




INSTALLATION AND OPERATION MANUAL


AMC+ SERIES

POWER AMPLIFIERS AMC+120P
 AMC+250P
 AMC+1202P
 AMC+460P

IMPORTANT SAFETY INFORMATION

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped. 
15. This appliance shall not be exposed to dripping or splashing water and that no object filled with liquid such as vases shall be placed on the apparatus.
16. Plug this apparatus to the proper wall outlet and make the plug to be disconnected readily operable.
17. Mains plug is used as disconnected device and it should remain readily operable during intended use. In order to disconnect the apparatus from the mains completely, the mains plug should be disconnected from the mains socket outlet completely.
18. **WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
19. An appliance with a protective earth terminal should be connected to a mains outlet with a protective earth connection.
20. AMC+120P, AMC+250P, AMC+1202P, AMC+460P – Risk of hazardous voltage. Class 2 wiring should be used.
21. The apparatus should be disconnected from the mains completely before speaker wiring. The speaker output should be properly protected from direct contact and pay attention to speaker connections, terminals and speaker wiring during normal operation.

PRÉCAUTIONS DURANT UTILISATION

1. LISEZ ces instructions.
2. Tenez ces instructions.
3. Notez tous les avertissements.
4. Suivez toutes les avertissements.
5. N'utilisez pas ce produit près de l'eau (la piscine, la plage, le lac, etc.).
6. Nettoyez seulement avec une étoffe sèche.
7. Ne bloquez aucuns trous de ventilation. Installez en accord avec les instructions du fabricant.
8. N'installez près aucunes sources de chaleur comme radiateurs, registres de chaleur, fours ou les autres équipements (y compris amplificateurs) qui produisent la chaleur.
9. Ne défaites pas le but de sécurité de la fiche polarisée ou base-type. Une fiche polarisée a deux tranchants avec un plus large que l'autre. Une fiche de base type a deux tranchants et une troisième pointe de base, le tranchant large ou la troisième pointe est fourni pour votre sécurité. Si la fiche donnée ne conforme pas votre prise de contact, consultez un électricien pour remplacement de la prise de contact obsolète.
10. Protégez le cordon de secteur contre être marchée dessus ou pincez en particulier aux fiches, aux douilles de convenance, et au point où ils sortent de l'appareil.
11. Seulement utilisez attachements/accessoires spécifiés par le fabricant.
12. Utilisez seulement avec un chariot, un stand, un trépied, un support ou une table indiquée par le fabricant, ou vendue avec l'appareil. Quand un chariot est utilisé, faites attention en déplaçant la combinaison d'appareil/chariot pour éviter de se déséquilibrer.
13. Arrachez la fiche du dispositif durant éclair et orage ou quand pas utilisé pour longues périodes de temps.
14. Référez au personnel qualifié de service pour toutes réparations. La réparation est donnée quand le système a été endommagé à n'importe façon, par exemple un fil ou une fiche endommagé(e) de la source d'alimentation. Avoir été exposé à pluie ou humidité, n'opère pas normalement, ou avoir été tombé. 
15. L'appareil ne doit pas être exposé aux écoulements ou aux éclaboussures et aucun objet ne contenant de liquide, tel qu'un vase, ne doit être placé sur l'objet.
16. Branchez l'appareil à une source appropriée et faire que la prise à débrancher soit facilement accessible.
17. La prise du secteur ne doit pas être obstruée ou doit être facilement accessible pendant son utilisation. Pour être complètement déconnecté de l'alimentation d'entrée, la prise doit être débranchée du secteur.
18. **AVERTISSEMENT:** Pour éviter le risque d'incendie ou de chocs électriques, ne pas exposer cet appareil à la pluie ou à l'humidité.
19. Un appareil avec la borne de terre de protection doit être connecté au secteur avec la connexion de terre de protection.
20. AMC+120P, AMC+250P, AMC+1202P, AMC+460P – Danger de voltage. Afin d'assurer un bon fonctionnement utiliser un câble de catégorie 2.
21. Assurez-vous que l'appareil est hors tension avant de connecter les hauts parleurs. Vérifiez que la sortie des enceintes soit protégées contre un contact physique. Respecter les polarités des terminaux ainsi que le câblage des enceintes pendant le fonctionnement afin d'assurer une utilisation sécurisée.



