



POWER AMPLIFIER

PX SERIES

PX10 / PX8 / PX5 / PX3





Intelligent Processing. Serious Power.

Since the 1976 release of the P2200, our first professional power amplifier, Yamaha has strived to achieve the highest possible levels of sound quality, power output, and reliability in sound reinforcement, studio, and installed applications. The new PX series power amplifiers continue this tradition of excellence, utilizing Yamaha's renowned digital signal processing technology and unparalleled professional audio expertise to achieve a light, durable design, capable of delivering maximum output power to the speakers while simultaneously protecting them with optimized processing. Driven by a newly-developed Class-D amplifier the four new models that make up the PX series are suitable for a broad range of sound reinforcement and installation environments.

Powerful, Efficient Design

PX series models are driven by a newly developed Class-D amplifier engine that concentrates all the necessary functions into a single custom LSI chip, and uses PLL technology to control transfer characteristics in real time, achieving impressive sound quality and power. This new single-chip architecture offers higher output and improved performance in a more lightweight, yet reliable design. A combination of cutting-edge technology and an exhaustive component selection process make PX Series amplifiers supremely efficient amplifiers with low noise, reliable protection features, and above all, outstanding sound quality.



Sophisticated Signal Processing

PX series models come with flexible onboard PEQ, crossover, filters, delay, and limiter functions as standard, allowing quick and easy system setup via the LCD display, without the need for any additional outboard gear. All models also feature Yamaha's intelligent D-CONTOUR multi-band dynamic processing, allowing users to achieve consistent clarity and high-quality sound at any output level by tailoring the frequency response of each connected speaker for either front-of-house or monitor configurations.





PX5

PX3

Easy, Intuitive Setup

To accommodate users with varying levels of sound reinforcement experience, the PX series offers both Basic and Advanced setup modes. Basic mode allows even inexperienced users to easily configure a system that meets their needs, while Advanced mode offers experienced users more precise control over every aspect of their sound. All models feature eight programmable presets for instant recall and reduced setup time that can be saved to a USB thumb drive and shared with other PX amplifiers.

Versatile Lineup

With a lineup comprising four new models – 1,200 W x 2 PX10, 1050 W x 2 PX8, 800 W x 2 PX5, and 500 W x 2 PX3* – the PX series offers a versatile range of different power output capabilities suitable for a wide variety of sound reinforcement applications. The PX3 and PX5 also come equipped with a Power Boost Mode that combines the power output from two channels into one, achieving significantly higher single-channel power levels to drive high power handling speakers when needed (note that the number of channels available is halved in this case). *Power output figures rated at 4 Ω



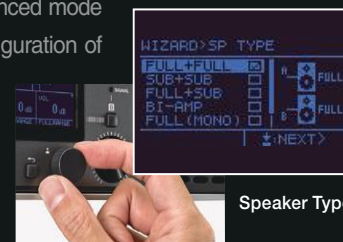
Config View

Smart Configuration Wizard

The Config Wizard allows users to save even more time during system setup by assigning optimized speaker settings that match your system configuration— simply select the appropriate filter and crossover for each speaker, and Config Wizard will do the rest. Config Wizard also features presets* specifically tuned for each model in Yamaha's extensive lineup of passive speakers, including the popular CBR, Club, Installation, and VXS/VXC series, and an advanced mode that allows more detailed configuration of parameters such as input routing, input sensitivity, amp gain, and speaker impedance.

Flexible Connectivity, Durable Construction

Equipped with both XLR and TRS inputs, and binding post, SpeakON and phone outputs, PX Series amplifiers offer the flexibility needed for a variety of setups and environments, and the durability to stand up to extended road-use thanks to the sturdy chassis and carrying handle design.



Speaker Type

*Presets may be added and updated in the future.

