



# GENVOLT AF04H



High Voltage  
Air, Oil Fume & Liquid Purification  
Power Supply



The AF04H series high voltage power supply is for air, oil fume & liquid purification and is available in single and dual outputs. This series has been specially designed as a highly reliable, high performance, cost effective power supply.



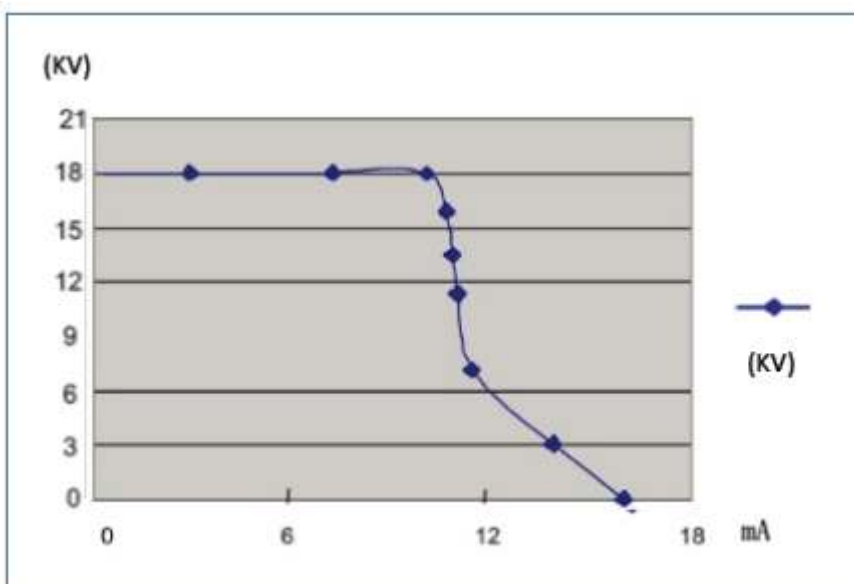
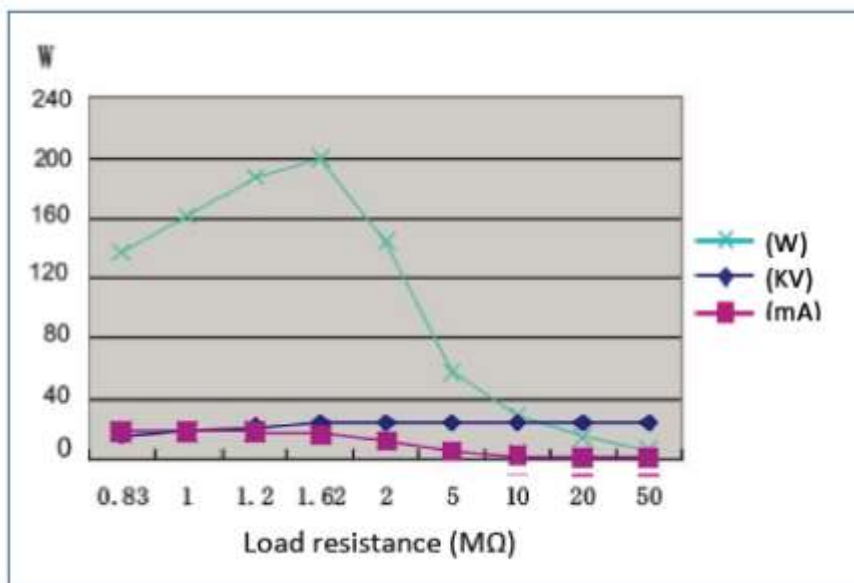
## Specification Summary

1. The power output range is from 100W to 300W.
2. The voltage output has a single output or dual output.
3. Single output maximum voltage can reach 18kV.
4. The double output has a maximum voltage of 18kV and the output voltage is 6/12kV, 7/14kV, 8/16kV and so on.
5. Efficient and reliable inverter design, energy saving and environmental protection.
6. Can work at no load, the output high voltage does not change.
7. Discharge protection function to ensure a safe and reliable power supply.
8. Overload protection, protection for the rear stage load.
9. Surface discharge protection function.
10. The output high voltage can be conveniently adjusted continuously.
11. Convenient and practical feedback interface.
12. Independent +12VDC work indicator interface.

