

# AFV series

# Preen®

Programmable AC Power Source  
10~2000kVA



▼ Output Power  
**10-2000kVA**

▼ 7 inches  
Touch Screen

▼ Efficiency  
**>85%-90%**

▼ Programmable Testing Steps

▼ Three Phase Independent Control

▼ Complete Interface Options:  
RS232 / RS485 / GPIB

▼ Option for Different Output Voltage

▼ Phase Angle Adjustment

▼ Complete Protection

## Programmable AC Power Source

Preen's AFV series is a programmable AC power supply, provides complete output voltage and output frequency to achieve various types of industrial requirements. Additionally, the AFV series provides programmable features, such as STEP feature and GRADUAL feature, which are ideal for R&D and compliance test.

With the advanced SPWM and DDS waveform technology, the AFV series provides high quality and stable output with output level up to 2000kVA. The AFV series adopts the touch screen to support user operation, which provides impressive users experience while operating the product. Users are allowed to remotely control the product via the standard interface: RS485 or the optional interface: RS232/GPIB. Additionally, the AFV series provides complete product protection, such as OVP, UVP, OCP, OPP, OTP and short circuit protection, and the product will immediately alarm users and stop the product output while the product protection is enabled.

High Output Power

**10-2000kVA**

High Efficiency

**>85%-90%**

Multiple Programmable Features

**STEP/GRADUAL**

7" Touch Screen

**Touch Screen  
Operation**

Ideal for Motor Testing

**Soft Start Feature**

Complete Protection

**OVP/UVP/OCP/OPP/OTP**

## High Power AC Source

### Applications



Electric Motor Test



Home Appliance



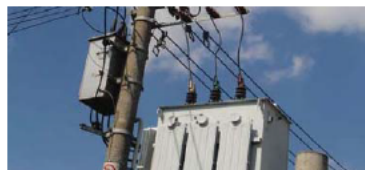
EMC Chamber



Switching Power Supply



Product Test and R&D



Transformer Test



# Key Features of AFV Series

## Intuitive Touch Screen



Users are allowed to operate the product via the touch screen on the front panel, which provides an easy operation for users to quickly set the product output.

## Three Phase Independent Control (opt.)



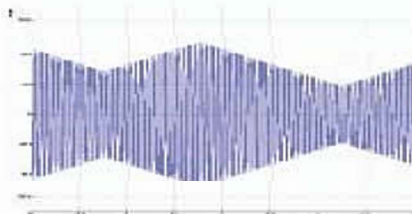
Users are allowed to control three-phase output voltage and output frequency independently. The product can be used as one unit of three-phase power supply or as three units of single-phase power supply.

## STEP Feature



Preen AFV series provides up to 24 sequences in the STEP feature. Through the STEP feature, users are allowed to set the product output, such as output voltage, output frequency and dwell time of performing the STEP feature in each of the adjustable sets, and then the product output will change step by step accordingly. Additionally, the product can automatically repeat the STEP feature according to the setting product output up to 255 times, which is suitable for electric motor and home application test.

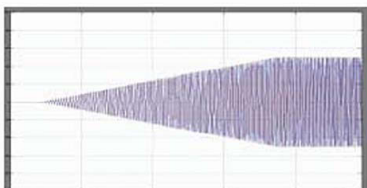
## GRADUAL Feature



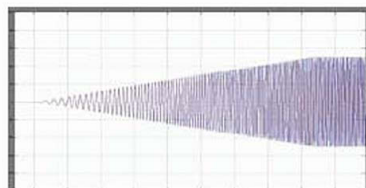
Preen AFV series provides up to 12 sequences in the the GRADUAL feature. Through the GRADUAL feature, users are allowed to set the product output, such as start/end output voltage, start/end output frequency and dwell time of performing the GRADUAL feature in each of the adjustable sets, and then the product output will change according to the setting slew rate. Additionally, the product can automatically repeat the GRADUAL feature according to the setting product output up to 255 times.

## Soft Start Feature (optional)

### Variable Voltage Constant Frequency (VVCF) / Variable Voltage Variable Frequency (VVVF)



Variable Voltage Constant Frequency (VVCF)



Variable Voltage Variable Frequency (VVVF)

With the soft start feature, the product effectively reduces inrush current generated while turning on inductive loads, such as motor and air conditioning compressor and etc. Accordingly, the product is suitable for electric motor industries to run reliability test.

