

EAC/AFV SERIES

PROGRAMMABLE AC POWER SOURCES

15 kVA ~ 2000 kVA

7-INCH
TOUCH
SCREEN



AFV Series Product Features

■ Touch Screen

Easy to operate, rich colors, able to simulate change curve, suitable for non-harsh environment such as laboratory and R&D center.

■ High Efficiency

Power Efficiency > 90 %, energy saving and eco-friendly

■ Programmable output voltage and frequency functionality

General mode, step mode, gradual change mode

■ General mode:

Ten set of output voltage and output frequency

■ Step Mode:

up to 24 sets of output voltage and frequency are available for configuration. Each voltage, frequency and running time can be set separately.

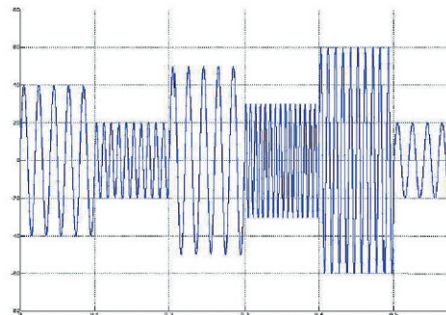
■ Gradual Change Mode:

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.

Step Mode



Voltage & Frequency Setting Interface at Step Change Mode

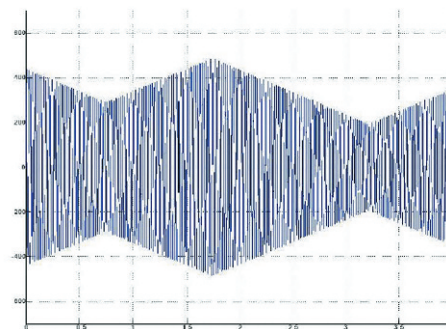


Voltage & Frequency Change Schematic Diagram

Gradual Change Mode



Voltage & Frequency Setting Interface at Gradual Change Mode



Voltage & Frequency Change Schematic Diagram

AFV Series Product Features

■ Multiple communication ports to choose

Standard RS485
 Optional RS232 or GPIB
 Support SCPI or LabView and optional MODBUS

■ Enhanced troubleshooting function

Faultcode is shown in the screen in the event of fault; to enable quick troubleshooting and reduce downtime and therefore enhance uptime.
 Faultcode and message in the AFV unit can be replicated into USB memorystick available on models with touch screen for further survey.

■ Back-feed protection

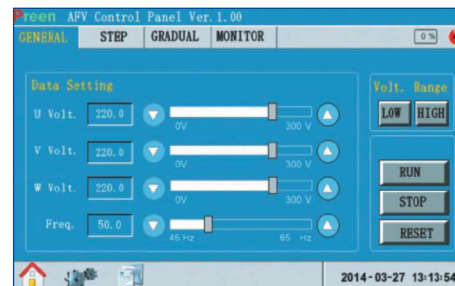
When back-feeding occurs, over voltage is detected and then output is switched off immediately to protect load equipment and maintain safety.

■ Adjustable power limit (optional)

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

■ Independently adjustable three-phase output (optional)

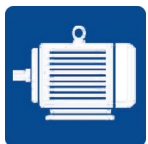
Three-phase output voltage is independently adjustable.
 Work as one unit of three-phase power source or as three units of single-phase power source.



■ Eco-friendly and high-efficiency design

- **Powermodule technology:** used to make size smaller and power density higher
- **SMD technology:** used to enhance the reliability of the AFV 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 AFV unit and load equipment
- **Variable-speed fans:** low noise, low maintenance and high energy efficiency