Parameter	Typical Value						Unit
Input Voltage	220 - 240 (VAC)						VAC
Input Current	<2@220VAC						A
Output Voltage	12	14	15	16	17	18	kV
Control Range	8 - 12	10 - 14	11 - 15	12 - 16	13 - 17	14 - 18	kV
Output Power	0 - 300	0 - 300	0 - 300	0 - 300	0 - 300	0 - 300	W
Output Current	25.00	21.42	20.00	18.75	17.64	16.66	mA



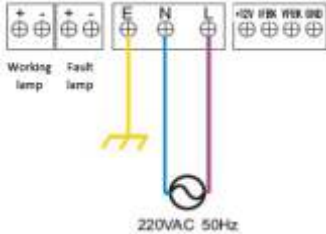
<b>Linear Adjustment Rate</b>	<0.5%
<b>Load Regulation Rate</b>	<0.5%
<b>Temperature Drift</b>	Below 55°C <100ppm/°C
<b>Ripple Voltage</b>	<0.3% at full load operation
<b>Operating Temperature</b>	-10°C to +55°C
<b>Storage Temperature</b>	-20°C to +80°C
<b>Mechanical Dimensions</b>	246mm x 130mm x 90mm
<b>Weight</b>	1.2Kg





## Wiring Diagram Example

### 1. No external instructions.

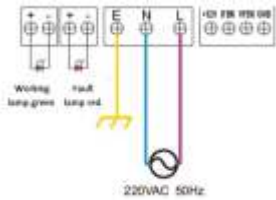


### 2. 2 Pin terminals are connected to 12V indicators:

- The first one from the left is a work indicator light, connected to the green light.
- The second is the fault light, connected to the red light.

The green light is on when the power supply is working normally. The red light is on when a fault occurs.

### 3. Pin feedback signal output description.



(taking 14kV, 300W as an example)

This terminal provides voltage and current feedback signals.

- +12V is a reference supply voltage and indicates the power available at the control circuit of the unit.
- IFBK is the current signal, and the 0-5V signal corresponds to the output 0-21.42mA.
- VFBK is the voltage signal, and the 3.57V-5V signal corresponds to the output 10kV-14kV.
- GND is the reference ground for the signal ground for voltage and current feedback signals.

Note: The external indicator light of this product is a 12VDC work indicator.

## Protection Function Introduction

**No-load protection:** No-load constant-voltage output, the voltage does not rise and it can work continuously.

**Short circuit protection:** When the output is short circuited, the indicator light flashes.

**Overload protection:** When the actual load consumption power is greater than the rated power, limits the maximum output current. The output voltage is reduced.

**Fringe discharge protection:** When the load is dirty and the surface of the load is discharged, the power indicator flashes. Protects the load safely and reliably. After the load is cleaned, the power supply returns to normal operation.

**Discharge protection:** When a discharge occurs inside the load, the power indicator flashes and the power supply is in a protected state.

**Count protection function (optional):** If the power is discharged for a certain number of times in one minute the power is turned off; Optional manual restart or auto restart.

- Manual restart is: manually power off 220VAC power supply, 20 seconds later power on again.
- Automatic restart is: the power is turned off for a certain period of time, say for about 30 seconds, then restarts automatically.

Note: By default, the count protection function is set as, if arc discharge occurs more than 30 times in one minute then the unit trips and auto restarts in 30 seconds. If this condition happens three times then the unit enters into manual restart mode and it can be reset by turning off the mains power for 20 seconds.

The number and time of counting protection can be customised.



