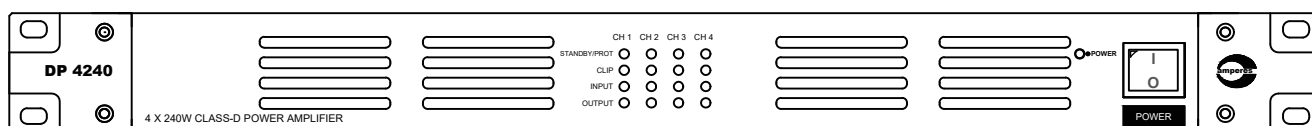
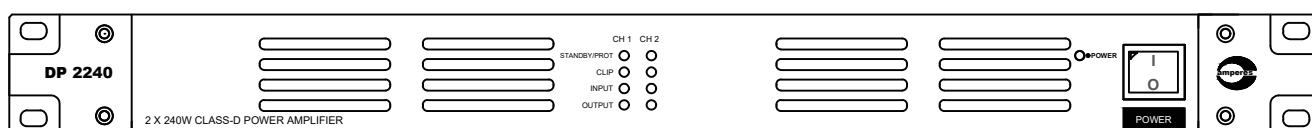




INSTRUCTION MANUAL

DP2240 2x 240W Class D DP4240 4x 240W Class D DP2500 2x 500W Class D 240 / 500W 100V Multi Channel Power Amplifier

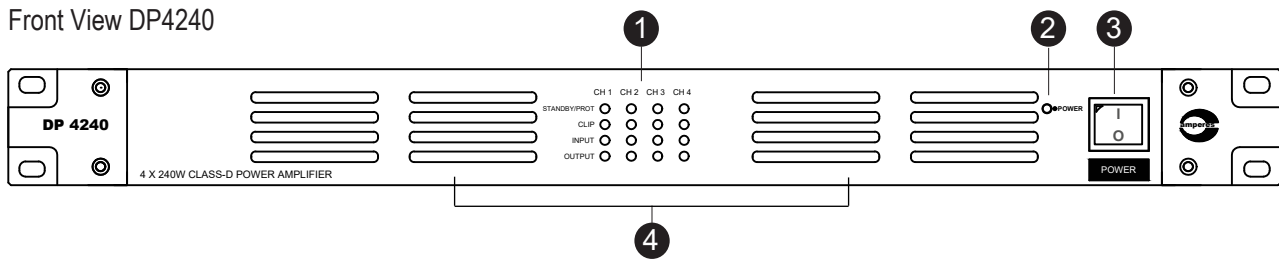


Thank you for choosing another quality product from Amperes Electronics.

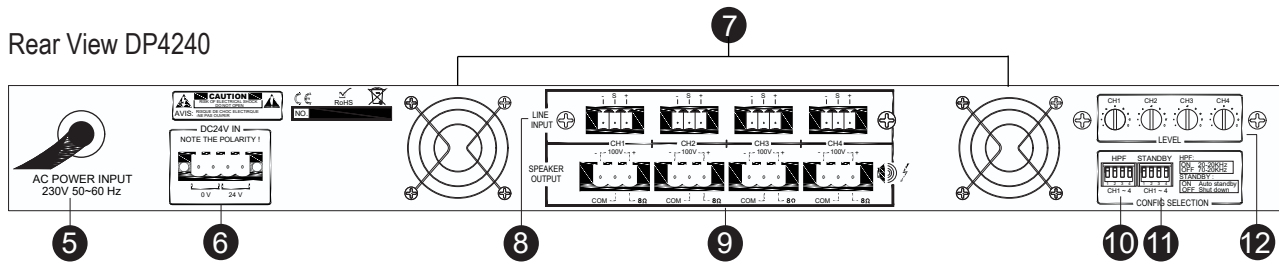
Introducing another outstanding products - multichannel Class D power amplifiers, available in three variants ; DP2240 - 2 x 240W, DP4240 - 4 x 240W and 2 x 500W 100V line outputs. These compact power packs not only save your rack space but also the power consumption through its efficient Class D circuits. Various protections are added in this lightweight power unit such as short circuit, overload, high temperature and DC protection. With less heat dissipations, less cooling is required in your PA rack and is a worthy investment in the long run.

Parts Identifications

Front View DP4240



Rear View DP4240



1. CHANNEL 1, 2, 3 & 4 LED INDICATION

LED indicator to Standby / Prot, Clip, Input and Output.

