

ROXY®

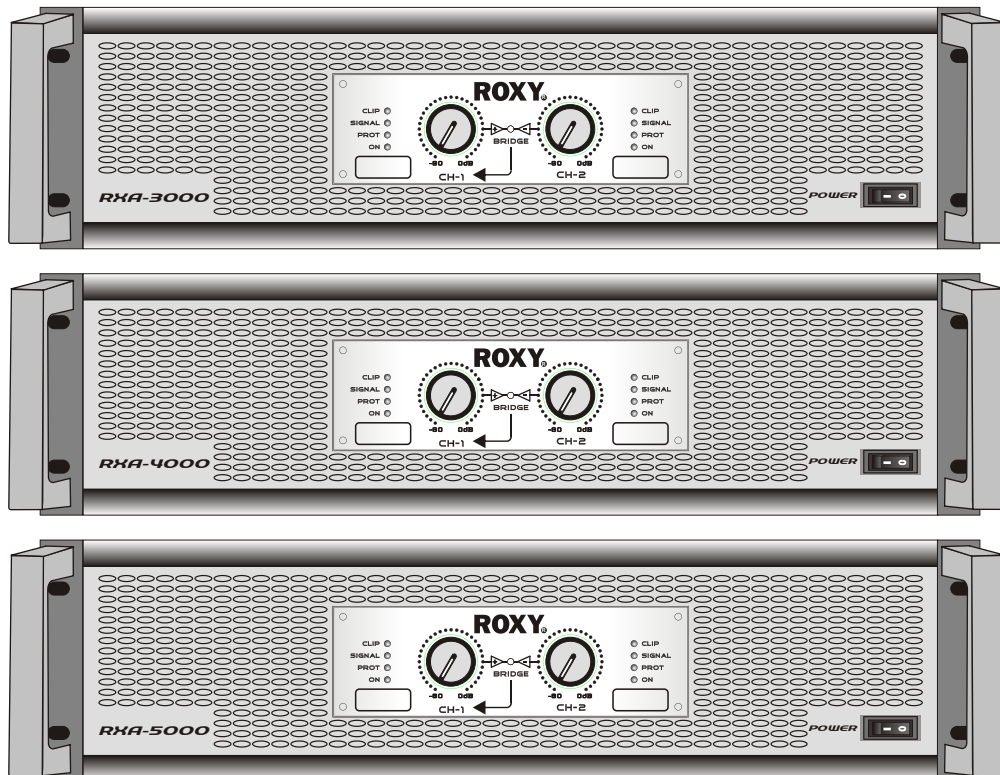
Class H Professional Power Amplifier

RXA Series

Suitable for DJ & LIVE performance

Features Applications

Toroidal transformer power supply.
High efficiency Class 3H power modules.
Highly sensitive CMRR balanced inputs for improved noise rejection.
Channel independent power, signal and clip indicators on the front panel.
Channel independent protection warning indicators on the front panel.
XLR input and signal link connectors.
SpeakON NL4 and binding post output connectors.
Input sensitivity selector on the back panel (1.4v / 1v / 0.775v).
Routing mode selector (stereo / bridge / parallel / crossover) on the back panel.



OWNER'S MANUAL

Choice of touring professionals.

Important Precautions



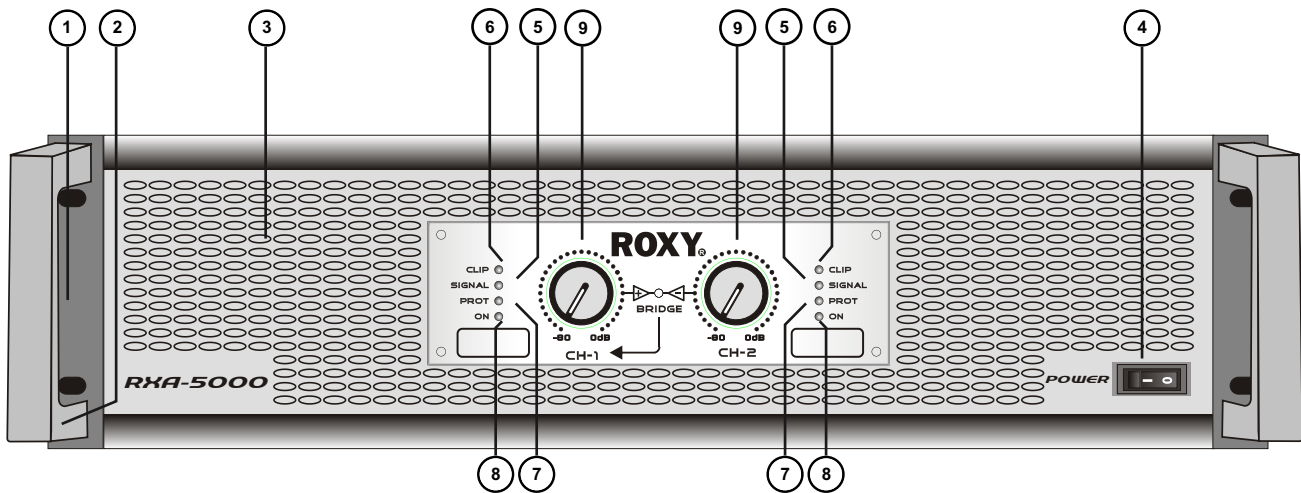
This symbol is used to alert the operator to follow important operating procedures and precautions detailed in documentation.



