

PA-119 *Linear Power Amplifier*



State of the art linear technology and features you won't find on any other commercially available small amplifier.

GENERAL DESCRIPTION

The Labworks PA-119 Linear Power Amplifier is a high quality, air-cooled, direct-coupled audio amplifier primarily intended for use with small vibration systems.

To ensure long term reliability, PA-119 Amplifiers come equipped with both over-current and over-temperature protection. Also incorporated in the design are full interlock capabilities as well as

peak voltage and RMS current bar graphs to monitor output. An oversized heat sink allows continuous operation at maximum output. Both DC and AC coupled signal inputs are provided.

This amplifier has been designed to drive low impedance loads directly and can be used in any application requiring continuous duty high quality audio power. PA-119 Amplifiers are designed for standard 19 inch rack mounted installation.

FEATURES

- Linear output stage provides low noise and distortion.
- Automatic over temperature and over current protection.
- Direct coupled input and output allows DC operation.
- Wide bandwidth operation: DC - 20,000 Hz.
- External interlock circuitry.
- Convection cooling, no fan noise.
- Lightweight, portable.

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PA-119 SPECIFICATIONS*

Output voltage (continuous)

| | |
|------------------|-------------|
| 1.0 Hz to 20 KHz | |
| open circuit | 19.0 V rms |
| 4Ω load | 16.0 |
| 2Ω load | 12.0 |
| 1Ω load | 4.0 |
| DC to 0.1 Hz | |
| open circuit | 26.0 Vdc/pk |
| 4Ω load | 21.0 |
| 2Ω load | 12.0 |
| 1Ω load | 2.0 |

Random voltage output

| | |
|----------------------|------------|
| 2.5 sigma peak volts | |
| open circuit | 11.3 V rms |
| 4Ω load | 9.5 |
| 2Ω load | 7.1 |
| 1Ω load | 2.4 |
| 3.0 sigma peak volts | |
| open circuit | 9.4 V rms |
| 4Ω load | 7.9 |
| 2Ω load | 5.9 |
| 1Ω load | 2.0 |

Maximum continuous dissipation

| | |
|--------------|-----|
| Ambient Temp | |
| 40°C | 40W |
| 50 | 20 |
| 60 | 0 |

Frequency response (DC coupled input)

| | |
|----------------------|---------|
| DC to 10 KHz | -0.2 dB |
| DC to 20 KHz | -1.0 |
| AC coupling @ 1.0 Hz | -0.5 |

Slew rate

2.3 V/μsec

Harmonic distortion

(10V, DC-10 KHz) <0.5% @ 2Ω

Signal/noise ratio

(ref 15 V out) 100 dB

Input impedance

DC coupled 6.5 KΩ
 AC coupled 47 uF in series with 6.5 KΩ

DC offset

10 mV max

Voltage gain

50 (34 dB) max

Voltage source regulation

<0.5 dB (∞- 4Ω load),

1 KHz/10 V rms

Front panel controls

Power switch,

gain adjust

Front panel indicators

Internal power, interlock trip

Front panel metering

Type (2) 19 segment horizontal bar graphs

Scale

Voltage 0-16 V pk

Current 0-6 A rms

Resolution

Peak voltage 5% of full scale

True rms current 5% of full scale

Accuracy (voltage & current) ±5% absolute

Interlock circuit

Type >2 Vdc= fault or switch

Response time 10 ms. max

Action Output drives to ground

Reset Gain pot full down or

< -5V @ INTLTK terminal

Indicator Flashing front panel "Trip" light

Cooling

Natural convection

Self protection

Over-current, over-temperature

Line protection

Front panel circuit breaker Magnetic type

Input power

225 VA max

Voltage 100, 115, 200 or 230 Vac

Frequency 48 to 62 Hz

Dimensions

3.5" H x 19" W x 13" D

Weight

15 lbs

*Specifications subject to change.

Consult factory for latest specifications.

PERFORMANCE GRAPHS

