

APS 125

Power Amplifier



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Applications

- Power amplifier for modal testing shaker
- Power amplifier for environmental testing systems

Range of Use

- Research and development departments in industry
- Environment testing laboratories
- Universities and research institutes

Features

- Voltage or current amplifier mode
- Frequency range DC ... 150 kHz
- Current and voltage monitor output
- Gain control
- Current limit control
- Multifunction display
- Switch for phase inversion (0° or 180°)
- Control inputs for remote emergency shut down
- Control mute input
- Amplifier state outputs for integration in testing systems
- Overload protection
- Forced air cooling for continuous operation
- High reliability operation

APS 125

Power Amplifier

Description

The Power Amplifier Type APS 125 has been designed to drive any vibration or modal exciter requiring a 500 VA power amplifier.

The rated AC output is 500 VA into a 4 Ohm exciter or resistive load. Harmonic content of the output is very small as heavy negative feedback is used.

The instrument can tolerate temperature and supply line variations while maintaining excellent stability.

The APS 125 can be used as a voltage generator with low output impedance and a flat voltage frequency response, or as a current generator with high output impedance and a flat current frequency response.

The RMS output-current limit is adjustable.

Specifications

General	
Power Output, Max.	500 VA into a 4 Ohm exciter or resistive load, at 25°C, at 1 kHz and nominal mains voltage.
Voltage Output, Max.	45 V RMS, DC ... 15 kHz
Current Output, Max.	5 A DC 5 A RMS, 0.1Hz.....1 Hz 9 A RMS, 1 Hz....20 Hz 11 A RMS, 20 Hz....15 kHz
Frequency Range	20 Hz ... 15 kHz full power DC ... 150 kHz small signal voltage (-20 dB)
Input Impedance	> 10 kOhm
Input Voltage, Max.	10 V RMS
Monitor Output	Voltage monitor: 0.1 V/V $\pm$ 3 %, 0.1 Hz ... 15 kHz Current monitor: 0.1 V/A $\pm$ 3 %, 0.1 Hz ... 15 kHz
Power Requirements	Single phase 100 V / 120 V / 230 V RMS, $\pm$ 10 %, 50 Hz ... 60 Hz. Approx. 1,000 VA at full load
Dimensions	Height: 2 U equivalent of 88 mm (3.5 in.) Width: 482.6 mm (19 in.) with flanges for standard 19" rack mounting Depth: 450 mm (17.7 in.)
Weight	21 kg (46 lb.)
Voltage Mode	
Frequency Response	DC Input: DC ... 15 kHz $\pm$ 0.5 dB DC ... 150 kHz $\pm$ 3.0 dB small signal voltage (-20 dB) AC Input: 5 Hz ... 15 kHz $\pm$ 0.5 dB 2 Hz ... 150 kHz $\pm$ 3.0 dB small signal voltage (-20 dB) (2 separate BNC sockets at back panel)
Total Harmonic Distortion + Noise	< 0.1 % (40 Hz ... 5 kHz) < 0.2 % (5 kHz ... 15 kHz)
Gain	18 V/V ($\pm$ 2 dB) at 1 kHz
Current Mode	
Frequency Response	DC Input:: DC ... 15 kHz $\pm$ 0.5 dB DC ... 60 kHz $\pm$ 3.0 dB small signal voltage (-20 dB) AC Input:: 5 Hz ... 15 kHz $\pm$ 0.5 dB 2 Hz ... 60 kHz $\pm$ 3.0 dB small signal voltage (-20 dB)
Total Harmonic Distortion + Noise	< 0.2 % (40 Hz ... 2 kHz) < 0.8 % (2 kHz ... 15 kHz)
Gain	5.5 A/V ($\pm$ 2 dB) at 1 kHz