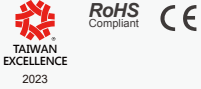


# AFV series



**Output Power**  
**10kVA~2000kVA**

## Interfaces



## High Power Programmable AC Power Source

Preen's AFV series is a programmable AC power source that can be remotely controlled and integrated with other systems for automatic testing. AFV series provides precise output voltage and frequency which could reach various types of industrial requirements. For the industrial users, such as home appliances, electrical and electronic, medical equipment and lighting, they are able to quickly and accurately simulate standard or abnormal power status via programmable function.

AFV series has built-in standard programmable features, such as STEP and RAMP features, which are ideal for laboratories, certification and R&D institution's compliance test. The user-friendly touch screen supports users to operate AFV series intuitively and easily, and the users can remote control the unit via the standard RS-232, RS485 or Ethernet (Optional for Analog, GPIB and USB) interface. The AC source is coupled with output voltage range of 0-310V and output frequency of standard 45-120Hz or optional 45-500Hz. Moreover, the AFV series provides complete product protections, such as OVP, UVP, OCP, OPP, OTP and short circuit protection.

## QR Code



Product Info.



Product Video

## User-friendly Touch Screen and Remote Control



AFV series is equipped with a 7" touch screen. The intuitive and easy-to-use touch screen allows users to set test sequences immediately and precisely. Through the control interfaces (RS-232 / RS-485 / Ethernet / GPIB / Analog / USB), users can set the desired output parameters and monitor the output value remotely.

# SPECIFICATIONS

## AFV Series Single-Phase Output (10kVA-120kVA)

Model	AFV-31010	AFV-31015	AFV-31030	AFV-31045	AFV-31060	AFV-31080	AFV-31100	AFV-31120	
<b>INPUT</b>									
Phase	3Ø / 3 Wire + G								
Voltage	380VAC ±15% (option:208VAC,220VAC)		380VAC ±15% (option: 480VAC)						
Frequency	47- 63Hz								
Max. Current <sup>1</sup>	22A	33A	66A	99A	132A	197.4A	246.7A	296.1A	
Power Factor	≥ 0.9 ( Max. Power )				≥ 0.85 ( Max. Power )				
<b>OUTPUT</b>									
Power ( VA)	10kVA	15kVA	30kVA	45kVA	60kVA	80kVA	100kVA	120kVA	
Phase	1Ø / 2 Wire + G								
Voltage Ranges	Low(V)	0V-155.0V ( L-N )							