This symbol is used to warn operators that uninsulated "dangerous volt ages" are present within the equipment enclosure that may pose a risk of electric shock.

1. Save the carton and packing material even if the equipment has arrived in good condition. Should you ever need to ship the unit, use only the original factory packing.
2. Read all documentation before operating your equipment. Retain all documentation for future reference.
3. Follow all instructions printed on unit chassis for proper operation.
4. Do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
5. Make sure power outlets conform to the power requirements listed on the back of the unit.
6. Do not use the unit if the electrical power cord is frayed or broken. The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
7. Always operate the unit with the AC ground wire connected to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
8. Mains voltage must be correct and the same as that printed on the rear of the unit. Damage caused by connection to improper AC voltage is not covered by any warranty.
9. Have gain controls on amplifiers turned down during power-up to prevent speaker damage if there are high signal levels at the inputs.
10. Power down & disconnect units from mains voltage before making connections.
11. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.
12. Do not block fan intake or exhaust ports. Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, weather sheet, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically blown free of foreign matter.
13. Do not remove the cover. Removing the cover will expose you to potentially dangerous voltages. There are no user serviceable parts inside.
14. Connecting amplifier outputs to oscilloscopes or other test equipment while the amplifier is in bridged mode may damage both the amplifier and test equipment!
15. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
16. Do not connect the inputs / outputs of amplifiers or consoles to any other voltage source, such as a battery, mains source, or power supply, regardless of whether the amplifier or console is turned on or off.
17. Do not run the output of any amplifier channel back into another channel's input. Do not parallel- or series-connect an amplifier output with any other amplifier output. Is not responsible for damage to loudspeakers for any reason.
18. Do not ground any + ("hot") terminal. Never connect a + ("hot") output to ground or to another + ("hot") output!
19. Non-use periods. The power cord of equipment should be unplugged from the outlet when left unused for a long period of time.
20. Service Information Equipment should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged;
 - B. Objects have fallen, or liquid has been spilled into the equipment;
 - C. The equipment has been exposed to rain;
 - D. The equipment does not appear to operate normally, or exhibits a marked change in performance;
 - E. The equipment has been dropped, or the enclosure damaged.
21. To obtain service, contact your nearest service center, distributor, dealer.

Front Panel



1. Rack Mounting Ears.

Two front panel mounting holes are provided on each mounting ear.

2. Handle

Easy to Carry

3. Fan Outlet Grills.

RXA Series amplifiers are cooled by two, rear-mounted fans. Cool air flows over the heat sinks and Exhausts through the front grills. Make sure these outlets remain clear to allow unrestricted air flow.

4. AC Power Switch.

RXA Series amplifiers have a front-panel AC switch. After connect to AC press the switch To Power ON.

5. Signal LED.

Illuminates to indicate that a signal (above a minimum threshold) is present at the amplifier input, and that the signal is being amplified.

6. Clip LED.

Illuminates at the clipping threshold. Continuous illumination also indicates that ACL (Active Clip Limiting) protection circuitry is engaged.

7. Protect LED.

When this indicator lights, the power amplifier is in protection mode. Switch off the device and find out what the problem is. The power amplifier is protected against overheat, overload, short circuit DC.

