

LBC 343x/00 Horn Loudspeakers

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BOSCH
Invented for life



- ▶ ATEX approved
- ▶ CENELEC compliant
- ▶ BASEEFA certified
- ▶ Glass reinforced polyester with strong, fire retardant properties
- ▶ Reduced maintenance costs

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.

System Overview

The LBC 3437/00 has a power rating of 15 W, the LBC 3438/00 has 25 W.

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.

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.

Self-Extinguishing	acc. to class UL 94 V1
Water and dust protection	acc. to EN 60529, IP 66 and IP 67
ATEX	Ex II 2 GD
BASEEFA *	EExd II C T5, zones 1 and 2 (LBC 3437/00) EExd II C T4, zones 1 and 2 (LBC 3438/00) Cert. No. BAS00ATEX2097X
CENELEC **	EN 50014 EN 50018

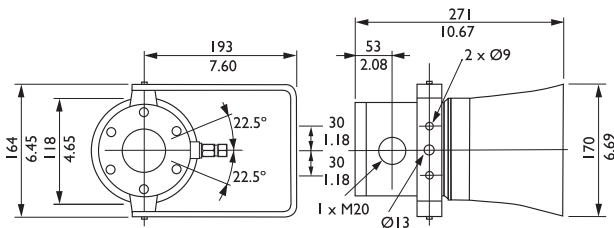
* BASEEFA = British Approved Service for Electrical Equipment in Flammable Atmospheres
 ** CENELEC = European Committee for Electrotechnical Standardization

Region	Certification
Europe	CE
	BASEE-FA

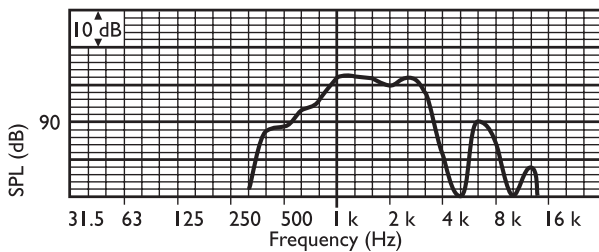
Installation/Configuration Notes

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

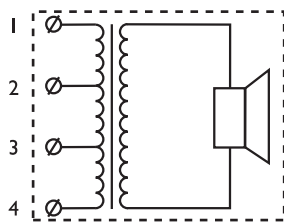
The horn loudspeakers are supplied with a sturdy mounting bracket allowing the sound beam to be accurately directed. The bracket has a ratchet facility to ensure it stays correctly positioned.



Dimensions in mm (in)



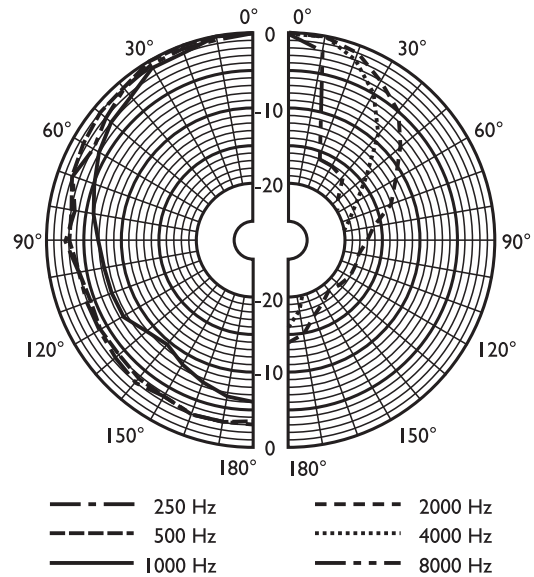
Frequency response



Transformer tappings		Rated 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



Polar diagram (measured with pink noise)

Parts Included

Quantity	Component
1	LBC 343x/00 Horn Loudspeaker
1	EExd II C gland

Technical Specifications

Electrical*

Product	LBC 3437/00	LBC 3438/00
Maximum power	22.5 W	37.5 W
Rated power	15/75/5/4/2/0.8 W	25/12.5/6/4/2/1 W
SPL at RP / 1 W (1 kHz, 1 m)	112 / 100 dB (SPL)	114 / 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
Connector	Screw terminal	Screw terminal

* Technical performance data acc. to IEC 60268-5

Mechanical

Dimensions (L x D max)	271 x 170 mm (10.7 x 6.7 in)	271 x 170 mm (10.7 x 6.7 in)
Weight	5 kg (11 lbs)	5 kg (11 lbs)
Color	Natural black	Natural black
Cable diameter	7.5 mm to 11.9 mm (0.3 in to 0.5 in)	7.5 mm to 11.9 mm (0.3 in to 0.5 in)

Environmental

Operating temperature	-20 °C to +55 °C (-4 °F to +131 °F)	-20 °C to +50 °C (-4 °F to +122 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%	<95%

Ordering Information

LBC 3437/00 Horn Loudspeaker

15 W, flameproof
Order number **LBC3437/00**

LBC 3438/00 Horn Loudspeaker

25 W, flameproof
Order number **LBC3438/00**

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