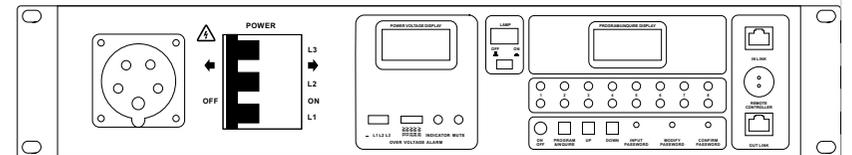




DISTRIBUTED BY

# AFPD-022

POWER DISTRIBUTOR





## Packing list

Make sure all the items are in the package



Device  
Quantity: 1



Operating Instruction  
Quantity: 1



Dj lamp  
Quantity: 1



Power Socket  
Quantity: 1

## 1. SAFETY FIRST!

**WARNING:** to reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture. If water or other liquids are spilled on or into this unit, unplug the power cord immediately from the wall socket (with DRY HANDS) and get a qualified service technician to check it out before using.

There are no user service technician should open this unit. Do not attempt to service this unit, only qualified service technician should open this unit for servicing. Refer all servicing to qualified personnel. Opening the chassis for any reason will void the manufacturer's warranty.

## 2. THE SYMBOL



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

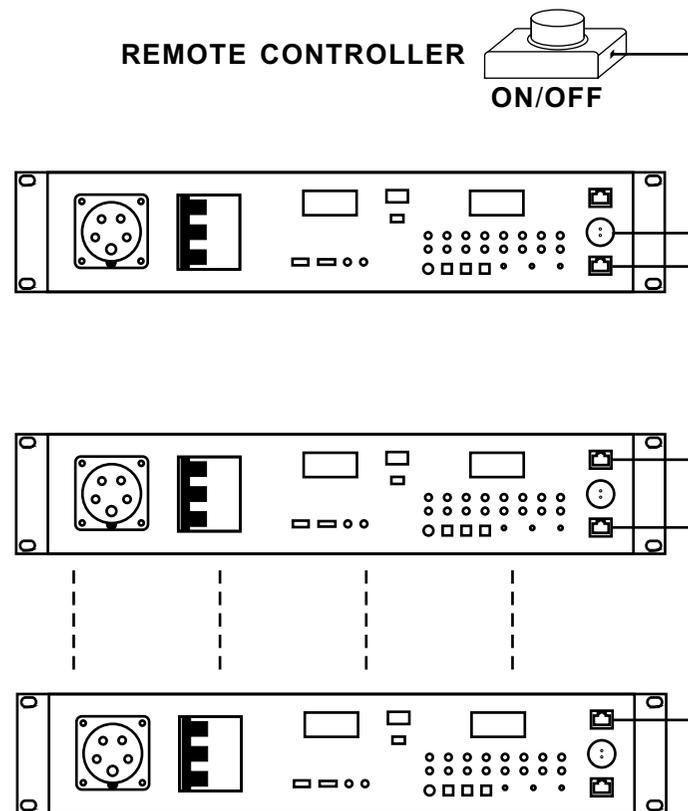


The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## 3. KEEP CLEAN

Dust, dirt and debris can interfere with the performance of this product. Make a special effort to keep this unit away from dusty, dirty environments. Cover the unit when it is not in use. Dust it regularly with a soft, clean brush. Careful attention to these details will be time well spent and this product will reward you with years of trouble-free operation.

## LINK CONNECT DIAGRAM



## SPECIFICATION

Model	AFPD-022
Voltage	Diphase:110V or 220V(±20%) Triphase : 190V or 380V
Power Frequency	50Hz or 60Hz(±5%)
Power Input	Biphase&Triphase,5-pin industrial socket, 32A input
Protection	Overload current protection & shot protection
Display	3 characters LED voltage meter 3 characters LED program screen
Voltage Meter	3 characters LED real-time display, ±1% no-load accuracy, ±1% accuracy of full- load
Sequencing Channel	8 pairs of sequence channels of independent control.
Power Output	8 pairs of outputs, connected with audio load,each pair of audio output will not exceed 40A, connected with pure resistance.
Time Sequence	Programmable
Single-way Switch	With Single-way switch, any channel can be tuurgently
Voltage setup error	1%
Overload voltage accuracy	±1% of no load accuracy, ±1% of accuracy of full load
Grounding Resistance	$R \leq 100m\Omega$
Dimension(L×W×H)	480x462x88(mm)
Weight	11(kg)

## AFPD-022 Instructions

### Cautions

Thank you for your attention and confidence to AFFA Electronics Corporation. It is our pleasure to provide you with a good-quality power allotter.