AMC+ SERIES

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 watt, a dual channel 120 watt and a 4x60 watt version, and offer 100 volt, 70 volt and 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.

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WARNING!

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT USE THE PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

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

TO PREVENT ELECTRICAL SHOCK, MATCH WIDE BLADE PLUG TO WIDE SLOT & FULLY INSERT.

CAUTION

THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



WARNING:
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



For European Union countries: This symbol on the product or its packaging indicates that this product must not be disposed of with other waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. Please contact your local authority for further details of your nearest designated collection point.

Rating plate and caution marking are marked on the back enclosure of the apparatus



FRONT PANELS




ALL MODELS HAVE THE SAME 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.

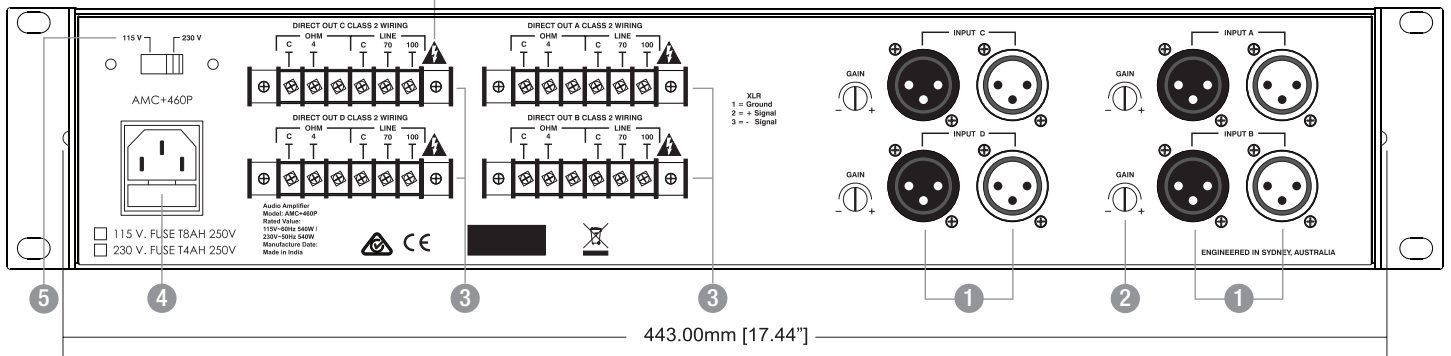
 To indicate hazards arising from dangerous voltages.
Pour indiquer les risques résultant de tensions dangereuses.

 Hot surface! Don't touch here!



AMC+460P shown here

These terminals are hazardous. External wiring to these terminals requires installation by a professional.



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. 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 potentiometer 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

Speaker connections are provided on screw terminals.

4 ohm low impedance, 70V and 100V line outputs are provided.

DIRECT OUT CONTINUED

MINIMUM IMPEDANCE	AMC+120P	AMC+250P	AMC+1202P	AMC+460P
Distributed Line Output				
70V	41 ohm	20 ohm	41 ohm	82 ohm
100V	83 ohm	40 ohm	83 ohm	166 ohm
Low Impedance Output (both versions)	4 ohm	4 ohm	4 ohm	4 ohm

NOTE: Only connect one output – either Distributed Line or Low Impedance per channel. Do not connect 4 ohm and 70 V / 100 V 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 drawer 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.

RATINGS	AMC+120P	AMC+250P	AMC+1202P	AMC+460P
230V operation	3.15A	4A	4A	4A
115V operation	6.3A	8A	8A	8A

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

⚡ Always disconnect power to the amplifier before replacing fuses.

5 MAINS VOLTAGE SELECTOR

The operating voltage of the amplifier is user selectable between for 115V or 230V operation via a slide switch located above the AC mains inlet. This switch should be set to match the AC voltage of your country.