2. POWER INDICATOR

This LED will lit once the unit has been powdered.

3. POWER SWITCH

For switching mains AC supply and the corresponding LED shall lit accordingly.

4. FRONT VENT FAN

External cool air enters the unit from these vent holes. Please ensure that there is sufficient clearance for ventilation.

5. MAIN AC POWER CORD

The unit has been preset to operate under 220V - 240V AC main supply unless otherwise specified.

6. DC 24V INPUT

The unit operates on 24V DC. It is preferred that the unit to be supplied directly from the uninterrupted power source. ie: Back up batteries. Batteries connections must be installed properly to avoid fire. Please refer to battery charger installation manual for details.

7. BACK VENT FAN

The vent fan draws internally generated hot air and dispersed by fans outwards. The fan has dual speed which is determined by the internal heat sink temperature.

8. LINE INPUT

The line input supports balanced input from audio sources or mixer.

9. SPEAKER OUTPUT

The speaker output shall be connected to 100V line loudspeakers or 8 Ohm.

10. HIGH PASS FILTER

The high pass filter function will be enabled or disabled by these DIP switch at individual channel.

11. AUTO STANDBY

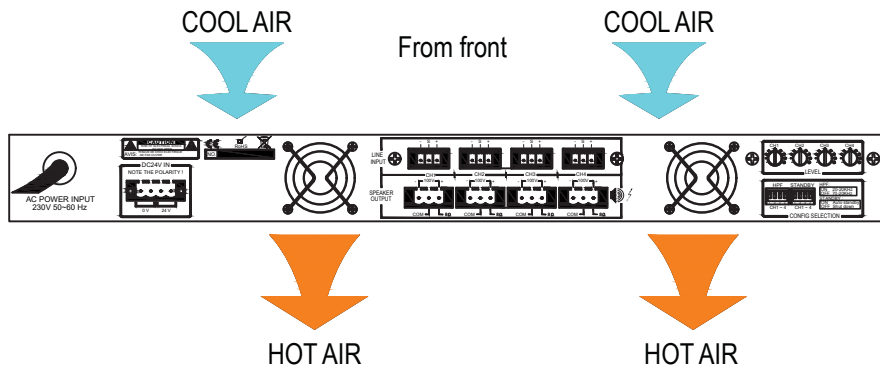
The Auto Standby function of each individual channel can be set by DIP switch. If 'Auto Standby' function is enabled, when there is no input detected within 2 minutes, the power automatically goes into standby.

12. GAIN CONTROL

For adjustment the input sensitivity from various inputs. There are separate Gain Control for each channel.

Unit Installation

Rear View DP4240



The above diagram depicts the air flow pattern for amplifier cooling system. Cool air is pulled from the front vent holes and warm air shall be dissipated via the continuous rotating fan.

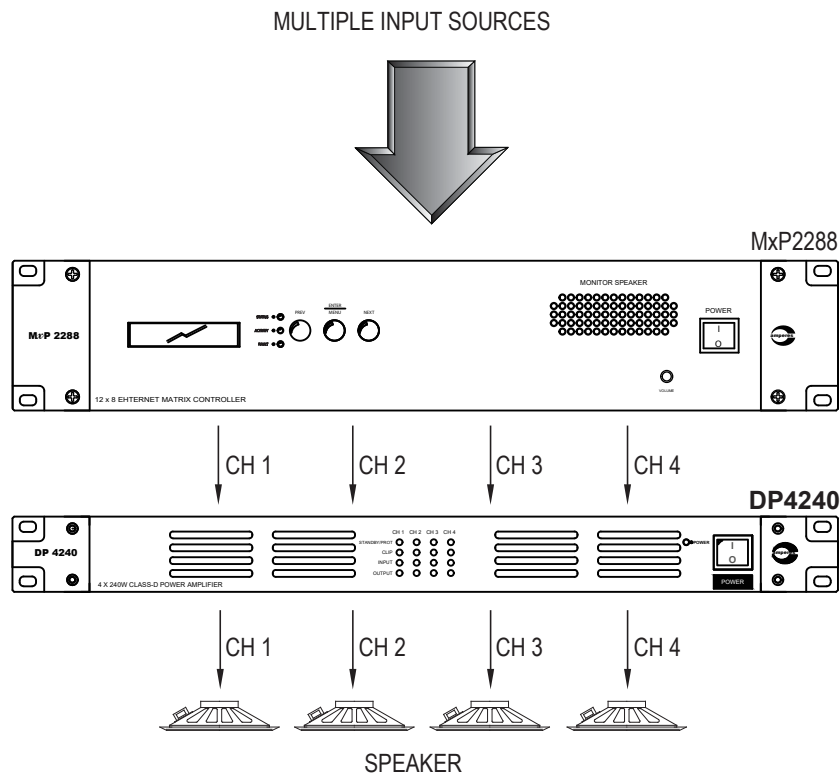
Please ensure these vent holes are not blocked in order to keep the operating temperature at optimum. Allow a breathing space of 100 mm for each vent outlet.