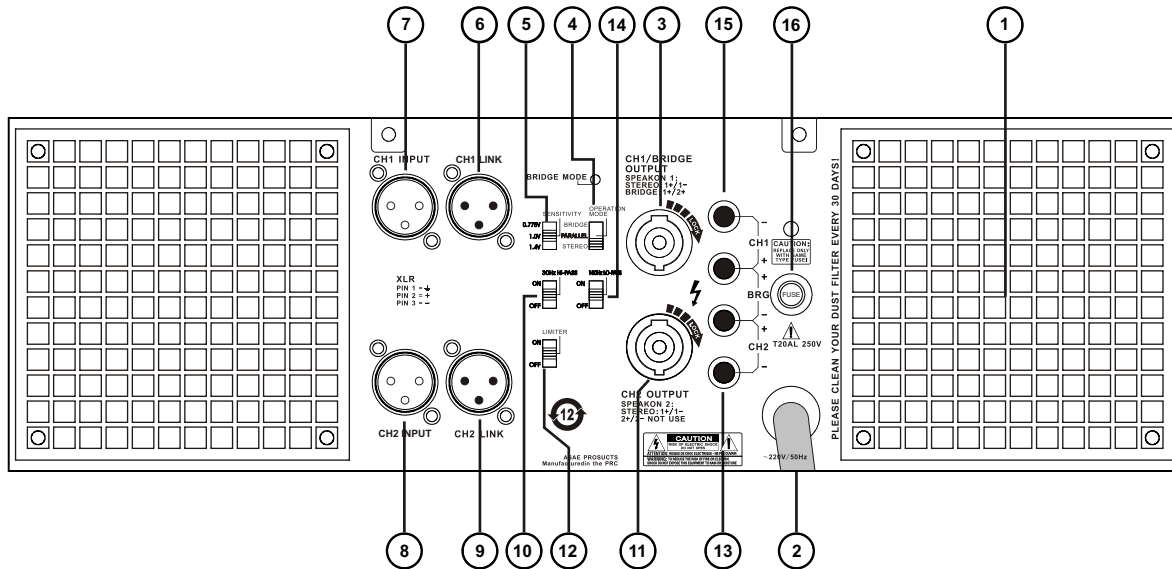
8. Active LED.

Indicates that AC power is connected and the amplifier is turned on.

9. Input Attenuators (Volume Controller CH1 & CH2).

Two input attenuator adjust level for their respective amplifier channels in Stereo mode. In Bridged Mono Mode Channel 1 attenuator is used to control signal level .

Rear Panel



1. Air Entrance

This part is the air entrance. Don't obstruct it

2. AC Socket

Plug the AC power cord into any standard AC outlet. Before plugging this cord in be sure the voltage of the AC outlet is correct. The fuse is used to protect your power amplifier from different kinds of AC problem. If the power amplifier is "ON" and nothing lights please verify the fuse component.

If fuse is broken please read it and change with a new of same size and value(RXA Series not have fuse inside)

3. CH1 Speakon Output

Connection this speakon output to a speaker. The branching is +1, -1 (except in bridge mode Where the branches is +1, +2).

4. Operation Mode Selector

This switch is used to chose the operating mode of power amplifier:

Mode Stereo: 2 inputs (Ch1 & Ch2) and 2 outputs are used.

Mode Parallel: 1 input(CH1) and 2 outputs are used.

Mode Bridge: 1 input(CH1) and 1 output(Output1) are used.

5. Input Sensitivity Selector

This Selector allows to choose the input sensitivity: either 0.775V, 1.0V, 1.4V.

6. Ch1 Link Socket

This balance socket is used to link another amplifier.

