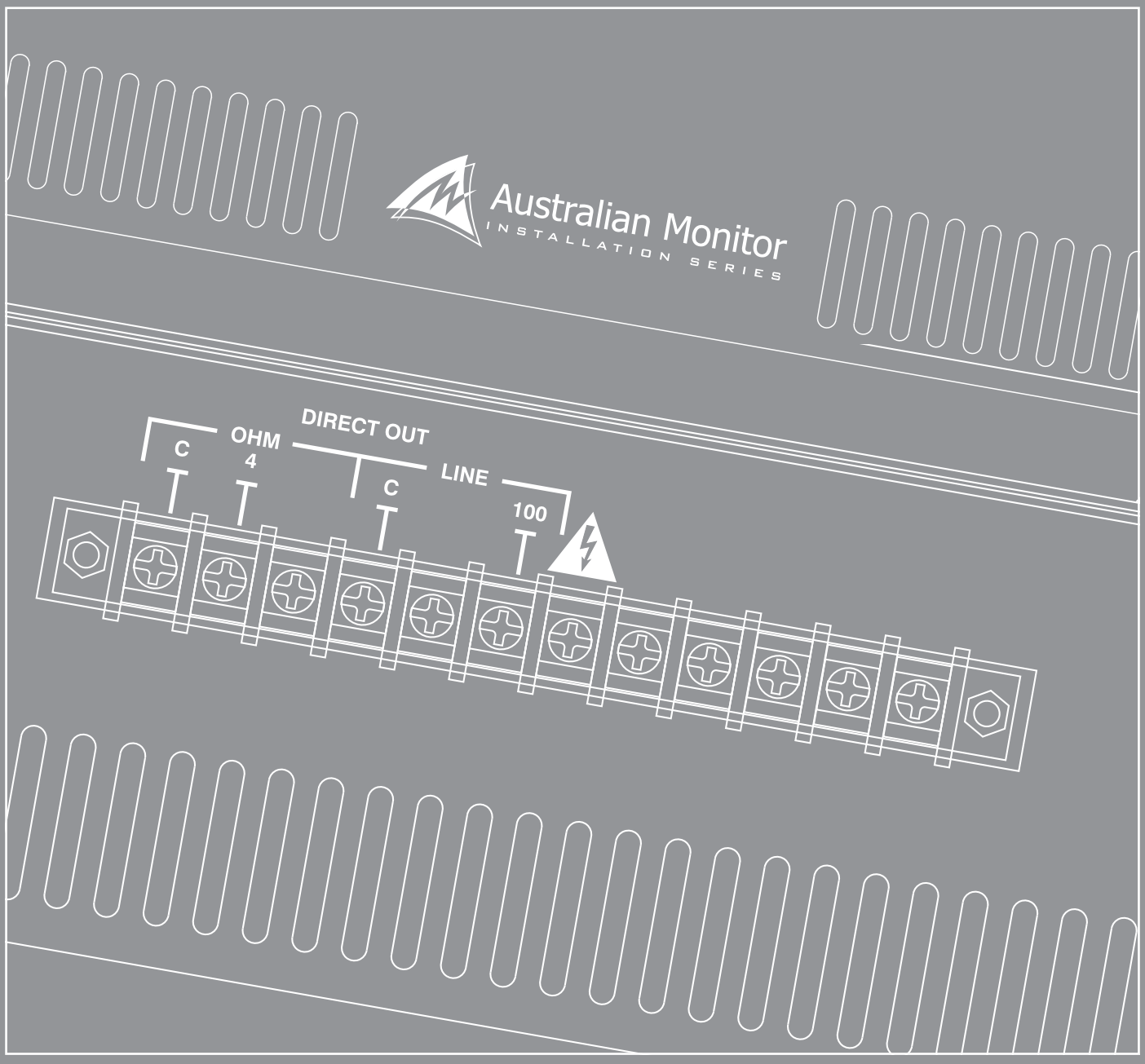
Australian Monitor
INSTALLATION SERIES

AMC+ SERIES

120W / 250W POWER AMPLIFIERS
INSTALLATION AND OPERATION MANUAL



IMPORTANT SAFETY INFORMATION

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 and disconnect units from mains voltage before making connections.
11. Never hold a power switch in the “ON” position if it won’t stay there itself!
12. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.
13. 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, weathersheet, 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.
14. Do not remove the cover. Removing the cover will expose you to potentially dangerous voltages. There are no user serviceable parts inside.
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. Australian Monitor is not responsible for damage to loudspeakers for any reason.
18. Do not ground any red (“hot”) terminal. Never connect a “hot” (red) output to ground or to another “hot” (red) 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.