For installation in rack, we recommend that internal rack ventilation fans are installed, one for cool air intake and the other for heat dissipation.

The optimum operating temperature of the unit shall be kept at approximately 40 degree Celsius.

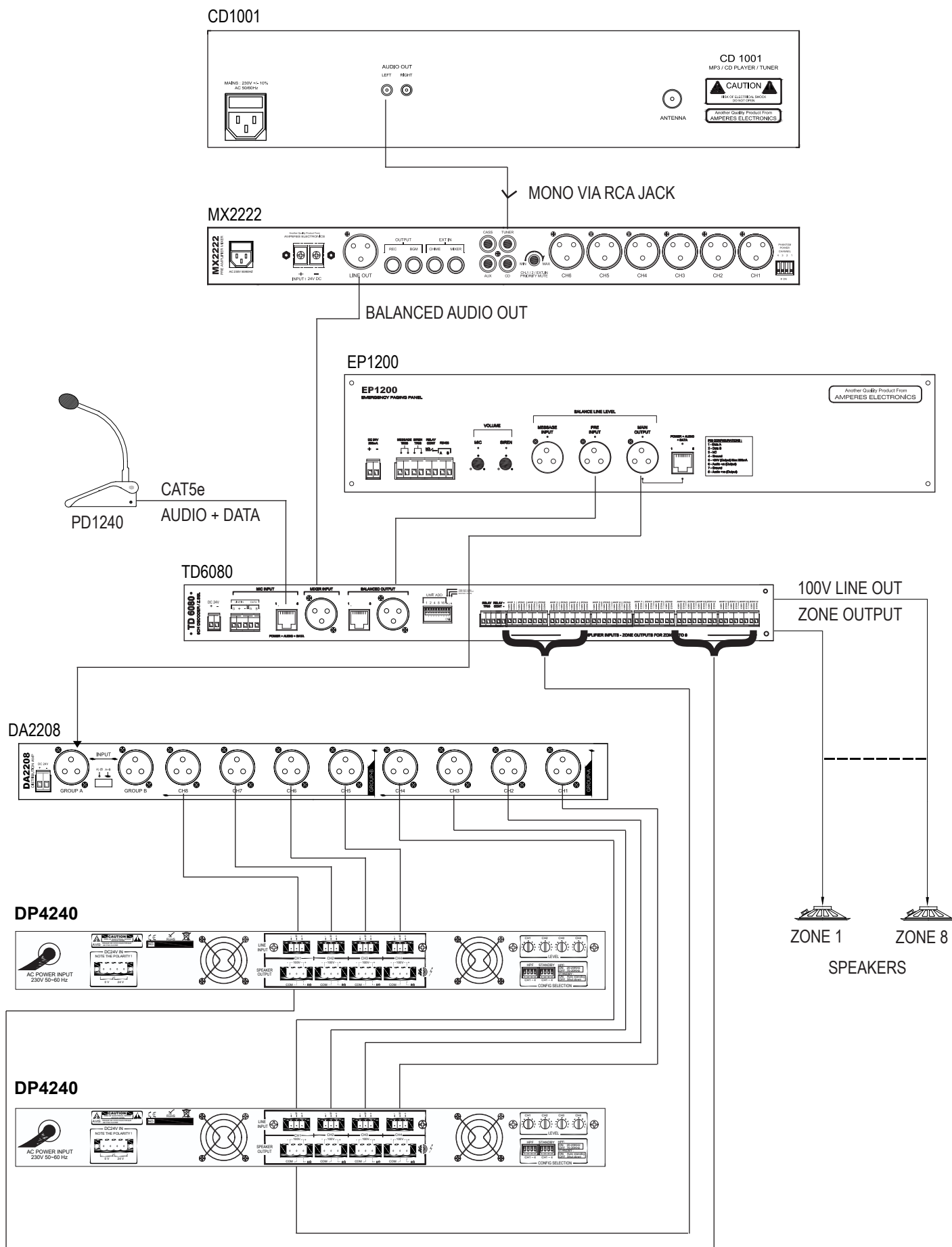
Application Schematic

Matrix application



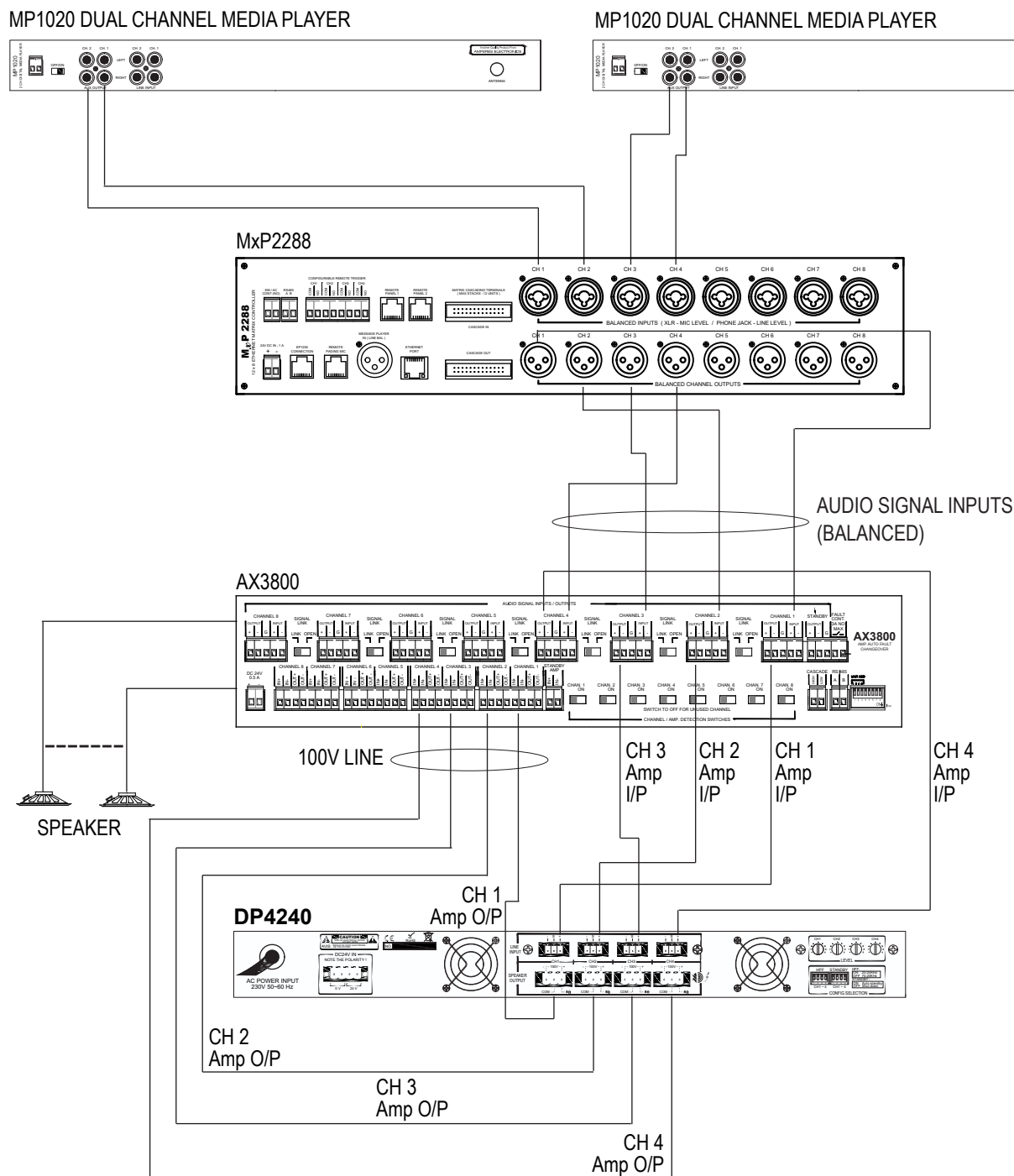
System Connections - Normal Applications

Application example using one duty amplifier with one standby unit connecting to two zones of speakers.



