

All You Need for Voltage and Frequency Adjustment is Here

Economical AC Power Sources from Low to High Power

Providing clean sine wave AC power, the AFC series allows users to simulate all sorts of utility grid voltage and frequency for export product testing or operation of imported equipment. With a brand new appearance design, the new AFC series has not only improved electronic performance but also upgraded its user interface for a more intuitive control. The AFC series now provides measurements of voltage, current, frequency and power factor. The built-in hot key function allows quick memory recall and easy voltage and frequency setting.

**High Power
in the Enclosure**

3kVA-2000kVA

**6 Output
Hot Key**

Easy Set up and Recall

**RS-232 & RS-485
Remote Interfaces**

- Equipped With 7" Intuitive Large Touch Screen
- Emergency Stop Button for Better Protection
- Enhanced Measurement Display and Intuitive User Interface



AC Power Source/ Frequency Converter

RoHS
Compliant CE



Providing clean sine wave AC power, the AFC series allows users to simulate all sorts of utility grid voltage and frequency for export product testing or operation of imported equipment. With a brand new appearance design, the new AFC series has not only improved electronic performance but also upgraded its user interface with 7" touch screen and RS-232 and RS-485 for a more intuitive control. The AFC series now provides measurements of voltage, current, frequency and power factor. The built-in hot key function allows quick memory recall and easy voltage and frequency setting.

AFC series can simulate standard or abnormal voltage and frequency status. The maximum output power is up to 2000kVA in one unit instead of parallel. The output voltage range of 0-300V Output frequency is switchable: 45-65Hz continuously adjustable, 400Hz fixed. PWM high-frequency switching technology designed to provide pure sine wave output, with single-phase and three-phase output models. Unlike other power supplies in the market, AFC series is suitable for the Certified Bureau, the production and R&D of various industries including home appliances, electrical electronics, medical equipment and lighting.

Product Features

- Single-phase output models has the capacity range of 3-120kVA, three-phase output models has the capacity range of 5-2000kVA.
- CE & RoHS certification, with excellent performance in the safety ,electromagnetic compatibility.
- High input power factor, high efficiency of up to 92% at full load.
- The 7" LCD touch screen display includes output voltage, current, frequency, active/apparent power, power factor, test information.
- Modularized inverter which is compact, smaller, high power density and easy to maintain.
- Comprehensive protections which include overvoltage, overcurrent, overload, input under-voltage, overheat; the corresponding fault code will show and the buzzer will alarm, when protection is activated.
- Emergency stop button for quick output shutdown.



Output Power

3kVA~2000kVA

Interfaces

Standard **RS-232** **RS-485**

Applications

- Home Appliance
- Laboratory/Certification Bureau
- Industrial Power Supply
- Electric Vehicles
- Motor & Compressor
- IT / SMT Production Line
- Renewable Energy
- Medical Industry
- Shore Power & Shipbuilding

QR Code



Product
Info.

Friendly UI and Hot Key Group



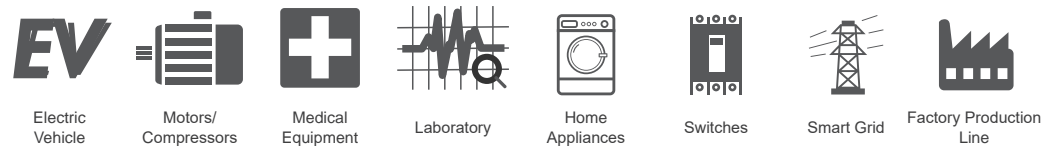
The new AFC series has updated with an enlarged touch screen that can make fine tune adjustment for parameters and changing values. With RS-232,RS-485 interface, AFC is able to be controlled remotely. The colorful display allows user to quickly recognize all the parameters including voltage, current and PF with 6 groups of hot key that can promptly switching at a glance.

Remote Control Interface with Multiple Protections



AFC series comes with 7" intuitive touch screen that can quickly setup and output through RS-232 and RS-485 interface. The complete protection can monitor UVP/OVP, OCP, OTP and promptly react to stop the output and display warnings and error code. It can also be done with manual emergency stop button to secure users safety.

Ideal Power Source for Various Industries



The AFC series AC power source is highly reliable and easy to operate, and it has been widely applied in production line, quality assurance and design verification. The multiple levels of frequency and wide range of output voltage is ideal for applications requiring voltage and frequency conversations. The unit can also be applied as isolation between DUT and the grid to reduce the interference from each side. These features make the AFC series ideal for home appliance, EMC chamber, motor and electronic industries.



