



# LBC 343x/00 Horn Loudspeakers



- ▶ ATEX - approved
- ▶ BASEEFA-certified
- ▶ CENELEC-approved
- ▶ Glass reinforced polyester with strong, fire retardant properties
- ▶ Reduced maintenance costs
- ▶ Corrosion and chemical resistance
- ▶ Water- and dust protected to class IP66 & IP67
- ▶ Complies with international installation and safety regulations

The Bosch LBC 3437/00 and LBC 3438/00 Horn Loudspeakers are specifically designed and approved for installations where explosive gas-air mixtures are likely to be present. They are suitable for use in all gas groups including hydrogen.

## Functions

The flame paths, flare and body of both loudspeakers are constructed from a UV stable glass reinforced polyester (GRP). This strong, fire- and corrosion resistant material offers greater reliability and reduced maintenance costs. GRP is also chemical resistant and thermally stable, making it ideal for even the harshest environments. The horns are weather proof, and incorporate stainless steel mounting brackets and captive cover screws, and a stainless steel sinter, to increase their resistance to corrosion. They are supplied with an EExdIIC gland as standard.

## System Overview

The LBC 3437/00 has a power rating of 15 W, while the LBC 438/00 offers 25 W.

## 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.

	LBC 3437/00 & LBC 3438/00
Self-Extinguishing	acc. to class UL 94V1
Safety	EN 60065
Water- and dust protected	acc. to IEC 60529 IP66 & IP67
ATEX	Ex II 2 GD
BASEEFA*	Cert. No. BAS00ATEX2097X
	EExd IIC T5, Zones 1 & 2
CENELEC**	EN 50014, 18, 19

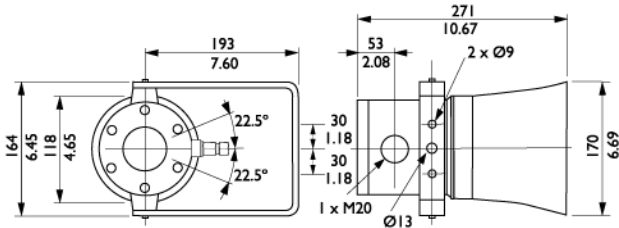
\* BASEEFA = British Approved Service for Electrical Equipment in Flammable Atmospheres

\*\*CENELEC = European Committee for Electrotechnical Standardization

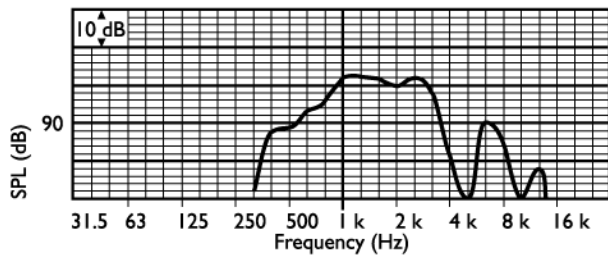
**Installation/Configuration Notes**

The horn loudspeakers include a built-in transformer with taps on the primary winding for different power settings.

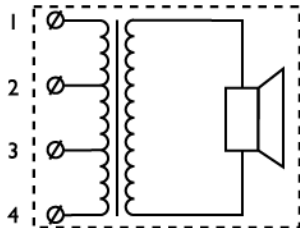
The horn loudspeakers are supplied with a sturdy mounting bracket allowing the sound beam to be accurately directed. The bracket has a ratchet facility to ensure it stays correctly positioned.



Dimensions (in mm and inches)

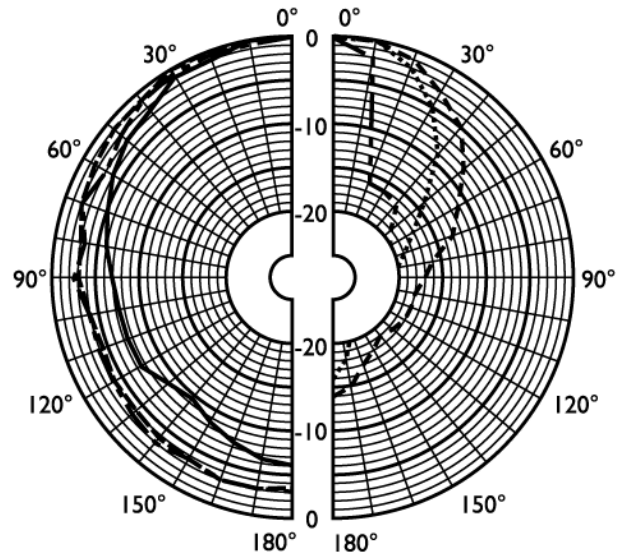


Frequency response



Transformer Tappings		Power	
Common	Phase	15 W	25 W
1	2	15.0	25.0
2	3	7.5	12.5
3	4	5.0	6.0
1	3	4.0	4.0
2	4	2.0	2.0
1	4	0.8	1.0

Circuit diagram



- 250 Hz
- 500 Hz
- 1000 Hz
- 2000 Hz
- ..... 4000 Hz
- 8000 Hz

Polar diagram (measured with pink noise)

**Parts Included**

Quantity	Component
1	LBC343x/00 Horn Loudspeaker
1	EExd II C gland

## Technical Specifications

### Electrical\*

	LBC 3437/00	LBC 3438/00
Maximum Power	22.5 W	37.5 W
Rated Power (PHC)	15 W (15 - 7.5 - 5 - 4 - 2 - 0.8 W)	25 W (25 - 12.5 - 6 - 4 - 2 - 1 W)
Sound Pressure Level At Rated Power/1 W (at 1 kHz, 1 m)	112 dB / 100 dB (SPL)	114 dB / 100 dB (SPL)
Effective Frequency Range (-10 dB)	420 Hz to 3.5 kHz	420 Hz to 3.5 kHz
Opening Angle (at 1 kHz/4 kHz, -6 dB)	160° / 60°	160° / 60°
Rated Voltage	100 V	100 V
Rated Impedance	667 ohm	400 ohm

### Mechanical

Connection	screw terminal block (8 x 2.5 mm <sup>2</sup> )	screw terminal block (8 x 2.5 mm <sup>2</sup> )
Cable Diameter Min - Max (mm)	7.5 - 11.9	7.5 - 11.9
Min - Max (in)	0.3 - 0.5	0.3 - 0.5

### Dimensions

Aperture Diameter	170 mm (6.7 inch)	170 mm (6.7 inch)
Overall Length	271 mm (10.7 inch)	271 mm (10.7 inch)
Color	Natural black	Natural black
Weight	5 kg (11 lbs)	5 kg (11 lbs)

### Environmental

Ambient Temperature	-20 to +55 °C	-20 to +55 °C
---------------------	---------------	---------------

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

## Ordering Information

### Model | Description

LBC 3437/00 Horn Loudspeaker  
15 W, flameproof

LBC 3438/00 Horn Loudspeaker  
25 W, flameproof