

SPECIFICATIONS



IPS™-400 Dual Channel Industrial Power Amplifier

SPECIFICATIONS

Rated Power:

120 W RMS per channel into 8 ohms
200 W RMS per channel into 4 ohms
(Both channels driven)
400 W RMS into 8 ohms
(Bridge mode)
(Continuous sine wave with less than
0.03% THD, 20 Hz to 20 kHz,
120 V AC)

Bridge mode capable of driving a 25 V
distribution system to 200 W RMS

Power @ Clipping (Typical):

140 W RMS per channel into 8 ohms
230 W RMS per channel into 4 ohms
150 W RMS per channel into 2 ohms
(Both channels driven)
450 W RMS into 8 ohms
(Bridge mode)
(Continuous sine wave with less than
1.0% THD, 20 Hz to 20 kHz, 120 V AC)

Total Harmonic Distortion:

Less than 0.05% @ 200 W RMS per
channel into 4 ohms, 10 Hz to 30 kHz

(Typically below 0.03%)

Frequency Response:

+0, -0.2 dB @ 200 W RMS per channel
into 4 ohms, 20 Hz to 20 kHz
+0, -1 dB @ 1 W RMS per channel into
4 ohms, 5 Hz to 50 kHz

Power Bandwidth:

10 Hz to 50 kHz @ 200 W RMS per
channel into 4 ohms, less than 0.1%
THD

Slew Rate:

40 volts/microsecond
(Dual channel mode, each channel)
70 volts/microsecond
(Bridge mode)

Damping Factor:

Greater than 200 @ 4 ohms;
400 @ 8 ohms
(Dual channel mode, each channel,
f = 1 kHz)

Hum & Noise:

100 dB below full rated power (Dual
channel mode, each channel or bridge
mode, 20 Hz to 20 kHz, unweighted)

Input Sensitivity & Impedance:

0 dBV (1.0 V RMS) into 20K ohms for
rated power
(Level control full clockwise)

Dimensions & Weight:

19" W x 5¼" H x 12¾" D
40 lbs.

FEATURES

- 200 W RMS @ 4 ohms per channel
- Automatic two-speed fan cooling system/tunnel
- Independent channel thermal/fault protection
- Transient free turn-on/off operation (relays)

FRONT PANEL

- 19" rack-mount configuration with integral handles
- Heavy-duty rocker type power switch
- SPS™ activation LED and power LED each channel

REAR PANEL

- Barrier strip QUASI-ELECTRONIC BALANCED inputs for each channel
- Barrier strip PL-2 transformer balanced inputs for each channel
- One recessed balanced input transformer socket for PL™-2 modules

PEAVEY®
ARCHITECTURAL ACOUSTICS®

- Detented, calibrated input level controls for each channel
- Screw terminal output connector
- SPS™ defeat & bridge mode select slide switches

DESCRIPTION

The IPS™-400 is a rugged, "high power" amplifier with features that stand alone in the industry. It is rack-mountable and occupies only three rack spaces vertically (5¼"). The IPS-400 features massive handles on the front panel to aid in installation and removal from 19" rack systems. The unit is capable of "bridge-mode" operation for those applications requiring large quantities of speakers and/or high level reproduction. There is automatic two-speed fan cooling with a unique tunnel ventilation system that switches to "high-efficiency" when the amplifier demand is at peak operating levels. Each channel is protected from excessive operating temperatures with a separate thermal/fault system that is automatic and only activates under extreme conditions.

The IPS 400 has Peavey's exclusive SPS compression system that senses conditions that might overload the amplifier and activates compression circuitry when clipping is imminent. This technique effectively utilizes every precious watt available from the power speakers by minimizing power amp clipping.

All controls and connecting points are located on the rear panel of the amplifier and each channel is equipped with a separate level control. The normal inputs are QUASI-Electronic Balanced via barrier strips. When transformer balancing is necessary on either or both channels, it is easily accomplished with the addition of PL-2 line balanced transformer modules. Again, the PL-2 inputs are selected via barrier strips, and the outputs of the PL-2 module are also available via barrier strip for patching purposes to other power amplifier inputs if desired.