When opening the case, please make sure all the following accessories are in and please keep the warranty:

Accessories are as following:

Triphase 32A Industrial plug (1 piece )

USB lampee phe (1 piece )

Two corn aeronautical plug(1 piece )

Instruction (1 piece )

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

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.

Please read this file carefully before using it, and store the file for using it next time

Please do not open this unit. Do not attempt to change and service the circuit of this unit, otherwise, you will avoid the warranty

The main voltage must connect correctly so that it can be equalized with the output voltage.

Otherwise, the main-connect will damage the unit.

Check frequently whether the earthing of the unit is good or not. Ground begin is the important symbol of safe using.

Make sure that the connection of power input is correct; Please read the instruction carefully, if there is any uncertainty, please consult with the manufacturer.

### Product name:

Power filter , Model: AFPD-022

General introduction

AFPD-022 is a Triphase eight Power Repartition with high performance, RFI/EMI power filter, the function of warning against overpressure, random program, multi-cascaded, remote control and overload protection.

### The usage and available range of the product

When it delays, it can be connected the power according to any order. It also avoids the amplifiers and loudspeakers from current impulsion caused by OFF and ON. It is used for large scale of sound- amplification system and the large power- used place such as production workshop, commercial cyber bar, teaching laboratory and so on. It enables the operation of system much more systematic, convenient and safe.

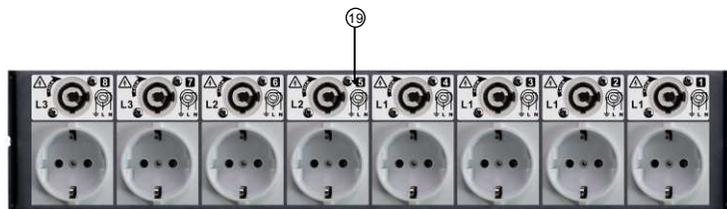
## FEATURES

- Using Single Chip Micro Computer (MCU) controller, the delay time is programmable & precise. The unit is reliable.
- 8 channels and 22KW Power supply, each channel has independence RFI-Filter/EMI-Power Filter which gets the CE certification, and then they supply clean and stable power for your equipment.
- Using three-phase 5-pin industrial socket, make it installed easily and safely.
- LED voltage instructs the real-time display of the system. LED intuitive interface shows the user's status and results of operations on the system.
- Overload Voltage Alarm function: It alarms whenever the voltage is out of the range which you setup.
- According to the local voltage standards, you could choose the alarm voltage as 110v,120v,220v,230v,240v. If necessary, you could set it up in advance. The alarm voltage only check the supply voltage, but not change it. Take the example as following: if the supply voltage is 110v, and the warning voltage is 240v, it won't change your supply voltage, while if your supply voltage come to 240v or more, it will alarms. But if the supply voltage is much higher than the Alarm voltage, it will alarm all the time, but it is in the safe range.
- Kind advice: if your local supply voltage is 110v, you could set the Alarm voltage in 120v, if the local supply is 220v, please set it in 240v.
- Diverse control range: such as mono control device, Line control with external remote control, it can control any Complex power system.

Picture of the Front Panel and the detailed description are as following



Picture of the Rear Panel and the detailed description are as following :



## 5.Changing password

### A.Authentication

In the interface showing OFF and ON, just please press the UP and DOWN simultaneously and then loosen them and press the button OK. Now, you enter into the Authentication. The first lamp flashing "0" all the time and the "change password" button also flashing, now you can change the original code one by one. When the last number being input, it will be verified automatically. If the original code being put wrong, all the lamps will flash three times, and it will return again. If not the three lamps are flashing in turns, it means that you can input the new code into the interface now.

