

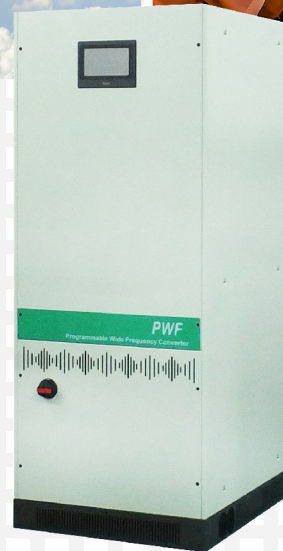
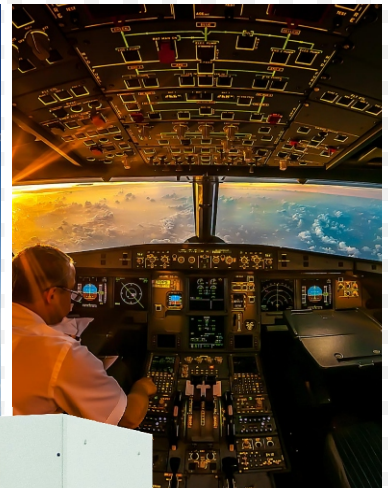


# PWF Series

Programmable Wide Frequency AC Power Sources

30/45/60/75kVA 45~500Hz or 300~800Hz

Leading Test & Measurement Power Supply Provider



ISO 9001:2008



**AC POWER CORP.**

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## PWF Series Product Features

### 1. Touch Screen HMI

User friendly HMI, easy to operate, rich colors, able to simulate change curve, suitable for non-harsh environment such as laboratory and R&D center

### 2. High Efficiency

Power Efficiency 90%, energy saving and eco-friendly

### 3. Programmable output voltage and frequency functionality:

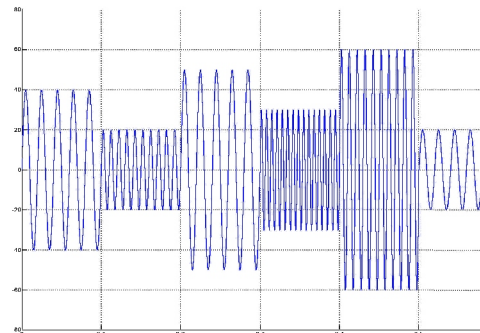
**generic mode, step change mode, gradual change mode and disturbance simulation mode**

- ① Generic mode: one set of output voltage and output frequency
- ② Step Change Mode: up to 24 sets of output voltage and frequency are available for configuration. Each voltage, frequency and running time can be set separately.
- ③ Gradual Change Mode: up to 12 sets of output voltage and frequency are available for configuration. Each set includes starting voltage, starting frequency and ending voltage, ending frequency and running time.
- ④ Disturbance simulation Mode: up to 24 sets of output voltage and frequency are available for configuration. Each set includes starting voltage, starting frequency, rising time, and holding time .



Voltage and Frequency Setting Interface at Step Change Mode

### Step Change Mode

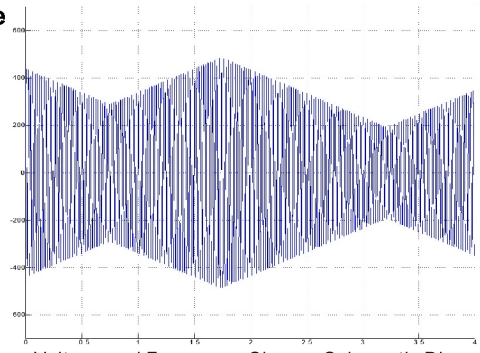


Voltage and Frequency Change Schematic Diagram



Voltage and Frequency Setting Interface at Gradual Change Mode

### Gradual Change Mode

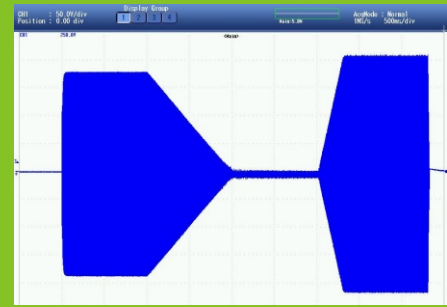


Voltage and Frequency Change Schematic Diagram

## Disturbance Simulation Mode



Voltage and Frequency Setting Interface at Step Change Mode



Voltage and Frequency Change Schematic Diagram

## PWF Series Product Features

### 4. Multiple supported communication interface

- ① RS232, GPIB, LAN or USB are available: SCPI command
- ② RS485 is available: MODBUS RTU command