Patent Module Design & CE Certified

The AFC series uses AC Power Corp.'s patent power module to greatly enhance its reliability and performance for high power model. It is CE certified and fulfill EMC and LVD requirements to ensure low interference to the DUT and the environment.

SPECIFICATIONS

AFC Series Single-Phase Output (3kVA - 30kVA)

Model	AFC-11003	AFC-11005	AFC-11010	AFC-11015	AFC-11030
INPUT					
Phase	1Ø / 2 Wire + G				
Voltage ¹	220V±15% (option: 100Vac or 120Vac)				
Frequency	50Hz ± 3Hz or 60Hz ± 3Hz				
Max. Current ²	21A	35A	69A	105A	210A
Power Factor	≥0.8 (Max. Power)		≥0.9 (Max. Power)		
OUTPUT					
Power (VA)	3kVA	5kVA	10kVA	15kVA	30kVA
Phase	1Ø / 2 Wire + G				
Voltage Ranges	Low(V)				
	High(V)				
Voltage Resolution	0.1V				
Voltage Accuracy	0.2% F.S.+ 4 counts				
Frequency Range ³	Standard : 45~65Hz Option : 400Hz				
Frequency Resolution	0.1Hz				
Frequency Accuracy	±0.1% F.S				
Max. Current (RMS)	Low(A)	41.7A	83.3A	125A	250A
	High(A)	12.5A	20.8A	41.7A	62.5A
Line Regulation	≤ 1%				
Load Regulation	≤ 1% (Resistive Load)				
Total Harmonic Distortion(THD)	≤ 2% (Resistive Load)				
Response Time	≤ 2ms				
MEASUREMENT					
Voltage Range	0V-600.0V				
Voltage Resolution	0.1V				
Voltage Accuracy	0.2% F.S.+ 4 counts				
Frequency Range	0~999.9Hz				
Frequency Resolution	0.1Hz				
Frequency Accuracy	±0.1% F.S				
Current Range(RMS)	0-700A				
Current Resolution(RMS)	0.01A(< 100A) / 0.1A(≥ 100A)				
Current Accuracy(RMS)	0.5% F.S.+4 counts				
Power Range	-	0-75kW			
Power Resolution	-	0.01kW(< 10kW) / 0.1kW(≥ 10kW)			
Power Accuracy	-	0.3% F.S.+4 counts			
GENERAL					
Efficiency	≥ 80% at Max. Power		≥ 90% at Max. Power		
HMI	Touch Screen, 7"Color TFT LCD				
Protection	Input : N.F.B, Over Voltage, Under Voltage, Output : Over Voltage, Over Current, Over Temperature				
Remote Interface	RS-485/RS-232				
Operational Temperature	0°C ~45°C				
Humidity	0~90% (Non condensing)				
Altitude	< 1,500m				
Dimensions (H x W x D) ⁴	720 x 430 x 520 mm (Including wheel) / 28.4 x 16.9 x 20.5 inch (Including wheel)		1045 x 600 x 850 mm (Including wheel) / 41.1 x 23.6 x 33.5 inch (Including wheel)		1440 x 600 x 850 mm (Including wheel) / 56.7 x 23.6 x 33.5 inch (Including wheel)
Weight ⁴	73kg	89kg	210kg	240kg	330kg
	161lbs	196.2lbs	463.1lbs	529.2lbs	727.7lbs

*1 Please contact us for other input voltage specifications. *2 The max. current is based on rated input voltage of 220V.

*3 For type A: 45~500Hz, please contact us for output power characteristic curve.

*4 Dimensions and weight are for input voltage 220V. 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

AFC Series Single-Phase Output (10kVA - 120kVA)