	High(V)	0V-310.0V ( L-N )							
Voltage Resolution	0.1V								
Voltage Accuracy	0.5% F.S.+ 4 counts								
Frequency Range <sup>2</sup>	Standard : 45-120Hz Option : 45-500Hz								
Frequency Resolution	0.1Hz								
Frequency Accuracy	± 0.02 % F.S.								
Max. Current (RMS)	Low(A)	83.3A	125A	250A	375A	500A	666.7A	833.3A	1000A
	High(A)	41.7A	62.5A	125A	187.5A	250A	333.3A	416.7A	500A
Line Regulation	< 1%								
Load Regulation	≤ 1% ( Resistive Load )								
Total Harmonic Distortion (THD) <sup>3</sup>	≤ 1% ( Resistive Load )								
Response Time	≤ 2ms								
Crest Factor	≥ 3								
<b>MEASUREMENT</b>									
Voltage Range	0V-310.0V								
Voltage Resolution	0.1V								
Voltage Accuracy	0.5% F.S.+ 4 counts								
Frequency Range	45.0-500.0Hz								
Frequency Resolution	0.01Hz								
Frequency Accuracy	± 0.02 % F.S.								
Current Range (RMS)	0 - 83.3A	0 - 125A	0 - 250A	0 - 375A	0 - 500A	0 - 666.7A	0 - 833.3A	0 - 1000A	
Current Resolution (RMS)	0.1A								
Current Accuracy (RMS)	0.5% F.S.+4 counts								
Power Range	0 - 10kW	0 - 15kW	0 - 30kW	0 - 45kW	0 - 60kW	0 - 80kW	0 - 100kW	0 - 120kW	
Power Resolution	0.1kW								
Power Accuracy	1% F.S.+6 counts								
<b>GENERAL</b>									
Efficiency	≥ 90% at Max. Power				≥ 85% at Max. Power				
HMI	7" Touch Screen				10" Touch Screen				
Program Mode	STEP : 24 sets / 255 cycles. (Volt./Freq./Time) RAMP : 12 sets / 255 cycles. (Volt./Freq./Time)								
Protection	Input : N.F.B, Over Voltage, Under Voltage / Output : Over Voltage, Over Current, Reverse Current, Over Temperature								
Remote Interface	Standard : RS-232& RS-485 /Ethernet Option: Interface Card (Ethernet/RS-232&RS-485/USB), GPIB or Analog								
Operational Temperature	0°C ~ 45°C								
Humidity	0-90% ( Non condensing )								
Altitude	< 1,500m								
Dimensions (H x W x D) <sup>4</sup>	1045x 600 x 800 mm (including wheels)		1440 x 600 x 800 mm (including wheels)		1645 x 800 x 800 mm (including wheels)		1800 x 1050 x 950 mm		1900 x 1150 x 1200 mm
	41.1 x 23.6 x 31.5 inch (including wheels)		56.7 x 23.6 x 31.5 inch (including wheels)		64.8 x 31.5 x 31.5 inch (including wheels)		70.9 x 41.3 x 38.2 inch		74.8 x 45.3 x 48.0 inch
Weight <sup>4</sup>	225kg		270kg		440kg		560kg		650kg
	496.1lbs		595.4lbs		970.2lbs		1234.8lbs		1433.3lbs