The Australian Monitor Installation Series AMC+ range of booster amplifiers take the rugged reliability of the famous AMIS range and deliver the same high quality audio reinforcement, in a low cost, 2 rack unit package. The AMC+ booster amplifiers are available in 120 & 250 watts & offer 100 volt or 4 ohm outputs.

The AMC+ series booster amplifiers give the audio contractor a reliable, low cost booster amplifier for applications that are price sensitive but still require high quality commercial sound reinforcement.

AUS, EUR, USA
Rev A: 10th Nov 2008

WARNING!

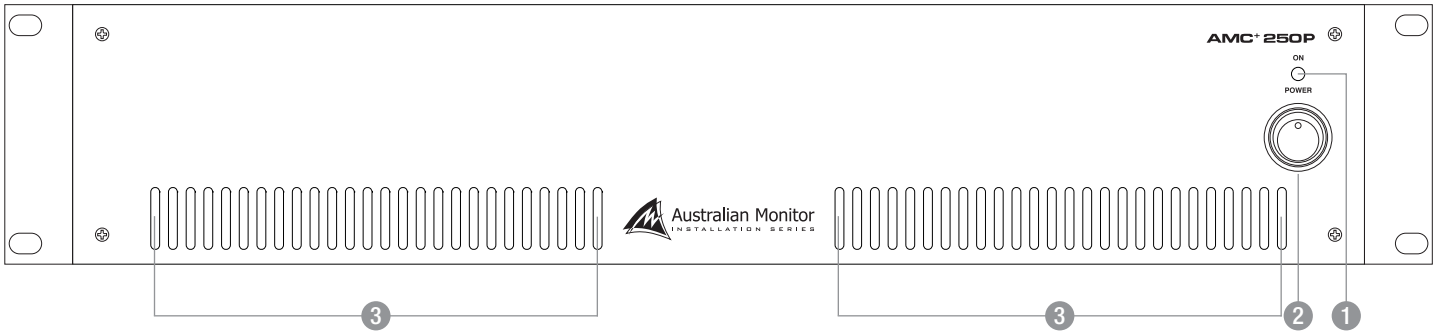
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK
DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operational and maintenance (servicing) instructions in the literature accompanying the appliance.

Caution: To prevent electric shock do not use this (polarised) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure. To prevent electric shock, match wide blade of plug to wide slot, fully insert.

