

PWF Series

# Programmable Wide Frequency AC Power Source

20kVA~120kVA



- Wide range output frequency up to 800Hz for aerospace and military applications.
- Three phase independent control to set voltage of each phase .
- Phase angle control to set angle between each phase.
- Programming Sequence Function: STEP and GRADUAL modes allow users to easily set sequences of start/ end voltage, frequency and run time for testing purposes.
- Optional soft start function to reduce inrush current from motor type EUT.
- Touch screen display for easy operation.
- Comprehensive protection includes over voltage, over current, over load, input under voltage and over temperature with over 20 corresponding error codes and event log for easier trouble shooting.
- Standard RS232 and RS485 interfaces and optional GPIB interface available.
- Latest patented power module with high power density and swappable design for better reliability and serviceability.
- Disturbance function to better simulate grid abnormality.

## Interfaces

RS-232

RS-485

GPIB

● Standard

● Option

## Applications

- Aerospace & Defense
- Laboratory/Certification Bureau
- Motor & Compressor
- Electronic Component
- Magnetic Resonance Testing

## PWF Series

The PWF series is a programmable AC power source with wide range of adjustable frequency, developed for aerospace or military's 400Hz and 800Hz test applications, such as laboratory use, compliance test, and quality assurance.

The PWF series consists of L series and M series, which have different output frequency range. L series provides 45~500Hz and 0~300V output, and M series provides 300~800Hz and 0~150V output. Users can select communication interfaces of RS-485, RS-232, and optional GPIB. The PWF series has installed programming sequence functions of STEP and GRADUAL modes and optional three phase independent control, phase angle control, and disturbance function.

L series & M series

**PWF-L Series 45-500Hz**

**PWF-M Series 300-800Hz**

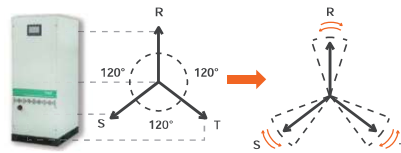
The PWF has two different series with two different output frequencies. The L series (PWF-L) has output frequency of 45~500Hz, which is ideal for industrial 50 and 60 Hz applications or 400Hz avionics and defense applications. The M series (PWF-M) has output frequency up to 800Hz, which is suitable to simulate the latest standard for defense and aerospace.

Overload Capability



The PWF series AC source has 200%, 150% and 125% overload capability. This is suitable for powering inductive load, such as motor or compressor, which has high inrush current during startup. With the overload capability, user can select an AC source to start up a DUT with high inrush current, and do not need to scale up power supply to cover the peak current of inrush current.

Phase Angle Control



User can set up the angle of each phase via the touch panel. This function could easily simulate the three phase angle unbalance situation.

SPECIFICATIONS

PWF Series three-Phase Output (20kVA - 120kVA)

Model	PWF-L-33020	PWF-L-33030	PWF-L-33045	PWF-L-33060	PWF-L-33075	PWF-L-33090	PWF-L-33120	
	PWF-M-33020	PWF-M-33030	PWF-M-33045	PWF-M-33060	PWF-M-33075	-	-	
<b>INPUT</b>								
Phase & Voltage <sup>1</sup>	3Ø / 4 Wire + G & 220V/380V±15%							
Frequency	47 - 63Hz							
Max. Current <sup>2</sup>	37.9A	56.9A	85.3A	113.8A	142.2A	170.7A	227.6A	
Power Factor	≥0.94 ( Max. Power )							
<b>OUTPUT</b>								
Power (VA)	20kVA	30kVA	45kVA	60kVA	75kVA	100kVA	120kVA	
Phase	3Ø / 4 Wire + G							
Voltage Ranges	PWF-M Series		0V-150.0V ( L-N )					
	PWF-L Series		0V-300.0V ( L-N )					
Voltage Resolution	0.1V							
Voltage Accuracy	0.5% F.S.+4 counts							
Frequency Range	PWF-M Series		300-800Hz					
	PWF-L Series		45-500Hz					
Frequency Resolution	0.1Hz							
Frequency Accuracy	±0.02% F.S.							
Max. Current (RMS)	PWF-M Series		44.4A	66.7A	100A	133.3A	166.7A	-
	PWF-L Series		27.7A	41.6A	62.5A	83.3A	104.1A	125A
Line Regulation	≤ 0.5%							
Load Regulation	≤ 1% (Resistive Load)							
Total Harmonic Distortion(THD)	≤ 2% (Resistive Load)							
Response Time	≤ 1ms							
<b>MEASUREMENT</b>								
Voltage	Range : 0V-300.0V Resolution : 0.1V Accuracy :0.5% F.S.+ 4 counts							
Frequency	Range : 45.0-800.0Hz Resolution : ≤ 100Hz : 0.01Hz / > 100Hz : 0.1Hz Accuracy : ±0.02% F.S							
Current	Range (RMS) : 0 ~ 9999A Resolution (RMS) : 0.1A Accuracy(RMS) : 0.5% F.S.+4 counts							
Power	Range : 0 - 120kW Resolution : 0.1kW Accuracy : 1% F.S.+ 6 counts							
<b>GENERAL</b>								
Efficiency	≥ 85-90 % at Max. Power							
HMI	Touch Screen, 7" Color TFT LCD							
Overload Capacity	125% / 30 min · 150% / 10 min · 200% / 1 min							
Program Mode	STEP : 24 sets / 255 cycles, It can set Voltage/Frequency/Time. GRADUAL : 12 sets / 255 cycles, It can set Voltage/Frequency/Time.							
Protection	Input : Over Voltage, Under Voltage, Output : Over Voltage, Over Current, Over Temperature							
Remote Interface	Standard : RS-485/RS-232 Option : GPIB, Ethernet							
Environment	Operational Temperature: 0°C ~45°C Humidity: 0-90% ( Non condensing )							
Altitude	<1,500m							
Dimensions (H x W x D)	1715 x 685 x 795mm			1715 x 835 x 1040mm				
	67.51 x 26.96 x 31.29inch			67.51 x 33.46 x 40.94inch				

\*1 Please contact us for other voltage specification.

\*2 The rated input voltage is 380V.

\* all specifications are subject to change without notice.