



AFC Series

AC Power Source

0.5kVA~800kVA

(Over 800 kVA made by request)

Leading Test & Measurement Power Supply Provider



ISO 9001:2008



AC POWER CORP.

Address: 3F., No.200, Gangqian Road,
Neihu District, Taipei 11494, Taiwan
<http://www.acpower.net>
E-mail: sales@acpower.net

AFC -

Frequency Converter

3
Input Phase
3

1
Output Phase
1

030
Capacity
30kVA

T
Input Voltage
220/380Vac

[Please refer to Form 1 at P.5]

AFC Series - Single Phase In-Single Phase Out (0.5~30kVA)

Model		AFC-500W	AFC-1KW	AFC-11003	AFC-11005	AFC-11010	AFC-11015	AFC-11020	AFC-11030	
Capacity(kVA)		0.5	1	3	5	10	15	20	30	
Circuit Type		Transistor amplifier type			IGBT/PWM type					
Input	Phase	Single phase								
	Wave	Sine wave								
	Voltage	110V, 120V, 220V or 277V			120V, 220V, or 277V ①					
	Voltage range	110V,120V, 220V or 277V±15%			120V±15%, 220V±15%, or 277V±15%					
	Frequency range	50Hz±3Hz or 60Hz±3Hz								
	Power factor	0.85								
Output	Phase	Single phase								
	Wave	Sine wave								
	Voltage	Low	0 ~ 150V (L-N)			5V ~ 150V (L-N)				
		High	0 ~ 300V (L-N)			10V ~ 300V (L-N)				
	Frequency	47 ~ 63Hz, 50Hz, 60Hz; 2F, 4F, 400Hz (Option) ②								
	Frequency regulation	≤0.01%								
Max.current	High (A)	2.1	4.2	12.5	20.8	41.7	62.5	83.3	125.0	
	Low (A)	4.2	8.4	25	41.7	83.3	125.0	166.7	250.0	
System	Line regulation	≤0.5%			<1%					
	Load regulation	≤±0.5%			<±1% (Linear load)					
	Total harmonic distortion(THD)	≤0.5%			<2% (Linear load)					
	Efficiency	≥70%			≥90%					
	Response time	≤50 μs			≤2ms					
	Crest factor	1.4 : 1			3 : 1					
Protection device	Input no-fuse breaker, output no-fuse breaker, electronic circuit instant trip for over/low voltage, over current, over load, over temperature and short circuit protection and alarm system			Input no-fuse breaker, electronic circuit instant trip for over/low voltage, over current, over load, over temperature and short circuit protection and alarm system						
Indicator	Display	LED								
	Voltage	Analytic degree: 0.1V			Show range: 0~600V, analytic degree: 0.1V, accurate degree: 0.15%FS+4COUNT					
	Current	0.001A	0.01A	Show range: 0 ~ 700A, analytic degree: 0.01A (<100A) / 0.1A (≥100A), accurate degree: 0.2%FS+4COUNT						
	Power	0.1W	1W	Show range: 3kW ~ 75kW, analytic degree: 0.01kW (<10kW) / 0.1kW (≥10kW), accurate degree: 0.3%FS+4COUNT						
	Frequency	Analytic degree: 0.1Hz			Show range: 0~999.9Hz, analytic degree: 0.1Hz, accurate degree: 0.1%					
Environmental	Insulation resistance	≥DC500V 10MΩ								
	Withstand voltage insulation	AC 1800V 10mA/1 Min								
	Cooling system	Fan cooling								
	Temperature	0℃ ~ 45℃								
	Humidity	0 ~ 90% (Non-condensing)								
Altitude	≤1500m									
Case No.	①	②			③		④			
Weight (Lb / Kg)	97 / 44	195 / 89	160 / 73	195 / 89	460 / 210	530 / 240	615 / 280	725 / 330		

Remarks: ① As to the required voltage, please refer to form 1 at page 5;

② F= Input Frequency (Hz);

③ Custom-made specifications are discussible;

④ All specifications are subject to change without prior notice.

