

PLE-1Pxx0-US Plena Amplifier

www.boschsecurity.com



BOSCH
Invented for life



- ▶ 120 and 240 W power amplifier in a compact housing
- ▶ 1 V line level balanced input
- ▶ 70 V, 25 V and 4 ohm outputs
- ▶ 70 V input for slave operation on 70 V speaker line
- ▶ Temperature-controlled forced front to back ventilation (directly stackable)

The PLE-1P120-US and PLE-1P240-US are two high-power plug-and-play cost effective power amplifiers that deliver 120 and 240 Watts to constant voltage or 4 ohm loads. Built with premium quality and protections, they offer basic functionality at a budget price. The amplifiers offer straight 1 V and 70 V line in, and 25/70 V and 4 ohm outputs. They can extend the power of the PLE- series mixer-amplifiers or be combined with the PLE-10M2-US mixer, or work anywhere where more power on an existing 70 V line is needed or when a line level signal is provided.

Functions

Protection

The amplifier is protected against overload and short circuits. A limiter protects the amplifier and loudspeaker against accidental overdriving. A temperature-controlled fan ensures proper cooling without producing acoustic noise at lower output levels.

Power input and output

The unit operates both on mains power and on a 24 V battery power supply for emergency backup, with automatic switchover. The amplifier also has a built-in charger to charge the connected battery. The system has a balanced input and loop-through facility. This makes it easy to connect multiple amplifiers. The

secondary input is a 70 V line input to connect the amplifier to a 25/70 V loudspeaker line to provide more power in remote locations. Gain or level control is located on the rear of the unit to avoid accidental setting change. An LED VU meter shows the output level. The amplifier has 25 and 70 V outputs for constant voltage loudspeaker systems, and a low impedance output for 4 ohm loudspeaker loads.

Controls and indicators

Front

- Power on LED
- LED VU meter for master output (LEDs for -18, -12 -6, -3, 0 dB)
- On/off button

Back

- Level control

Interconnections

See Technical Specifications.

Certifications and approvals

EMC emission	acc. to EN 55103-1
EMC immunity	acc. to EN 55103-2

Installation/configuration notes



Rear view

Technical specifications

Electrical

Mains power supply	
Voltage	115 - 230 VAC \pm 10%, 50/60 Hz
Inrush Current PLE-1P120-US	4.5/9 A (230/115 VAC)
Inrush Current PLE-1P240-US	9/18 A (230/115 VAC)
Power consumption PLE-1P120-US	380 VA
Power consumption PLE-1P240-US	760 VA
Battery power supply	
Voltage	24 VDC \pm 15%
Current PLE-1P120-US	5.5 A
Current PLE-1P240-US	11 A
Charge current	0.5 ADC
Charge float voltage	27.3 VDC
Power consumption (PLE-1P120-US)	
Max power (mains)	227 W
-6dB (mains)	130 W
Idle (mains)	12 W
Max power (24 V)	7 A (150 W)
-6 dB (24 V)	4.4 A (194 W)
Idle (24 V)	0.3 A (7 W)
Power consumption (PLE-1P240-US)	
Max power (mains)	451 W
-6dB (mains)	244 W
Idle (mains)	16 W

Max power (24 V)	12 A (290 W)
-6 dB (24 V)	8.1 A (194 W)
Idle (24 V)	0.3 A (7 W)

Performance	
Max / rated power PLE-1P120-US	180 W / 120 W
Max / rated power PLE-1P240-US	360 W / 240 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

Inputs	
Connector 1	3-pin Euro style, balanced
Sensitivity	1 V
Impedance	20 kohm
Connector 2	3-pin Euro style, balanced
Sensitivity	70 V
Impedance	300 kohm
Dynamic range	100 dB
CMRR (mic)	>40 dB (50 Hz to 20 kHz)

Loudspeaker outputs 25 V and 70 V	
Connector	Euro style pluggable screw terminals

Loudspeaker output 4 ohm	
Connector	Euro style pluggable screw terminals
PLE-1P120-US	31 V (120 W)
PLE-1P240-US	44 V (240 W)

Mechanical	
Dimensions (H x W x D)	100 x 430 x 270 mm (19" wide, 2U high)
Mounting	Stand-alone, 19" rack
Color	Charcoal
Weight (PLE-1P120-US)	Approx. 23.2 lb
Weight (PLE-1P240-US)	Approx. 27.6 lb

Environmental

Operating temperature	+14 °F to +131 °F
Storage temperature	-40 °F to +158 °F
Relative humidity	<95%
Acoustic noise level of fan	<40 dB SPL @ 1 m temperature controlled

Ordering information

Power amplifier, 120W

120 W

Order number **PLE-1P120-US**

Power amplifier, 240W

240 W

Order number **PLE-1P240-US**

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, Inc.
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