FRONT PANEL



1 On

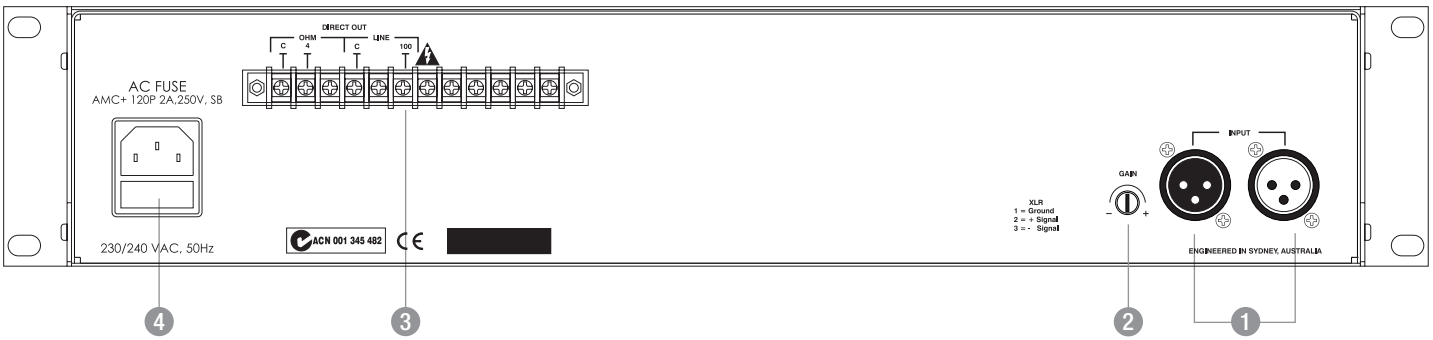
This LED indicates the unit is powered “on”.

2 Power

This switch switches power on or off the mains. The up position is on.

3 Vents

Air intake for fan cooling on AMC+250P only.



1 Input

These 3 pin XLR sockets accept the source input for each channel. One input is a male XLR, the other is a female XLR. The male XLR is normally used as a thru output. When wiring from unbalanced sources, pins 1 and 3 should be shorted together (see Installation section). The input sensitivity (voltage required to drive amplifier to maximum power) of the amplifier is 150mV (-14dBu) with the Input Level Control set at maximum.

2 Level

This pot controls the level of the signal through the amplifier channel. Minimum position is Off and maximum gives a sensitivity of 150mV (-14dBu). The maximum input voltage before the input stage clips is 2.45V (+10.0dBu). Depending on the input source, the input level control should be run above the 12 o'clock position (half way) to avoid clipping the input stage.

3 Direct Out

The speaker connections are on the 12 pole terminal strip. There is a low impedance output (OHM) and a distributed line voltage output (LINE). 70V out is available on 115V models. 100V out is available on 230V models.

There are 6 unused terminals. These do not connect to anything.

3 Direct Out continued

Minimum Impedance	AMC+120P	AMC+250P
Distributed Line Output		
70V (115V version)	41ohm	20ohm
100V (230V version)	83ohm	40ohm
Low Impedance Output		
(both versions)	4ohm	4ohm

Note: Only connect one output – either Distributed Line or Low Impedance per channel. Do not connect LowZ and 70/100V at the same time.

The output strip comes fitted with a touch-proof cover held in place by two M3 machine screws with flat and spring washers.

4 IEC Mains Input Socket

This is a standard IEC 3 pin socket. It accepts a standard IEC mains cable, provided. The fuse draw at 5 contains the mains fuse and a spare. The mains fuse is a time lag (slow blow) HRC 20mm x 5mm ceramic type fuse.

The ratings are:	AMC+120P	AMC+250P
230V model	2A	2.15A
115V model	4A	6.3A

Always replace the fuse with one of the same value and type.

Note: Always disconnect power to the amplifier before replacing fuses.

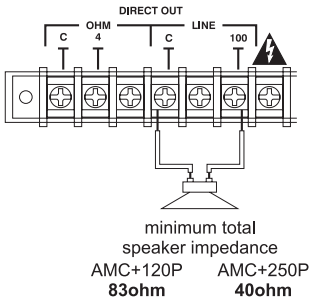
Mounting

When rack mounting, it is advisable to allow 1 rack space above and below the amplifier. When multiple amplifiers are mounted in a rack, exhaust fans should be used on the rack. Airflow for cooling the AMC+120P is by convection from bottom to top. Airflow for cooling the AMC+250P is by fan from front to side.