<sup>1</sup> The max. current is based on a rated input voltage of 380V minus 15%. <sup>2</sup> For 45-500Hz option, please contact us for output power characteristic curve.

<sup>3</sup> When the output voltage is at Low : 90-140V or High 180-280V with load power factor of 1.

<sup>4</sup> Dimensions and weight are for input voltage 220/380V. Please contact us for dimensions and weight for other input voltage.

\* All specifications are subject to change without notice. The specifications are tested at ambient temperature of 25°C ± 5°C.

# SPECIFICATIONS

## AFV Series Three-Phase Output (10kVA-120kVA)

Model		AFV-33010	AFV-33015	AFV-33030	AFV-33045	AFV-33060	AFV-33080	AFV-33100	AFV-33120
<b>INPUT</b>									
Phase	3Ø / 3 Wire + G								
Voltage	380VAC ±15% (option: 208VAC, 220VAC)				380VAC ±15% (option: 480VAC)				
Frequency	47- 63Hz								
Max. Current <sup>1</sup>	22A	33A	66A	99A	132A	197.4A	246.7A	296.1A	
Power Factor	≥ 0.9 ( Max. Power )					≥ 0.85 ( Max. Power )			
<b>OUTPUT</b>									
Power	(VA)	10kVA	15kVA	30kVA	45kVA	60kVA	80kVA	100kVA	120kVA
Phase	3Ø / 4 Wire + G								
Voltage Ranges	Low(V)	0V-155.0V ( L-N )							
	High(V)	0V-310.0V ( L-N )							
Voltage Resolution	0.1V								
Voltage Accuracy	0.5% F.S.+4 counts								
Frequency Range <sup>2</sup>	Standard : 45-120Hz Option : 45-500Hz								
Frequency Resolution	0.1Hz								
Frequency Accuracy	± 0.02% F.S.								
Max. Current (RMS)	Low(A)	27.8A	41.7A	83.3A	125A	166.7A	222.2A	277.8A	333.3A
	High(A)	13.9A	20.8A	41.7A	62.5A	83.3A	111.1A	138.9A	166.7A
Line Regulation	≤ 1%								
Load Regulation	≤ 1% ( Resistive Load )								
Total Harmonic Distortion(THD) <sup>3</sup>	≤ 1% ( Resistive Load )								
Response Time	≤ 2ms								
Crest Factor	≥ 3								
<b>MEASUREMENT</b>									
Voltage Range	0V-310.0V								
Voltage Resolution	0.1V								
Voltage Accuracy	0.5% F.S.+4 counts								
Frequency Range	45.0-500.0Hz								
Frequency Resolution	0.01Hz								
Frequency Accuracy	± 0.02% F.S.								
Current Range(RMS)	0 - 27.8A	0 - 41.7A	0 - 83.3A	0 - 125A	0 - 166.7A	0 - 222.2A	0 - 277.8A	0 - 333.3A	
Current Resolution(RMS)	0.1A								
Current Accuracy(RMS)	0.5% F.S.+4 counts								
Power Range	0 - 10kW	0 - 15kW	0 - 30kW	0 - 45kW	0 - 60kW	0 - 80kW	0 - 100kW	0 - 120kW	
Power Resolution	0.1kW								
Power Accuracy	1% F.S.+6 counts								
<b>GENERAL</b>									
Efficiency	≥ 90% at Max. Power					≥ 85% at Max. Power			
HMI	7" Touch Screen				10" Touch Screen				
Program Mode	STEP : 24 sets / 255 cycles. (Volt./Freq./Time) RAMP : 12 sets / 255 cycles. (Volt./Freq./Time)								
Protection	Input : N.F.B, Over Voltage, Under Voltage / Output : Over Voltage, Over Current, Reverse Current, Over Temperature								
Remote Interface	Standard: RS-232& RS-485 /Ethernet Option: Interface Card (Ethernet/RS-232&RS-485/USB), GPIB or Analog								
Operational Temperature	0°C ~ 45°C								
Humidity	0-90% ( Non condensing )								
Altitude	< 1,500m								
Dimensions (H x W x D) <sup>4</sup>	1045 x 600 x 800 mm (including wheel)	1440 x 600 x 800 mm (including wheel)	1645 x 800 x 800 mm (including wheel)	1800 x 1050 x 950 mm			1900 x 1150 x 1200 mm		
	41.1 x 23.6 x 31.5 inch (including wheel)	56.7 x 23.6 x 31.5 inch (including wheel)	64.8 x 31.5 x 31.5 inch (including wheel)	70.9 x 41.3 x 38.2 inch			74.8 x 45.3 x 48.0 inch		
Weight <sup>4</sup>	255kg	295kg	390kg	540kg	650kg	1000kg	1170kg	1450kg	
	562.3lbs	650.5lbs	860lbs	1190.7lbs	1433.3lbs	2205lbs	2579.85lbs	3197.3lbs	

\*1 The max. current is based on a rated input voltage of 380V minus 15%. \*2 For 45-500Hz option, please contact us for output power characteristic curve.

\*3 When the output voltage is at Low : 90-140V or High 180-280V with load power factor of 1.

\*4 Dimensions and weight are for input voltage 380V. Please contact us for dimensions and weight for other input voltage.

\* All specifications are subject to change without notice. The specifications are tested at ambient temperature of 25°C ± 5°C.