INPUT



OUTPUT



Utilities for Safe and Secure Operation

PX Series amplifiers make it fast and easy to configure panel settings, monitor amplifier status, and transfer data via USB, and also feature a panel locking function to keep your settings safe. Users can even export information such as internal device and log data to USB for rapid troubleshooting should difficulties arise.

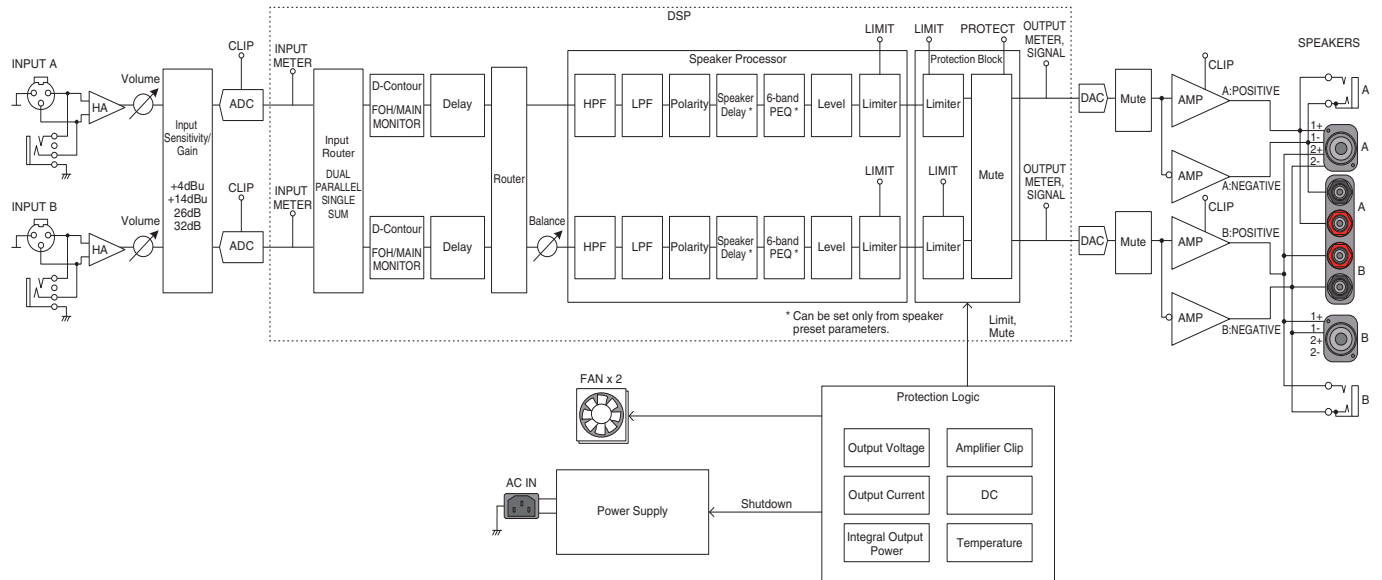


Panel Lock

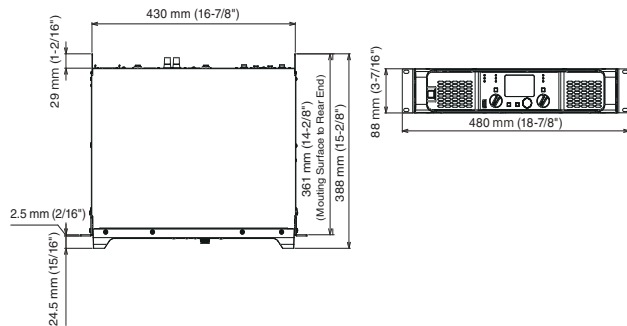
Specifications

		PX10	PX8	PX5	PX3
Output Power					
1kHz, Non-clip, 20msec Burst, Both channels driven	8Ω	1000W x 2	800W x 2	500W x 2	300W x 2
	4Ω	1200W x 2	1050W x 2	800W x 2	500W x 2
	2Ω	700W x 2	600W x 2	500W x 2	300W x 2
	8Ω/Power Boost Mode	-	-	800W x 1	600W x 1
	4Ω/Power Boost Mode	-	-	1400W x 1	1000W x 1
Amplifier type (Output circuitry)		Class D, Balanced output circuit (BTL)			
THD+N	1kHz, 10W	0.1%			
	1kHz, Half power	0.3%			
Frequency Response	1W, 8Ω, 20Hz to 20kHz	±1.0dB			
Crosstalk	Half Power, 8Ω, 1kHz, Vol max input 150Ω shunt	≤ -60dB			
Dimensions (W x H x D)		480 mm x 88 mm x 388 mm (18-7/8" x 3-7/16" x 15-2/8")			
Net Weight		7.4 kg (16.31 lbs)	7.2 kg (15.87 lbs)	6.9 kg (15.21 lbs)	6.9 kg (15.21 lbs)

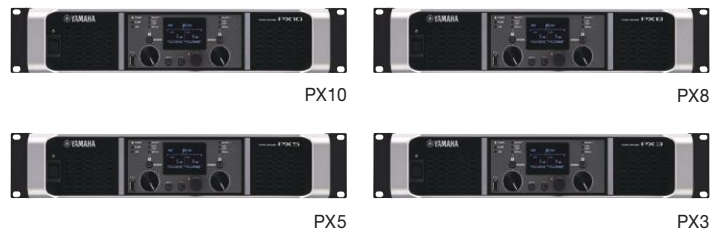
Block diagram



Dimensions



Lineup



LPA661



P10027714



SHARING PASSION & PERFORMANCE

YAMAHA CORPORATION
P.O. BOX 1, Hamamatsu Japan
www.yamahaproaudio.com

*All specifications are subject to change without notice.
*All trademarks and registered trademarks are property of their respective owners.