### B.Inputting new code

The first lamp flashing with "0", and the second lamp is on all the time and showing "modify password", now, you can enter into new code one by one.

### C.Input new code again

The first digital lamp showing "0", the second is on all the time and showing "confirm password". If it is flashing, it means you have been in the new code interface, when you input the new code, it will check the new code automatically. If it is input wrong, all the lamps will be on or off. And return to the initial interface automatically. If both of the code are input the same, the lamps will be on and off one by one. And it will be saved and return into the OFF and OR interface.

## 6.Link Connect

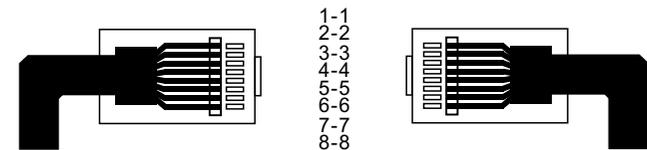
Before you open the air switch, please connect the links all well (RJ-45), and then open all the air switch of the links (AFPD-022), input the verification code, and now, the system enter into the new cascade interface.

### A.Master

when multi- device linked, after the device powered on and pass the password, the software cognizance the first device was master, press the master main switch button will turn on or turn off the device. Only master switch is enable. other buttons are disable.

### B.Slaves

When multi- device linked, after the device powered on and pass the password, the software cognizance what belong to the master slaves. and all the slaves being controlled by the master, also all the buttons are disable.



1.White orange  
5. White green

2. orange  
6. Green

3. White blue  
7. white brown

4. Blue  
8. Brown

## Program Operation

### 1.Entering into interface

When you connected the power and open the air-break switch, you will enter into a blinking LED interface (digital tube will check all lightly or full-body). If your password is "000" (default password), then flashes three times later, it will enter into the operation interface. Or you have to press Up Button and Down Button to enter into the Operation Interface through the password one by one.

### 2.Operation Interface

#### A.Stand-alone

No operation button, but showing "OFF", it means output has been closed  
No operation button, but showing "ON", it means output has been opened.  
When reading "OFF" on Switch, it means the output will be closed timely  
When reading "ON" on Switch, it means the output will be opened timely  
("1\*\*") what is it closed or opened is the No2 channel(\*2\*), delay3x0.5s (\*3\*)  
Parameter setting interface and changing the password, please refer to the relevant programming interface operation

#### B.Line interface

No operation button, but showing "OPN", it means output has been closed  
No operation button, but showing "CLS", it means output has been opened.  
Sequential machine and Stand-alone interface  
No parameters setting or password changing when being carried out

### 3.Operation switch

In the condition that the one-way switch has not closed , enter into the user interface, you only need to continue pressing the switch button for one second, you can switch to sequential machine (less than 1S, operation invalid)

#### A.Powered on punctually

When entering into the operation interface and all the ways have been closed. Please press the mother switch for 1 second , then it will be powered on on time . (showing ON)  
When the system is closed now, please press the switch for 1 second, it will be opened on time.

#### B.Powered off punctually

C.When all the ways are opened , please keep pressing the mother switch for 1 second , and then you could power off the system punctually . (showing OFF)

D.When the system is opened now, please press the switch for 1 second, it will be closed on time.

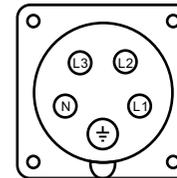
### 4.Specification setting

Using the UP Button and DOWN Button can check and edit the parameter. When there is any parameter that need to be changed , please press the edit buttons, and then you will see the delaying time in the relative channel . after editing the parameter , press the edit buttons . and then it will come back to the first interface, which showing OFF or ON

## 1.Input socket

Use the 5-pin three-phase industrial power input socket. In accordance with industry standards (the instructions on the cover is standard) , please insert three-phase lines L1, L2, L3, a zero line N and a ground line G. Input connectors , L1/N/G, is responsible for the output of the 1-4 in the rear board ; L2/N/G is responsible for 5-6 ;L3/N/G is responsible for 7-8.