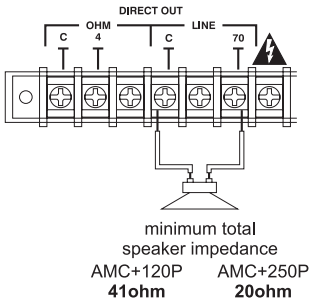
Direct Output

The output terminal strip accepts wire sizes from 16-22AWG (1.5mm2 – 0.35mm2) or spade lugs. The following table should be used as a guideline for cable sizes. Regulations in your area may require different gauged wire and should be checked before using.

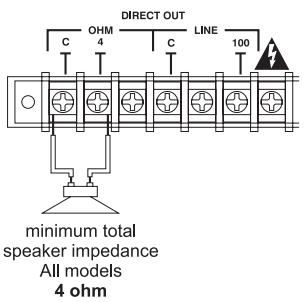
Output	Distance	Wire Size	
		AMC+120P	AMC+250P
100V	Up to 50m	AWG24(0.2mm²)	AWG22(0.35mm²)
	50m–200m	AWG18(0.75mm²)	AWG16(1.5mm²)
	Over 200m	AWG16(1.5mm²)	AWG13(2.5mm²)
70V	Up to 50m	AWG22(0.35mm²)	AWG18(0.75mm²)
	50m–200m	AWG16(1.5mm²)	AWG13(2.5mm²)
	Over 200m	AWG13(2.5mm²)	AWG10(6.0mm²)
4 ohm	Up to 10m	AWG18(0.75mm²)	AWG18(0.75mm²)
	10m–30m	AWG13(2.5mm²)	AWG13(2.5mm²)
	Over 30m	Not Recommended	Not Recommended



230/240V version



115V version



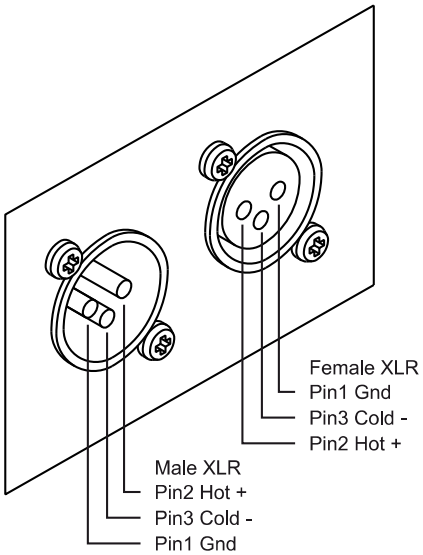
Both versions

Note: Only connect one output – either Distributed Line or Low Impedance.

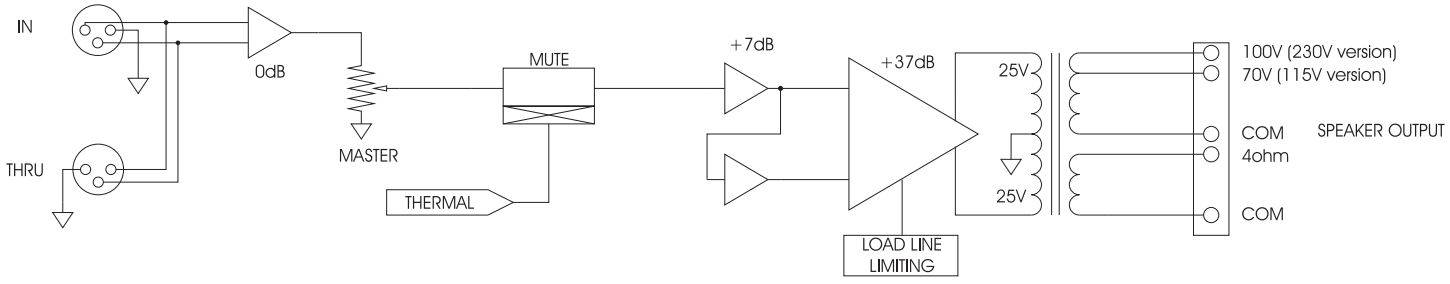
Input Connections

For wiring balanced in, pin 2 is hot. Balanced input wiring (shielded pair cable) is recommended.