April 2016 Printed in Japan

POWER AMPLIFIER

PX10/PX8 PX5/PX3

Technical Specifications

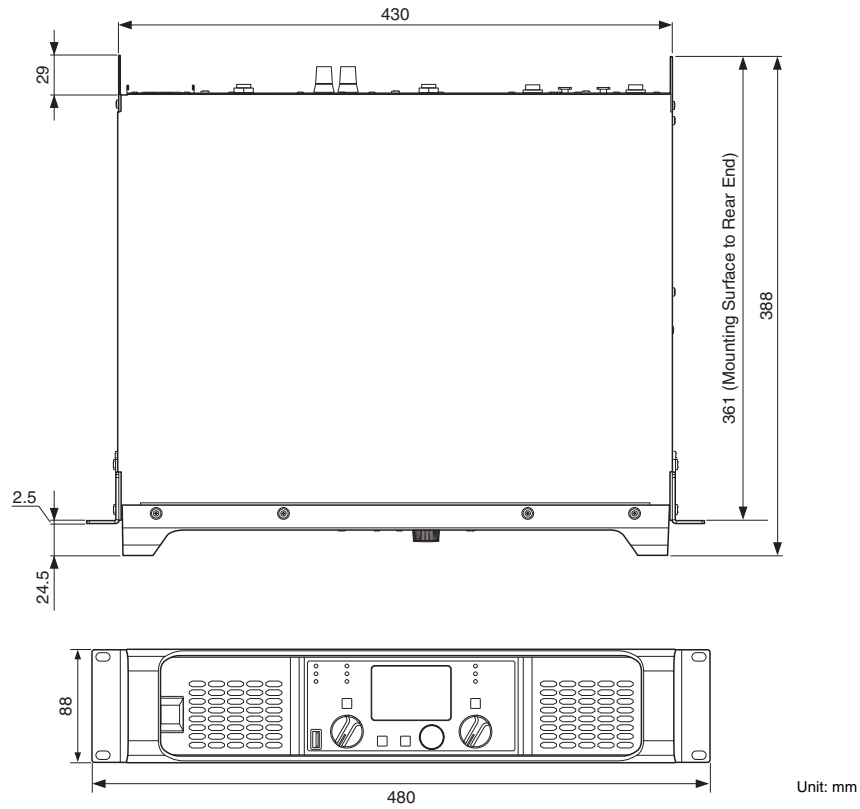
Specifications

		PX10	PX8	PX5	PX3
Output Power		120 V 60 Hz, 220 V–240 V 50 Hz/60 Hz			
1 kHz, non-clip, 20 msec burst, both channels driven	8Ω	1000 W × 2	800 W × 2	500 W × 2	300 W × 2
	4Ω	1200 W × 2	1050 W × 2	800 W × 2	500 W × 2
	2Ω	700 W × 2	600 W × 2	500 W × 2	300 W × 2
1 kHz, non-clip, 20 msec burst	8Ω/Power Boost mode	—	—	800 W × 1	600 W × 1
	4Ω/Power Boost mode	—	—	1400 W × 1	1000 W × 1
Output Power		100 V 50 Hz/60 Hz			
1 kHz, non-clip, 20 msec burst, both channels driven	8Ω	1000 W × 2	800 W × 2	500 W × 2	300 W × 2
	4Ω	1200 W × 2	1050 W × 2	800 W × 2	500 W × 2
	2Ω	700 W × 2	600 W × 2	500 W × 2	300 W × 2
1 kHz, non-clip, 20 msec burst	8Ω/Power Boost mode	—	—	800 W × 1	600 W × 1
	4Ω/Power Boost mode	—	—	1200 W × 1	1000 W × 1
Amplifier Type (Output Circuitry)		Class D, balanced output circuit (BTL)			
THD+N	1 kHz, 10 W	0.1 %			
	1 kHz, half power	0.3 %			
Frequency Response	1 W, 8Ω, 20 Hz to 20 kHz	±1.0 dB			
Crosstalk	Half power, 8Ω, 1 kHz, vol. max., input 150Ω shunt	≤ -60 dB			
S/N Ratio	A-weighted, 8Ω, gain setting = +14 dBu	101 dB	101 dB	100 dB	100 dB
Voltage Gain/Sensitivity					
8Ω, Volume max	Gain setting: 32 dB	32.0 dB/+9.3 dBu	32.0 dB/+8.3 dBu	32.0 dB/+6.3 dBu	32.0 dB/+4.1 dBu
	Gain setting: 26 dB	26.0 dB/+15.3 dBu	26.0 dB/+14.3 dBu	26.0 dB/+12.3 dBu	26.0 dB/+10.1 dBu
	Gain setting: +4 dBu	37.3 dB/+4 dBu	36.3 dB/+4 dBu	34.3 dB/+4 dBu	32.1 dB/+4 dBu