### 5. Enhanced troubleshooting function

- ① Fault code is shown in the screen in the event of fault; to enable quicktrouble shooting and reduce downtime and therefore enhance uptime
- ② Fault code and message in the PWF unit can be replicated into USB memory stick for further survey

### 6. Back-feed protection

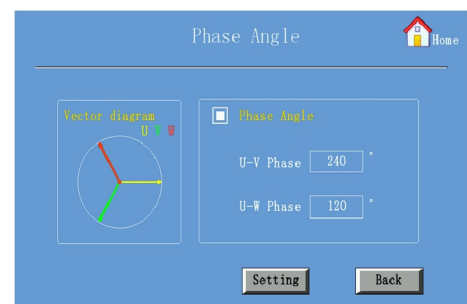
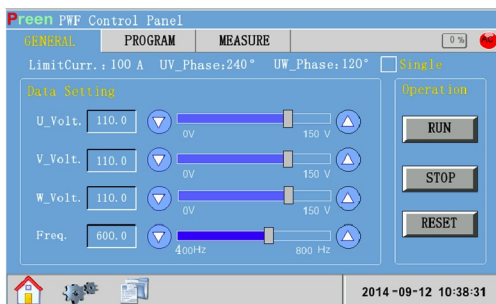
When back-feeding occurs, over voltage is detected and then output is switched off immediately to protect load equipment and maintain safety

### 7. Adjustable current and power limit

Within maximum current and power, output current and power are adjustable. It is both flexible and safe.

### 8. Independently adjustable three-phase output / Phase angle adjustment

- ① Three-phase output voltage (and frequency) is independently adjustable
- ② Work as one unit of three-phase power source or as three units of Single-phase power source
- ③ Adjustable phase angle between three phases.



### 9. Suitable for 60Hz or 400Hz or 360 to 800Hz wide frequency test

Airbus ABD0100.1.8, Boeing 787-B3-0147, MIL-STD-704 standards

### 10. Eco-friendly and high-efficiency design

- Power module technology: used to make size smaller and power density higher
- SMD technology: used to enhance the reliability of the PWF unit
- High-efficiency IGBT: low EMI and high inverter efficiency
- Lightning protection module: prevent a lightning storm from damaging the input/output circuitry and the PWF unit and load equipment
- Variable-speed fans: low noise, low maintenance and high energy efficiency

**PWF-**  
PWF Series  
Frequency Converter

**L**

**3**  
Input Phase  
3

**3**  
Output Phase  
1

**060**  
Capacity  
60kVA

[ Please contact us for other voltage specification ]

## PWF series Three Phase–Three Phase(30~75kVA)

Model	PWF-L-33030	PWF-L-33045	PWF-L-33060	PWF-L-33075
Capacity(kVA)	30	45	60	75
Circuit Type	IGBT/PWM Type			
Input	Phase	Three Phase		
	Voltage	120V/208V, 220V/380V, or 277V/480V <sup>①</sup>		
	Voltage range	±15%		
	Frequency	47~63Hz		
	Power Factor	0.94		
Output	Phase	Three Phase		
	Waveform	Pure Sine Waveform		
	Voltage	0V ~ 300.0V (L-N)		
	Frequency range	45~500Hz		
	Frequency Stability	<0.01%		
	Max. Current(A)	41.6	62.5	83.3
Overload Capacity	125%-30min, 150%-10min, 200%-1min			
Performance	Line regulation	<1% (linear load)		
	Load regulation	<1% (linear load)		
	Output THD	<2% (linear load)		
	Efficiency	85~90%		
	Response time	<2ms		
	Crest Factor	3 : 1		
Protection	Input no-fuse breaker, Output Over/Low Voltage, Over Current, Over Load, Over Temperature, Short Circuit, Input Over/Low Voltage, Input Phase Lack			
Display	Type	7" Touch Panel Screen		
	Voltage	Accuracy: 0.2V+0.1%FS; Resolution: 0.1V		
	Current	Accuracy: 0.2A+0.1%FS; Resolution: 0.1A		
	Frequency	Accuracy: 0.01Hz±0.01%FS @≤100Hz; Resolution: 0.1Hz; 0.1Hz±0.01%FS @≥100Hz; Resolution: 0.1Hz		
	Real Power (kW)	Accuracy: 0.2kW+0.1%FS; Resolution: 0.1kW		
	Reactive Power (kVA)	Accuracy: 0.2kVA+0.1%FS; Resolution: 0.1kVA		
	Input Power Factor	Accuracy: +/-0.01; Resolution: 0.01		
Function	Disturbance Test	Yes (Res: 0.1V, 0.1Hz, 30ms)		
	Start Up Phase Angel Adjustment	Yes (Res: 1 degree)		
	Step Mode Test	Yes ( 24 groups, Res: 0.1V, 0.1Hz, 1sec)		
	Gradual Mode Test	Yes ( 12 groups, Res: 0.1V, 0.1Hz, 1sec)		
Communication	RS232 or RS485	Standard (RS232: SCPI, RS485: MODBUS RTU)		
	GPIB, LAN, or USB	Option (SCPI command)		
Environment	Isolation Resistance	>DC500V 10MΩ		
	Isolation Voltage	AC 2000V 10mA/ 1min		
	Cooling Method	Fan		
	Working Temperature	0°C to 45°C		
	Humidity	0~95%(Non-Condense)		
	Altitude	<1500m		
DC Offset (mv)	<20mV			
Dimension (W×D×H) (mm)	685×840×1715		835×1040×1715	

