

Programmable Wide Frequency AC Power Source



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, Ethernet. The PWF series has installed programming sequence functions of STEP and GRADUAL modes and optional three phase independent adjustment, phase angle adjustment, and disturbance function.

Product Features

- Wide range output frequency up to 800Hz for aerospace and military applications.
- Three phase independent adjustment to set voltage of each phase .
- Phase angle adjustment 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 RS-232 and RS-485 interfaces and optional GPIB and Ethernet 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.

Output Power

20kVA~120kVA

Interfaces

Standard	RS-232	RS-485
Option	GPIB	Ethernet

Applications

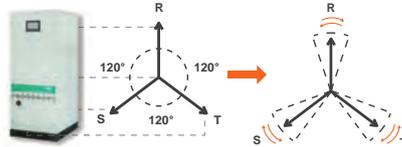
- Aerospace & Defense
- Laboratory/Certification Bureau
- Motor & Compressor
- Electronic Component
- Magnetic Resonance Testing

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 Adjustment



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	-	-
INPUT							
Phase & Voltage ^{*1}	3Ø / 4 Wire + G & 220V/380V±15%						
Frequency	47 - 63Hz						
Max. Current ^{*2}	37.9A	56.9A	85.3A	113.8A	142.2A	170.7A	227.6A
Power Factor	≥0.94 (Max. Power)						
OUTPUT							
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)	44.4A	66.7A	100A	133.3A	166.7A	-	-
	27.7A	41.6A	62.5A	83.3A	104.1A	125A	166.6A
Line Regulation	≤ 0.5%						
Load Regulation	≤ 1% (Resistive Load)						
Total Harmonic Distortion(THD)	≤ 2% (Resistive Load)						
Response Time	≤ 1ms						
MEASUREMENT							
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						
GENERAL							
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. TRANS : 24 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 795 mm			1765 x 835 x 1040 mm			
	67.51 x 26.96 x 31.29 inch			69.5 x 32.87 x 40.94 inch			

*1 Please contact us for other voltage specification.

*2 The rated input voltage is 380V.

* all specifications are subject to change without notice.