



AF04 Range

Air Cleaning HV Power Supply



Specification Summary

The AF04 Range is the result of Genvolt's high voltage power supplies for air and oil purification. With 100W output power, it has a wide range of output voltages to select from. Both single or dual outputs are available.

The power supplies are protected from overload, short circuit and sparks. They are able to be used off-load without any changes in output voltage.

Input Specifications

Input voltage	110Vac or 220Vac
Input current	Less than 400mA at 220Vac
Input frequency	50/60 Hz

Output Voltage Range

AF04 4/8kV	Collector / Ionizer	4kV/8kV
AF04 4.5/9kV	Collector / Ionizer	4.5kV/9kV
AF04 5/10kV	Collector / Ionizer	5kV/10kV
AF04 5.5/11kV	Collector / Ionizer	5.5kV/11kV
AF04 6/12kV	Collector / Ionizer	6 kV /12kV

Output Specifications

Load regulation	Less than 0.1%
Line regulation	Less than 0.1%

Temperature drift	Less than 400ppm/°C when operating < 55°C
Voltage ripple	Less than 0.3% at full load

Circuit Protection

1. This design will function reliably even during overload and short circuit conditions.
2. The power supply has a high tolerance to the noise generated by load discharge.
3. During load discharge, the output is switched off briefly. The output automatically returns to normal operation.
4. The power supply has a high level of insulation, and low temperature increase during operation.

Environmental Details

Operating temperature	0 to 55°C
Storage temperature	-20 to 80°C

Mechanical Details

Weight	0.6kg
Width	120.0mm
Length	200.0mm
Height	40.0mm
Enclosure material	Aluminium alloy



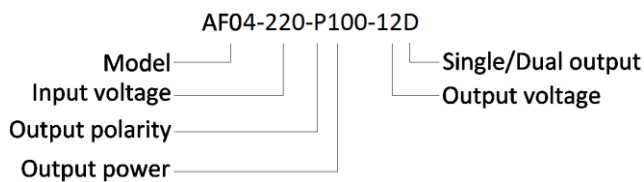
Power Input Connector

Legend		Definition
L		Live
N	Mains input	Neutral
E		Earth
COM		Common
NC	Relay contacts	Normally closed
NO		Normally open