⚠ Failure to set the Mains Voltage Selector correctly prior to use will result in catastrophic failure.



INSTALLATION

MOUNTING

Your amplifier is designed for standard 19" rack mounting and occupies 2 EIA rackunits (3.5").

The mounting centres are:

Vertical: 3.0" (76.2mm) Horizontal: 18.2" (461.2mm) to 18.7" (473.8mm)

The slots in the mounting flange will accept bolt diameters up to 1/4" (6.35mm). We recommend that you provide additional support for the amplifier, especially if road use is planned, as the weight could bend some rack frames. This support can be provided by secure shelving on support rails.

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 is from side to side in all models.

Disconnect all cables and power sources from the amplifier before mounting in the rack.

Mount the amplifier so that hazardous conditions are not achieved due to uneven mechanical loading.

Position the amplifier in the mounting rack so that the four slots in the mounting ears are aligned with the rack mounting holes. Fasten the amplifier using four screws to suit the nuts/threads in the rack.

MONTAGE

Cet ampli convient pour un montage en rack de 19" et a 2 unités de 3.5".

Les centres de montage sont:

Vertical: 3.0" soit 76.2 mm Horizontal: de 18.2" (soit 461.2mm) à 18.7" (soit 473.8 mm).

Vous pouvez mettre des vis de 6.5 mm maximum dans les fentes de la bride de montage. Nous vous recommandons un support supplémentaire car le poids peut parfois faire plier le châssis en cas d'usage intensif.

Lorsqu'un amplificateur est installé dans un rack, il est conseillé de laisser 1 espace libre au-dessus et en dessous de l'amplificateur. Si plusieurs amplificateurs sont installés dans un rack, il est recommandé d'installer les ventilateurs.

Débit d'air de refroidissement est d'un côté à l'autre dans tous les modèles.

Veillez installer l'amplificateur à l'intérieur du rack de telle sorte que l'appareil soit stable afin d'éviter une chute.

Positioné l'amplificateur dans le rack de sorte que les quatre fentes soit alignées avec les trous de montage du rack. Visser l'amplificateur au rack en utilisant quatre vis.



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+1202P	AMC+250P	AMC+460P
100V	Up to 50m	AWG24(0.2mm ²)	AWG22(0.35mm ²)	AWG26(0.12mm ²)
	50m–200m	AWG18(0.75mm ²)	AWG16(1.5mm ²)	AWG20(0.5mm ²)
	Over 200m	AWG16(1.5mm ²)	AWG13(2.5mm ²)	AWG18(0.75mm ²)
70V	Up to 50m	AWG22(0.35mm ²)	AWG18(0.75mm ²)	AWG24(0.2mm ²)
	50m–200m	AWG16(1.5mm ²)	AWG13(2.5mm ²)	AWG18(0.75mm ²)
	Over 200m	AWG13(2.5mm ²)	AWG10(6.0mm ²)	AWG16(1.5mm ²)
4 OHM	Up to 10m	AWG18(0.75mm ²)	AWG18(0.75mm ²)	AWG18(0.75mm ²)
	10m–30m	AWG13(2.5mm ²)	AWG13(2.5mm ²)	AWG13(2.5mm ²)
	Over 30m	Not Recommended	Not Recommended	Not Recommended