## AFV Series: Three Phase Input / Single Phase Output (10 120KVA)

Model		AFV 31010	AFV 31015	AFV 31030	AFV 31045	AFV 31060	AFV 31080	AFV 31100	AFV 31120	
Power (KVA)		10	15	30	45	60	80	100	120	
Input	Phase	3Ø3W + G or 3Ø4W + G								
	Voltage ①	208VL-L ±15%, 230VL-L ±15%, 240VL-L ±15% (Only available for AFV-31010, AFV-31015, and AFV-31030) 380VL-L ±15%, 400VL-L ±15%, 415VL-L ±15%, 480VL-L ±15% (All models available) 600VL-L ±15% (optional)								
	Frequency Range	47~63Hz								
	Power Factor	0.9						0.85		
	Max. Current ②	18.7	28.1	56.1	84.2	112.2	167.8	209.7	251.7	
Output	Phase	1Ø2W + G								
	Voltage	Low(V)	0V~150.0V (L N)							
		High(V)	0V~300.0V (L N)							
	Option Voltage Range	0V~300V / 0V~600V(L N) Build in Cabinet with Regulated Output (Other Voltage Range Available) ④								
	Frequency Range	45~65Hz (option 45~500Hz) ⑤								
	Frequency Regulation	≤0.01%								
	Max. Current	High(A)	41.7	62.5	125.0	187.5	250.0	333.3	416.7	500.0
Low(A)		83.3	125.0	250.0	375.0	500.0	666.7	833.3	1000.0	
System	Line Regulation	<0.5%								
	Load Regulation	±0.5% (Resistive Load)								
	THD	≤1% (Resistive Load)								
	Efficiency	≥90%						≥85%		
	Response Time	≤2ms								
	Crest Factor	3 : 1								
	Protection	OVP, UVP, OCP, OPP, OTP and Short Circuit Protection								
Measurement	Voltage	Voltage: Resolution: 0.1V; Accuracy: 0.5% F.S. + 4 Counts								
	Current	Resolution: 0.1A; Accuracy: 0.5% F.S. + 4 Counts								
	Frequency	Resolution: 0.1Hz; Accuracy: 0.5% F.S. + 4 Counts								
Remote Interface		RS 485: Standard RS 232/GPIB: Optional								
General	Operational Temp.	0°C~45°C								
	Humidity	0~90% (Non condensing)								
	Altitude	<1500m								
Dimensions (W*D*H) mm ③		①	②			③		④		
Weight(kg) ③		240	290	360	580	670	830	935	1092	

## AFV Series: Three Phase Input / Three Phase Output (10~100kVA)

Model		AFV 33010	AFV 33015	AFV 33030	AFV 33045	AFV 33060	AFV 33080	AFV 33100		
Power (kVA)		10	15	30	45	60	80	100		
Input	Phase	3Ø3W + G or 3Ø4W + G								
	Voltage ①	208VL-L ±15%, 230VL-L ±15%, 240VL-L ±15% (Only available for AFV-31010, AFV-31015, and AFV-31030) 380VL-L ±15%, 400VL-L ±15%, 415VL-L ±15%, 480VL-L ±15% (All models available) 600VL-L ±15% (optional)								
	Frequency Range	47~63Hz								
	Power Factor	0.9						0.85		
	Max. Current ②	18.7	28.1	56.1	84.2	112.2	167.8	198.1		
Output	Phase	3Ø4W + G								
	Voltage	Low(V)	0V~150.0V (L N)							
		High(V)	0V~300.0V (L N)							
	Option Voltage Range	0V~300V / 0V~600V(L N) Build in Cabinet with Regulated Output (Other Voltage Range Available) ④								
	Frequency Range	45~65Hz (option 45~500Hz) ⑤								
	Frequency Regulation	≤0.01%								
	Max. Current	High(A)	13.9	20.8	41.7	62.5	83.3	111.1	138.9	
Low(A)		27.8	41.7	83.3	125.0	166.7	222.2	277.8		
System	Line Regulation	<0.5%								
	Load Regulation	±0.5% (Resistive Load)								
	THD	≤1% (Resistive Load)								
	Efficiency	≥90%						≥85%		
	Response Time	≤2ms								
	Crest Factor	3 : 1								
	Protection	OVP, UVP, OCP, OPP, OTP and Short Circuit Protection								
Measurement	Voltage	Resolution: 0.1V; Accuracy: 0.5% F.S. + 4 Counts								
	Current	Resolution: 0.1A; Accuracy: 0.5% F.S. + 4 Counts								
	Frequency	Resolution: 0.1Hz; Accuracy: 0.5% F.S. + 4 Counts								
Remote Interface		RS 485: Standard RS 232/GPIB: Optional								
General	Operational Temp.	0°C~45°C								
	Humidity	0~90% (Non condensing)								
	Altitude	<1500m								
Dimensions (W*D*H) mm ③		②			③		④			
Weight(kg) ③		300	310	410	580	670	890	960		



