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Ideal Power Solution

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VFP-H Series High Frequency AC Power Supply

- Power range: 500VA ~ 3KVA
- Voltage range: 0 ~ 150Vac / 0 ~ 300Vac
- 15 ~ 1KHz variable frequency output, 50/60Hz static frequency output.
- Precise voltage and current setting and measurement capabilities
- Small size, high efficiency and low energy consumption.
- OVP, OCP, OTP and short circuit protections etc.

Overview

Variable frequency AC power supply converts AC electric to pure sine waveform by through AC – DC – AC conversion, which is different from variable frequency speed controller and common AC voltage regulator.

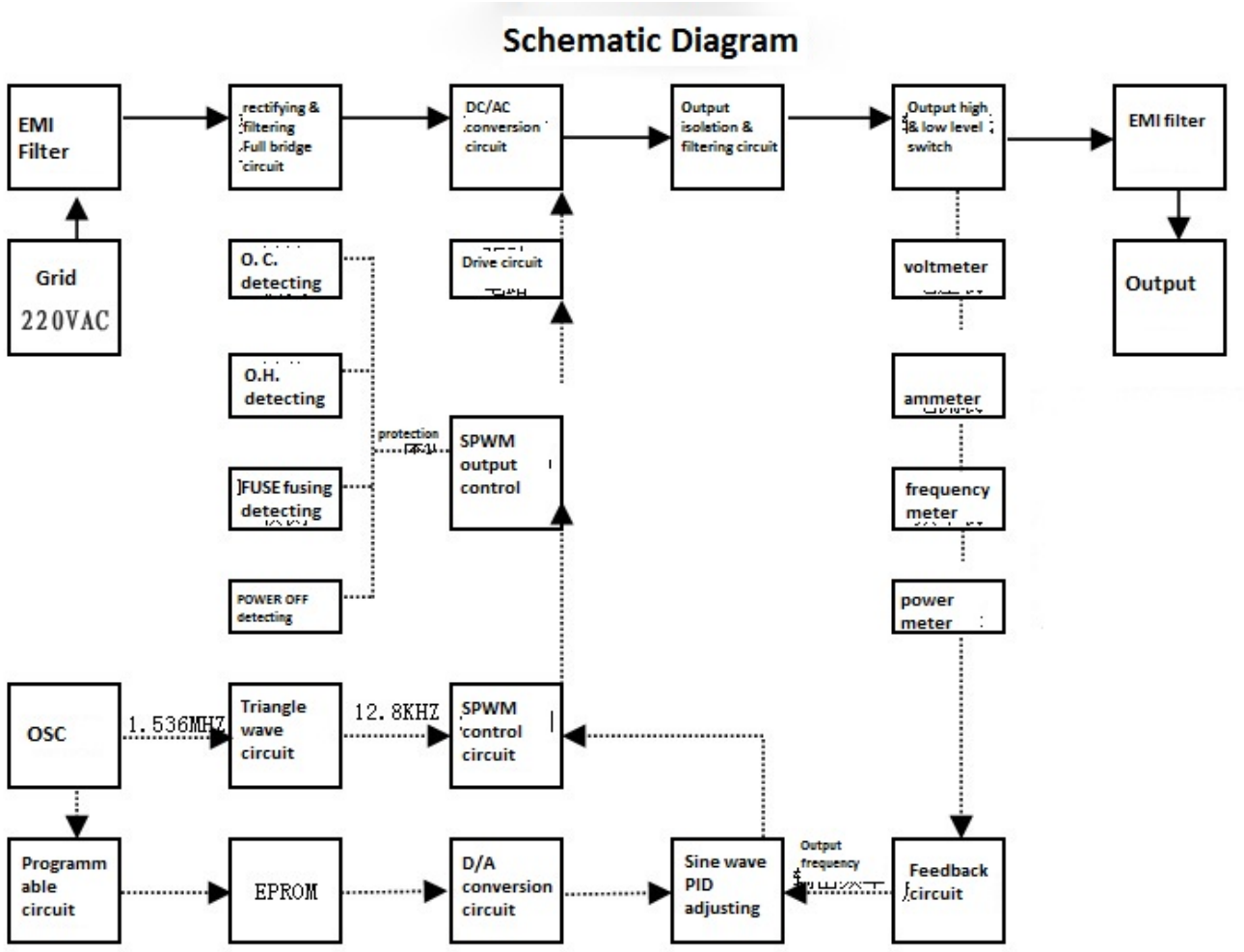
Variable frequency power supply is mainly used to convert existing AC power network supply to stable and pure sine power supply with regulated required frequency. The features of ideal AC power supply are stable frequency, stable voltage, zero internal resistance and Sine wave form (without distortion). Variable frequency power supply is close to the ideal AC power supply, so the developed countries more frequently use variable frequency power supply as the standard supply to provide the most excellent powering environment for electrical equipment and to easily evaluate their technical performance. Major types of variable frequency power supply are: Linear Amplification and PWM Switching

VFP series variable frequency power supply is manufactured under SPWM mode; it is designed by MOSFET module as active component, and adopts other technologies as digital frequency division, D/A conversion, instantaneous feedback and sinusoidal pulse width modulation to make the capacity of single unit up to 150KVA. Isolated transformer used to enhance total stability, strong load applicability, high quality output waveform, and simple operation, small size and light weight. In addition, this power supply has many protective functions against short circuit, over current, over load and over heat to ensure proper operation.