Model	AFC-31010	AFC-31015	AFC-31030	AFC-31045	AFC-31060	AFC-31080	AFC-31100	AFC-31120
INPUT								
Phase	3 Ø / 4 Wire + G							
Voltage ^{*1}	220/380Vac ±15% (option: 120/208Vac, 277/480Vac, 200Vac or 400Vac)							
Frequency	50Hz ± 3Hz or 60Hz ± 3Hz							
Max. Current ^{*2}	23A	32A	65A	97A	129A	198	247A	296A
Power Factor	≥ 0.9 (Max. Power)					≥ 0.85 (Max. Power)		
OUTPUT								
Power (VA)	10kVA	15kVA	30kVA	45kVA	60kVA	80kVA	100kVA	120kVA
Phase	1Ø / 2 Wire + G							
Voltage Ranges	Low(V)							
	High(V)							
Voltage Resolution	0.1V							
Voltage Accuracy	0.2% F.S.+4 counts							
Frequency Range ^{*3}	Standard : 45~65Hz Option : 400Hz							
Frequency Resolution	0.1Hz							
Frequency Accuracy	±0.1% F.S							
Max. Current (RMS)	Low(A)							
	High(A)							
Line Regulation	≤ 1%							
Load Regulation	≤ 1% (Resistive Load)							
Total HarmonicDistortion(THD)	≤ 2% (Resistive Load)							
Response Time	≤ 2ms							
MEASUREMENT								
Voltage Range	0V-600.0V							
Voltage Resolution	0.1V							
Voltage Accuracy	0.2% F.S.+4 counts							
Frequency Range	0-999.9Hz							
Frequency Resolution	0.1Hz							
Frequency Accuracy	±0.1% F.S.							
Current Range(RMS)	0-9999A							
Current Resolution(RMS)	0.01A(< 100A) / 0.1A(≥ 100A)							
Current Accuracy(RMS)	0.5% F.S.+4 counts							
Power Range	0-75kW					-		
Power Resolution	0.01kW(< 10kW) / 0.1kW(≥ 10kW)					-		
Power Accuracy	0.3% F.S.+4 counts					-		
GENERAL								
Efficiency	≥ 90% at Max. Power					≥ 85% at Max. Power		
HMI	Touch Screen, 7"Color TFT LCD							
Protection ^{*4}	Input : N.F.B, Over Voltage, Under Voltage, Output : Over Voltage, Over Current, Over Temperature							
Remote Interface	RS-485/RS-232							
Operational Temperature	0°C~45°C							
Humidity	0~90% (Non condensing)							
Altitude	< 1,500m							
Dimensions (H x W x D) ^{*4}	1045 x 600 x 850 mm (Including wheel) / 41.1 x 23.6 x 33.5 inch (Including wheel)	1440 x 600 x 850 mm (Including wheel) / 56.7 x 23.6 x 33.5 inch (Including wheel)	1645 x 800 x 860 mm (Including wheel) / 64.8 x 31.5 x 33.9 inch (Including wheel)	1800 x 1050 x 970 mm / 70.9 x 41.3 x 38.2 inch	1900 x 1150 x 1240 mm/ 74.8 x 45.3 x 48.8 inch			
Weight ^{*4}	230kg	280kg	450kg	580kg	670kg	830kg	940kg	1100kg
	507.2lbs	617.4lbs	992.3lbs	1278.9lbs	1477.4lbs	1830.2lbs	2072.7lbs	2425.5lbs

*1 Please contact us for other input voltage specifications. *2 The max. current is based on rated input voltage of 220V.

*3 For type A: 45~500Hz, please contact us for output power characteristic curve.

*4 Dimensions and weight are for input voltage 220V. 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

AFC Series Three-Phase Output (5kVA - 120kVA)