	Gain setting: +14 dBu	27.3 dB/+14 dBu	26.3 dB/+14 dBu	24.3 dB/+14 dBu	22.1 dB/+14 dBu
8Ω, Volume max, Power Boost mode	Gain setting: 32 dB	—	—	34.0 dB/+6.3 dBu	35.0 dB/+4.1 dBu
	Gain setting: 26 dB	—	—	28.0 dB/+12.3 dBu	29.0 dB/+10.1 dBu
	Gain setting: +4 dBu	—	—	36.3 dB/+4 dBu	35.1 dB/+4 dBu
	Gain setting: +14 dBu	—	—	26.3 dB/+14 dBu	25.1 dB/+14 dBu
Maximum Input Voltage		+24 dBu			
Input Impedance		20 kΩ (Balanced), 10 kΩ (Unbalanced)			
Signal Processing		Input summing D-CONTOUR: FOH/MAIN, MONITOR, OFF Delay: 0–74msec HPF/LPF: cutoff frequency 20Hz–20kHz with polarity control Speaker processor: 6 band PEQ + limiter + delay			
User Amplifier Preset		8 user amplifier presets			
Factory Speaker Preset		Speaker presets for Yamaha passive speakers			
Connectors	Analog input	XLR-3-31 × 2, 1/4 PHONE(TRS) × 2			
	Speakers	Neutrik speakON NL4 × 2, Binding post × 2 pairs, 1/4" PHONE(TS) × 2			
	AC IN	AC inlet × 1 with AC cord clamp			
	USB	USB 2.0 Standard-A Connector (Female) for data save/load (amp settings, speaker preset, log) and firmware update with USB memory			
AC Power Requirement		Depending on area of purchase; 100 V, 50 Hz/60 Hz, 120 V 60 Hz, 220 V–240 V 50 Hz/60 Hz *1			
Power Consumption	1/8 MAX power, 4Ω, pink noise at all channels	310 W	280 W	230 W	160 W
	Idle, 4Ω	60 W	60 W	55 W	55 W
Operating Temperature		0°C to +40°C			
Storage Temperature		-20°C to +60°C			
Dimensions (W × H × D)		480 × 88 × 388 mm (18.90 × 3.46 × 15.28 inch)			
Net Weight		7.4 kg (16.31 lbs)	7.2 kg (15.87 lbs)	6.9 kg (15.21 lbs)	6.9 kg (15.21 lbs)

