

- 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 •

Philips 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.

15, 30 and 45 W models

There are two 15 W (max. power) models in the range. The LBC 3481/12 is circular horn loudspeaker and the LBC 3491/12 is a rectangular model. The 30 W (max. power) LBC 3492/12 and the 45 W (max. power) LBC 3493/12 are both circular loudspeakers with large horns measuring 354 mm and 400 mm in diameter respectively. All four models are for direct connection to a 100 V line output.

The LBC 3481/12 and LBC 3491/12 are made from ABS, the LBC 3492/12 and LBC 3493/12 are made from a combination of aluminium with ABS for optimum strength and low weight. The edges of the horns of the LBC 3492/12 and LBC 3493/12 are covered with a PVC profile for protection against impact damage. All four



LBC 3481/12



LBC 3491/12



LBC 3492/12



LBC 3493/12

LBC 3481/12, LBC 3491/12, LBC 3492/12, LBC 3493/12

HORN LOUDSPEAKERS

models are finished in light grey (RAL 7035). The horns are water and dust protected.

Simple power setting

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 metre long four-core cable is fitted to the horns. Each core is a different colour, and is connected to one of the primary taps on the transformer.

Mounting

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

Quality Assurance

All Philips loudspeakers are designed to withstand operating at their rated power for 100 hours in

accordance with IEC 268-5 Power Handling Capacity (PHC) standards. Philips 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 aspects

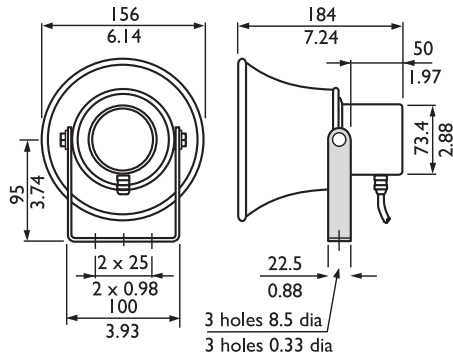
All ABS parts are self-extinguishing (according to UL94V0). In common with all Philips products, care is taken to meet high safety standards. They comply with the relevant safety and installation regulations of EN 60065.

SPECIFICATIONS

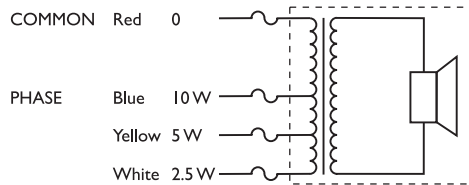
LBC 348I/I2, LBC 349I/I2, LBC 3492/I2, LBC 3493/I2

HORN LOUDSPEAKERS

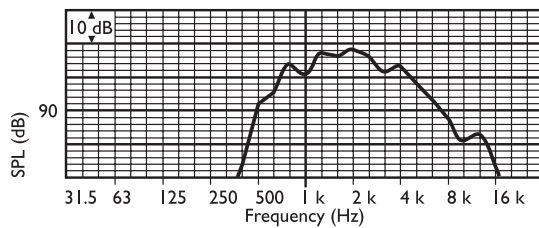
LBC 348I/I2



Dimensions (in mm/in)



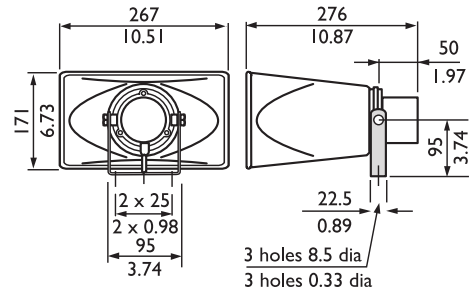
Circuit diagram



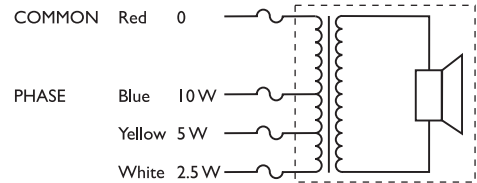
Frequency response

Octave band (Hz)	125	250	500	1 k	2 k	4 k	8 k
SPL I.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

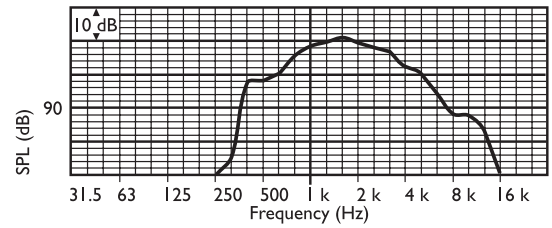
LBC 349I/I2



Dimensions (in mm/in)



Circuit diagram



Frequency response

Octave band (Hz)	125	250	500	1 k	2 k	4 k	8 k
SPL I.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