Model	AFC-33005	AFC-33010	AFC-33015	AFC-33030	AFC-33045	AFC-33060	AFC-33080	AFC-33100	AFC-33120	
INPUT										
Phase	3Ø / 4 Wire + G (option: 3Ø / 3 Wire + G)									
Voltage ^{*1}	220/380Vac ±15% (option: 120/208Vac, 277/480Vac, 240Vac, 200Vac or 400Vac)									
Frequency	50Hz ± 3Hz or 60Hz ± 3Hz									
Max. Current ^{*2}	11A	23A	32A	65A	97A	129A	198A	247A	296A	
Power Factor	≥0.9 (Max. Power)						≥0.85 (Max. Power)			
OUTPUT										
Power (VA)	5kVA	10kVA	15kVA	30kVA	45kVA	60kVA	80kVA	100kVA	120kVA	
Phase	3Ø / 4 Wire + G									
Voltage Ranges	Low(V)									
	High(V)									
Voltage Resolution	0.1V									
Voltage Accuracy	0.2% F.S.+4 counts									
Frequency Range ^{*3}	Standard :45~65Hz Option : 400Hz									
Frequency Resolution	0.1Hz									
Frequency Accuracy	±0.1% F.S.									
Max. Current (RMS)	Low(A)	13.9A	27.8A	41.7A	83.3A	125A	166.7A	222.2A	277.8A	333.3A
	High(A)	6.9A	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)	≤ 2% (Resistive Load)									
Response Time	≤ 2ms									
MEASUREMENT										
Voltage Range	0V-600.0V									
Voltage Resolution	0.1V									
Voltage Accuracy	0.2% F.S.+4 counts									
Frequency Range	0~999.9Hz									
Frequency Resolution	0.1Hz									
Frequency Accuracy	±0.1% F.S.									
Current Range(RMS)	0-9999A									
Current Resolution(RMS)	0.01A(< 100A) / 0.1A(≥ 100A)									
Current Accuracy(RMS)	0.5% F.S.+4 counts									
Power Range	0-75kW						-			
Power Resolution	0.01kW(< 10kW) / 0.1kW(≥ 10kW)						-			
Power Accuracy	0.3% F.S.+4 counts						-			
GENERAL										
Efficiency	≥ 90% at Max. Power						≥ 85% at Max. Power			
HMI	Touch Screen, 7"Color TFT LCD									
Protection ^{*4}	Input : N.F.B, Over Voltage, Under Voltage, Output : Over Voltage, Over Current, Over Temperature									
Remote Interface	RS-485/RS-232									
Operational Temperature	0°C~45°C									
Humidity	0~90% (Non condensing)									
Altitude	< 1,500m									
Dimensions (H x W x D) ^{*4}	1045 x 600 x 850 mm (Including wheel) / 41.1 x 23.6 x 33.5 inch (Including wheel)	1440 x 600 x 850 mm (Including wheel) / 56.7 x 23.6 x 33.5 inch (Including wheel)			1645 x 800 x 860 mm (Including wheel) / 64.8 x 31.5 x 33.9 inch (Including wheel)		1800 x 1050 x 970 mm / 70.9 x 41.3 x 38.2 inch		1900 x 1150 x 1240 mm / 74.8 x 45.3 x 48.8 inch	
Weight ^{*4}	200kg	280kg	305kg	400kg	560kg	670kg	1000kg	1120kg	1240kg	
	441lbs	617.4lbs	672.5lbs	882lbs	1234.8lbs	1477.35lbs	2205lbs	2469.6lbs	2734.2lbs	

*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 rated input voltage of 380V.

*3 For type A: 45~500Hz, please contact us for output power characteristic curve. *4 Dimensions and weight are for input voltage 220/380V(3Ø/4W+G). 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

AFC Series Three-Phase Output (160kVA - 640kVA)

Model	AFC-33160	AFC-33200	AFC-33240	AFC-33300	AFC-33400	AFC-33500	AFC-33640
INPUT							
Phase	3Ø / 4 Wire + G (option: 3Ø / 3 Wire + G)						
Voltage ^{*1}	220/380Vac ±15% (option: 120/208Vac, 277/480Vac, 240Vac, 200Vac or 400Vac)						
Frequency	50Hz ± 3Hz or 60Hz ± 3Hz						
Max. Current ^{*2}	395A	493A	593A	769A	1025A	1282A	1579A
Power Factor	≥0.85 (Max. Power)						
OUTPUT							
Power (VA)	160kVA	200kVA	240kVA	300kVA	400kVA	500kVA	640kVA
Phase	3Ø / 4 Wire + G						
Voltage Ranges	Low(V)						
	High(V)						
Voltage Resolution	0.1V						
Voltage Accuracy	0.2% F.S.+ 4counts						
Frequency Range ^{*3}	Standard : 45~65Hz Option : 400Hz						
Frequency Resolution	0.1Hz						
Frequency Accuracy	±0.1% F.S.						
Max. Current (RMS)	Low(A)	333.3A	555.6A	666.7A	833.3A	1111.1A	1388.9A
	High(A)	166.7A	277.8A	333.3A	416.7A	555.6A	694.4A
Line Regulation	≤ 1%						
Load Regulation	≤ 1% (Resistive Load)						
Total Harmonic Distortion(THD)	≤ 2% (Resistive Load)						
Response Time	≤ 2ms						
MEASUREMENT							
Voltage Range	0V-600.0V						
Voltage Resolution	0.1V						
Voltage Accuracy	0.2% F.S.+4 counts						
Frequency Range	0~999.9Hz						
Frequency Resolution	0.1Hz						
Frequency Accuracy	±0.1% F.S.						
Current Range(RMS)	0-9999A						
Current Resolution(RMS)	0.01A(< 100A) / 0.1A(≥ 100A)						
Current Accuracy(RMS)	0.5% F.S.+4 counts						
Power Range	-						
Power Resolution	-						
Power Accuracy	-						
GENERAL							
Efficiency	≥ 85% at Max. Power						
HMI	Touch Screen, 7"Color TFT LCD						
Protection	Input : N.F.B, Over Voltage, Under Voltage, Output : Over Voltage, Over Current, Over Temperature						
Remote Interface	RS-485/RS-232						
Operational Temperature	0°C~45°C						
Humidity	0~90% (Non condensing)						
Altitude	< 1,500m						
Dimensions (H x W x D) ^{*4}	1900 x 1150 x 1240 mm / 74.8 x 45.3 x 48.8 inch			2050 x 3880x 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
Weight ^{*4}	1850kg	2300kg	2800kg	3450kg	4450kg	5550kg	7800kg
	4079.3lbs	5071.5lbs	6174lbs	7607.25lbs	9812.25lbs	12237.8lbs	17199lbs