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

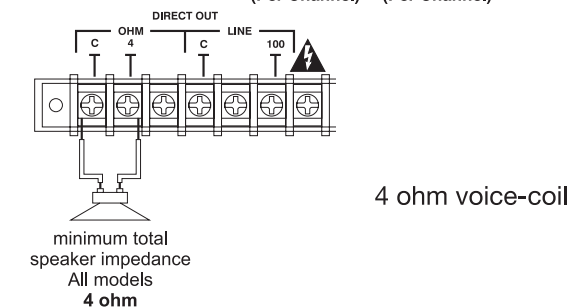
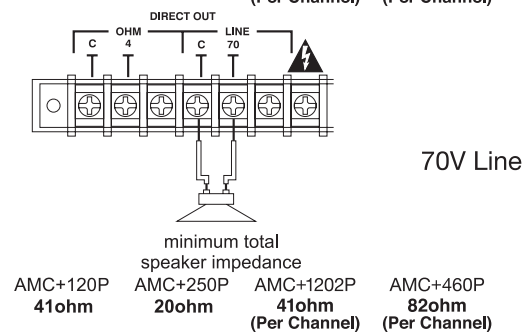
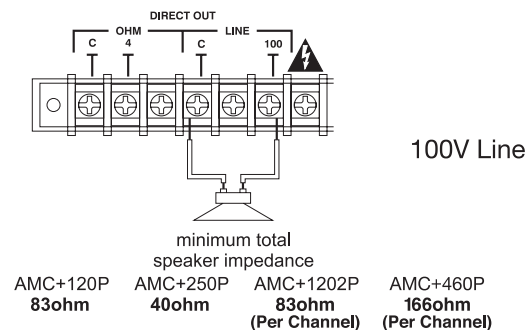
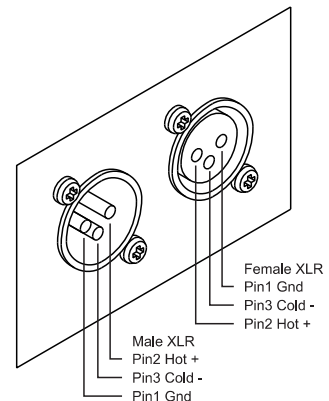
LINE OUTPUT

The LINE output XLR can be used to connect up to 6 booster amplifiers. Balanced wiring (shielded pair cable) is recommended.

NOTE: When wiring the LINE output as unbalanced, pin 2 should be wired as hot and pin 1 should be wired as ground/shield. Do not wire pin 3.

INPUT CONNECTIONS

For wiring balanced in, pin 2 is hot. Balanced input wiring (shielded pair cable) is recommended. Unbalanced RCA wiring should be kept as short as possible.





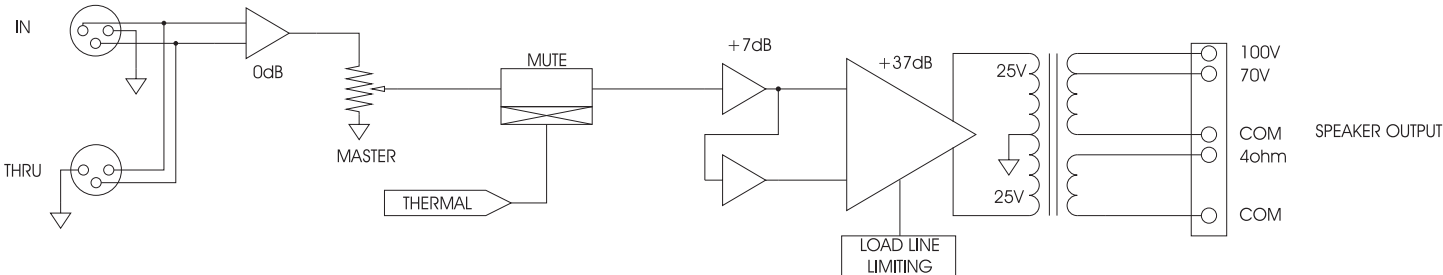
TROUBLESHOOTING

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 circuit Input is overloaded Output is being over driven	Check speaker loads for shorts Reduce input level at source Reduce volume levels on front panel
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