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# DIMENSIONS

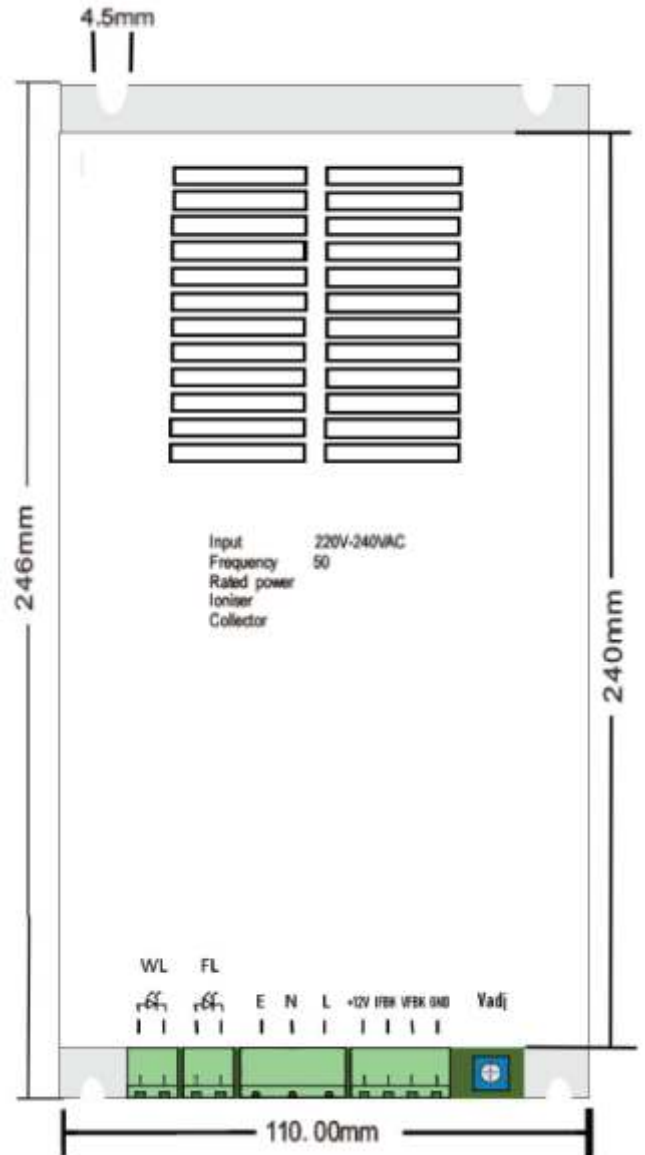
## Input Interface

Pin	Description
L	Live
N	Neutral
E	Earth

<b>Housing</b>	Aluminium Alloy
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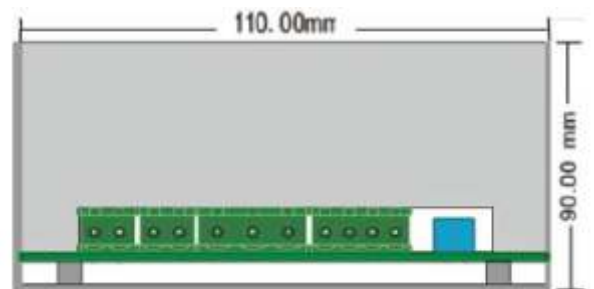
## Output Interface

Pin Label	Interface Definition
<b>Ioniser</b>	Ionisation pole voltage
<b>Collector</b>	Collecting voltage
<b>+V12</b>	Digital supply signal
<b>IFBK</b>	Current feedback
<b>VFBK</b>	Voltage feedback
<b>GND</b>	Signal ground
<b>WL</b>	Work indicator
<b>FL</b>	Fault indicator



## Product Code

AF04H-220VAC-P350-14/7





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**SAFETY** 

## Safety

- This power supply is a high voltage power supply. Contact with the output may result in fatal injury. It should only be used and maintained by trained personnel.
- The area where the power supply is to be used should be kept clean and dry.
- Ensure there are no unrelated items near the high voltage interface of high voltage load.
- Please confirm that the return current of the load is well grounded through the case.

If you have any questions then please contact us at: [info@genvolt.co.uk](mailto:info@genvolt.co.uk)



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