# SPECIFICATIONS

## AFV Series Three-Phase Output (160kVA-1600kVA)

Model	AFV-33160	AFV-33240	AFV-33300	AFV-33400	AFV-33500	AFV-33640	AFV-33800	AFV-331000	AFV-331200	AFV-331600	
<b>INPUT</b>											
Phase	3Ø / 3 Wire + G										
Voltage <sup>*1</sup>	380Vac ±15% (option: 480Vac)										
Frequency	47-63Hz										
Max. Current <sup>*2</sup>	394.7A	592.1A	740.2A	986.9A	1233.6A	1579A	1973.7A	2467.2A	2960.6A	3947.5A	
Power Factor	≥ 0.85 ( Max. Power )										
<b>OUTPUT</b>											
Power (VA)	160kVA	240kVA	300kVA	400kVA	500kVA	640kVA	800kVA	1000kVA	1200kVA	1600kVA	
Phase	3Ø / 4 Wire + G										
Voltage Ranges	0V-155.0V ( L-N )										
	0V-310.0V ( L-N )										
Voltage Resolution	0.1V										
Voltage Accuracy	0.5% F.S.+4 counts										
Frequency Range <sup>*3</sup>	Standard : 45-120Hz Option : 45-500Hz										
Frequency Resolution	0.01Hz										
Frequency Accuracy	± 0.02 % F.S.										
Max. Current (RMS)	Low(A)	444.4A	666.7A	833.3A	1111.1A	1388.9A	1777.8A	2222.2A	2777.8A	3333.3A	4444.4A
	High(A)	222.2A	333.3A	416.7A	555.6A	694.4A	888.9A	1111.1A	1388.9A	1666.7A	2222.2A
Line Regulation	≤ 1%										
Load Regulation	≤ 1% ( Resistive Load )										
Total Harmonic Distortion(THD) <sup>*4</sup>	≤ 1% ( Resistive Load )										
Response Time	≤ 2ms										
<b>MEASUREMENT</b>											
Voltage Range	0V-310.0V										
Voltage Resolution	0.1V										
Voltage Accuracy	0.5% F.S.+4 counts										
Frequency Range	45.0-500.0Hz										
Frequency Resolution	0.01Hz										
Frequency Accuracy	± 0.02 % F.S.										
Current Range (RMS)	0 - 444.4A	0 - 666.7A	0 - 833.3A	0 - 1111.1A	0 - 1388.9A	0 - 1777.8A	0 - 2222.2A	0 - 2777.8A	0 - 3333.3A	0 - 4444.4A	
Current Resolution (RMS)	0.1A										
Current Accuracy (RMS)	0.5% F.S.+4 counts										
Power Range	0 - 160kW	0 - 240kW	0 - 300kW	0 - 400kW	0 - 500kW	0 - 640kW	0 - 800kW	0 - 1000kW	0 - 1200kW	0 - 1600kW	
Power Resolution	0.1kW										
Power Accuracy	1% F.S.+6 counts										
<b>GENERAL</b>											
Efficiency	≥ 0.85% at Max. Power										
HMI	10" Touch Screen										
Program Mode	STEP : 24 sets / 255 cycles. (Volt./Freq./Time) RAMP : 12 sets / 255 cycles. (Volt./Freq./Time)										
Protection	Input : N.F.B, Over Voltage, Under Voltage, Output : Over Voltage, Over Current, Reverse Current, Over Temperature.										
Remote Interface	Standard: RS-232& RS-485 /Ethernet Option: Interface Card (Ethernet/RS-232&RS-485/USB), GPIB or Analog										
Operational Temperature	0°C ~ 45°C										
Humidity	0-90% ( Non condensing )										
Altitude	< 1,500m										
Dimensions (H x W x D) <sup>*5</sup>	1900 x 1150 x 1220 mm/ 74.8 x 45.3 x 48.8 inch	2050 x 3880 x 1539 mm/ 80.7 x 152.8 x 60.6 inch	2050 x 4716 x 1520 mm / 80.7 x 185.7 x 59.8 inch	2050 x 4716 x 1520 mm / 80.7 x 185.7 x 59.8 inch	2050 x 4716 x 1520 mm / 80.7 x 185.7 x 59.8 inch	2050 x 4716 x 1520 mm / 80.7 x 185.7 x 59.8 inch	2050 x 4716 x 1520 mm / 80.7 x 185.7 x 59.8 inch	2050 x 4716 x 1520 mm / 80.7 x 185.7 x 59.8 inch	2050 x 4716 x 1520 mm / 80.7 x 185.7 x 59.8 inch	2050 x 4716 x 1520 mm / 80.7 x 185.7 x 59.8 inch	
Weight <sup>*5</sup>	1850kg	2800kg	3450kg	4450kg	5550kg	7800kg	8800kg	10550kg	16000kg	17600kg	
	4079.3lbs	6174lbs	7607.3lbs	9812.3lbs	12237.8lbs	17199lbs	19404lbs	23262.8lbs	35280lbs	38808lbs	

\*1 200V and 400V input options are 3Ø / 3 Wire + G. Please contact us for other input voltage specifications. \*2 The max. current is based on a rated input voltage of 380V minus 15%.