BLOCK DIAGRAM

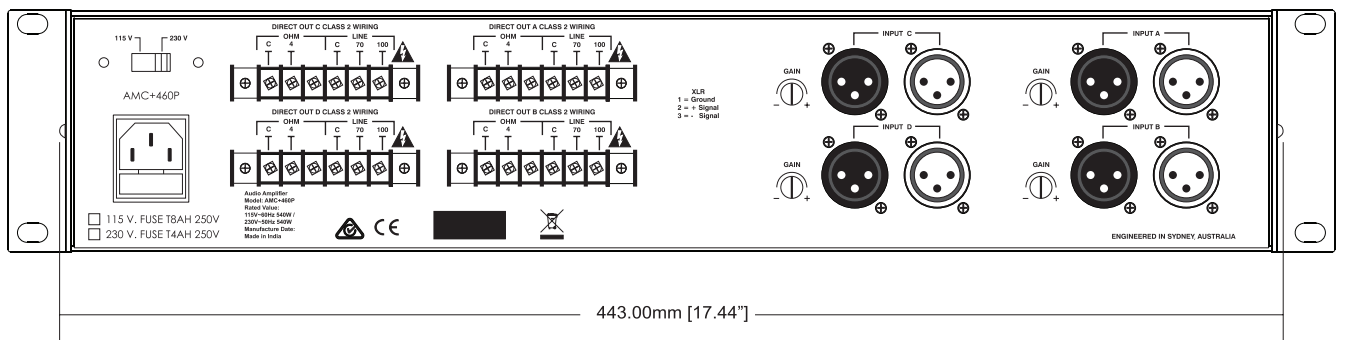
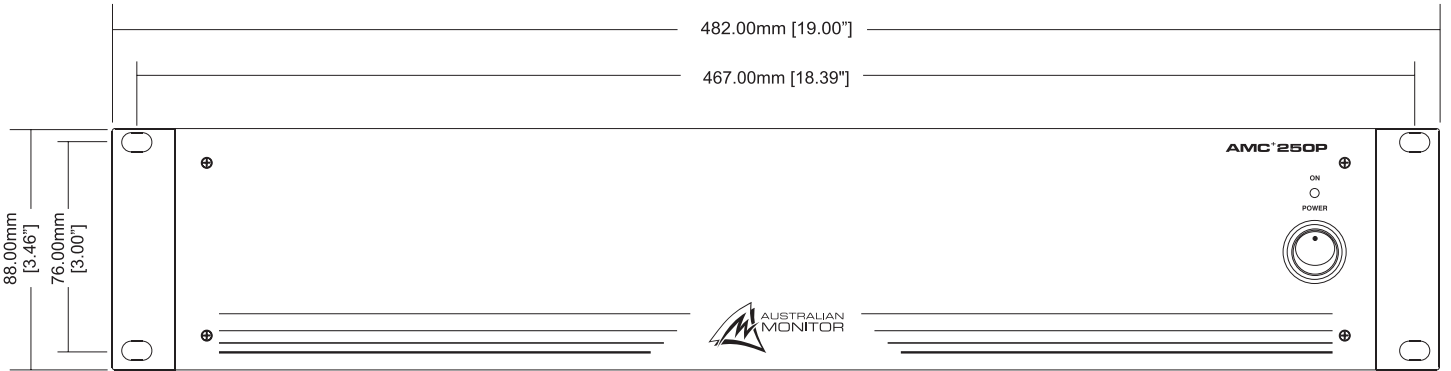


Single channel amplifier shown here

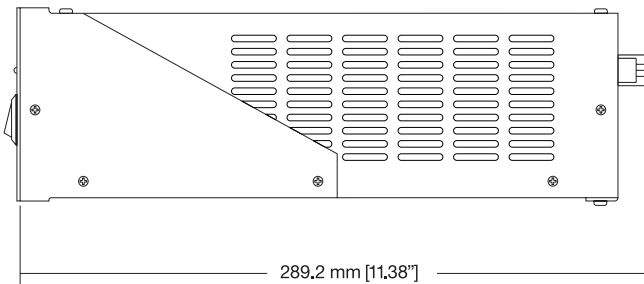




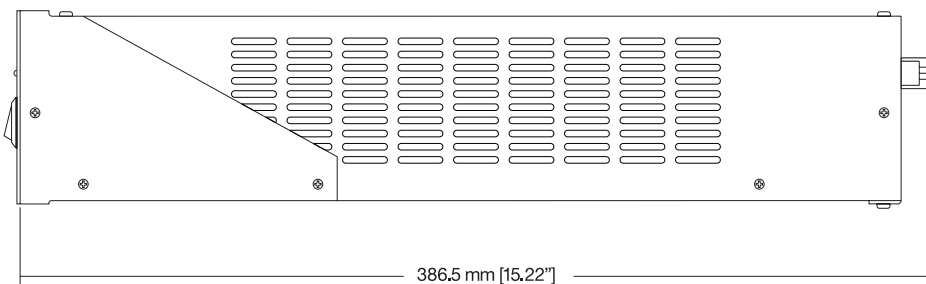
DIMENSIONS



ALL MODELS HAVE THE SAME FRONT & REAR PANEL DIMENSIONS.