## AFV Series: Three Phase Input / Three Phase Output (120~1600kVA)

Model		AFV 33120	AFV 33160	AFV 33240	AFV 33300	AFV 33400	AFV 33500	AFV 33640	AFV 33800	AFV 331000	AFV 331200	AFV 331600	
Power (kVA)		120	160	240	300	400	500	640	800	1000	1200	1600	
Input	Phase	3Ø3W + G or 3Ø4W + G											
	Voltage ①	380VL-L ±15%, 400VL-L ±15%, 415VL-L ±15%, 480VL-L ±15% (All models available) 600VL-L ±15% (optional)											
	Frequency Range	47~63Hz											
	Power Factor	0.85											
	Max. Current ②	251.7	335.5	503.3	629.1	838.8	1048.5	1342.1	1677.7	2097.1	2516.5	3355.4	
Output	Phase	3Ø4W + G											
	Voltage	Low(V)	0V~150.0V ( L N )										
		High(V)	0V~300.0V ( L N )										
	Option Voltage Range	0V~300V / 0V~600V(L N) Build in Cabinet with Regulated Output(Other Voltage Range Available) ④											
	Frequency Range	45~65Hz (opt. 45~500Hz) ⑤											
	Frequency Regulation	≤ 0.01%											
	Max. Current	High(A)	166.7	222.2	333.3	416.7	555.6	694.4	888.9	1111.1	1388.9	1666.7	2222.2
Low(A)		333.3	444.4	666.7	833.3	1111.1	1388.9	1777.8	2222.2	2777.8	3333.3	4444.4	
System	Line Regulation	< 1%											
	Load Regulation	± 1% (Resistive Load)											
	THD	≤ 2% (Resistive Load)											
	Efficiency	≥ 85%											
	Response Time	≤ 2ms											
	Crest Factor	3 : 1											
	Protection	OVP, UVP, OCP, OPP, OTP and Short Circuit Protection											
Measurement	Voltage	Resolution: 0.1V; Accuracy: 0.5% F.S. + 4 Counts											
	Current	Resolution: 0.1A; Accuracy: 0.5% F.S. + 4 Counts											
	Frequency	Resolution: 0.1Hz; Accuracy: 0.5% F.S. + 4 Counts											
Remote Interface	RS 485: Standard RS 232/GPIB: Optional												
General	Operational Temp.	0°C~45°C											
	Humidity	0~90% (Non condensing)											
	Altitude	1500m											
Dimensions(W*D*H)mm ③		⑤		⑥		⑦		⑧		⑨			
Weight(kg) ③		1170	1400	2220	2465	3335	—	—	—	—	—	—	

## AFV Series Case Dimension Overview



- P.S. : ① Please contact us for other voltage specification.  
 ② The rated input voltage is 220V/380V.  
 ③ For AFV series over 400kVA, please contact us for details.  
 ④ Custom Voltage Range may effect the spec of max. output current.  
 ⑤ Please refer Preen AFV output power characteristic graph .  
 \*All specifications are subject to change without notice

# AC POWER CORP.

Specialized in power electronics, Preen (AC Power Corp.) has been developing products based on its core technology of Power Conversion. Product Line includes AC Power Sources, DC Power Supplies, Power Supplies for Defense Industry, Renewable Energy Simulators, Line Conditioners and UPS. Boasting one of the broadest product line in the industries, Preen specializes in High Power Source and has developed AC power source up to 2MVA with high power density.

## Product Lines

**AC**  
Power Source

- Up to 1000Hz
- 500VA ~ 2,000kVA
- Regenerative Function

**DC**  
Power Supply

- Up to 2,000V
- 2kW ~ 300kW
- Fast Response & Low Ripple

Power Conditioner  
&  
UPS

- Solid State & Inductive types
- Up to 1500kVA

## Applications



Renewable Energy



Laboratory



Aircraft Manufacturing



Transport System



EMC Chamber



Medical Equipment



Control Room/ Data Center



Electronics



ATE System



Airport Apron / Hangar



Home Appliance



Motor / Engine



Communication Equipment



Military Aircraft / Helicopter



Navy System



Defense Equipment



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