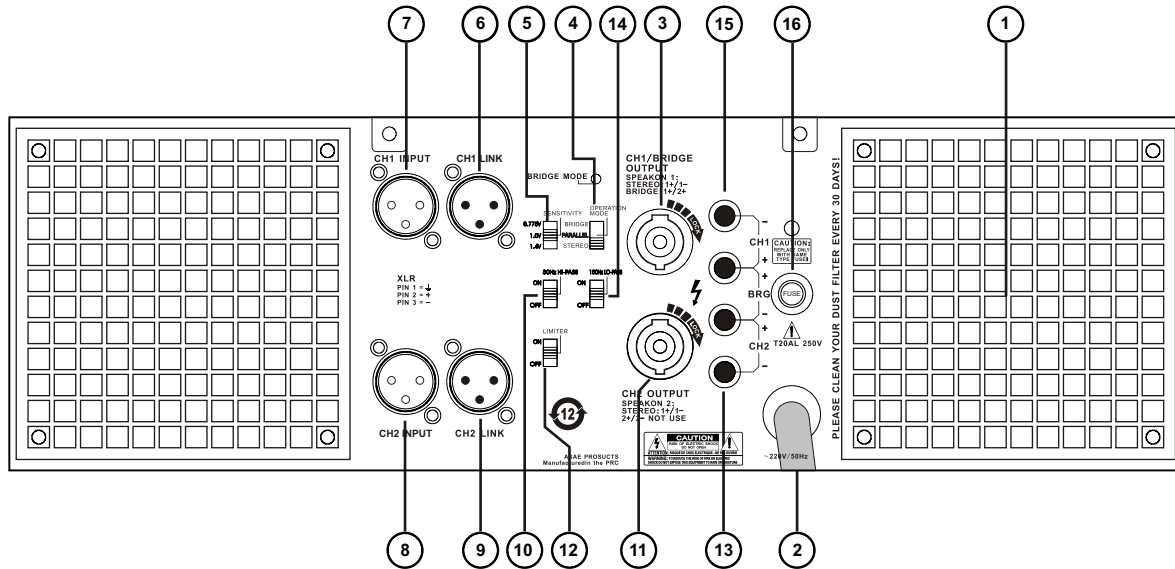
7. Ch1 XLR Input

This XLR input is a balance input. Connect this input to the left output of your mixer

8. Ch2 XLR Input

This XLR input is a balance input. Connect this input to the right output of your mixer.

Rear Panel



9. Ch2 Link Socket

This balance socket is used to link another amplifier.

10. High Pass Filter Selector

This switch is used to cut low frequency under 30Hz (infrasound)

11. Ch2 Speakon Output

Connect this speakon output to an another Speaker. The branches is +1, -1.

12. Limiter switch

This switch is used to select ON/OFF of the limiter. Choose it to prevent output clip because of too high input signal, so as to avoid damaging amplifier and the speaker.

13. Channel 2 Binding post output

This is the binding post output port. Red color links to positive port of speaker, black color links to negative port of speaker. While bridge only RED color links to positive port of speaker.

14. 150Hz low-pass filter switch

If the system needs to drive the subwoofer turn the switch to "ON" position. It can filtrate the 150Hz. You can use this amplifier to drive the subwoofers, no need to add extract electronic crossover.

15. Channel 1 Binding post output

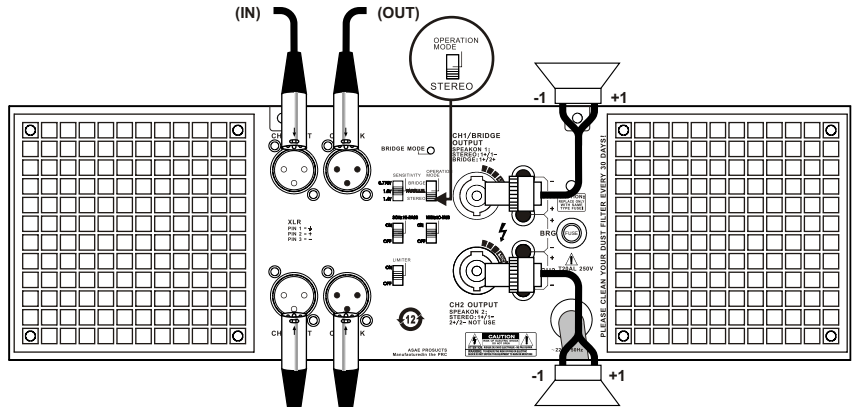
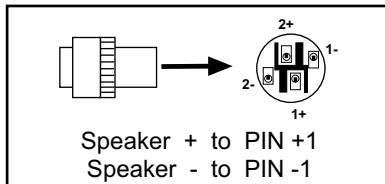
This is the binding post output port. Red color links to positive port of speaker, black color links to negative port of speaker. While bridge only RED color links to positive port of speaker.