*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 rated input voltage of 380V.

*3 For type A: 45~500Hz, please contact us for output power characteristic curve.

*4 Dimensions and weight are for input voltage 220/380V(3Ø/4W+G). 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.

ORDERING INFORMATION

AFC Series Single-Phase Output (3kVA - 150kVA)

Model Number	Description
AFC-11003	AC Power Source (3kVA/300V/45-65Hz)
AFC-11005	AC Power Source (5kVA/300V/45-65Hz)
AFC-11010	High Power Programmable AC Power Source (10kVA/300V/45-65Hz)
AFC-11015	High Power Programmable AC Power Source (15kVA/300V/45-65Hz)
AFC-11030	High Power Programmable AC Power Source (30kVA/300V/45-65Hz)
AFC-31010	High Power Programmable AC Power Source (10kVA/300V/45-65Hz)
AFC-31015	High Power Programmable AC Power Source (15kVA/300V/45-65Hz)
AFC-31030	High Power Programmable AC Power Source (30kVA/300V/45-65Hz)
AFC-31045	High Power Programmable AC Power Source (45kVA/300V/45-65Hz)
AFC-31060	High Power Programmable AC Power Source (60kVA/300V/45-65Hz)
AFC-31080	High Power Programmable AC Power Source (80kVA/300V/45-65Hz)
AFC-31100	High Power Programmable AC Power Source (100kVA/300V/45-65Hz)
AFC-31120	High Power Programmable AC Power Source (120kVA/300V/45-65Hz)

AFC Three-Phase Output(3kVA - 640kVA)

Model Number	Description
AFC-33005	High Power Programmable AC Power Source (5kVA/300V/45-65Hz)
AFC-33010	High Power Programmable AC Power Source (10kVA/300V/45-65Hz)
AFC-33015	High Power Programmable AC Power Source (15kVA/300V/45-65Hz)
AFC-33030	High Power Programmable AC Power Source (30kVA/300V/45-65Hz)
AFC-33045	High Power Programmable AC Power Source (45kVA/300V/45-65Hz)
AFC-33060	High Power Programmable AC Power Source (60kVA/300V/45-65Hz)
AFC-33080	High Power Programmable AC Power Source (80kVA/300V/45-65Hz)
AFC-33100	High Power Programmable AC Power Source (100kVA/300V/45-65Hz)
AFC-33120	High Power Programmable AC Power Source (120kVA/300V/45-65Hz)
AFC-33160	High Power Programmable AC Power Source (160kVA/300V/45-65Hz)
AFC-33200	High Power Programmable AC Power Source (200kVA/300V/45-65Hz)
AFC-33240	High Power Programmable AC Power Source (240kVA/300V/45-65Hz)
AFC-33300	High Power Programmable AC Power Source (300kVA/300V/45-65Hz)
AFC-33400	High Power Programmable AC Power Source (400kVA/300V/45-65Hz)
AFC-33500	High Power Programmable AC Power Source (500kVA/300V/45-65Hz)
AFC-33640	High Power Programmable AC Power Source (640kVA/300V/45-65Hz)
AFC-002	400Hz Fixed
AFC-006	Overload Capability 200% 2 sec,150% 5 sec,125% 15 sec