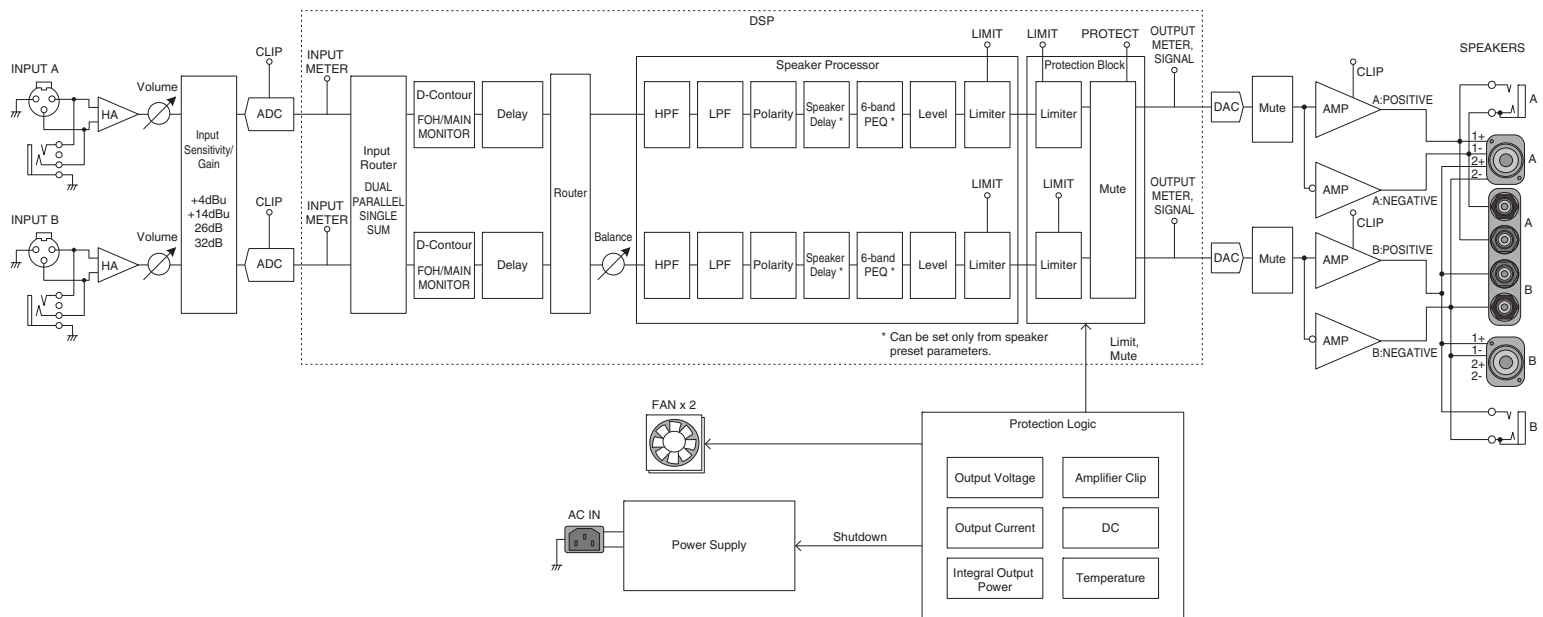
*1 Device operation has been confirmed within +/- 10% of the rated power supply voltage.