High slew rate and high damping factor make the IPS-400 the obvious choice for demanding commercial/professional applications.

ARCHITECTURAL AND ENGINEERING SPECIFICATIONS

The amplifier shall have two channels, each capable of producing an output of more than 200 watts RMS into a 4 ohm load and 120 watts into an 8 ohm load, both channels operating from 20 Hz to 20 kHz continuously at less than 0.03% THD. In the bridge mode, the amplifier shall be capable of producing an output of more than 400 watts RMS into an 8 ohm load operating from 20 Hz to 20 kHz continuously at less than 0.03% THD. Full output shall be achieved by an input signal of not more than 1.0 V RMS (0 dBV) per channel. Each channel shall be equipped with compression circuitry that electronically senses the onset of clipping and engages a unique, specially designed circuit which virtually eliminates the possibility of driving the amplifier into distortion. An LED shall indicate when this patented SPS™ compression is activated.

Each channel shall have a +0, -1 dB frequency response from 5 Hz to 50 kHz at 1 watt RMS into 4 ohms, and a +0, -0.2 dB frequency response from 20 Hz to 20 kHz at 200 watts RMS into 4 ohms. Additionally, each channel shall have a power bandwidth of 10 Hz to 50 kHz at 200 watts RMS into 4 ohms at less than 0.1% THD, and a slew rate of at least 40 volts per microsecond. The total harmonic distortion shall be less than 0.05% at 200 watts RMS into 4 ohms from 10 Hz to 30 kHz. The damping factor shall be greater than 200 at 4 ohms and greater than 400 at 8 ohms at a frequency of 1 kHz, and the hum and noise shall be at least 100 dB below full rated output power measured from 20 Hz to

20 kHz with a 600 ohm termination at the input for each channel.

The amplifier shall be stable into any load configuration with any value of input termination, including open or grounded. The output shall be short, mismatch, or open-circuit proof using special circuitry that completely eliminates any turn-on or turn-off transients and has an instantaneous crowbar circuit that clamps the output upon the advent of power amplifier failure, thereby protecting the associated speaker system from damaging offset voltages. It shall have an automatic two-speed internal fan to provide positive forced air cooling and a thermal limit system to protect the power transistors and other components from over-temperature operation. This thermal protection system shall be automatic and self-resetting.

The amplifier shall have all input and output patching capability on the rear panel. Each amplifier channel shall contain a barrier strip for both normal and transformer balanced inputs, a receptacle to allow the use of a plug-in input transformer module for full balanced input capability, and a detented, calibrated input level control offering 1 dB per detent attenuation. Both channel outputs shall be combined in a single barrier strip with an additional grounding terminal. Further, the rear panel shall contain the SPS defeat and bridge mode select switches.

The front panel features shall include the SPS activation and power (active) LEDs, plus one heavy-duty rocker type (mains) power switch.

The unit shall be rack-mountable in a standard 19" rack requiring 5¼" height. The unit weight shall be 40 lbs., with dimensions 19" wide x 5¼" high x 12³/₈" deep. The amplifier shall operate on 120 V AC, 50/60 Hz, and consume 800 watts. The published specifications shall be met or exceeded. The amplifier shall be a Peavey IPS™-400.



LIMITED WARRANTY

Peavey Electronics Corporation warrants to the original purchaser of this new Architectural Acoustics product that it is free from defects in material and workmanship. If within one (1) year from date of purchase a properly installed product proves to be defective and Peavey is notified, Peavey will repair or replace it at no charge. (Note: Batteries and patch cords not covered.) "Original purchaser" means the customer for whom the product is originally installed.

Damage resulting from improper installation, interconnection of a unit or system of another manufacturer, accident or unreasonable use, neglect or any other cause not arising from defects in material and workmanship is not covered by this warranty. The warranty is valid only as to products purchased and installed in the United States.

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Features and specifications subject to change without notice.

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#80301580

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Printed in U.S.A. 4/92