

# AFV-S series

Programmable AC Power Source

preliminary



only  
2U/4U



**i** Intuitive Touch Screen HMI

CE RoHS Compliant

▼ Output Voltage

0-310V

▼ Output Frequency

40-500Hz

▼ Remote Interface

RS-232 / RS-485 / Ethernet /  
Analog / PLC Remote / USB

▼ Compact & High Power Density

with only 2U for 2.5kVA

▼ Shortcuts of Output Memory Set

20 memory sets & 4 shortcuts

## Programmable AC Power Source

Preen's AFV-S series is a programmable AC power source with precise measurement capability. This compact product comes in four output power levels: 600VA, 1250VA, 2500VA and 5000VA, which provides clean power with low harmonic distortion.

The AFV-S series can display 4 shortcuts of 20 memory sets, and the voltage and frequency setting of each memory sets can be clearly read. Users can quickly set and view the parameters via 5 inches touch panel or rotary knob, which provides an easy operation and measurement display.

The AFV-S series is equipped with communication interfaces of RS232, RS485, Ethernet(opt.), Analog(opt.), and USB(opt.). Its complete remote interfaces and specialized control software offer an easy programming manner to remotely control the product. It is ideal for home appliances, power connector, LED lighting, automation testing in manufacturing and product testing in laboratory.

### • Compact & High Power Density

2U/4U

2U: 600VA / 1250VA / 2500VA  
4U: 5000VA

### • Ideal for Inrush Current Applications

4

peak/rms

Capable of delivering up to **4 times** of peak current from RMS current

### • Low Distortion (THD)

≤0.3%

Less than **0.3%** when output frequency is lower than **100Hz**.

### • Output Voltage & Frequency

0-310V

40-500Hz

\* type A

### • 20 Memory Sets & 4 Shortcuts

20

memory sets

4

shortcuts for quickly switching the output.

### • Remote Interface

Standard	Optional
RS-232 RS-485	Ethernet/ USB/Analog

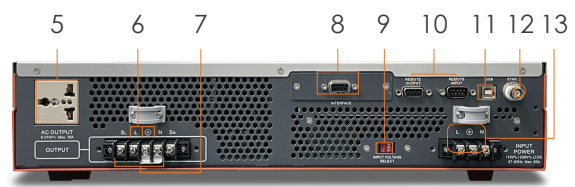
## PANEL DESCRIPTION

### Front Panel



- |                     |                           |
|---------------------|---------------------------|
| 1. Power Switch     | 6. Output Terminals       |
| 2. Touch Screen HMI | 7. Remote Sense           |
| 3. Rotary Knob      | 8. RS-232/RS-485          |
| 4. Output / Reset   | 9. Input Voltage Selector |
| 5. AC Output Socket | 10. PLC Remote In/Out     |

### Back Panel



- |  |                      |
|--|----------------------|
| 11. USB Interface(for firmware update) | 12. Sync. Signal I/O |
| 12. Sync. Signal I/O                   | 13. Input Socket*    |

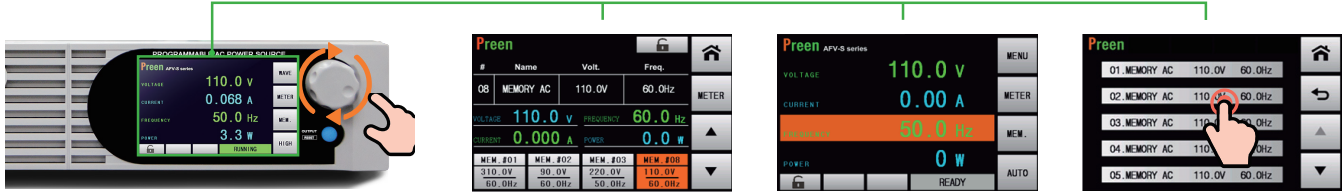
\*AFV-S-1250, AFV-S-2500, AFV-S-5000 have input terminals.

## ORDERING INFORMATION

Model Number	Description
AFV-S-600 (40- 500Hz)	Programmable AC Power Source
AFV-S-1250 (40- 500Hz)	Programmable AC Power Source
AFV-S-2500 (40- 500Hz)	Programmable AC Power Source
AFV-S-5000 (40- 500Hz)	Programmable AC Power Source

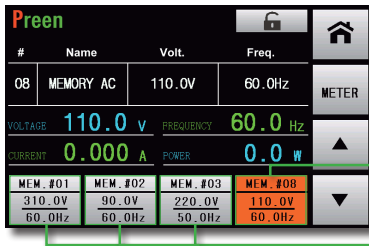
Model Number	Description
AFV-S-002	RS-232/RS-485/USB/Ethernet Interface
AFV-S-003	Analog Control Interface
AFV-S-010	Input Power Cable 3M (for 1.25kVA/2.5kVA)
AFV-S-011	Input Power Cable 5M (for 5kVA)

## Intuitive Touch Screen Control



To create a complex sequence on the HMI is no longer a difficult task for AFV-S series. The 5 inches touch screen provides users a clear display and an easy set up. AFV-S is also equipped with a rotary knob for better fine tune adjustments.

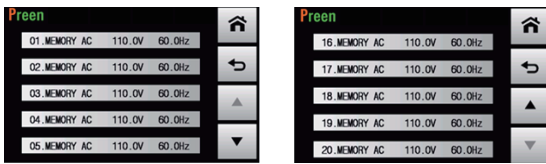
## 4 Shortcuts of Memory Sets



- 1 One user-assigned shortcut from 20 memory sets
- 2 Three fixed shortcut from first three memory sets

AFV-S series can display 4 shortcuts of memory sets, and the voltage and frequency setting of each memory sets can be clearly read. The user can quickly switch the output by selecting the shortcuts. Also, the Screen Lock function is also provided for preventing operators from accidentally changing shortcuts during output and causing DUT damage.

