

APS 145

Power Amplifier



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 ... 50 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 145

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Description

The Power Amplifier Type APS 145 has been designed to drive any vibration or modal exciter requiring a 810 VA power amplifier.

The rated AC output is 810 VA into a 2.5 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 145 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.	810 VA into a 2.5 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.	4 A DC 15 A RMS > 0.1 Hz, Z = 1.5 Ohm 18 A RMS > 0.1 Hz, Z = 2.5 Ohm – optimal impedance
Frequency Range	0.1 Hz ... 10 kHz full power DC ... 50 kHz small signal voltage (-20 dB)
Input Impedance	> 10 kOhm
Input Voltage, Max.	10 V RMS
Monitor Output	Voltage monitor: 0.1 V/V ± 3 %, 5 Hz ... 15 kHz Current monitor: 0.1 V/A ± 3 %, 5 Hz ... 15 kHz
Power Requirements	Single phase 100 V / 120 V / 230 V RMS, ± 10 %, 50 Hz ... 60 Hz (factory presetting) approx. 1,500 VA at full load
Dimensions	Height: 3 U equivalent of 132 mm (5.2 in.) Width: 482.6 mm (19 in.) with flanges for standard 19-inch rack mounting Depth: 451 mm (17.8 in.)
Weight	22 kg (48.5 lb.)
Voltage Mode	
Frequency Response	DC Input: DC ... 10 kHz ± 0.5 dB DC ... 50 kHz ± 3.0 dB small signal voltage (-20 dB) AC Input: 5 Hz ... 10 kHz ± 0.5 dB 2 Hz ... 50 kHz ± 3.0 dB small signal voltage (-20 dB) (2 separate BNC sockets at back panel)
Total Harmonic Distortion + Noise	< 0.2 % (0.1 Hz ... 5 kHz) < 0.3 % (5 kHz ... 10 kHz)
Gain	18 V/V ± 2 dB
Current Mode	
Frequency Response	DC Input: 0.1 Hz ... 10 kHz ± 0.5 dB DC ... 50 kHz ± 3.0 dB small signal voltage (-20 dB) AC Input: 5 Hz ... 10 kHz ± 0.5 dB 2 Hz ... 50 kHz ± 3.0 dB small signal voltage (-20 dB) (2 separate BNC sockets at back panel)
Total Harmonic Distortion + Noise	< 0.3 % (0.1 Hz ... 2 kHz) < 0.8 % (2 kHz ... 10 kHz)
Gain	7.5 A/V ± 2 dB

All data are subject to change without notice