

# Power Amplifier

## Model BPA60



### Features

- 60 watts rated power
- Distortion less than 2% THD
- Transient protection diodes
- Frequency response -2dB from 20Hz to 20kHz
- Multiple output voltages/impedances available
- Resettable circuit breaker; thermally protected
- UL and CSA listed

### Description

The Bogen BPA60 solid-state power amplifier has been designed to fulfill the power amplification requirements of professional and commercial sound systems. The Model BPA60 supplies 60 watts RMS output. Total harmonic distortion is less than 2% at rated output from 50Hz to 5kHz.

Input impedances for the BPA60 are: high-impedance (50k-ohms) unbalanced; and low-impedance (500/600 ohms, balanced or unbalanced) with accessory transformer Model TL600. Line-bridging may be achieved with accessory transformer Model TL100. Hum and noise are at least 85dB below rated output.

The BPA60 amplifier may be driven from an amplifier that provides a 25- or 70-volt output. Output impedances for the BPA60 are: 8-ohm/25V, 16-ohm, 25VCT and 70V. Output regulation is better than 2dB from no load to full load.

The BPA60 amplifier is thermally protected to prevent damage due to excessive temperatures; however, it will deliver the full rated output continuously, even at +130° F (+55° C). Additional protection is provided by transient protection diodes and an electrical circuit breaker.

An illuminated on/off power switch is located on the front panel. An input level control, circuit breaker reset, lo-cut filter switch, and auxiliary receptacle are located on the rear panel. A rack panel kit (RPK53) is available for mounting the amplifier in a 19-inch equipment rack.

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**Technical Specifications**

<b>Rated Output Power:</b>	60 watts RMS
<b>Total Harmonic Distortion:</b>	Less than 2% from 50Hz to 15kHz
<b>Frequency Response:</b>	-2dB, 20Hz to 20kHz
<b>Input Sensitivity:</b>	High-impedance, 300mV; low-impedance balanced, with optional transformer, 75mV
<b>Hum and Noise:</b>	85dB below rated output
<b>Output Loads:</b>	8-ohm/25V, 16-ohms, 25VCT, 70V
<b>Output Regulation:</b>	Better than 2dB from no load to full load
<b>Input Impedances:</b>	High-impedance, 50k-ohms unbalanced; low-impedance, 600 ohms, balanced or unbalanced; 1:1 bridging with accessory transformer
<b>Lo-cut Filter:</b>	-10dB at 100Hz (switch-selectable)
<b>Controls and Indicators:</b>	Front Panel — Illuminated on/off power switch Rear Panel — Input level control, circuit breaker reset, lo-cut filter switch
<b>Power Consumption:</b>	120V AC, 60Hz, 180W at full rated output
<b>Overload Protection:</b>	Transient protection diodes, electrical circuit breaker, 221°F (105° C) thermostat
<b>Operating Temperature Range:</b>	-4°F to +131°F (-20° to +55° C) at rated output
<b>Auxiliary Receptacle (not switched):</b>	Three-wire grounded,* 300W maximum
<b>Dimensions:</b>	15-1/4"W x 3-1/2"H x 8"D
<b>Finish:</b>	Black
<b>Weight:</b>	19 lbs.
<b>Accessories:</b>	Model TL600, 600-ohm line-matching transformer; Model TL100, 1:1 ratio transformer Model RPK53 rack panel brackets

\*This receptacle will be grounded only if the power amplifier has been grounded properly.

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**Architect and Engineer Specifications**

The amplifier shall be a Bogen BPA60 power amplifier or approved equivalent. It shall be of solid-state construction and shall have integrated circuits, silicon transistors and diodes to provide for continuous high-quality sound.

The rated output shall be achieved with an input signal not greater than 300mV (75mV with Model TL600 accessory transformer). The frequency response shall be flat within -2dB, from 20Hz to 20kHz. Hum and noise shall be at least 85dB below rated output. Output regulation shall be better than 2dB from no load to full load.

The amplifier shall supply 60 watts RMS from 50Hz to 15kHz at less than 2% THD into rated load impedances. Output impedances shall be 8-ohms/25V, 16-ohms, 25VCT and 70V. Power consumption shall not exceed 180 watts at full rated output. The amplifier shall measure 15-1/4"W x 3-1/2"H x 8"D ; weight shall not exceed 19 lbs.

Input impedances shall be: unbalanced, high impedance (50k-ohms); balanced/unbalanced, low impedance (600-ohms) with accessory transformer. Line bridging shall be possible using an accessory transformer. Overall gain shall be adjustable by means of an input level control located on the rear panel. A lo-cut filter switch shall provide -10dB attenuation at 100Hz.

The amplifier shall operate within a temperature range of -4°F to +131°F (-20° C to +55° C.) A thermostat control shall be provided to prevent operation at excessive ambient temperatures. Additional overload protection shall be provided by transient protection diodes and a resettable electric circuit breaker.

The amplifier shall contain an illuminated on/off power switch, and shall operate from a 120V AC, 60Hz source. An auxiliary power receptacle (not switched) shall be provided, which shall be grounded, provided that the amplifier line cord is properly grounded.

The amplifier shall be designed for mounting within a standard 19-inch EIA equipment rack, using optional rack panel brackets.

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