16. Fuse holder

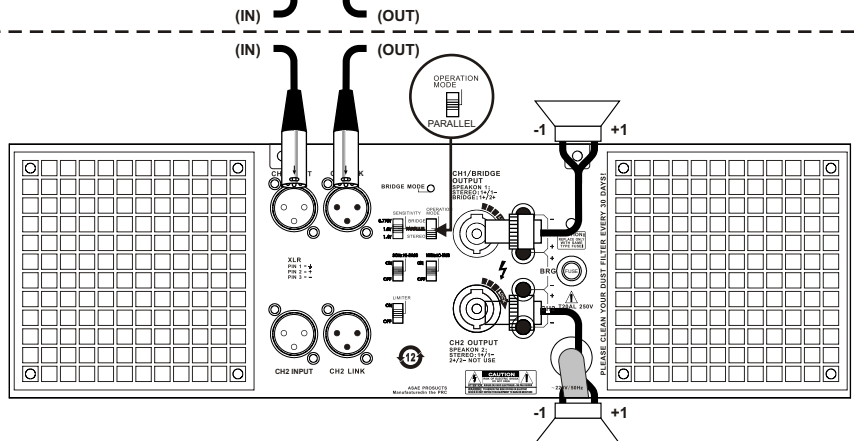
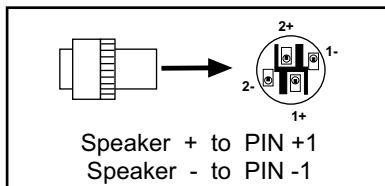
This fuse holder include a standard specification fuse inside. It is used to protect amplifier from damages. If the amplifier was connected to power but the LED is not illume , please check the fuse situation. If you found the fuse is broken, you must replace with same specification fuse after troubleshooting

Setup connection mode for TIGER Series

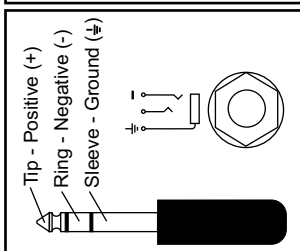
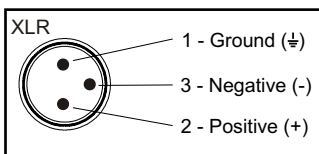
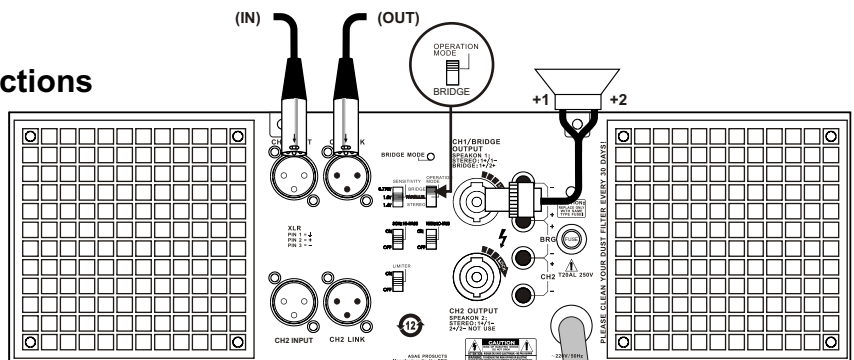
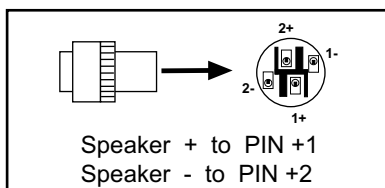
Stereo Mode Connections



Parallel Mode Connections



Bridged Mono Mode Connections



Balanced 1/4" (TRS) & XLR Input Connectors.

These connectors accept input signals on balanced TRS and XLR input plugs. See the figure at the left for information on polarity. Connectors for each channel are in parallel; the unused connectors may be used for "loop through" connection to other amplifiers.

NOTE: Unbalanced "Tip/Sleeve" plugs may be used with the balanced TRS "Tip/Ring/Sleeve" connectors. The "ring" terminal or negative input will be connected to ground internally. When using three-pole ("stereo") TRS connectors, make sure that the ring connection is made either to the cold (-) output of the source equipment, or to ground. Incorrect connections may cause a 6dB loss in level.

User Precautions

Speaker Protection

All loudspeakers have electrical, thermal, and physical limits which must be observed to prevent damage or failure. Cone or compression drivers can be damaged (sometimes to the point of failure) from excessive power, low frequencies applied to high frequency drivers, severely clipped waveforms, and DC voltage. All RXA Series amplifiers automatically protect speakers from DC voltages and subsonic signals.

Mid- and high-frequency transducers—compression driver in particular—are highly susceptible to damage from overpowering, clipped waveforms, or frequencies below their rated passband. When using an electronic crossover, make absolutely certain that the low and mid bands are connected to the correct amplifiers and drivers—and not accidentally connected to those for a higher or lower frequency band.