## 20 Memory Sets



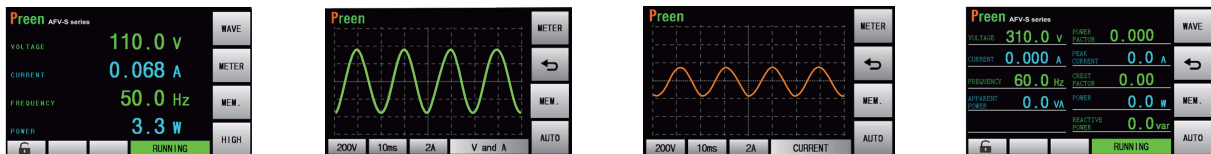
The AFV-S series have 20 memory sets. It can display 5 memory sets and voltage, frequency settings at the same time. In addition, users can define the name for great convenience.

## Shortcuts of Voltage and Frequency



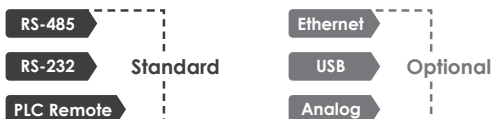
Users can quickly set the parameters via 5 inches touch panel or rotary knob, which provides an easy operation and measurement display.

## Waveform Display & Comprehensive Measurement



AFV-S series is capable of providing output waveform display and precise measurements, user can easily check the measurements of RMS voltage, output frequency, RMS current, true power, apparent power, reactive power, power factor and crest factor according to the product output. Additionally, all measurements can be exported as a report via the control software for analyzing and tracking EUT performance.

## Remote Interface



For easy setup and programming, the AFV-S series has standard RS-232/RS-485/PLC Remote interface. User also can select optional Ethernet /Analog/USB interfaces for different remote control requirements.

## SPECIFICATIONS

Model	AFV-S-600	AFV-S-1250	AFV-S-2500	AFV-S-5000	
<b>INPUT</b>					
Phase	Single				
Voltage	98-132Vac/196-264Vac		196-264Vac		
Frequency	47~63Hz				
Max. Current	10A	20A	20A	40A	
<b>OUTPUT</b>					
Power	(VA)	600VA	1250VA	2500VA	5000VA
	(W)	500W	1000W	2000W	4000W
Phase	1Ø / 2 Wire + G				
Voltage Ranges	0-155Vrms/0-310Vrms				
Voltage Accuracy	0.1Vrms				
Voltage Resolution	±(1% of Setting + 0.1% F.S.)				
Frequency	40-500Hz				
Frequency Accuracy	0.1Hz				
Frequency Resolution	±0.02%				
Max. Current (RMS)	5A/2.5A	10A/5A	20A/10A	40A/20A	
Max. Current (Peak)	20A/10A	40A/20A	80A/40A	160A/80A	
Total Harmonic Distortion (THD)	≤ 0.5% (Resistive Load) ≤ 0.3% at 110V/220V, 50Hz, 60Hz.				
Line Regulation	±0.1V				
Load Regulation	≤ 0.07% F.S (Resistive Load)				
Response Time	≤ 300µs				
Crest Factor	≥ 3				
Inrush Current	≤ 4 time of max. output current ( R.M.S )				
<b>MEASUREMENT</b>					
Voltage Range	0-420V				
Voltage Accuracy	±(0.2% of Reading + 5 Counts)				
Voltage Resolution	0.1V				
Frequency Range	40.0-500.0Hz				
Frequency Accuracy	±0.1Hz				
Frequency Resolution	0.1Hz				
Current Range (RMS)	Hi: 1-12A/Lo: 0.005-1.2A	Hi: 2-24A/ Lo: 0.005-2.4A	Hi: 0.05-48A		
Current Accuracy (RMS)	± (1% of Reading + 5 Counts), at 40-500Hz <sup>*2</sup>				
Current Resolution (RMS)	Hi: 0.01A/Lo: 0.001A		Hi: 0.01A		
Peak Current Range	0-45A	0-90A	0-180A		
Peak Current Accuracy	±(1% of Reading + 10 Counts), at PF > 0.2				
Peak Current Resolution	0.1A				
Power Range	Hi: 100-1200W/ Lo: 0-120W	Hi: 200-2400W/ Lo: 0-240W	Hi: 0-4800W		
Power Accuracy	±(2% of Reading + 10 Counts), at 40-500Hz				
Power Resolution	Hi: 1W/Lo: 0.1W		Hi: 1W		
<b>GENERAL</b>					
Efficiency	≥ 77% at Max. Power	≥ 80% at Max. Power			
Protection	OVP, LVP, OCP, OPP, OTP, RCP, Fan Fail and AMP Fail				
Remote Interface	Standard : RS-232/RS-485/PLC Remote IN & OUT Optional : Analog/Ethernet/USB				
Over Current Foldback	Over Current Foldback				
Output Sync Signal	ON Mode (5V DC Signal) or EVENT Mode (5V DC Pulse Signal)				
Memories	20 Memories				
Operating Temperature	0-40°C				
Dimensions (HxWxD)	89×442×495		89×442×650	176×442×665	
Weight	approx.16kg / 35.3lbs	approx.20kg / 44.1lbs	approx. 31.3kg / 69lbs	approx. 61.5kg / 135lbs	

\* 1 All specifications are subject to change without notice. \* 2 AFV-S-2500 is ± ( 1% F.S.+ 5 counts).

**Preen®**

