

LBB1938/30 Power amplifier, 1x480W

www.boschsecurity.com



BOSCH
Invented for life



- ▶ 480 W power amplifier in a 3U high 19" housing
- ▶ EN 54-16 certified
- ▶ 70 V / 100 V and 8 Ohm outputs
- ▶ Dual inputs with priority switching
- ▶ 100 V input for slave operation on 100 V speaker line

The LBB1938/30 is a powerful 480 W power amplifier in a 3U high 19" case for rack mounting or tabletop use. LEDs on the front panel show the status of the amplifier: power, audio output level, and supervised functions. This high-performance unit fulfils a wide range of public address requirements at a surprisingly low cost.

Functions

Dependability

The amplifier is protected against overload and short circuits. A temperature-controlled fan ensures high reliability at high output levels and low acoustic noise at lower output levels. An overheat protection circuit switches off the power stage and activates a LED on the front panel, if the internal temperature reaches a critical limit due to poor ventilation or overload. The unit operates both on mains power and on a 24 V battery power supply for emergency backup, with automatic switchover.

For emergency and evacuation use, the following functions are monitored: mains presence, battery presence, pilot-tone presence, amplifier operation. Front panel LEDs indicate the status of supervised functions. The LEDs of pilot-tone supervision and battery status can be switched off for general public address use. Failsafe (normally energized) relays are

provided for each supervised function. These relays are always active regardless of the switches on the rear panel.

Input

The amplifier has two balanced inputs with priority control, each with a loop-through facility. This makes it easy to connect remote systems that require priority control. An additional 100 V line input is provided to connect the amplifier to a 100 V loudspeaker line, to provide more power to remote locations.

Gain or level control is located on the rear of the unit to avoid accidental setting change. A meter with LED-bar shows the output level.

Output

The amplifier has 70 V and 100 V outputs for constant voltage loudspeaker systems and a low impedance output for 8 Ohm loudspeaker loads.

The amplifier has two separate priority controlled 100 V outputs for zones that only need announcements made via the priority input, and for zones that will not get any announcements made via the priority input.

Controls and indicators

Front

- Meter (LEDs for -20, -6, 0 dB and Power ON)
- Battery operation indicator
- Overheat indicator

- Air inlet for forced air cooling

Back

- Level control input 1
- Level control input 2
- Power button
- Mains switch

Interconnections

Back

- Priority line input 1 (XLR/balanced)
- Line loop-through 1 (XLR/balanced)
- Program line input 2 (XLR/balanced)
- Line loop-through 2 (XLR/balanced)
- Priority controlled loudspeaker output terminals
- 24 VDC power supply terminal
- Three loudspeaker direct output terminals
- Two 100 V slave input terminals
- Input 2 enable control terminal
- Input 1 priority control terminal
- Earth connection screw
- Mains socket

Certifications and approvals

Safety	acc. to EN 60065
Immunity	acc. to EN 50130-4
Emission	acc. to EN 55103-1
Emergency	acc. to EN 54-16

Region	Regulatory compliance/quality marks	
Europe	DOP	DECL DOP EN54-16-PlenaVAS
	CPR	DECL CPR EN54-16-PlenaVAS
	CE	DECL EC LBB1938_30

Parts included

Quantity	Component
1	Power Amplifier
1	Power cord
1	Set of 19" mounting brackets
1	Safety Instructions

Technical specifications

Electrical

Mains power supply	
Voltage	220/230 VAC, ±10%, 50/60 Hz
Inrush current	19 A
Max power consumption	2200 VA
Battery power supply	
Voltage	24 VDC +15% / -15%

Current max	30 A
Performance	
Output power (rms/maximum)	480 W / 720 W
Power reduction on backup power	-1 dB
Frequency response	50 Hz to 20 kHz (+1/-3 dB @ -10 dB ref. rated output)
Distortion	<1% @ rated output power, 1 kHz
S/N (flat at max volume)	>90 dB
Line inputs	
Connector	3-pin XLR, balanced
Sensitivity	1 V
Impedance	20 kOhm
CMRR	>25 dB (50 Hz to 20 kHz)
Gain	40 dB

100 V input

Connector	Screw, unbalanced
Sensitivity	100 V
Impedance	330 kOhm

Line loop-through output

Connector	3-pin XLR
Nominal level	1 V
Impedance	Direct connection to line input

Loudspeaker outputs

Connector	Screw, floating
Direct output	100 V, 70 V, 8 Ohm
Priority only (from input 1)	100 V or 70 V internally selectable
Music (non-priority) only	100 V or 70 V internally selectable

Power consumption

Mains operation	
Max power	990 W
-3 dB	715 W
-6 dB	510 W
Pilot tone*	110 W
Idle	25 W
24 VDC operation	
Max power	32 A (770 W)

-3 dB	26 A (625 W)
-6 dB	18 A (430 W)
Pilot tone*	3.8 A (91 W)
Idle	0.7 A (17 W)

* 20 kHz -20 dB with maximum loudspeaker load

Mechanical

Dimensions (H x W x D)	145 x 430 x 370 mm (19" wide, 3U high, with feet)
Weight	Approx. 25 kg
Mounting	Standalone, 19" rack
Color	Charcoal

Environmental

Operating temperature	-10 °C to +55 °C (14 °F to +131 °F)
Storage and transport temperature	-40 °C to +70 °C (-40 °F to +158 °F)

Relative humidity	<95%
Acoustic noise level of fan	<48 dB SPL @ 1 m (max output)

Ordering information

LBB1938/30 Power amplifier, 1x480W

480 W power amplifier in a 3U high 19" case for rack mounting or tabletop use.

Order number **LBB1938/30**

Services

EWE-PLNAMP-IW 12mths wrty ext. Plena Power Amp

12 months warranty extension

Order number **EWE-PLNAMP-IW**

Represented by:

Europe, Middle East, Africa:
Bosch Security Systems B.V.
P.O. Box 80002
5600 JB Eindhoven, The Netherlands
Phone: + 31 40 2577 284
emea.securitysystems@bosch.com
emea.boschsecurity.com

Germany:
Bosch Sicherheitssysteme GmbH
Robert-Bosch-Ring 5
85630 Grasbrunn
Germany
www.boschsecurity.com

North America:
Bosch Security Systems, LLC
130 Perinton Parkway
Fairport, New York, 14450, USA
Phone: +1 800 289 0096
Fax: +1 585 223 9180
onlinehelp@us.bosch.com
www.boschsecurity.us

Asia-Pacific:
Robert Bosch (SEA) Pte Ltd, Security Systems
11 Bishan Street 21
Singapore 573943
Phone: +65 6571 2808
Fax: +65 6571 2699
apr.securitysystems@bosch.com
www.boschsecurity.asia