, Circular, 20 W
- LBC 3493/12 Horn Loudspeaker, Circular, 30 W

Hardware Accessories

- LBC 1256/00 EVAC Connection Adapter
3-pole screw connector (100 pcs)

LBC 34xx/12 Horn Loudspeakers

	LBC 3481/12	LBC 3491/12	LBC 3492/12	LBC 3493/12
Electrical				
Max. Power	15 W	15 W	30 W	45 W
Rated Power (PHC)	10 W (10 - 5 - 2.5 W)	10 W (10-5-2.5W)	20 W (20-10-5 W)	30 W (30-15-7.5 W)
Sound Pressure Level at Rated Power/1 W (at 1 kHz, 1 m)				
	113 dB / 103 dB (SPL)	118 dB / 108 dB (SPL)	123 dB / 110 dB (SPL)	126 dB / 111 dB (SPL)
Effective Frequency Range (-10 dB)	500Hz-7kHz	480Hz-5.5kHz	380Hz-5.5kHz	380Hz-5kHz
Opening Angle (1 kHz/4 kHz, -6 dB)				
Mechanical				
Horizontal	160° / 50°	90° / 40°	80° / 35°	70° / 40°
Vertical	160° / 50°	130° / 45°	80° / 35°	70° / 40°
Rated Voltage	100 V	100 V	100 V	100 V
Rated Impedance	1000 ohm	1000 ohm	500 ohm	333 ohm
Connection	4-wire cable 2 m long	4-wire cable 2 m long	4-wire cable 2 m long	4-wire cable 2 m long
Dimensions				
aperture (LxW)	-	267 x 171 mm 10.51 x 6.73 inch	-	-
Aperture Dia.	156 mm (6.14 inch)	-	354 mm (13.94 inch)	400 mm (15.75 inch)
Overall Length	184 mm (7.24 inch)	276 mm (10.87 inch)	332 mm (13.07 inch)	353 mm (13.90 inch)
Color	Light grey RAL 7035	Light grey RAL 7035	Light grey RAL 7035	Light grey RAL 7035
Weight	1.25 kg (2.75 lb)	1.4 kg (3.08 lb)	2.65 kg (5.83 lb)	3 kg (6.6 lb)
Environmental				
Ambient Temperature	-25°C to +55 °C	-25°C to +55 °C	-25°C to +55 °C	-25°C to +55 °C

Americas:
Bosch Security Systems
130 Perinton Parkway
Fairport, New York, 14450, USA
Phone: +1 585 223 4060
Fax: +1 800 289 0096
security.sales@us.bosch.com
www.boschsecurity.us

Europe, Middle East, Africa:
Bosch Security Systems B.V.
P.O. Box 80002
5600 JB Eindhoven, The Netherlands
Phone: +31 (0) 40 27 83955
Fax: +31 (0) 40 27 86668
emea.securitysystems@bosch.com
www.boschsecurity.com

Asia-Pacific:
Bosch Security Systems Pte Ltd
38C Jalan Pemimpin
Singapore 577180
Phone: +65 6319 3450
Fax: +65 6319 3499
apr.securitysystems@bosch.com
www.boschsecurity.com

Represented by