Case No. of AFC Series (0.5~75kVA)

[Unit: inch / mm (Width×Depth×Height)]



AFC Series - Three Phase In-Single Phase Out (10~75kVA)

Model	AFC-31010	AFC-31015	AFC-31020	AFC-31030	AFC-31045	AFC-31060	AFC-31075	
Capacity(kVA)	10	15	20	30	45	60	75	
Circuit Type	IGBT/PWM type							
Input	Phase	Three phase						
	Wave	Sine wave						
	Voltage	120V/208V, 220V/380V, or 277V/480V ①						
	Voltage range	120V/208V±15%, 220V/380V±15%, or 277V/480V±15%						
	Frequency range	50Hz±3Hz or 60Hz±3Hz						
	Power factor	0.85						
Output	Phase	Single phase						
	Wave	Sine wave						
	Voltage	Low	5V ~ 150V (L-N)					
		High	10V ~ 300V (L-N)					
	Frequency	47 ~ 63Hz, 50Hz, 60Hz; 2F, 4F, 400Hz (Option) ②						
	Frequency regulation	≤0.01%						
Max.current	High (A)	41.7	62.5	83.3	125.0	187.5	250.0	312.5
	Low (A)	83.3	125.0	166.7	250.0	375.0	500.0	625.0
System	Line regulation	<1%						
	Load regulation	±1% (Linear load)						
	Total harmonic distortion(THD)	2% (Linear load)						
	Efficiency	≥90%						
	Response time	≤2ms						
	Crest factor	3 : 1						
	Protection device	Input no-fuse breaker, electronic circuit instant trip for over/low voltage, over current, over load, over temperature and short circuit protection and alarm system						
Indicator	Display	LED						
	Voltage	Show range: 0~600V, analytic degree: 0.1V, accurate degree: 0.15%FS+4COUNT						
	Current	Show range: 0 ~ 700A, analytic degree: 0.01A (<100A) / 0.1A (≥100A), accurate degree: 0.2%FS+4COUNT						
	Power	Show range: 3kW ~ 75kW, analytic degree: 0.01kW (<10kW) / 0.1kW (≥10kW), accurate degree: 0.3%FS+4COUNT						
	Frequency	Show range: 0~999.9Hz, analytic degree: 0.1Hz, accurate degree: 0.1%						
Environmental	Insulation resistance	≥DC500V 10MΩ						
	Withstand voltage insulation	AC 1800V 10mA/1 Min						
	Cooling system	Fan Cooling						
	Temperature	0℃ ~ 45℃						
	Humidity	0 ~ 90% (Non-condensing)						
	Altitude	≤1500m						
Case No.	③		④		⑤			
Weight (Lb / Kg)	460 / 210	530 / 240	640 / 290	750 / 340	1190 / 540	1340 / 610	1470 / 670	

Remarks: ① As to the required voltage, please refer to form 1 at page 5;
 ② F = Input Frequency (Hz);
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AFC Series - Three Phase In-Three Phase Out (6~75kVA)