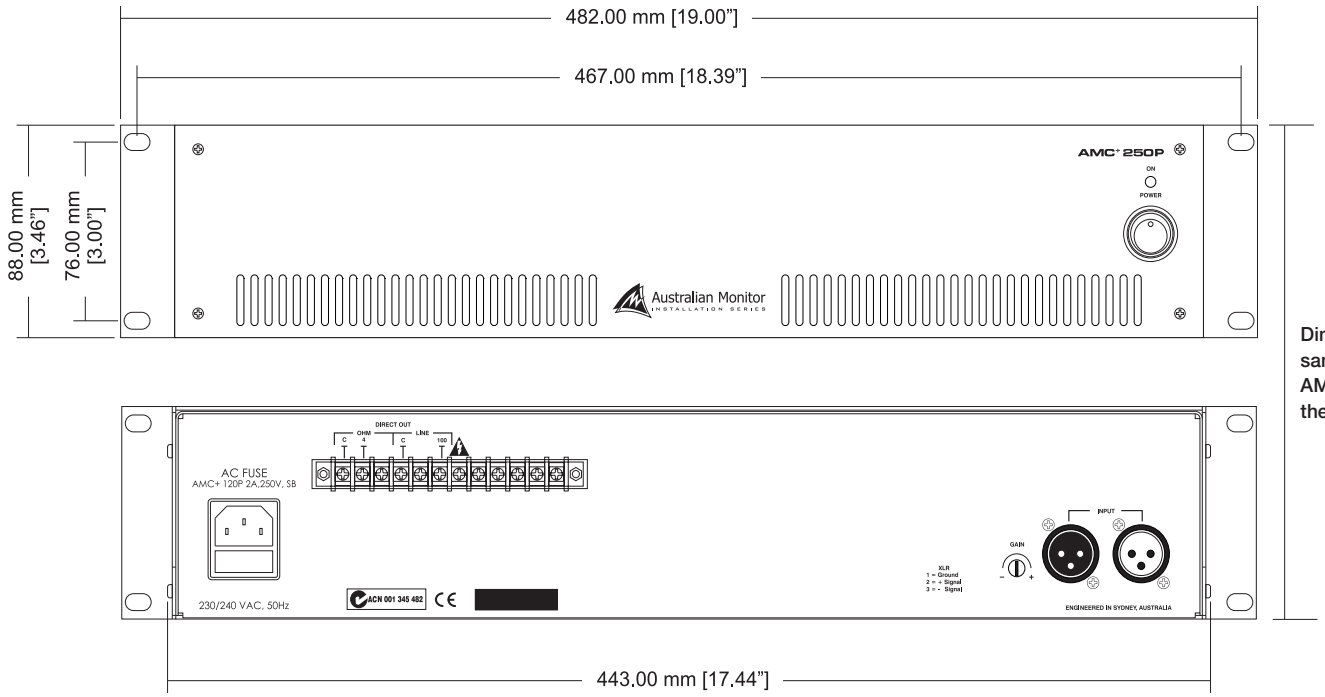
When wiring unbalanced in. pin2 is hot and pin 1 and pin 3 should be shorted together to the shield.