* The contents of this manual apply to the latest specifications as of the printing date. To obtain the latest manual, access the Yamaha website then download the manual file.

Dimensions



Block Diagram



Current Draw

● PX10

	Line Current (A)	Watt (W)			Thermal Dissipation		
		100V	Power Consumption (In)	Power Consumption (out)	Watts Dissipated	Btu/h	kcal/h
100V/50Hz							
Idle	0.8	57	0	57	195	49	
1/8 out	8Ω/ch	2.6	213	125	88	300	76
	4Ω/ch	3.1	261	150	111	379	95
1/3 out	8Ω/ch	5.6	472	333	139	474	120
	4Ω/ch	7.2	608	400	208	710	179

	Line Current (A)	Watt (W)			Thermal Dissipation		
		120V	Power Consumption (In)	Power Consumption (out)	Watts Dissipated	Btu/h	kcal/h
110V-120V/60Hz							
Idle	0.7	60	0	60	205	52	
1/8 out	8Ω/ch	2.2	213	125	88	300	76
	4Ω/ch	2.7	263	150	113	386	97
1/3 out	8Ω/ch	4.6	466	333	133	454	114
	4Ω/ch	5.9	597	400	197	672	169

	Line Current (A)	Watt (W)			Thermal Dissipation		
		230V	Power Consumption (In)	Power Consumption (out)	Watts Dissipated	Btu/h	kcal/h
220V-240V/50Hz							
Idle	0.5	62	0	62	212	53	
1/8 out	8Ω/ch	1.4	219	125	94	321	81
	4Ω/ch	1.6	271	150	121	413	104
1/3 out	8Ω/ch	2.7	471	333	138	471	119
	4Ω/ch	3.3	602	400	202	689	174

● PX8

	Line Current (A)	Watt (W)			Thermal Dissipation		
		100V	Power Consumption (In)	Power Consumption (out)	Watts Dissipated	Btu/h	kcal/h
100V/50Hz							
Idle	0.8	57	0	57	195	49	
1/8 out	8Ω/ch	2.2	178	100	78	266	67
	4Ω/ch	2.9	237	131	106	362	91
1/3 out	8Ω/ch	4.6	386	267	119	406	102
	4Ω/ch	6.4	543	350	193	659	166

	Line Current (A)	Watt (W)			Thermal Dissipation		
		120V	Power Consumption (In)	Power Consumption (out)	Watts Dissipated	Btu/h	kcal/h
110V-120V/60Hz							
Idle	0.7	60	0	60	205	52	
1/8 out	8Ω/ch	1.9	182	100	82	280	71
	4Ω/ch	2.5	237	131	106	362	91
1/3 out	8Ω/ch	3.8	385	267	118	403	101
	4Ω/ch	5.4	542	350	192	655	165

	Line Current (A)	Watt (W)			Thermal Dissipation		
		230V	Power Consumption (In)	Power Consumption (out)	Watts Dissipated	Btu/h	kcal/h
220V-240V/50Hz							
Idle	0.5	62	0	62	212	53	
1/8 out	8Ω/ch	1.2	184	100	84	287	72
	4Ω/ch	1.5	242	131	111	379	95
1/3 out	8Ω/ch	2.2	385	267	118	403	101
	4Ω/ch	3.0	544	350	194	662	167

