

ARCHITECTS' & ENGINEERS' SPECIFICATIONS

Power Amplifier

T5n

► 120 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 1600 W or less at 1/8 rated power into 2 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 2500 W per channel with a 2 ohm load, 2200 W per channel with a 4 ohm load, 1350 W with an 8 ohm load, 4400 W mono bridged into an 8 ohm load, and 5000 W mono bridged into a 4 ohm load. Burst peak output with both channels driven shall be a minimum of 3400 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 20 kHz (MAX and TYP: +0 dB, MIN: -0.5 dB) at 8 ohm, Po=1 W. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 26 dB or 32 dB, and the input sensitivity at 4 ohms shall be +15.9 dBu at 26 dB voltage gain, and +9.9 dBu at 32 dB voltage gain. Maximum input voltage shall be +24 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 107 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, and a LED indicator. 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 32 dB and 26 dB voltage gain 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 power cable shall use a 30A twist lock connector, NEMA L5-30P. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 446.4 mm D x 88 mm H (18-7/8" x 17-9/16" x 3-7/16"). Weight shall be 14 kg (30.9 lbs). The amplifier shall be YAMAHA T5n.

► 230 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 1600 W or less at 1/8 rated power into 2 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 2500 W per channel with a 2 ohm load, 2350 W per channel with a 4 ohm load, 1350 W with an 8 ohm load, 4700 W mono bridged into an 8 ohm load, and 5000 W mono bridged into a 4 ohm load. Burst peak output with both channels driven shall be a minimum of 3400 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 20 kHz (MAX and TYP: +0 dB, MIN: -0.5 dB) at 8 ohm, Po=1 W. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 26 dB or 32 dB, and the input sensitivity at 4 ohms shall be +15.9 dBu at 26 dB voltage gain, and +9.9 dBu at 32 dB voltage gain. Maximum input voltage shall be +24 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 107 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, and a LED indicator. 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 32 dB and 26 dB voltage gain 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. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 446.4 mm D x 88 mm H. Weight shall be 14 kg. The amplifier shall be YAMAHA T5n.

ARCHITECTS' & ENGINEERS' SPECIFICATIONS

Power Amplifier

T4n

► 120 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 1400 W or less at 1/8 rated power into 2 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 2200 W per channel with a 2 ohm load, 1950 W per channel with a 4 ohm load, 1150 W with an 8 ohm load, 3900 W mono bridged into an 8 ohm load and 4400 W mono bridged into a 4 ohm load. Burst peak output with both channels driven shall be a minimum of 2900 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 20 kHz (MAX and TYP: +0 dB, MIN: -0.5 dB) at 8 ohm, Po=1 W. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 26 dB or 32 dB, and the input sensitivity at 4 ohms shall be +15.3 dBu at 26 dB voltage gain, and +9.3 dBu at 32 dB voltage gain. Maximum input voltage shall be +24 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, and a LED indicator. 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 32 dB and 26 dB voltage gain 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 power cable shall use a 30A twist lock connector, NEMA L5-30P. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 446.4 mm D x 88 mm H (18-7/8" x 17-9/16" x 3-7/16"). Weight shall be 14 kg (30.9 lbs). The amplifier shall be YAMAHA T4n.

► 230 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 1400 W or less at 1/8 rated power into 2 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 2200 W per channel with a 2 ohm load, 2050 W per channel with a 4 ohm load, 1150 W with an 8 ohm load, 4100 W mono bridged into an 8 ohm load and 4400 W mono bridged into a 4 ohm load. Burst peak output with both channels driven shall be a minimum of 3100 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 20 kHz (MAX and TYP: +0 dB, MIN: -0.5 dB) at 8 ohm, Po=1 W. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 26 dB or 32 dB, and the input sensitivity at 4 ohms shall be +15.3 dBu at 26 dB voltage gain, and +9.3 dBu at 32 dB voltage gain. Maximum input voltage shall be +24 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, and a LED indicator. 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 32 dB and 26 dB voltage gain 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. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 446.4 mm D x 88 mm H. Weight shall be 14 kg. The amplifier shall be YAMAHA T4n.

ARCHITECTS' & ENGINEERS' SPECIFICATIONS

Power Amplifier

T3n

► 120 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 1200 W or less at 1/8 rated power into 2 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 1900 W per channel with a 2 ohm load, 1400 W per channel with a 4 ohm load, 790 W with an 8 ohm load, 2800 W mono bridged into an 8 ohm load and 3800 W mono bridged into a 4 ohm load. Burst peak output with both channels driven shall be a minimum of 2200 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 20 kHz (MAX and TYP: +0 dB, MIN: -0.5 dB) at 8 ohm, Po=1 W. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 26 dB or 32 dB, and the input sensitivity at 4 ohms shall be +13.7 dBu at 26 dB voltage gain, and +7.7 dBu at 32 dB voltage gain. Maximum input voltage shall be +24 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, and a LED indicator. 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 32 dB and 26 dB voltage gain 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 power cable shall use a 30A twist lock connector, NEMA L5-30P. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 446.4 mm D x 88 mm H (18-7/8" x 17-9/16" x 3-7/16"). Weight shall be 14 kg (30.9 lbs). The amplifier shall be YAMAHA T3n.

► 230 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 1200 W or less at 1/8 rated power into 2 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 1900 W per channel with a 2 ohm load, 1400 W per channel with a 4 ohm load, 750 W with an 8 ohm load, 2800 W mono bridged into an 8 ohm load and 3800 W mono bridged into a 4 ohm load. Burst peak output with both channels driven shall be a minimum of 2150 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 20 kHz (MAX and TYP: +0 dB, MIN: -0.5 dB) at 8 ohm, Po=1 W. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be 26 dB or 32 dB, and the input sensitivity at 4 ohms shall be +13.7 dBu at 26 dB voltage gain, and +7.7 dBu at 32 dB voltage gain. Maximum input voltage shall be +24 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, and a LED indicator. 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 32 dB and 26 dB voltage gain 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. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 446.4 mm D x 88 mm H. Weight shall be 14 kg. The amplifier shall be YAMAHA T3n.