P.S.: <sup>①</sup> Please contact us for other voltage specification:



## PWF series Three Phase–Three Phase(30~75kVA)

Model	PWF-M-33030	PWF-M-33045	PWF-M-33060	PWF-M-33075
Capacity(kVA)	30	45	60	75
Circuit Type	IGBT/PWM Type			
Input	Phase	Three Phase		
	Voltage	120V/208V, 220V/380V, or 277V/480V ①		
	Voltage range	±15%		
	Frequency	47~63Hz		
	Power Factor	0.94		
Output	Phase	Three Phase		
	Waveform	Pure Sine Waveform		
	Voltage	0V ~ 150.0V (L-N)		
	Frequency range	300~800Hz		
	Frequency Stability	<0.01%		
	Max. Current(A)	66.7	100	133.3
Overload Capacity	125%-30min, 150%-10min, 200%-1min			
Performance	Line regulation	<1% (linear load)		
	Load regulation	<1% (linear load)		
	Output THD	<2% (linear load)		
	Efficiency	85~90%		
	Response time	<2ms		
	Crest Factor	3 : 1		
Protection	Input no-fuse breaker, Output Over/Low Voltage, Over Current, Over Load, Over Temperature, Short Circuit, Input Over/Low Voltage, Input Phase Lack			
Display	Type	7" Touch Panel Screen		
	Voltage	Accuracy: 0.2V+0.1%FS ≤500Hz; Resolution: 0.1V; 0.4V+0.1%FS > 500Hz; Resolution: 0.1V		
	Current	Accuracy: 0.2A+0.1%FS; Resolution: 0.1A		
	Frequency	Accuracy: 0.1Hz+0.01%FS; Resolution: 0.1Hz		
	Real Power (kW)	Accuracy: 0.2kW+0.1%FS; Resolution: 0.1kW		
	Reactive Power (kVA)	Accuracy: 0.2kVA+0.1%FS; Resolution: 0.1kVA		
	Input Power Factor	Accuracy: +/-0.01; Resolution: 0.01		
Function	Disturbance Test	Yes (Res: 0.1V, 0.1Hz, 30ms)		
	Start Up Phase Angel Adjustment	Yes (Res: 1 degree)		
	Step Mode Test	Yes ( 24 groups, Res: 0.1V, 0.1Hz, 1sec)		
	Gradual Mode Test	Yes ( 12 groups, Res: 0.1V, 0.1Hz, 1sec)		
Communication	RS232 or Rs485	Standard (RS232: SCPI, RS485:MODBUS RTU)		
	GPIB, LAN, or USB	Option (SCPI command)		
Environment	Isolation Resistance	>DC500V 10MΩ		
	Isolation Voltage	AC 2000V 10mA/ 1min		
	Cooling Method	Fan		
	Working Temperature	0°C to 45°C		
	Humidity	0~95%(Non-Condense)		
Altitude	< 1500m			
DC Offset (mv)	<20mV			
Dimension (W×D×H) (mm)	685×840×1715		835×1040×1715	

P.S.: ① Please contact us for other voltage specification:

AC Power Corp. offers products widely applied in multi-professional fields and provides the best power solutions to customers. Our mission is to satisfy customers' demand by considering the whole conditions including power environment, loading allocation, module solution alternative, thoughtful design, lean and efficient manufacturing, timely and comprehensive maintenance.

## Leading Test & Measurement Power Supply Provider



**Preen**®

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