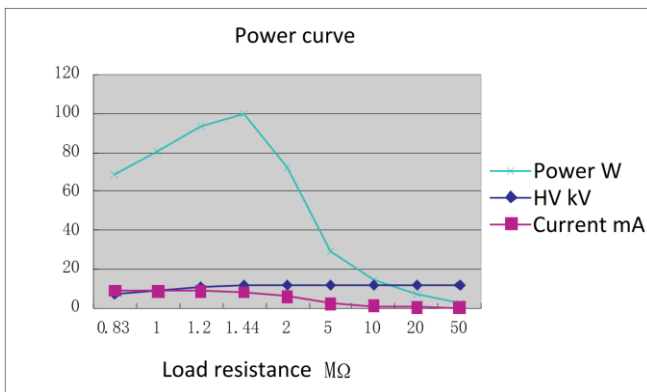
HV Output Connector

Legend		Definition
IONIZER	Full HV output	
COLLECTOR	Half HV output	

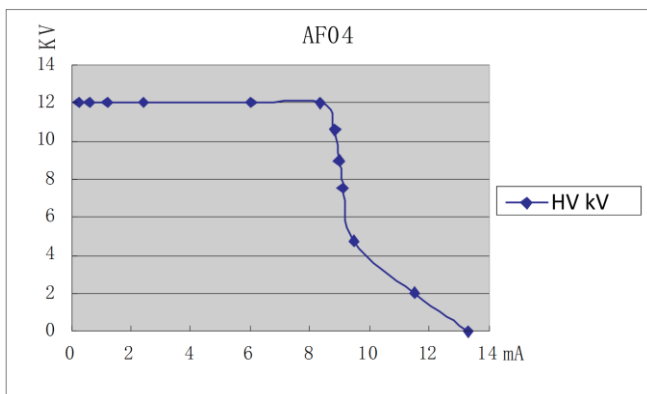
Model Number



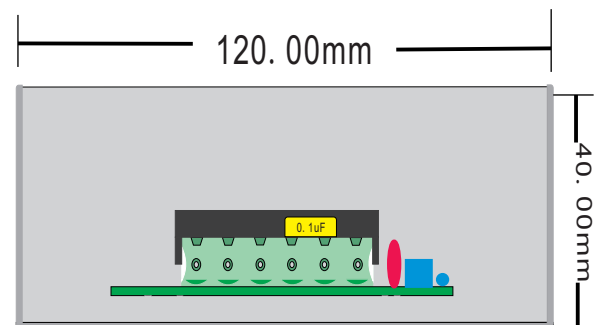
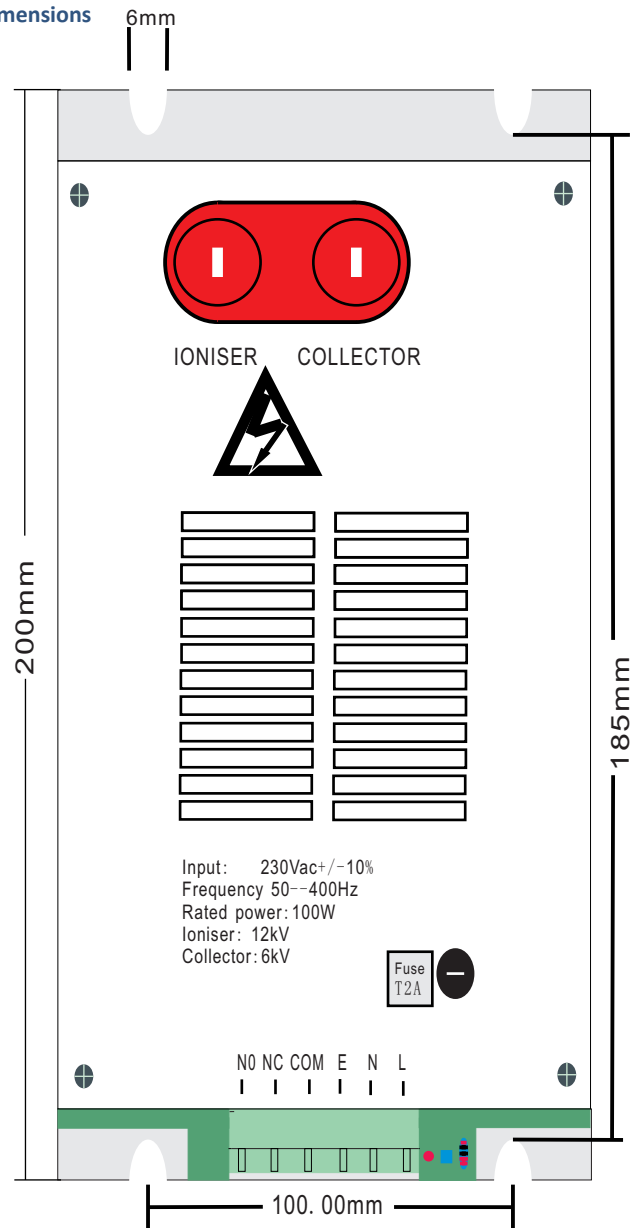
Power curve



Output current versus voltage curve



Dimensions



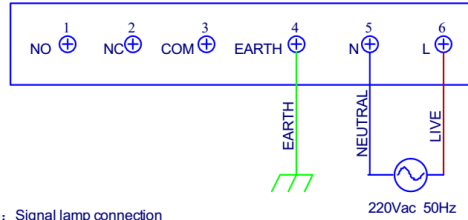
For requirements other than those specified, please do not hesitate to contact the factory. Please note that design improvements may lead to specification changes.



AF04 wiring diagram

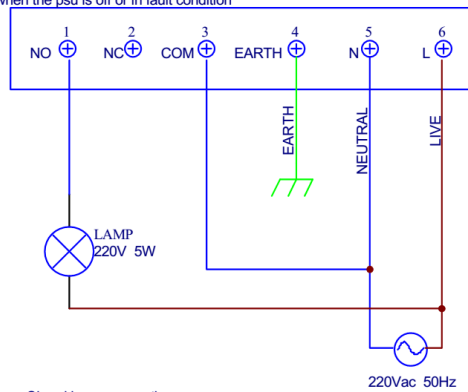
Three voltage free relay contacts are available on the connector (pin1, 2 and 3). These may be used for status indication. Examples are shown below.

Example one: Input connection



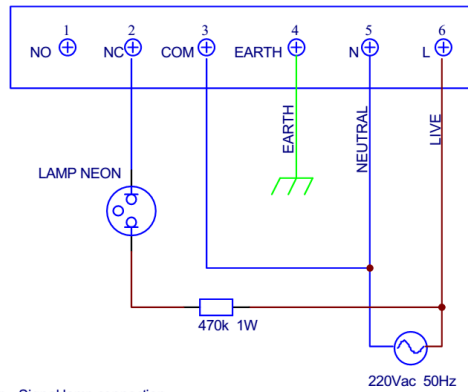
Example two: Signal lamp connection

A 220V 5W lamp is connected. The lamp is ON when the psu is operated and IS OFF when the psu is off or in fault condition



Example three: Signal lamp connection

An neon lamp is connected. The lamp is OFF when the psu is operated and is ON when the psu is off or in fault condition



Example four: Signal lamp connection

Use an extra 5V power supply. Both RED and GREEN LEDs are connected, the GREEN LED is ON when the psu is operated The RED LED is ON when the psu is off or in fault condition