TECHNICAL PERFORMANCE DATA ACC. TO IEC 268-5

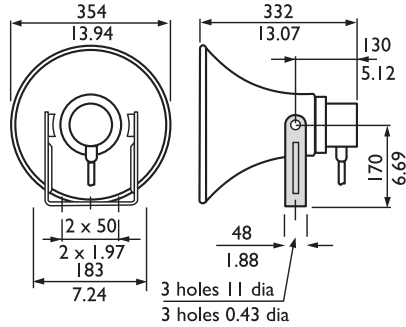
	LBC 348I/I2	LBC 349I/I2
Max. power	15 W	15 W
Rated power (PHC)	10 W (10 - 5 - 2.5 W)	10 W (10 - 5 - 2.5 W)
Sound pressure level at rated power/1 W (at 1 kHz, 1 m)	113 dB/103 dB (SPL)	118 dB/108 dB (SPL)
Effective frequency range (-10 dB)	500 Hz to 7 kHz	480 Hz to 5.5 kHz
Opening angle (at 1 kHz/4 kHz, -6 dB)		
horizontal	160°/50°	90°/40°
vertical	160°/50°	130°/45°
Rated voltage	100 V	100 V
Rated impedance	1000 Ω	1000 Ω
Ambient temperature range	-25 to +55 °C	-25 to +55 °C
Water- and dust protected	acc. to IEC 60529 IP 65 (all models)	
Safety	acc. to EN 60065 (all models)	
Connection	4-wire cable, 2 m long (all models)	
Dimensions		
aperture (L x W)	-	267 x 171 mm (10.51 x 6.73 in)
aperture dia.	156 mm (6.14 in)	-
overall length	184 mm (7.24 in)	276 mm (10.87 in)
Colour	Light grey RAL 7035 (all models)	
Weight	1.25 kg (2.75 lb)	1.4 kg (3.08 lb)

SPECIFICATIONS

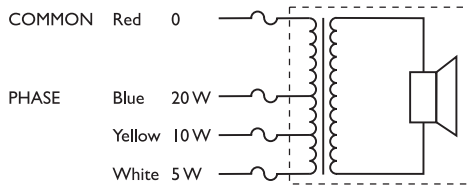
LBC 348I/I2, LBC 349I/I2, LBC 3492/I2, LBC 3493/I2

HORN LOUDSPEAKERS

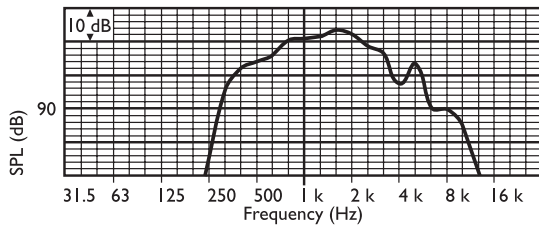
LBC 3492/I2



Dimensions (in mm/in)



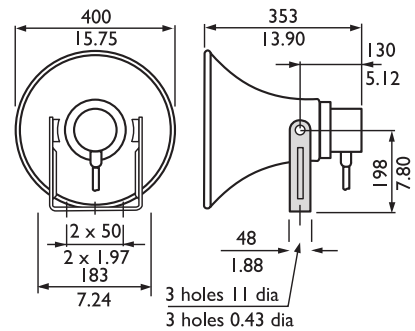
Circuit diagram



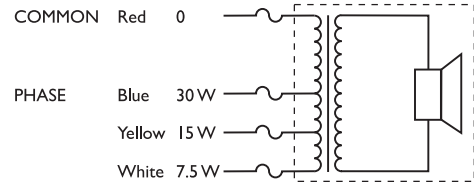
Frequency response

Octave band (Hz)	125	250	500	1 k	2 k	4 k	8 k
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
Hor. angle	-	180	145	80	45	35	30
Vert. angle	-	180	145	80	45	35	30

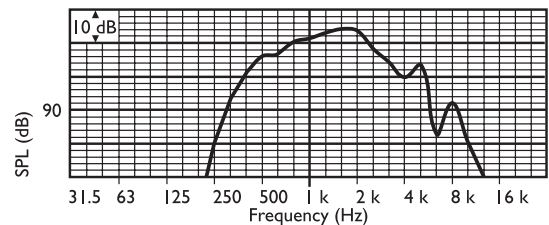
LBC 3493/I2



Dimensions (in mm/in)



Circuit diagram



Frequency response

Octave band (Hz)	125	250	500	1 k	2 k	4 k	8 k
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
Hor. angle	-	180	120	70	45	40	30
Vert. angle	-	180	120	70	45	40	30

