

LBC 34xx/12 Horn Loudspeakers



Security Systems



- 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

These 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.

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.

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.

Parts Included

Qty	Components
1	LBC 34xx/12 Horn loudspeakers
1	Sturdy Adjustable Mounting Bracket

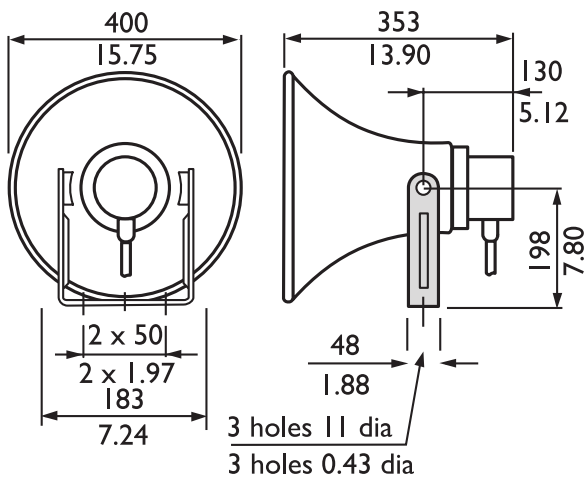
Certifications and Approvals

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.

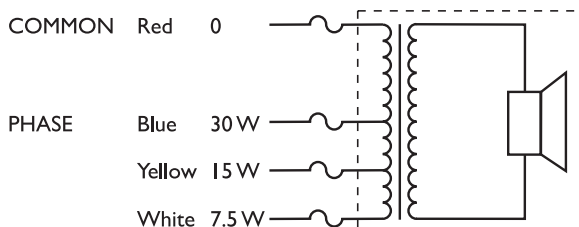
All ABS parts are self-extinguishing (according to UL94V0). In common with all Bosch products, care is taken to meet high safety standards. They comply with the relevant safety and installation regulations of EN 60065.

Installation/Configuration Notes

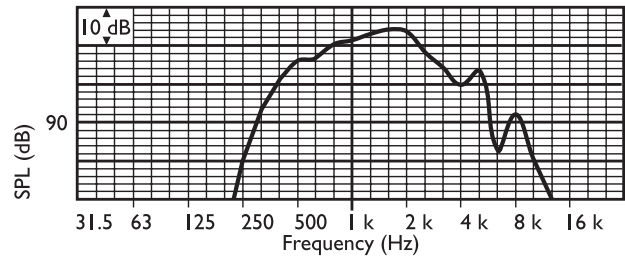
LBC 3493/12



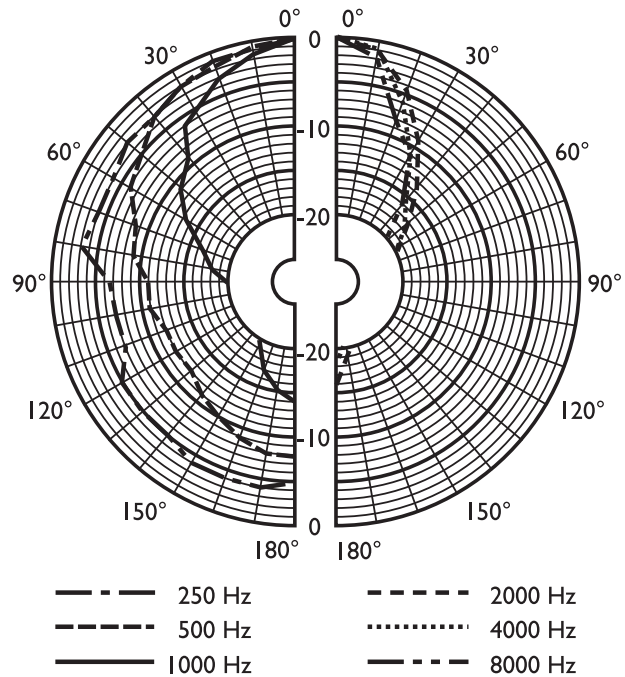
Dimensions (in mm/in)