AMC+120P



**AMC+250P
AMC+1202P
AMC+460P**



	AMC+ 120P	AMC+ 250P	AMC+ 1202P	AMC+ 460P
POWER OUTPUT (0.5%THD, 1KHZ)	120 W	250 W	2 x 120 W	4 x 60 W
S/N RATIO	>88 dBr	>88 dBr	>88 dBr	>82 dBr
FREQ RESPONSE (-3DB +1DB)	50 Hz–20 kHz	40 Hz–20 kHz	50 Hz–20 kHz	50Hz–20kHz
THD (1KHZ, -1DB)	Better than 0.5%	Better than 0.5%	Better than 0.5%	Better than 0.5%
INPUT SENSITIVITY (pot @ full)	150 mV	150 mV	150 mV	150 mV
IMPEDANCE	20 k	20 k	20 k	20 k
FUSES MAINS (115V)	6.3 A	8 A	8 A	8 A
MAINS (230V)	3.15 A	4 A	4 A	4 A
DC	8 A	10 A (x2)	8 A (per channel)	4 A
SIZE (W X H X D) (NO RACK EARS)	482 x 88 x 289.2 mm 19" x 3.5" x 11.39"	482 x 88 x 386.5 mm 19" x 3.5" x 14.43"	482 x 88 x 386.5 mm 19" x 3.5" x 14.43"	482 x 88 x 386.5 mm 19" x 3.5" x 14.43"
NET WEIGHT	10.5 kg 23.1 lb	11.5 kg 25.3 lb	13.7 kg 30.2 lb	15.6 kg 34.39 lbs
SHIPPING WEIGHT	10.5 kg 23.15 lb	14.65 kg 32.31 lb	16.7 kg 36.82 lb	18.2 kg 40.12 lbs
SHIPPING DIMENSIONS (WXHXD)	524 x 188 x 394 mm 20.6" x 7.4" x 15.2"	524 x 197 x 470 mm 20.6" x 7.7" x 18.5"	524 x 197 x 470 mm 20.6" x 7.7" x 18.5"	524 x 197 x 470 mm 20.6" x 7.7" x 18.5"
MAINS CURRENT DRAW (230V)				
FULL POWER	1.20 A	2.53 A	2.91 A	2.83 A
1/3 POWER	0.80 A	1.61 A	1.73 A	1.84 A
1/8 POWER	0.55 A	1.10 A	1.11 A	1.31 A
IDLE	0.15 A	0.15 A	0.14 A	0.37 A
MAINS CURRENT DRAW (115V)				
FULL POWER	2.50 A	5.28 A	5.83 A	5.57 A
1/3 POWER	1.67 A	3.36 A	3.46 A	3.63 A
1/8 POWER	1.15 A	2.30 A	2.23 A	2.59 A
IDLE	0.31 A	0.31 A	0.28 A	0.74 A
THERMAL OUTPUT (W)				
FULL POWER	128 W	259 W	430 W	508 W
1/3 POWER	118 W	231 W	318 W	310 W
1/8 POWER	91 W	168 W	226 W	210 W
IDLE	26 W	26 W	32 W	47 W
THERMAL OUTPUT (BTU/HR)				
FULL POWER	437 Btu/Hr	884 Btu/Hr	1467 Btu/Hr	917 Btu/Hr
1/3 POWER	403 Btu/Hr	788 Btu/Hr	1085 Btu/Hr	784 Btu/Hr
1/8 POWER	311 Btu/Hr	573 Btu/Hr	771 Btu/Hr	614 Btu/Hr
IDLE	89 Btu/Hr	89 Btu/Hr	109 Btu/Hr	160 Btu/Hr

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



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