

LBD1930/00 Power amplifier, 120W



The LBD1930/00 amplifier is a powerful power amplifier in a 2U high 19" case 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 LBD1930/00 amplifier features a colorful LED bar on the front side to indicate the acoustic level of the signal in dB. The LBD1930/00 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.

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.

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

- ▶ 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
- ▶ Excellent signal to noise ratio (> 80 dB)

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	LBD1930/00 Power amplifier, 120W
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 ±10%
Inrush Current	8 A at 230 VAC, 6 A at 24 VDC
Performance	
Rated Output (RMS)	120 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)	> 80 dB
Power consumption	
Max power consumption	400 VA
Mains operation	
Max power	274 W
-3 dB	193 W
Pilot tone	41 W
Idle	18 W
24V DC operation	
Max power	7.0 A (168 W)
-3 dB	6.0 A (144 W)
Pilot tone	0.9 A (22 W)
Idle	0.1 A (2.4 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

Mechanical	
Dimensions (H x W x D)	100 x 432 x 250 mm
Weight	10.5 kg
Color	Charcoal
Mounting	19" rack, 2U 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

LBD1930/00 Power amplifier, 120W
 Plena Booster Amplifier 120 W
 Order number **LBD1930/00 | F.01U.281.090**

Represented by:

Europe, Middle East, Africa:
 Bosch Security Systems B.V.
 P.O. Box 80002
 5600 JB Eindhoven, The Netherlands
www.boschsecurity.com/xc/en/contact/
www.boschsecurity.com

Germany:
 Bosch Sicherheitssysteme GmbH
 Robert-Bosch-Platz 1
 D-70839 Gerlingen
www.boschsecurity.com

North America:
 Bosch Security Systems, LLC
 130 Perinton Parkway
 Fairport, New York, 14450, USA
www.boschsecurity.com

Asia-Pacific:
 Robert Bosch (SEA) Pte Ltd, Security Systems
 11 Bishan Street 21
 Singapore 573943
www.boschsecurity.com/xc/en/contact/
www.boschsecurity.com