Circuit diagram



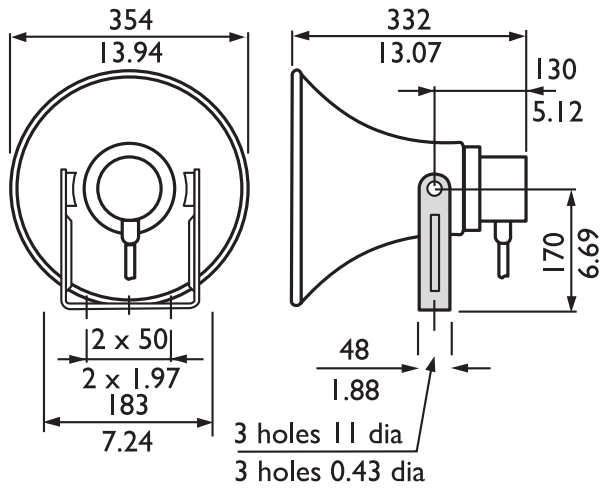
Frequency response



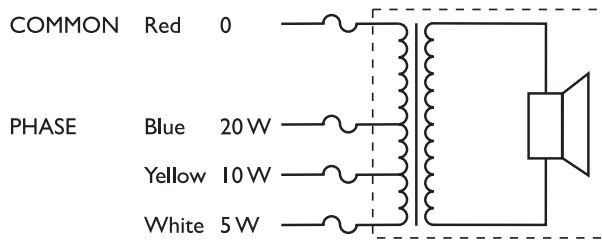
Polar diagram (measured with pink noise)

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

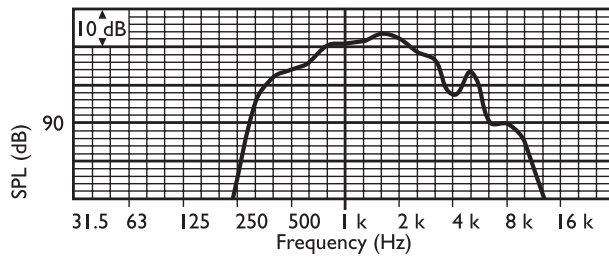
LBC 3492/12



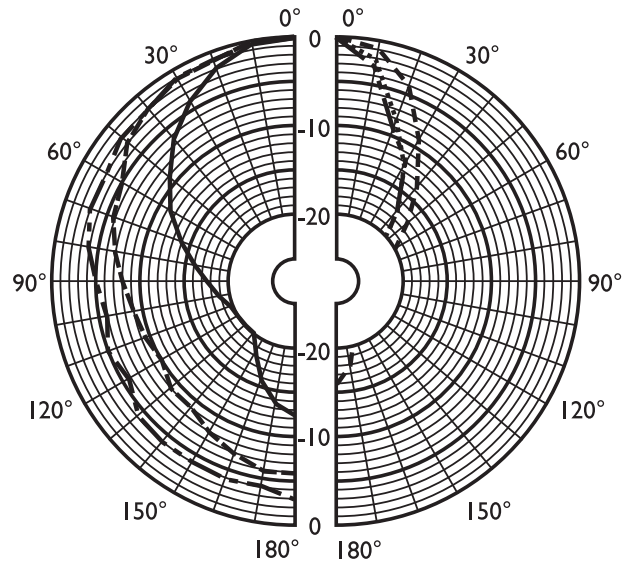
Dimensions (in mm/in)



Circuit diagram



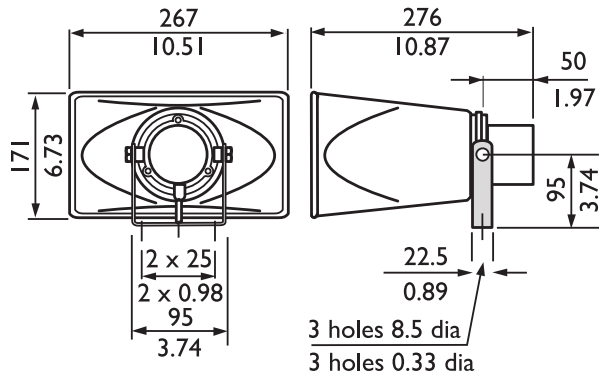
Frequency response



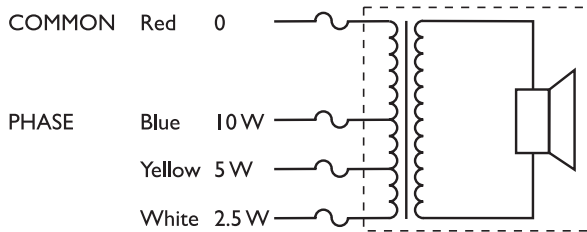
Polar diagram (measured with pink noise)

