

## LBD1938/00 Power amplifier, 480W



The LBD1938/00 amplifier is a powerful power amplifier in a 3U housing for rack mounting or tabletop use. The Bosch Plena power amplifier series with its varied amplification range fulfills a wide variety of public address requirements at a surprisingly low cost.

### System overview

The LBD1938/00 amplifier features a colorful LED bar on the front side to indicate the acoustic level of the signal in dB. The LBD1938/00 amplifier has a 100 V input for slave operation of the amplifier, XLR loop in and loop through facility for ease of installation and a 100 V output as well as 70 V output for connecting to the loudspeakers with line matching transformers, 8 ohm and 4 ohm outputs for connecting to the Low impedance speakers. The output voltage can be selected between 100 V and 70 V internally.

The LBD1938/00 amplifier features a dual XLR inputs with priority switching. Gain or level control is located on the rear of the unit to avoid accidental setting change. The amplifier works on 24 VDC power supply during emergency situations.

### 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, if the internal temperature reaches a critical limit due to poor ventilation or overload.

- ▶ Multiple outputs - 70 V / 100 V and 8/4 ohm
- ▶ Temperature controlled forced front to back ventilation, directly stackable
- ▶ Mains, battery back-up, and pilot tone supervision
- ▶ Dual inputs with priority switching
- ▶ Excellent signal to noise ratio (> 90 dB)

#### Input

The system 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 or 4 ohm loudspeaker loads.

There are Priority input enable and Program input enable pins which are default off and default on respectively, when these enabled by a 24 VDC signal then the respective inputs are activated. Whenever the priority enable input is supplied with continuous 24 VDC signal, the program input is over-riden by the priority input.

### Parts included

Quantity	Component
1	LBD1938/00 Power amplifier, 480W
1	Power cord
1	Installation and user instructions

## Technical specifications

### Electrical

#### Power supply

Input Voltage	230 VAC ±10% at 50/60 Hz or 24 VDC
Inrush Current	19 A at 230 VAC, 30 A at 24 VDC

#### Performance

Rated Output (RMS)	480 W
Power reduction on backup power	-1 dB
Frequency response	50 Hz to 20 kHz (+1 / -3 dB at -10 dB ref. rated output)
Distortion	<1% at rated output, 1 kHz
S/N (flat at max volume)	> 90 dB

#### Power consumption

Max power consumption	1600 VA
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#### Mains operation

Max power	990 W
-3 dB	715 W
Pilot tone	110 W
Idle	25 W

#### 24V DC operation

Max power	32 A (770 W)
-3 dB	26 A (625 W)
Pilot tone	3.8 A (91 W)
Idle	0.7 A (17 W)

#### Line Inputs **2 x**

Connector	3-pin XLR, balanced
Sensitivity	1 V
Impedance	>20k ohm
CMRR	>25 dB (50 Hz to 20 kHz)
Gain	40 dB

#### 100 V input

Connector	Screw, unbalanced
Sensitivity	100 V
Impedance	330k ohm

#### Line loop through output **2 x**

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

#### Loudspeakers outputs **3 x**

Connector	Screw, floating
Direct output	100 V, 70 V, 8/4 ohm
Priority only (from input 1)	100 V/70 V internally selectable
Music (non-priority) only	100 V/70 V internally selectable

### Mechanical

Dimensions (H x W x D)	145 x 432 x 370 mm
Weight	25 kg
Color	Charcoal
Mounting	19" rack, 3U height

### Environmental

Operating temperature	-10 °C to +55 °C
Storage temperature	-40 °C to +70 °C
Relative humidity	<95%
Acoustic noise level of fan	<48 dB SPL at 1 m (max output)

## Ordering information

**LBD1938/00 Power amplifier, 480W**  
 Plena Booster Amplifier 480 W  
 Order number **LBD1938/00 | F.01U.281.092**

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