

ARCHITECTS' & ENGINEERS' SPECIFICATIONS

Power Amplifier **PC9501N**

► 120 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 750 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 120 V, 60 Hz line. Dual power supply transformers are employed. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 1600 W per channel with a 4 ohm load, 1000 W with an 8 ohm load, and 3200 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 2300 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 32 dB, and the input sensitivity shall be +9 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 106 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 100°C. The relay shall also delay amplifier connection to the load during turn-on for nine seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator and two sets of level meters. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch (fc=20 Hz) and 6 position DIP switch. Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Two RJ45 Data Port connectors shall allow remote control and monitoring via RS-485 connection to the optional ACD1 or ACU16-C. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H (18-7/8" x 17-15/16" x 3-7/16"). Weight shall be 13 kg (28.7 lbs). The amplifier shall be YAMAHA PC9501N.

► 230 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 1100 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 230 V, 50 Hz line. Dual power supply transformers are employed. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 1650 W per channel with a 4 ohm load, 1050 W with an 8 ohm load, and 3300 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 2300 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 32 dB, and the input sensitivity shall be +9 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 106 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 100°C. The relay shall also delay amplifier connection to the load during turn-on for nine seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator and two sets of level meters. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch (fc=20 Hz) and 6 position DIP switch. Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Two RJ45 Data Port connectors shall allow remote control and monitoring via RS-485 connection to the optional ACD1 or ACU16-C. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H. Weight shall be 13 kg. The amplifier shall be YAMAHA PC9501N.

ARCHITECTS' & ENGINEERS' SPECIFICATIONS

Power Amplifier **PC6501N**

► 120 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 700 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 120 V, 60 Hz line. Dual power supply transformers are employed. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 1100 W per channel with a 4 ohm load, 700 W with an 8 ohm load, and 2200 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 1500 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, $P_o=1$ W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 32 dB, and the input sensitivity shall be +8 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 105 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 100°C. The relay shall also delay amplifier connection to the load during turn-on for nine seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator and two sets of level meters. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch ($f_c=20$ Hz) and 6 position DIP switch. Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Two RJ45 Data Port connectors shall allow remote control and monitoring via RS-485 connection to the optional ACD1 or ACU16-C. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H (18-7/8" x 17-15/16" x 3-7/16"). Weight shall be 12.5 kg (27.6 lbs). The amplifier shall be YAMAHA PC6501N.

► 230 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 800 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 230 V, 50 Hz line. Dual power supply transformers are employed. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 1150 W per channel with a 4 ohm load, 750 W with an 8 ohm load, and 2300 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 1600 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, $P_o=1$ W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 32 dB, and the input sensitivity shall be +8 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 105 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 100°C. The relay shall also delay amplifier connection to the load during turn-on for nine seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator and two sets of level meters. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch ($f_c=20$ Hz) and 6 position DIP switch. Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Two RJ45 Data Port connectors shall allow remote control and monitoring via RS-485 connection to the optional ACD1 or ACU16-C. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H. Weight shall be 12.5 kg. The amplifier shall be YAMAHA PC6501N.

ARCHITECTS' & ENGINEERS' SPECIFICATIONS

Power Amplifier **PC4801N**

► 120 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 450 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 120 V, 60 Hz line. Dual power supply transformers are employed. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 850 W per channel with a 4 ohm load, 550 W with an 8 ohm load, and 1700 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 1200 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 32 dB, and the input sensitivity shall be +6 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 103 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 100°C. The relay shall also delay amplifier connection to the load during turn-on for nine seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator and two sets of level meters. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch (fc=20 Hz) and 6 position DIP switch. Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Two RJ45 Data Port connectors shall allow remote control and monitoring via RS-485 connection to the optional ACD1 or ACU16-C. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H (18-7/8" x 17-15/16" x 3-7/16"). Weight shall be 12.5 kg (27.6 lbs). The amplifier shall be YAMAHA PC4801N.

► 230 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 600 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 230 V, 50 Hz line. Dual power supply transformers are employed. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 800 W per channel with a 4 ohm load, 500 W with an 8 ohm load, and 1600 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 1200 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 32 dB, and the input sensitivity shall be +6 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 103 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 100°C. The relay shall also delay amplifier connection to the load during turn-on for nine seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator and two sets of level meters. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch (fc=20 Hz) and 6 position DIP switch. Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Two RJ45 Data Port connectors shall allow remote control and monitoring via RS-485 connection to the optional ACD1 or ACU16-C. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H. Weight shall be 12.5 kg. The amplifier shall be YAMAHA PC4801N.

ARCHITECTS' & ENGINEERS' SPECIFICATIONS

Power Amplifier **PC3301N**

► 120 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 450 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 120 V, 60 Hz line. Dual power supply transformers are employed. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 600 W per channel with a 4 ohm load, 350 W with an 8 ohm load and 1200 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 800 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, $P_o=1$ W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 32 dB, and the input sensitivity shall be +4.5 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 101 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 100°C. The relay shall also delay amplifier connection to the load during turn-on for nine seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator and two sets of level meters. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch ($f_c=20$ Hz) and 6 position DIP switch. Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Two RJ45 Data Port connectors shall allow remote control and monitoring via RS-485 connection to the optional ACD1 or ACU16-C. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H (18-7/8" x 17-15/16" x 3-7/16"). Weight shall be 12.5 kg (27.6 lbs). The amplifier shall be YAMAHA PC3301N.

► 230 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 500 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 230 V, 50 Hz line. Dual power supply transformers are employed. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 700 W per channel with a 4 ohm load, 400 W with an 8 ohm load, and 1400 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 900 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, $P_o=1$ W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 32 dB, and the input sensitivity shall be +4.5 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 101 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 100°C. The relay shall also delay amplifier connection to the load during turn-on for nine seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator and two sets of level meters. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch ($f_c=20$ Hz) and 6 position DIP switch. Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Two RJ45 Data Port connectors shall allow remote control and monitoring via RS-485 connection to the optional ACD1 or ACU16-C. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H. Weight shall be 12.5 kg. The amplifier shall be YAMAHA PC3301N.

ARCHITECTS' & ENGINEERS' SPECIFICATIONS

Power Amplifier **PC2001N**

► 120 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 350 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 120 V, 60 Hz line. Dual power supply transformers are employed. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 400 W per channel with a 4 ohm load, 230 W with an 8 ohm load, and 800 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 500 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 32 dB, and the input sensitivity shall be +3 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 100 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 100°C. The relay shall also delay amplifier connection to the load during turn-on for nine seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator and two sets of level meters. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch (fc=20 Hz) and 6 position DIP switch. Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Two RJ45 Data Port connectors shall allow remote control and monitoring via RS-485 connection to the optional ACD1 or ACU16-C. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H (18-7/8" x 17-15/16" x 3-7/16"). Weight shall be 12.5 kg (27.6 lbs). The amplifier shall be YAMAHA PC2001N.

► 230 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 350 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 230 V, 50 Hz line. Dual power supply transformers are employed. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 450 W per channel with a 4 ohm load, 250 W with an 8 ohm load, and 900 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 600 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 32 dB, and the input sensitivity shall be +3 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 100 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 100°C. The relay shall also delay amplifier connection to the load during turn-on for nine seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator and two sets of level meters. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch (fc=20 Hz) and 6 position DIP switch. Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Two RJ45 Data Port connectors shall allow remote control and monitoring via RS-485 connection to the optional ACD1 or ACU16-C. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H. Weight shall be 12.5 kg. The amplifier shall be YAMAHA PC2001N.