

# S P E C I F I C A T I O N S



## IP™ 8.5C Power Amplifier

### SPECIFICATIONS

#### CHARACTERISTICS (@ 120 VAC, 60 Hz)

##### Output Power: (typical value)

550 W RMS per channel @ 2 ohms,  
425 W RMS per channel @ 4 ohms,  
270 W RMS per channel @ 8 ohms,  
(both channels driven)  
1100 W RMS @ 4 ohms  
850 W RMS @ 8 ohms  
540 W RMS @ 16 ohms  
(Bridge mode, mono)  
(below 1% THD @ 1 kHz)

##### Rated Output Power:

400 W RMS per channel @ 4 ohms  
(below 0.15% THD, 20 Hz to 20 kHz)  
240 W RMS per channel @ 8 ohms,  
(below 0.1% THD, 20 Hz - 20 kHz)  
(both channels driven)

##### Slew Rate: (typical value)

20 Volts per uSec  
(Stereo mode, each channel)  
40 Volts per uSec  
(Bridge mode, mono)

##### Total Harmonic Distortion: (typical)

Below 0.1% @ rated power  
(8 ohms, 20 Hz - 20 kHz)  
(both channels driven)

##### Input Sensitivity & Impedance:

1.0 V RMS (0 dBV) @ rated power  
20 kilohms, 32 dB gain  
(8 ohms, input attn. set @ FCW)

##### Frequency Response: (typical value)

±1 dB, 10 Hz - 40 kHz  
(1 W RMS, 8 ohms)  
±0.2 dB, 20 Hz - 20 kHz  
(@ rated output, 8 ohms)  
(both channels driven)

##### Damping Factor: (typical value)

Greater than 300™ 8 ohms, 1 kHz  
(both channels driven)

##### Hum & Noise:

100 dB below rated power  
(8 ohms, unweighted)  
110 dB below rated power  
(8 ohms, A weighted)  
(both channels driven)

##### Power Consumption:

8.6 A @ 120 V AC  
(@ rated output, 8 ohms)  
(both channels driven)

##### Dimensions & Weight:

Height: 5.25" (13.3 cm)  
Width: 19" (48.3 cm)  
Depth: 13" (33.0 cm)  
Weight: 45 lbs. (20.5 kg)

### DESCRIPTION

The IP™ series combines the very latest in semiconductor technology, the newest approach to power transformer design, and a unique fan-cooled heat sink arrangement to produce a very low-cost power amplifier that doesn't sacrifice performance or reliability and will meet the

needs of the most demanding sound installation application.

The IP™ 8.5C power amplifier employs massive power transformers, very effective two speed fan cooling, and offers impressive specifications and features not found on any other competitive unit in this price range. Although designed to drive 4 ohm loads per channel typically, the IP 8.5C power amp can also supply impressive high power ratings at 2 ohms per channel and at 4 ohm bridge (mono) mode under music power conditions. Typical public address and paging applications, where signal conditions are less than continuous, can use this new 2 ohms per channel capability most effectively to offer awesome performance levels at a very economical installation cost.

The IP 8.5C is attractively packaged with rugged rack-mountable construction, and very impressive patching capability. The front panel contains a rocker mains switch, a resettable circuit breaker, an LED power indicator, and dual LED SPS™ activation indicators. The back panel has a detented input level control, a single 1/4" phone input jack, 5-way binding post outputs, a single 1/4" phone output jack, and barrier strips for both input and output for each channel. The back panel also contains switches for stereo/bridge select and SPS defeat.

**PEAVEY**  
ARCHITECTURAL ACOUSTICS®

## ARCHITECTURAL & ENGINEERING SPECIFICATIONS

The amplifier shall have two channels each capable of producing an output of more than 550 watts RMS into a 2 ohm load, 425 watts RMS into a 4 ohm load, and 275 watts RMS into an 8 ohm load, both channels operating at 1 kHz continuously at less than 1% THD. In bridge mode, the amplifier shall be capable of producing an output of more than 1100 watts RMS into a 4 ohm load, 850 watts RMS into a 8 ohm load, and 540 watts RMS into a 16 ohm load operating from 20 Hz to 20 kHz continuously at less than 1% THD. Full output shall be achieved by an input signal of not more than 1.0 volts RMS (0 dBV) per channel. Each channel shall be equipped with unique compression circuitry that electronically senses the onset of clipping and engages a specially designed circuit which virtually eliminates the possibility of driving the amplifier into clipping or distortion. An LED shall indicate when this patented SPS compression is activated.

Each channel shall have a +0, -1 dB frequency response from 10 Hz to 40 kHz @ 1 watt into 4 ohms and a +0, -0.2 dB frequency response from 20 Hz to 20 kHz at 400 watts RMS into 4 ohms, and shall have a slew rate of at least 20 volts per microsecond. The total harmonic distortion shall be less than 0.15% at 400 watts RMS into 4 ohms from 20 Hz to 20 kHz, and the hum and noise shall be at least 100 dB below full rated output power measured 20 Hz to 20 kHz with a 600 ohm input termination.

The amplifier shall be stable into any load configuration with any combination of open or grounded input connections. It shall be short, mis-match, or open-circuit proof with any instantaneous crow-bar circuit that clamps the output upon the advent of amplifier failure, thereby protecting the speaker system from potential damaging off-set voltages. It shall have a two-speed internal fan to provide positive-force air cooling and a thermal shutdown system to protect the power transistors 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 have an input barrier strip, a single 1/4" phone input jack, a 5-way binding post output, a single 1/4" phone output jack, and an output barrier strip. Further, each channel shall contain a detented input level control offering 1 dB per detent attenuation. Additionally, the back panel shall contain switches for stereo/bridge select and SPS defeat.

The front panel features shall include a rocker mains switch, a resettable circuit breaker, an LED power indicator, and dual LED SPS activation indicators.

The unit shall be rack-mountable in a standard 19-inch rack requiring 5 1/4 inches in height. The unit weight shall be 45 pounds, with dimensions 19 inches wide by 5 1/4 inches high by 13 inches deep.

The amplifier shall operate on a 120 V AC, 50/60 Hz, and consume 1200 watts. The published specifications shall be met or exceeded.

The amplifier shall be a Peavey model IPTM 8.5C.

## 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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Peavey's liability to the original purchaser for damages for any cause whatsoever and regardless of the form of action, is limited to the actual damages up to the greater of Five Hundred Dollars (\$500) or an amount equal to the purchase price of the product that caused the damage or that is the subject of or is directly related to the cause of action. This limitation of liability will not apply to claims for personal injury or damage to real property or tangible personal property allegedly caused by Peavey's negligence. For information on service under this warranty, call a Peavey customer service representative at (601) 483-5376.



Features and specifications subject to change without notice.