TECHNICAL PERFORMANCE DATA ACC. TO IEC 268-5

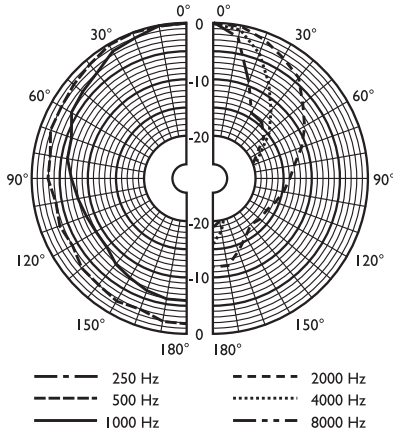
Max. power	LBC 3492/I2	LBC 3493/I2
Rated power (PHC)	30 W	45 W
Sound pressure level at rated power/1 W (at 1 kHz, 1 m)	20 W (20 - 10 - 5 W)	30 W (30 - 15 - 7.5 W)
Effective frequency range (-10 dB)	123 dB/110 dB (SPL)	126 dB/111 dB (SPL)
Opening angle (at 1 kHz/4 kHz, -6 dB)	380 Hz to 5.5 kHz	380 Hz to 5 kHz
Rated voltage	80°/35°	70°/40°
Rated impedance	100 V	100 V
Ambient temperature range	500 Ω	333 Ω
Water- and dust protected	-25 to +55 °C	-25 to +55 °C
Safety	acc. to IEC 60529 IP 65 (all models)	acc. to IEC 60529 IP 65 (all models)
Connection	acc. to EN 60065 (all models)	acc. to EN 60065 (all models)
Dimensions	4-wire cable, 2 m long (all models)	4-wire cable, 2 m long (all models)
aperture dia.	354 mm (13.94 in)	400 mm (15.75 in)
overall length	332 mm (13.07 in)	353 mm (13.90 in)
Colour	Light grey RAL 7035 (all models)	Light grey RAL 7035 (all models)
Weight	2.65 kg (5.83 lb)	3 kg (6.6 lb)

SPECIFICATIONS

LBC 3481/I2, LBC 3491/I2, LBC 3492/I2, LBC 3493/I2

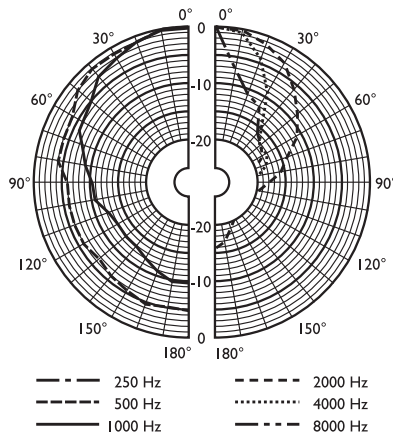
HORN LOUDSPEAKERS

LBC 3481/I2

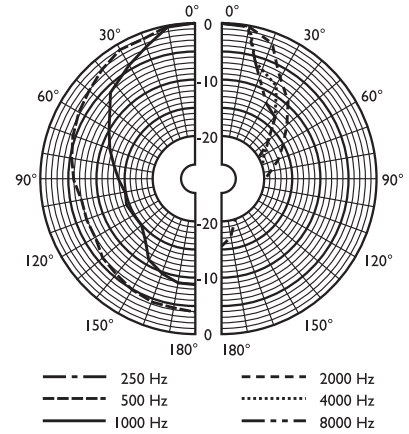


Polar diagram (measured with pink noise)

LBC 3491/I2

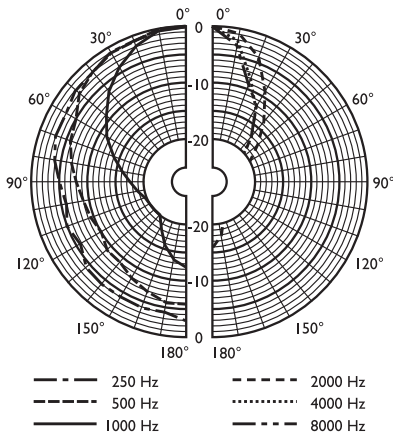


Polar diagram vertical (measured with pink noise)



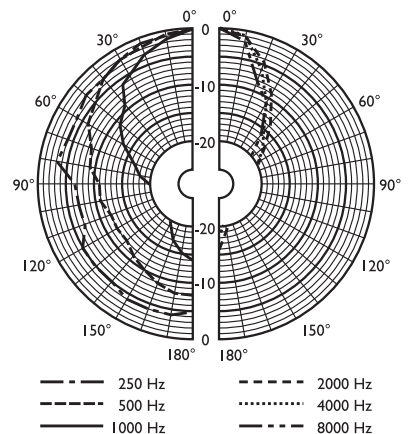
Polar diagram horizontal (measured with pink noise)

LBC 3492/I2



Polar diagram (measured with pink noise)

LBC 3493/I2



Polar diagram (measured with pink noise)



PHILIPS

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