System Connections - With Auto Fault Changeover

Application with Amperes AX3800 as auto amplifier changeover unit. (24V DC power supply connections and incoming 240V ac mains not shown.)



NOTE:

The above diagram shows an application using matrix and AX3800 changeover with DP4240. One of the channel of DP4240 serves as a standby amplifier whereas other 3 channels serve respective zones.

Summary Of Features

- ▶ Switching power supply technology with Class D amplification
- ▶ Available in 2 x 240W, 4 x 240W and 2 x 500W 100V line & 4 - 16 Ohm outputs
- ▶ Compact multichannel in 1 HU enclosure for rack space saving
- ▶ Individual balanced input with separate volume adjustment
- ▶ Bandpass filter to cut off unwanted bass audio and high pitch audio
- ▶ Short circuit, overload, temperature and DC protections
- ▶ Wide range ac supply with 24V DC back up

Technical Specifications

	DP2240	DP2500	DP4240
Ratings	2 x 240W 100V	2 x 500W 100V	4 x 240W 100V
Operating voltage (AC / DC)	220 - 240V AC / 24V DC		
Current consumption (standby 240V AC)	0.1A		
Current consumption (standby 24V DC)	0.3A		
Current consumption (load 240V AC)	2.3A	4.6A	
Current consumption (load 24V DC)	22A	46A	
Input (balanced audio)	2	4	
Input connection	Phoenix connectors		
Input level (max)	0.775 V rms		
Input impedance	10 K Ohm		
Outputs	100V / 4 - 16 Ohm		
THD	< 0.1 % (1KHz +/-3 dB)		
S / N ratio	> 80 dB		
Frequency response	20 - 20 KHz (@ 1KHz +/-3 dB)		
Band pass filter	70 - 10KHz		
Protection	Short, Thermal, Overload, audio clip		
Indicators	Protect, Clip, Input audio, Output and Power		
Cooling system	Fan forced cooling		
Dimension (W x H x D)	482 x 420 x 44 mm		
Weight	5.90 kg	6.90 kg	6.80 kg

Note:

The above specifications are correct at time of printing but subjected to changes without prior notice due to product improvements.

Warranty Conditions

Only Amperes Electronics Service Centres are allowed to make warranty repairs : a list of Amperes Electronics Service Centres may be asked for by the purchaser or send directly to Amperes Electronics Sdn Bhd at 70 Jalan Industri PBP 3, Tmn Perindustrian Pusat Bandar Puchong, 47100, Puchong, Selangor, Malaysia or its authorized dealers. This warranty is not valid if repairs are performed by unauthorized personnel or service centres.

This warranty covers only repairs and replacement of defective parts ; cost and risks of transportation as well as removal and installation of the product from the main system are for the account of the purchaser. This warranty shall not extend to the replacement of the unit.

This warranty does not cover damages caused by misuse, neglect, accident of the product as well as using the product with power supply voltage other than shown on the product, or any other power supply source / adaptor not recommended by the manufacturer.

This warranty does not cover damages caused by fire, earthquakes, floods, lightning and every cause not directly related to the unit.

This warranty does not include any indemnity in favor of the purchaser or the dealer for the period out of use of the unit; moreover the warranty does not cover any damages which may be caused to people and things when using the product.

This warranty certificate is valid only for the described product, and is not valid if modifications are made on this certificate or on the identification label applied on the product.

This warranty covers all the material and manufacturing defects and is valid for a period of 36 months from the date of purchase or for a specified period in countries where this is stated by a national law. In this case, the extension is valid only in the country where the product is purchased.

Amperes Electronics Sdn Bhd is not obliged to modify previously manufactured products under warranty if the design changes or improvements are made.

Disclaimer

Information contained in this manual is subject to change without prior notice and does not represent a commitment on the part of the vendor. AMPERES ELECTRONICS SDN BHD shall not be liable for any loss or damages whatsoever arising from the use of information or any error contained in this manual.

It is recommended that all services and repairs on this product be carried out by AMPERES ELECTRONICS SDN BHD or its authorized service agents.

AMPERES series must only be used for the purpose they were intended by the manufacturer and in conjunction with this operating manual.

AMPERES ELECTRONICS SDN BHD cannot accept any liability whatsoever for any loss or damages caused by service, maintenance or repair by unauthorized personnel, or by use other than that intended by the manufacturer.



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