



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 IP 66 and IP 67
- ▶ 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.

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

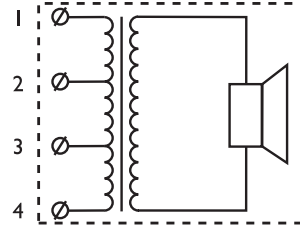
All Bosch loudspeakers are designed to withstand operating at their rated power for 100 hours in accordance with IEC 268-5 Power Handling Capacity (PHC) standards. Bosch has also developed the Simulated Acoustical Feedback Exposure (SAFE) test to demonstrate that they can withstand two times their rated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

Region	Certification
Europe	CE Declaration of Conformity Supplementary Examination Certificate

Safety	acc. to EN 60065
Self-Extinguishing	acc. to class UL 94 V1
Water and dust protection	acc. to IEC 60529, IP 66 and IP 67
ATEX	Ex II 2 GD
BASEEFA*	EExd II C T5, zones 1 and 2 Cert. No. BAS00ATEX2097X
CENELEC**	acc. to EN 50014 acc. to EN 50018 acc. to EN 50019

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

** CENELEC = European Committee for Electrotechnical Standardization



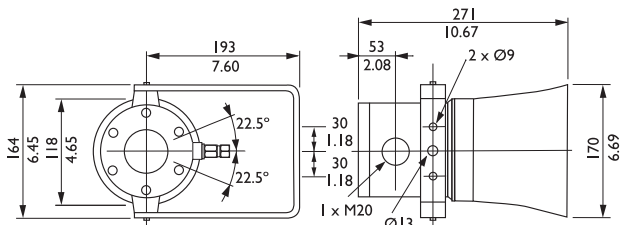
Transformer tappings		Rated power	
Com- mon	Phase	15 W	25 W
1	2	15.0	25.0
2	3	7.5	12.5
3	4	5.0	6.0
1	3	4.0	4.0
2	4	2.0	2.0
1	4	0.8	1.0

Installation/Configuration Notes

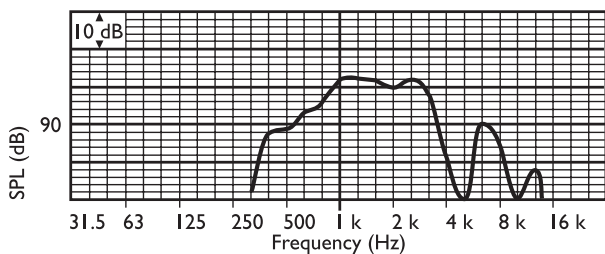
The horn loudspeakers include a built-in transformer with taps on the primary winding for different power settings.

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.

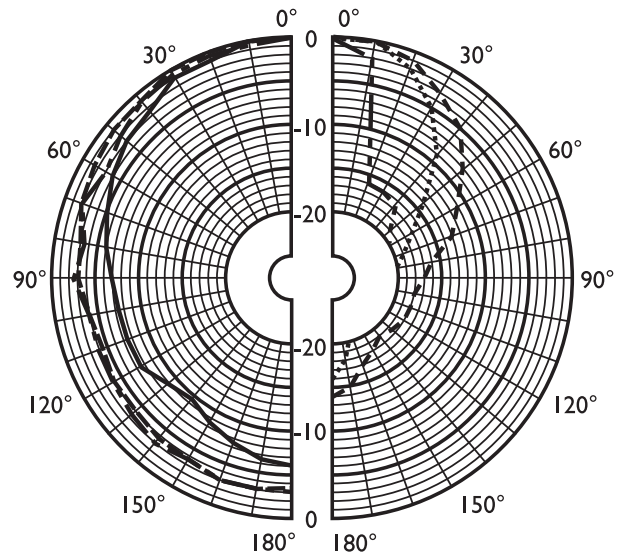
Circuit diagram



Dimensions in mm (in)



Frequency response



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

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 / 7.5 / 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 Dmax)	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 (-13 °F to +131 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Ordering Information

LBC 3437/00 Horn Loudspeaker 15 W, flameproof	LBC3437/00
LBC 3438/00 Horn Loudspeaker 25 W, flameproof	LBC3438/00

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