\*3 For 45-500Hz option, please contact us for output power characteristic curve. \*4 When the output voltage is at Low : 90-140V or High 180-280V with load power factor of 1 .

\*5 Dimensions and weight are for input voltage 220/380V(3Ø/4W+G) . Please contact us for dimensions and weight for other input voltage.

\*6 Please contact us for specifications.

\* All specifications are subject to change without notice. The specifications are tested at ambient temperature of 25°C ± 5°C .

## ORDERING INFORMATION

### AFV Series Single-Phase Output (10kVA-150kVA)

Model Number	Description
AFV-31010	High Power Programmable AC Power Source (10kVA/310V/45-120Hz)
AFV-31015	High Power Programmable AC Power Source (15kVA/310V/45-120Hz)
AFV-31030	High Power Programmable AC Power Source (30kVA/310V/45-120Hz)
AFV-31045	High Power Programmable AC Power Source (45kVA/310V/45-120Hz)
AFV-31060	High Power Programmable AC Power Source (60kVA/310V/45-120Hz)
AFV-31080	High Power Programmable AC Power Source (80kVA/310V/45-120Hz)
AFV-31100	High Power Programmable AC Power Source (100kVA/310V/45-120Hz)
AFV-31120	High Power Programmable AC Power Source (120kVA/310V/45-120Hz)
AFV-001	Output Frequency 45Hz-500Hz
AFV-002	Soft Start Mode
AFV-005	GPIB Interface
AFV-006	Analog Control Interface
AFV-007	Overload Capability 200% 2 sec, 150% 5 sec, 125% 15 sec <sup>*1</sup>
AFV-008	Interface Card (Ethernet/RS-232&RS-485/USB)
AFV-010	Remote Control Software

\*1 Please contact us for specifications.

### AFV Series Three-Phase Output (10kVA-2000kVA)

Model Number	Description
AFV-33010	High Power Programmable AC Power Source (10kVA/310V/45-120Hz)
AFV-33015	High Power Programmable AC Power Source (15kVA/310V/45-120Hz)
AFV-33030	High Power Programmable AC Power Source (30kVA/310V/45-120Hz)
AFV-33045	High Power Programmable AC Power Source (45kVA/310V/45-120Hz)
AFV-33060	High Power Programmable AC Power Source (60kVA/310V/45-120Hz)
AFV-33080	High Power Programmable AC Power Source (80kVA/310V/45-120Hz)
AFV-33100	High Power Programmable AC Power Source (100kVA/310V/45-120Hz)
AFV-33120	High Power Programmable AC Power Source (120kVA/310V/45-120Hz)
AFV-33160	High Power Programmable AC Power Source (160kVA/310V/45-120Hz)
AFV-33240	High Power Programmable AC Power Source (240kVA/310V/45-120Hz)
AFV-33300	High Power Programmable AC Power Source (300kVA/310V/45-120Hz)
AFV-33400	High Power Programmable AC Power Source (400kVA/310V/45-120Hz)
AFV-33500	High Power Programmable AC Power Source (500kVA/310V/45-120Hz)
AFV-33640	High Power Programmable AC Power Source (640kVA/310V/45-120Hz)
AFV-33800	High Power Programmable AC Power Source (800kVA/310V/45-120Hz)
AFV-331000	High Power Programmable AC Power Source (1000kVA/310V/45-120Hz)
AFV-331200	High Power Programmable AC Power Source (1200kVA/310V/45-120Hz)
AFV-331600	High Power Programmable AC Power Source (1600kVA/310V/45-120Hz)
AFV-001	Output Frequency 45Hz-500Hz
AFV-002	Soft Start Mode
AFV-003	Three Phase Independent Adjustment
AFV-004	Three Phase Angle Adjustment
AFV-005	GPIB Interface
AFV-006	Analog Control Interface
AFV-007	Overload Capability 200% 2 sec, 150% 5 sec, 125% 15 sec <sup>*1</sup>
AFV-008	Interface Card (Ethernet/RS-232&RS-485/USB)
AFV-010	Remote Control Software

\*1 Please contact us for specifications.