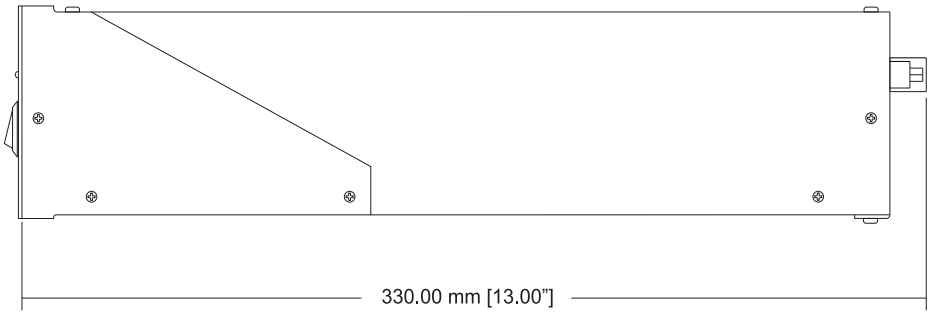
Troubleshooting Guide		
Trouble	**Likely Cause**	**Remedy**
Power LED not on	Power not reaching amplifier	Check power switch is on Check mains connection Check mains fuse
Distorted sound	Output is short circuited Input is overloaded Output is being over driven	Check speaker loads for shorts Reduce input level at source Reduce volume levels
No sound but amp is on	Volume controls down Amplifier has overheated DC fuse(s) blown	Check volume controls Check for obstructions above and below Make sure the amplifier is well ventilated Refer product to local Australian Monitor dealer



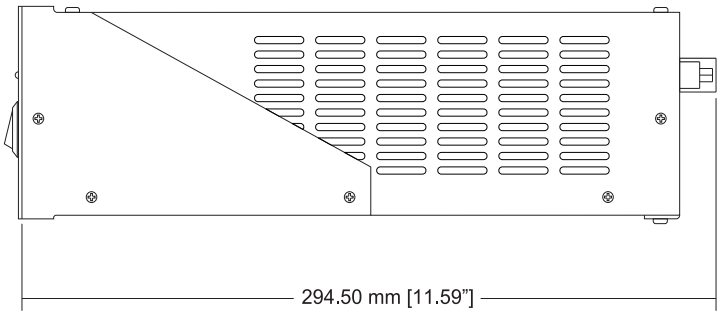
DIMENSIONS



Dimensions the same for both the AMC+120P and the AMC+250P



AMC+ 250P



AMC+ 120P

		AMC+ 120P	AMC+ 250P
POWER OUTPUT (0.5%THD, 1KHZ)		120W	250W
S/N RATIO		>88dB	>88dB
FREQ RESPONSE (-3dB +1dB)		50Hz-20kHz	40Hz-20kHz
THD (1KHz, -1dB)		Better than 0.5%	Better than 0.5%
INPUT	SENSITIVITY	150mV	150mV
(pot @ full)	IMPEDANCE	20k	20k
	HEADROOM	10dB	10dB
FUSES	MAINS (115V)	4A	6.3A
	MAINS (230V)	2A	3.15A
	DC	8A	10A (x2)
SIZE (WXHXD)		482 x 88 x 281mm 19" x 3.5" x 11.1"	482 x 88 x 384mm 19" x 3.5" 15.1"
NET WEIGHT		10.5kg 23.1lb	11.5kg 25.3lb
SHIPPING WEIGHT		12.5kg 27.6lb	14kg 30.8lb
SHIPPING DIMENSIONS (WXHXD)		525 x 175 x 385mm 20.7" x 6.9" x 15.2"	525 x 185 x 470mm 20.7" x 7.3" x 18.5"
MAINS CURRENT DRAW (230V)			
	FULL POWER	1.20A	2.53A
	1/3 POWER	0.80A	1.61A
	1/8 POWER	0.55A	1.10
	IDLE	0.15A	0.15A
MAINS CURRENT DRAW (115V)			
	FULL POWER	2.50A	5.28A
	1/3 POWER	1.67A	3.36A
	1/8 POWER	1.15A	2.30A
	IDLE	0.31A	0.31A
THERMAL OUTPUT (W)			
	FULL POWER	128W	259W
	1/3 POWER	118W	231W
	1/8 POWER	91W	168W
	IDLE	26W	26W
THERMAL OUTPUT (BTU/HR)			
	FULL POWER	437	884
	1/3 POWER	403	788
	1/8 POWER	311	573
	IDLE	89	8

**1/3 and 1/8 power levels relate to voltage changes, not load changes.*

NOTES

NOTES

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