The amplifier's clipping point is its maximum peak output power. At maximum peak output power, RXA Series amplifiers will deliver more power than many speakers can safely handle. Be sure the peak power capability of the amplifier is not excessive for your speaker system. To ensure that the speakers never receive excessive power, and to prevent amplifier clipping, use a properly adjusted external limiter (or a compressor with a ratio of 10:1 or higher) to control power output. Use one compressor/limiter for each frequency band in systems with active electronic crossovers.

The ACL clip limiting circuit will automatically limit the duration of squared-off, continuous waveforms applied to the speakers. The amplifier will, however, allow normal musical transient bursts to pass. Of course, when the amplifier does clip, it is operating at its maximum output power. Note that some speaker systems are packaged with proprietary “processors” that have power limiting circuits and therefore should not require additional limiting.

Do not drive any low-frequency speaker enclosure with frequencies lower than its own tuned frequency; the reduced acoustical damping could cause a ported speaker to “bottom out” even at moderate power. Consult the speaker system specifications to determine its frequency limits, and employ a roll-off filter if necessary.

Recommended Speaker Cabling

The wire gauge charts will assist you in determining the optimum copper wire gauge for your speaker cables. Remember that the speaker cable resistance robs amplifier power in two ways: through power lost directly to resistance (often referred to as I^2R loss), and through increased total load resistance, which decreases the amount of power available from the amplifier. The charts (Appendix A) give cable length figures in feet/AWG wire gauges and in metric values.

Appendix A - Wire Gauge Chart (Metric)

Stranded Cable Lgth. (m)	Wire Gauge (mm ²)	Power Loss (8 ohm load)	Power Loss (4 ohm load)	Power Loss (2 ohm load)
2	0.3	2.9%	5.6%	10.8%
	0.5	1.74	3.4	6.7
	0.75	1.16	2.3	4.5
	1.5	0.58	1.16	2.3
	2.5	0.35	0.70	1.39
	4	0.22	0.44	0.87
5	0.5	4.3%	8.2%	15.5%
	0.75	2.9	5.6	10.8
	1.5	1.45	2.9	5.6
	2.5	0.87	1.74	3.4
	4	0.55	1.09	2.2
	6	0.37	0.73	1.45
10	0.5	8.24%	15.5%	28%
	0.75	5.6	10.8	19.9
	1.5	2.9	5.6	10.8
	2.5	1.74	2.9	6.7
	4	1.09	1.74	4.3
	6	0.73	1.09	2.9
30	0.75	15.5%	0.73%	45%
	1.5	8.2	15.5	28
	2.5	5.1	9.8	18.2
	4	3.2	6.3	12.0
	6	2.2	4.3	8.2
	10	1.31	2.6	5.1

NOTES

A series of 25 horizontal dashed lines for taking notes.

ROXY®

RXA Series

Specifications

T-3000**T-4000****T-5000**

Power (Stereo Mode both channel driver)

8 ohms power*	900W	1200W	1400W
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4 ohms power*	1400W	1800W	2100W
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2 ohms power*	1800W	2400W	2800W
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Power (Bridge Mono Mode)

8 ohms power*	2800W	3600W	4200W
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4 ohms power*	3600W	4800W	5600W
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Frequency Response (8 ohm)	20Hz~20KHz, -0.5dB (+/-0.5dB)		
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Other specifications

S/N Ratio	>80dB	>80dB	>80dB
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THD+N (8 ohm 1kHz in 1/4 Output)	<0.1%	<0.1%	<0.1%
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Damping Factor (8 Ohm 1K)	>300	>300	>300
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Slew Rate	>20v/us	>20v/us	>20v/us
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Input Sensitivity	0.775V/1.0V/1.4V		
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Output topology	3 Steps Class H		
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Cooling	Front to rear air flow		
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Connectors & Protection

Input Connectors	3 Pin XLR		
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Output Connectors	Speakon		
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Amplifier protection	DC/Short/Temp/VHF/Limit/Soft Start		
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Dimensions (mm) & Weight (Kg)

Width	483	483	483
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Depth	432	432	432
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Height	3U	3U	3U
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Weight (Gross)	39Kg	42Kg	43Kg
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Note:

*. The power tested under EIA standard. **, The power are tested under the condition of 1KHz, 1%THD, 40ms burst. Owing to continuous product up-gradation, design & specification are subject to change without prior notice. Specifications claim are subject to permissible product tolerance.