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

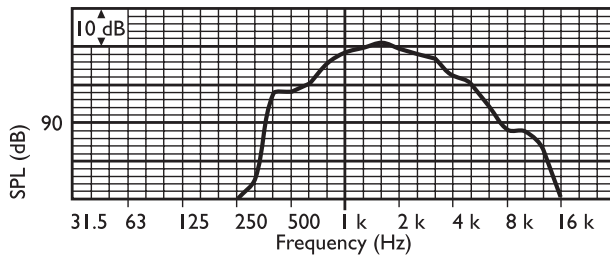
LBC 3491/12



Dimensions (in mm/in)

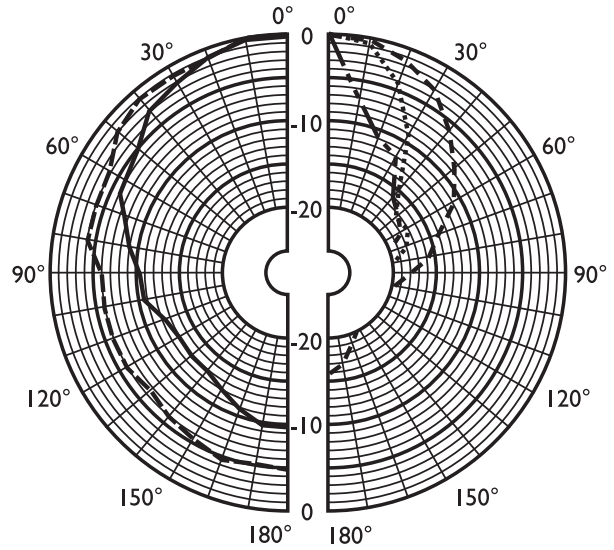


Circuit diagram

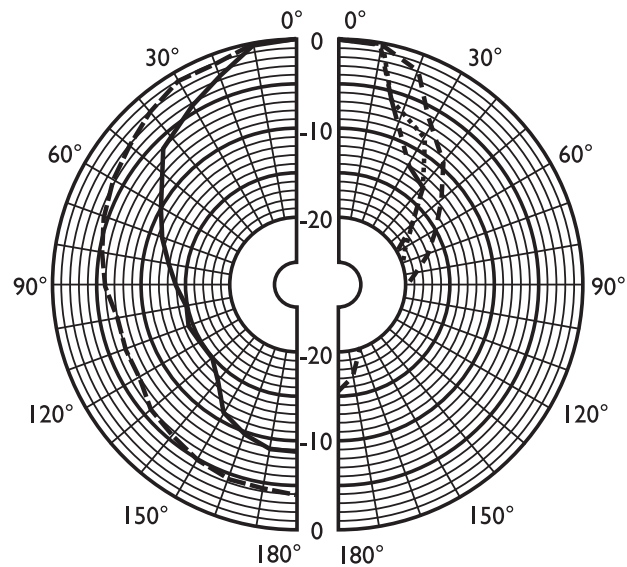


Frequency response

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



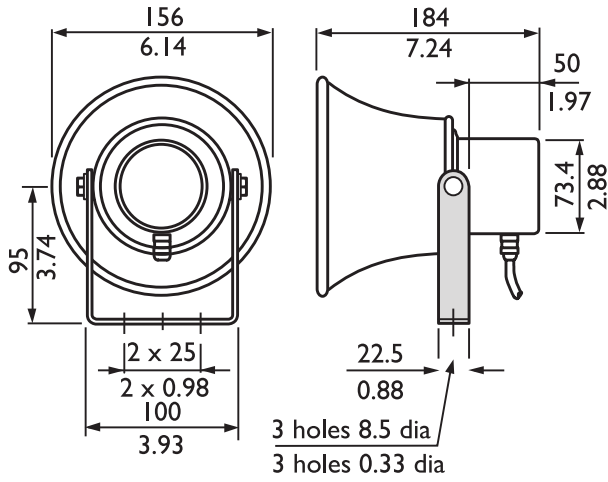
Polar diagram vertical (measured with pink noise)