Model		AFC-33006	AFC-33010	AFC-33015	AFC-33020	AFC-33030	AFC-33045	AFC-33060	AFC-33075	
Capacity(kVA)		6	10	15	20	30	45	60	75	
Circuit Type		IGBT/PWM type								
Input	Phase	Three phase								
	Wave	Sine wave								
	Voltage	120V/208V, 220V/380V, or 277V/480V ^①								
	Voltage range	120V/208V±15%, 220V/380V±15%, or 277V/480V±15%								
	Frequency range	50Hz±3Hz or 60Hz±3Hz								
	Power factor	0.9								
Output	Phase	Three phase								
	Wave	Sine wave								
	Voltage	Low	5V ~ 150V (L-N)							
		High	10V ~ 300V (L-N)							
	Frequency	47 ~ 63Hz, 50Hz, 60Hz; 2F, 4F, 400Hz (Option) ^②								
	Frequency regulation	≤0.01%								
Max.current	High (A)	8.3	13.9	20.8	27.8	41.7	62.5	83.3	104.2	
	Low (A)	16.7	27.8	41.7	55.6	83.3	125.0	166.7	208.3	
System	Line regulation	<1%								
	Load regulation	±1% (Linear load)								
	Total harmonic distortion(THD)	2% (Linear load)								
	Efficiency	≥90%								
	Response time	≤2ms								
	Crest factor	3 : 1								
Protection device	Input no-fuse breaker, electronic circuit instant trip for over/low voltage, over current, over load, over temperature and short circuit protection and alarm system									
Indicator	Display	LED								
	Voltage	Show range: 0~600V, analytic degree: 0.1V, accurate degree: 0.15%FS+4COUNT								
	Current	Show range: 0 ~ 700A, analytic degree: 0.01A (<100A) / 0.1A (≥100A), accurate degree: 0.2%FS+4COUNT								
	Power	Show range: 3kW ~ 75kW, analytic degree: 0.01kW (<10kW) / 0.1kW (≥10kW), accurate degree: 0.3%FS+4COUNT								
	Frequency	Show range: 0~999.9Hz, analytic degree: 0.1Hz, accurate degree: 0.1%								
Environmental	Insulation resistance	≥DC500V 10MΩ								
	Withstand voltage insulation	AC 1800V 10mA/1 Min								
	Cooling system	Fan Cooling								
	Temperature	0°C ~ 45°C								
	Humidity	0 ~ 90% (Non-condensing)								
	Altitude	≤1500m								
Case No.	^③			^④			^⑤			
Weight (Lb / Kg)	440 / 200	500 / 230	660 / 300	680 / 310	860 / 390	1210 / 550	1270 / 580	1470 / 670		

Remarks: ^① As to the required voltage, please refer to form 1 at page 5;
^② F= Input Frequency (Hz);
^③ Custom-made specifications are discussible;
^④ All specifications are subject to change without prior notice.

Case No. of AFC Series (100~800kVA)

[Unit: inch / mm (Width×Depth×Height)]



AFC Series - Three Phase In-Single Phase Out/Three Phase In-Three Phase Out (100~800kVA)

Model	AFC-31100	AFC-31120	AFC-31150	AFC-33100	AFC-33120	AFC-33150	AFC-33200	AFC-33250	AFC-33300	AFC-33400	AFC-33450	AFC-33500	AFC-33600	AFC-33800		
Capacity(kVA)	100	120	150	100	120	150	200	250	300	400	450	500	600	800		
Circuit Type	IGBT/PWM type															
Input	Phase	Three phase														
	Wave	Sine wave														
	Voltage	120V/208V, 220V/380V, or 277V/480V ①														
	Voltage range	120V/208V±15%, 220V/380V±15%, or 277V/480V±15%														
	Frequency range	50Hz±3Hz or 60Hz±3Hz														
	Power factor	0.80						0.85								
Output	Phase	Single phase						Three phase								
	Wave	Sine wave														
	Voltage	Low	5V ~ 150V (L-N)													
		High	10V ~ 300V (L-N)													
	Frequency	47 ~ 63Hz, 50Hz, 60Hz; 2F, 4F, 400Hz (Option) ②														
	Frequency regulation	≤0.01%														
Max.current	High (A)	416.7	500.0	625.0	138.9	166.7	208.3	277.8	347.2	416.7	555.6	625.0	694.4	833.3	1111.1	
	Low (A)	833.3	1000.0	1250.0	277.8	333.3	416.7	555.6	694.4	833.3	1111.1	1250.0	1388.9	1666.7	2222.2	
System	Line regulation	<2%														
	Load regulation	±1% (Linear load)														
	Total harmonic distortion(THD)	3% (Linear load)														
	Efficiency	≥85%														
	Response time	≤2ms														
	Crest factor	3 : 1														
	Protection device	Input no-fuse breaker, electronic circuit instant trip for over/low voltage, over current, over load, over temperature and short circuit protection and alarm system														
Indicator	Display	LED														
	Voltage	Show range: 0 ~ 600V, analytic degree: 0.1V, accurate degree: 0.2%FS+1COUNT														
	Current	Show range: 0 ~ 9999A, analytic degree: 0.01A (<100A) / 0.1A (≥100A), accurate degree: 0.2%FS+1COUNT														
	Frequency	Show range: 40 ~ 600Hz, analytic degree: 0.01Hz (<100Hz) / 0.1Hz (≥100Hz), accurate degree: ±0.02 / 0.2Hz														
Environmental	Insulation resistance	≥ DC500V 10MΩ														
	Withstand voltage insulation	AC 1800V 10mA/1 Min														
	Cooling system	Fan cooling														
	Temperature	0℃ ~ 45℃														
	Humidity	0 ~ 90% (Non-condensing)														
	Altitude	≤1500m														
Case No.	⑥	⑦		⑥		⑦		⑧		⑨						
Weight (Lb / Kg)	1980/900	2540/1154	2970/1350	1880/856	2270/1031	3010/1365	3330/1514	5000/2273	6040/2741	6700/3039	8798/3990	9080/4118	9795/4442	10760/4880		