The default connection is the three-phase line L1, L2, L3 plus a zero-line N and a ground wire G of all connected, so that all output sockets can be used. Please Note that the phase line L1, zero-line N and ground G have been set to work to take power by factory.  
It will be very dangerous , if wiring wrong. please make sure them mark-seated. After plugging the power firmly, please make sure the power connector correctly to remove any incipient fault for this and the follow-up equipment.



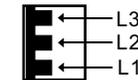
L1-N: AC220V, 50HZ/60HZ 32A

L2-N :AC220V, 50HZ/60HZ 32A

L3-N :AC220V, 50HZ/60HZ 32A

## 2.Main Power Switch

Three-phase air switch with overcurrent protection and short circuit protection  
Normally speaking , any phase current can not exceed 32A for AFPD-022 .Otherwise, it will be protected automatically .



## 3.Voltage Display

Through the triple-digit on the LED , it will display the AC voltage of what this device connecting .

## 4.Programming Interface

Using a LED screen, and three LED lamps to make it display more intuitively .

## 5.USB Lampholders

AFPD-022 comes with a USB lampholder. Power on and insert the USB lamp , it will light . and then facilitate the operation under weak light .

## 6.Output Indicator

Using Φ5 bright green lamp, each lamp corresponds to each way of output .

## 7.One-way switch

You can turn off a particular output. However, before booting, make sure that all one-way switches have been switched on, so as to reduce the trouble when re-opening, but also to do an emergency switch

## 8.Up Link Socket

When entering Into the system, plug the network cable, and it can be connected with the equipment of the same model (AFPD-022). while, this operating key has been locked

## 9. Down Link Socket

When entering Into the system, plug the network cable, and it can be connected with the other equipment of the same model . while, this operating key of the AFPD-022 which is connected with is block has been locked

## 10. Switch of the three phase

There are three choice for the Phase voltage from left to right :L1,L2,L3. select one phase, the phase voltage will appear in the screen .

## 11. Standard voltage settings

Before operating the AFPD-022, you have to set a standard for the voltage according to your present voltage ,then the Alarm function will work under this standard .

## 12. Overload Voltage Indicator and Alarm Nute Switch

When this red light flashes, it indicates that the voltage being connected has overpassed the standard by 10% . Now, you should take your system into account and see if it can accept such a voltage.

## 13. Lighting Switch

If you want to turn off the USB lamp, you could turn off this switch directly .

## 14. Master switch

After connecting the equipment and setting the specification well, you could switch the equipment on and off directly .

## 15. Programming key

Press this key to edit or set up password to this equipment

## 16. Up Button

Press this key to delay or set up password to this equipment

## 17. Down Button

Press this key to shorten the running time for this equipment or cancel the password.

## 18. Remote Control

Only press this button and you will be able to control the switch for this equipment wherever and whenever you are .

## 19.Output Socket

Use the generic socket that is appropriate internationally in the US-EU countries, allowing the maximum load current of 13A or audio linear load 26A. Then load a pair of audio output jack that does not exceed 40A, a phase output of not more than 64A, then a pair of purely resistance load socket output does not exceed 20A, a phase output of not more than 32A

## 8.EMI/RFI Power Line Filter

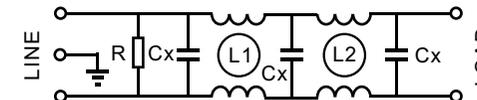
The product is equipped with eight 20A filter, each output can be an effective anti-electromagnetic interference (EMI)and radio frequency interference(RFI)

- 1.Reduce the harassment of the voltage grid launched
- 2.Enhance the immunity and stop the impact from the unclean power supply.



(Picture of the Power Line Filter)

## EMI/RFI( Picture of the circuit diagram of the Power Line Filter)

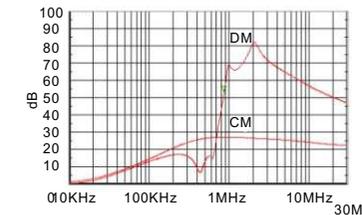


$$L1=L2=2 \times 0.4 \text{ mH}$$

$$Cx=0.1 \mu\text{F}$$

$$R=1.5 \text{ M}\Omega$$

## (Input Loss)



## ( Reference of the waveform for the EMI / RFI )