Application areas of AFV series products



Electric Motor



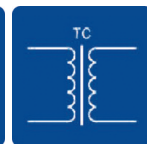
Home Applications



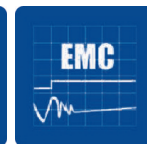
Switched-mode
Power Supply



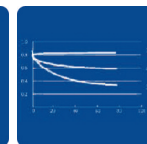
Air Conditioning
Compressor



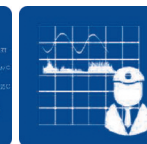
Transformer Test



EMC Test



Product Life
Cycle Test



Product Test
an R&D



ET SYSTEM®

AFV Series Product Features

EAC/AFV

AFV Series
Frequency Converter

3
Input Phase
3

3
Output Phase
1

060
Capacity
60 kVA

T
Input Voltage
220 / 380 Vac

Model	AFV-31020	AFV-31030	AFV-33015	AFV-33020	AFV-33030	AFV-33045	AFV-33060	AFV-33075	AFV-33100	AFV-33120	AFV-33150	AFV-33200			
Capacity (kVA)	20	30	15	20	30	45	60	75	100	120	150	200			
Circuit Type	IGBT/PWM Type														
Input	Phase	Three Phase													
	Voltage	220V/380V													
	Frequency range	47-63Hz													
	Voltage range	220V/380V±15%													
	Power factor	0.9													
	Max. current (A) (With full load)	37.4	56.1	28.1	37.4	56.1	84.2	112.2	140.3	187.1	224.5	280.6	374.1		
Output	Phase	Single Phase			Three Phase										
	Wave	SINE Wave													
	Frequency regulation	±0.01%													
	GENERAL mode	Frequency	45-65Hz. Optional 45-500Hz. Res.: 0.1Hz Accuracy: 0.01%.												
		Voltage	Low (V)	0V-150.0V (L-N)											
			High (V)	150.1V-300.0V (L-N)											
	Max. current (A)	High (A)	83.3	125.0	20.8	27.8	41.7	62.5	83.3	104.2	138.9	166.7	206.3	277.8	
	Low (A)	166.7	250.0	41.7	55.6	83.3	125.0	166.7	206.3	277.8	333.3	416.7	555.6		
	Time Interval	Res.: standard 1 sec. and 0.02 sec. optional. Up to 99 Hr.													
	Number of settings	For selected voltage and frequency values up to 10 sets													
	Cycles	Up to 255.													
	STEP + GRADUAL CHANGE modes	Frequency	45-65Hz. Optional 45-500Hz. Res.: 0.1Hz. Accuracy: 0.01%.												
		Voltage	10 to 300V. Res.: 0.1V. Accuracy: 1%												
		Max. current (A)	Please refer to the above rows of Max. current (A)												
		Time Interval	Res.: standard 1 sec. and 0.02 sec. optional. Up to 99 Hr.												
Number of settings	For selected voltage, frequency, and time values: Up to 24 sets under STEPPING mode, or 12 sets under GRADUAL CHANGE mode.														
Cycles	Up to 255 cycles for each mode.														
3-Phase independent voltage control (Optional)	Not applicable			Each phase voltage could be set (to different values) independently.											
System	Line regulation	<1%													
	Load regulation	±1% (linear load)													
	THD	±2% (linear load)													
	Efficiency	≥90%													
	Response time	≈2ms													
	Crest Factor	3:1													
Protection	Input no-fuse breaker, electronic circuit instant trip for overflow voltage, over current, over load, over temperature and short circuit protection and alarm system														
Display/Control	Front panel interface	Touch screen													
	Frequency	Res.: 0.1Hz. Accuracy: 0.5%/FS+4Counts.													
	Voltage	Res.: 0.1V. Accuracy: 0.5%/FS+4Counts.													
	Current	Res.: 0.1A. Accuracy: 0.5%/FS+4Counts.													
	Remote Ports	RS-485(D-Sub 9-pin female). Optional RS-232 or GPIB (Only one of the three exits)													
	Lab/View driver	Support windows XP and versions afterward													
USB Port	For downloading log.														
Safety	Insulation resistance	10M ohm (Tested with DC 500V)													
	Insulation withstand voltage	Tested with AC 1,800V 10mA for 1min													
	Cooling system	Fan Cooling													
Environment	Temperature (Operating)	0°C - 45°C													
	Humidity (Operating)	0-90% (Non-condensing)													
	Altitude (Operating)	<1500m													
Dimensions (W*D*H)mm	600*800*1200	650*920*1248				700*800*1620			940*820*1700	1130*1280*1980	1100*940*1850				
Weight (kg)	300	350	400	420	425	435	490	525	716	1200	1300	1400			

All specifications are subject to change without prior notice



AFV Series Product Features

EAC/AFV

AFV Series
Frequency Converter

3
Input Phase
3

3
Output Phase
1

060
Capacity
60 kVA

T
Input Voltage
220 / 380 Vac

Model	AFV-33300	AFV-33400	AFV-33500	AFV-33600	AFV-33800	AFV-331000	AFV-331200	AFV-331500	AFV-332000			
Capacity (kVA)	300	400	500	600	800	1000	1200	1500	2000			
Circuit Type	IGBT/PWM Type											
Input	Phase	Three Phase										
	Voltage	220V/380V										
	Frequency range	47-63Hz										
	Voltage range	220V/380V±15%										
	Power factor	0.9				0.85						
Max. current (A) (With full load)	561.2	748.2	990.3	1188.4	1584.5	1980.6	2376.7	2970.9	3961.2			
Output	Phase	Three Phase										
	Wave	SINE Wave										
	Frequency regulation	±0.01%										
	GENERAL mode	Frequency	45-65Hz. Optional 45-500Hz. Res.: 0.1Hz Accuracy: 0.01%.									
		Voltage	Low (V)	0V-150.0V (L-N)								
			High (V)	150.1V-300.0V (L-N)								
	Max. current (A)	High (A)	416.7	555.6	694.4	833.3	1111.1	1388.9	1666.7	2083.3	2777.8	
	Low (A)	833.3	1111.1	1388.9	1666.7	2222.2	2777.8	3333.3	4166.7	5555.6		
	Time Interval	Res.: standard 1 sec. and 0.02 sec. optional. Up to 99 Hr.										
	Number of settings	For selected voltage and frequency values up to 10 sets										
	Cycles	Up to 255.										
	STEP + GRADUAL CHANGE modes	Frequency	45-65Hz. Optional 45-500Hz. Res.: 0.1Hz. Accuracy: 0.01%.									
		Voltage	10 to 300V. Res.: 0.1V. Accuracy: 1%									
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Display/Control	Front panel interface	Touch screen										
	Frequency	Res.: 0.1Hz. Accuracy: 0.5%FS+4Counts.										
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	Remote	Ports	RS-485(D-Sub 9-pin female). Optional RS-232 or GPIB (Only one of the three exits)									
LabView driver	Support windows XP and versions afterward											
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Safety	Insulation resistance	10M ohm (Tested with DC 500V)										
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Environment	Cooling system	Fan Cooling										
	Temperature (Operating)	0°C - 45°C										
	Humidity (Operating)	0-90% (Non-condensing)										
	Altitude (Operating)	<1500m										
Dimensions (W*D*H)mm	1400*1040*2000		4900*1400*2050			6300*1500*2050			/	/		
Weight (kg)	2200	2500	4500	5200	7000	8500	9200	/	/			

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