● PX5

	Line Current (A)	Watt (W)			Thermal Dissipation		
		100V	Power Consumption (In)	Power Consumption (out)	Watts Dissipated	Btu/h	kcal/h
100V/50Hz							
Idle	0.8	46	0	46	157	40	
1/8 out	8Ω/ch	1.9	122	63	59	201	51
	4Ω/ch	2.7	189	100	89	304	77
1/3 out	8Ω/ch	3.6	253	167	86	293	74
	4Ω/ch	5.6	424	267	157	536	135

	Line Current (A)	Watt (W)			Thermal Dissipation		
		120V	Power Consumption (In)	Power Consumption (out)	Watts Dissipated	Btu/h	kcal/h
110V-120V/60Hz							
Idle	0.8	54	0	54	184	46	
1/8 out	8Ω/ch	1.7	130	63	67	229	58
	4Ω/ch	2.4	196	100	96	328	83
1/3 out	8Ω/ch	3.1	259	167	92	314	79
	4Ω/ch	4.8	428	267	161	549	138

	Line Current (A)	Watt (W)			Thermal Dissipation		
		230V	Power Consumption (In)	Power Consumption (out)	Watts Dissipated	Btu/h	kcal/h
220V-240V/50Hz							
Idle	0.5	57	0	57	195	49	
1/8 out	8Ω/ch	1.0	130	63	67	229	58
	4Ω/ch	1.4	197	100	97	331	83
1/3 out	8Ω/ch	1.9	259	167	92	314	79
	4Ω/ch	2.9	434	267	167	570	144

● PX3

	Line Current (A)	Watt (W)			Thermal Dissipation		
		100V	Power Consumption (In)	Power Consumption (out)	Watts Dissipated	Btu/h	kcal/h
100V/50Hz							
Idle	0.8	46	0	46	157	40	
1/8 out	8Ω/ch	1.5	94	38	56	191	48
	4Ω/ch	2.0	137	63	74	253	64
1/3 out	8Ω/ch	2.6	174	100	74	253	64
	4Ω/ch	3.9	285	167	118	403	101

	Line Current (A)	Watt (W)			Thermal Dissipation		
		120V	Power Consumption (In)	Power Consumption (out)	Watts Dissipated	Btu/h	kcal/h
110V-120V/60Hz							
Idle	0.8	54	0	54	184	46	
1/8 out	8Ω/ch	1.3	100	38	62	212	53
	4Ω/ch	1.8	140	63	77	263	66
1/3 out	8Ω/ch	2.3	183	100	83	283	71
	4Ω/ch	3.4	291	167	124	423	107

	Line Current (A)	Watt (W)			Thermal Dissipation		
		230V	Power Consumption (In)	Power Consumption (out)	Watts Dissipated	Btu/h	kcal/h
220V-240V/50Hz							
Idle	0.5	57	0	57	195	49	
1/8 out	8Ω/ch	0.8	101	38	63	215	54
	4Ω/ch	1.1	142	63	79	270	68
1/3 out	8Ω/ch	1.4	181	100	81	276	70
	4Ω/ch	2.1	293	167	126	430	108

Test signal: Pink noise, bandwidth limited from 22Hz to 22kHz
 1 Btu = 1,055.06 J = 0.252 kcal
 (W) × 0.86 = kcal

FCC INFORMATION (U.S.A.)

1. IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.

2. **IMPORTANT:** When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product MUST be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.

3. **NOTE:** This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of other electronic devices. Compliance with FCC regulations does not guar-

antee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter/s.

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300 ohm ribbon lead, change the lead-in to co-axial type cable.

If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you can not locate the appropriate retailer, please contact Yamaha Corporation of America, Electronic Service Division, 6600 Orangethorpe Ave, Buena Park, CA90620

The above statements apply ONLY to those products distributed by Yamaha Corporation of America or its subsidiaries.