Remarks: ① As to the required voltage, please refer to form 1 at page 5;

② F= Input Frequency (Hz);

③ Custom-made specifications are discussible;

④ All specifications are subject to change without prior notice.



Form 1: AFC Input Voltage Range

A	100 V	1Ø 2W+G
B	110 V	
C	115 V	
D	120 V	
E	200 V	1Ø 2W+G or 3Ø 3W+G (Δ-connection)
F	208 V	
G	220 V	
H	230 V	
I	240 V	
J	380 V	
K	400 V	3Ø 3W+G (Δ-connection)
L	415 V	
M	440 V	
N	480 V	

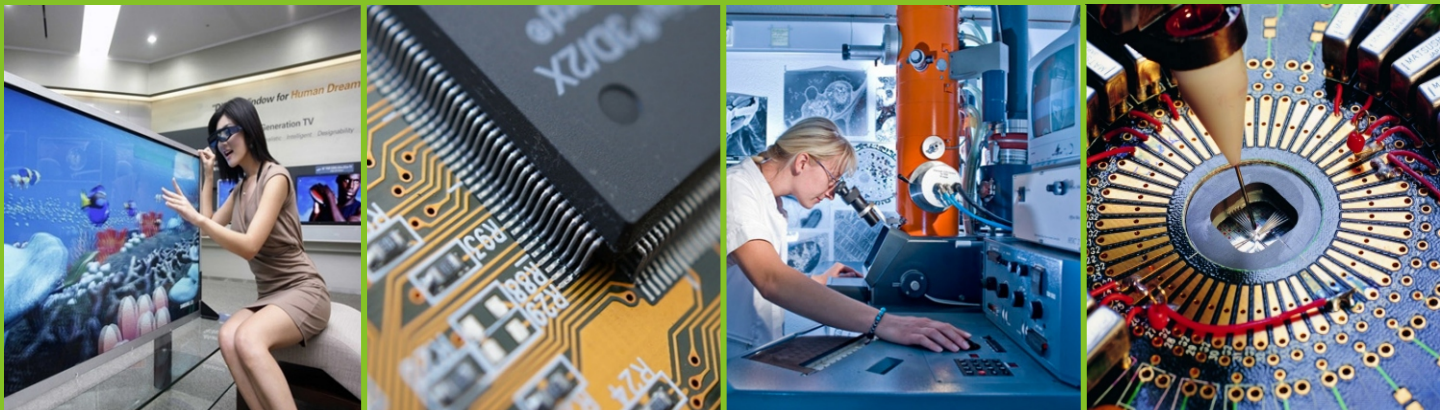
O	110/190 V	3Ø 4W+G or 3Ø 3W+N+G (Y-connection)	
P	115/200 V		
Q	120/208 V		
R	127/220 V		
T	220/380 V		
U	230/400 V		
V	240/415 V		
W	254/440 V		
X	100/200 V		1Ø 3W+G
Y	110/220 V		
Z	115/230 V		

* Other Input Voltages not listed in this form are all **S** (Special Specification) type.