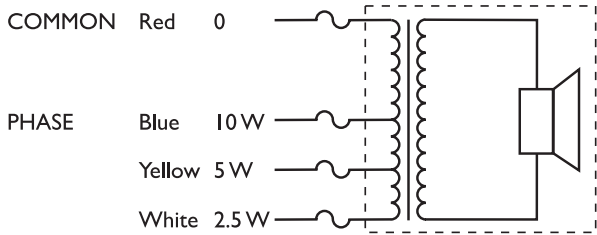
Polar diagram horizontal (measured with pink noise)



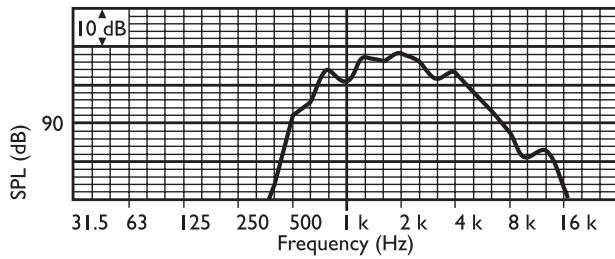
LBC 3481/12



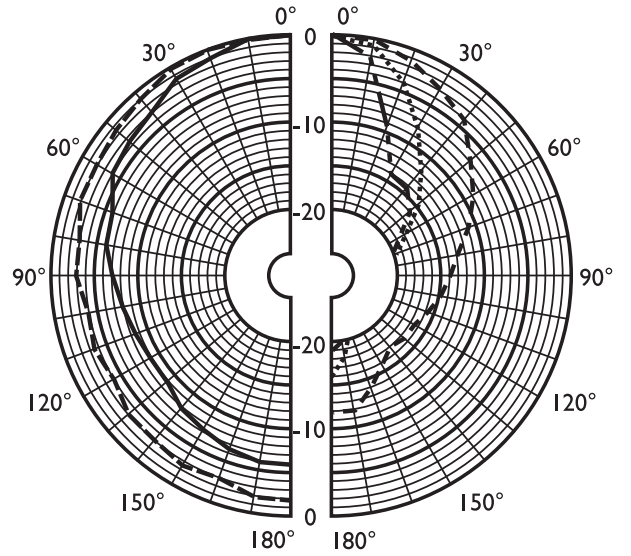
Dimensions (in mm/in)



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

LBC 34xx/12 Horn Loudspeakers				
	LBC 3481/12	LBC 3493/12	LBC 3492/12	LBC 3491/12
Max. pwr.	15 W	45 W	30 W	15 W
Rated pwr. (PHC)	10 W (10 - 5 - 2.5 W)	30 W (30-15-7.5 W)	20 W (20-10-5W)	20 W (20-10-5W)
Sound pressure level at rated power/1 W (at 1 kHz, 1 m)	113 dB/103 dB (SPL)	126 dB/111 dB (SPL)	123 dB /110 dB (SPL)	118 dB/108 dB (SPL)
Effective frequency range (-10 dB)	380 Hz- 5 kHz	380 Hz- 5 kHz	480Hz-5.5kHz	500Hz-7kHz
Opening angle (1 kHz/4 kHz, -6 dB)	-	70° / 40°	80° / 35°	-
horizontal	160° / 50°	-	-	90° / 40°
vertical	160° / 50°	-	-	130° / 45°
Rated Volt.	100 V	100 V	100 V	100 V
Rated impedance	1000 Ω	333 Ω		500 Ω
Ambient temp range	-25°C to +55 °C	-25°C to +55 °C	-25°C to +55 °C	-25°C to +55 °C
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) mm.	-	-	-	267x171
(LxW) in.	-	-	-	10.51x6.73
aperture dia.	156 mm (6.14 in)	400 mm (15.75 in)	354 mm (13.94 in)	-
overall length	184 mm (7.24 in)	353 mm (13.90 in)	332 mm (13.07 in)	276 mm (10.87 in)
Colour	Light grey RAL 7035	Light grey RAL 7035	Light grey RAL 7035	Light grey RAL 7035
Weight	1.25 kg (2.75 lb)	3 kg (6.6 lb)	2.65 kg (5.83 lb)	1.4 kg (3.08 lb)
Water- and dust protected	acc. to IEC 60529 IP 65	acc. to IEC 60529 IP 65	acc. to IEC 60529 IP 65	acc. to IEC 60529 IP 65