Comparing to traditional frequency inverter power supply, our inverter power supply removes the transformer and frequency converter, by using pure high-frequency conversion technology, with built-in by AC/DC and DC/AC parts, our AC inverter power supply could give stable AC output with prefect output precision.

Because, our new technology does not need transformer for conversion and isolation, the power supply size can be reduced within the same output power rating, and not limited by the transformer, output frequency could reach 15 ~ 1Khz continuously adjustable.

Block diagram



Features

- Isolated output; reliable and convenient operation.
- No high and low level limit, output voltage continuously adjustable in the full scope.
- Wider output frequency scope, 15Hz ~ 1KHz continuous adjustable, could withstand continuously working within full output frequency scope.
- Pure high-frequency inverter technology, AC/DC,DC/AC module architecture.
- High total efficiency
- Good output voltage & frequency stability.
- Output button plus Shuttle knob control.
- LCD Display

- RS232 serial port for remote control, MODBUS-RTU communication protocol.
- Complete protection functions.
- Small size, light weight.

Optional functions

- 0 ~ 5V / 0 ~ 10V / 4 ~ 20mA analog signal control. (DB port) (+AC)
- RS communication interface (RS232 / RS485 optional) (+RC)
- USB port (+USB)

Specifications

Model		Single-phase Three-phase
Output capacity		500VA ~ 600KVA
Circuit mode		SPWM mode
AC Input	Phase	Single-phase / Three-phase
	Voltage	220Vac ± 10% / 380Vac ± 10% / 480Vac ± 10%
	Frequency	50Hz, 60Hz ± 5%
AC Output	Phase	Single-phase / Three-phase
	Voltage	0 ~ rated output voltage value 110V / 120V / 220V (static points)
	Frequency	50Hz / 60Hz (static points) 15 ~ 1000Hz (custom output frequency range)
	Max. current	Depends on output capacity
Control mode	Local	Button + Shuttle knob
	Remote	RS485 communication interface. In line with MODBUS-RTU standard.
Output waveform		Pure sine wave
Frequency stability		≤0.1%

Load regulation		≤±0.5% (resistive load)
Line regulation		≤±0.5% (resistive load)
Harmonic distortion		≤1.5% (115V 400Hz) ≤3% (115V 15 ~ 400Hz) ≤4% (115V 400Hz ~ 1000Hz)
Efficiency		≥85% (80% ~ 100% loading)
Output display		LCD
Display resolution	Frequency Meter	0.1Hz, accuracy: ±0.3%FS
	Voltage Meter	0.1V, accuracy: ±0.3%FS
	Current Meter	0.1A, accuracy: ±0.3%FS
	Power Meter	0.01KW, accuracy: ±0.3%FS
Protections		Auto tripping and alarm when over voltage, over load, over temp, over current and short-circuit.
Cooling mode		Forced air-cooling type
Working Environment	Relative humidity	0°C ~ 40°C
	Working temperature	0-90% (non-condensing)
	Height	≤1500m
Size (W*H*D) (mm)		287*98*320 (500VA ~ 1000VA) 440*132*600 (3KVA) Other Depend on output capacity
Weight (Kg)		Depends on output capacity

Reference photos

No. 8 Wenchang Middle Road, Guangling District, Yangzhou, Jiangsu, China
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Maintenance

- Check whether the bolts or moisture loosen regularly
- Check whether water leakage at pipe connection regularly
- Check whether any leaking of water pipe connection regularly.
- Regularly open the box side plate, cleaning dust inside.
- Regularly with clip-on ammeter check three-phase input current that it is abnormal and serious drift phenomenon, if abnormal, contact the supplier in time.
- Specially assigned person for equipment maintenance.

Installation environment

- Ambient temperature: Please have the power source working in safe temperature range (0℃ ~ 45℃) or it would affect life of power source.
- Please install the power source at least 50cm distant from surroundings to have better ventilation.
- Please install the power source away from vibration (less than 0.6G), especially equipment like puncher.
- Keep the power source away from direct sunshine, humidity or place with water globule.
- Keep the power source from corrosive, flammable & explosive gas.
- Keep the power source away from oil stain, dust & metallic dust.