AFC Series General Features

- One key for shutdown when fault.
- Quick response speed:
Response time $\leq 2\text{ms}$.
- High accurate measurement for parameter:
Voltage — 0.15%FS+4COUNT;
Current — 0.2%FS+4COUNT;
Frequency — 0.1%;
Power — 0.3%FS+4COUNT.
- Output voltage: 5~300V Continuous adjustable.
Quick & convenient 3 scales of preset voltage for high and low voltage simulation:
High: +10%~+25% of preset voltage;
Medium: preset voltage;
Low: -10%~-30% of preset voltage.
- Pure output sine-wave.
(Please see specification table)
- Well protection and fault alarm function:
Input no-fuse breaker;
electronic circuit instant trip for over voltage, over current, over load, over temperature, short circuit protection; alarm system.
- Power module design patent.





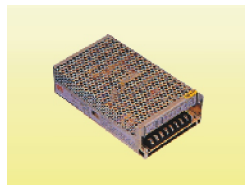
Application



Microwave oven



Air conditioner



Switching Power Supply



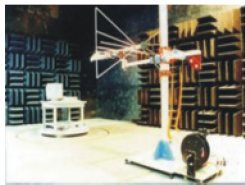
Compressor for Air Conditioner



Motor



Transformer



EMC Testing



Life Testing



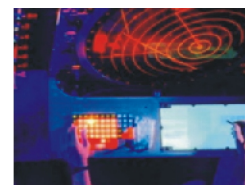
Product R & D



Ship



Airport Grounding Facilities



Navigation

Home Electrical Appliances Manufacturers

- Air Conditioner
- Washing Machine
- Blender
- Microwave Oven
- Radio Recorder
- Refrigerator
- DVD
- Vacuum Cleaner
- Electric Shaver

Electric & Electronic Manufactures

- Switching Power Supply Testing
- Transformer
- Ballast (in Bulb, Fluorescent Lamp)
- AC Fan
- Uninterruptible Power Supply
- Charger, Relay
- Compressor
- Passive Components
- Motor

IT Field

- OA Equipment
- Computer
- Monitor
- Fax Machine
- Copy Machine
- Shredder
- Printer
- Scanner
- Peripherals

General Lab

- AC Power Source Testing
- Life & Safety Test
- EMC Test
- OQC (FQC) Test
- Product Test
- Product Research & Development

Others

- Airport Grounding Facilities
- Airport Terminal, Control Tower, Apron
- Avionics Equipment
- Air Force System Diagnostics
- Military System Diagnostics
- Navy System Diagnostics
- Marine System
- Satellite Navigator
- 400Hz Equipment & Instruments

AC Power Corp. offers products widely applied in multi-professional fields and provides the best power solutions to customers. Our mission is to satisfy customers' demand by considering the whole conditions including power environment, loading allocation, module solution alternative, thoughtful design, lean and efficient manufacturing, timely and comprehensive maintenance.

Leading Test & Measurement Power Supplies Provider



Preen®

AC POWER CORP.

Address: 3F., No.200, Gangqian Road,
Neihu District, Taipei 11494, Taiwan
<http://www.acpower.net>
E-mail: sales@acpower.net

Headquarters: Taipei
Branch Offices: Taipei Taichung Kaohsiung
Tianjin Beijing Qingdao Ji'nan Shenyang Xi'an
Suzhou Shanghai Nanjing Kunshan Chengdu Chongqing
Guangzhou Shenzhen Dongguan Xiamen Fuzhou
Service Center: Irvine, USA



[Service Telephone]

USA: +1-949-988 7799
Taipei: +886-2-2627 1899
Suzhou: +86-512-6809 8868
Tianjin: +86-22-8398 3777

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