



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.

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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-11002	AFC-11003	AFC-11005	AFC-11008	AFC-11010	AFC-11015	AFC-11020	AFC-11030	
Capacity(kVA)		0.5	1	2	3	5	8	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	8.3	12.5	20.8	33.3	41.7	62.5	83.3	125.0
		Low (A)	4.2	8.4	16.7	25	41.7	66.7	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										
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	150 / 68	160 / 73	195 / 89	440 / 200	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); Please consult our sales for detail.
 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 ❶						
	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) ❷						
	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%						
Environ-mental	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.			❸		❹		❺		
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);Please consult our sales for detail.
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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 ❶							
	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) ❷							
	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%							
Environ-mental	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.			❸		❹			❺		
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);Please consult our sales for detail.
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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 ❶															
	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) ❷															
	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															
Environ-mental	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.		❸	❹			❺			❻			❼			❽		
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);Please consult our sales for detail.

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	1Ø2W+G
B	110 V	
C	115 V	
D	120 V	
E	200 V	1Ø2W+G or 3Ø3W+G (Δ-connection)
F	208 V	
G	220 V	
H	230 V	
I	240 V	3Ø3W+G (Δ-connection)
J	380 V	
K	400 V	
L	415 V	
M	440 V	
N	480 V	

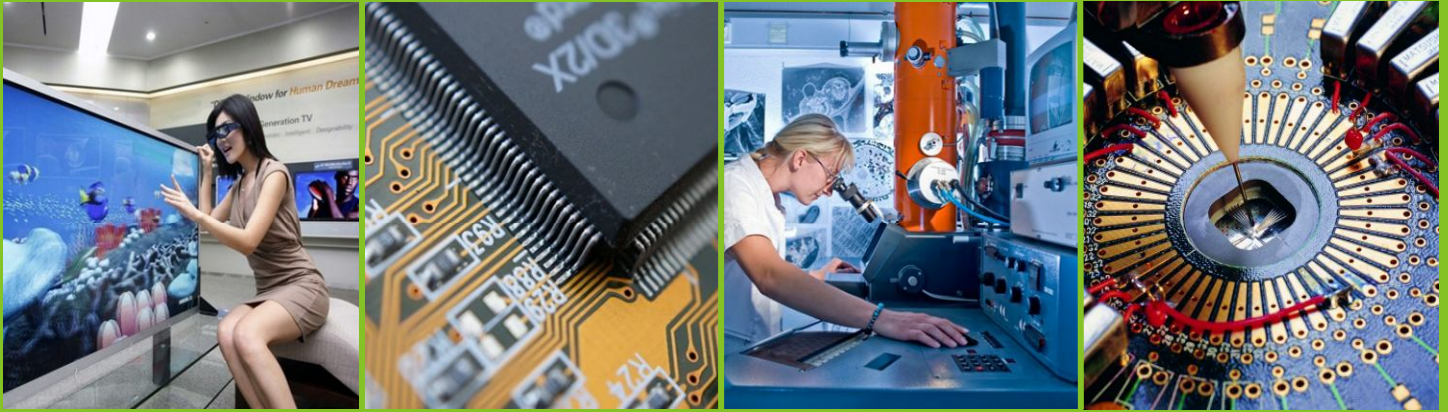
O	110/190 V	3Ø4W+G or 3Ø3W+N+G (Y-connection)
P	115/200 V	
Q	120/208 V	
R	127/220 V	
T	220/380 V	
U	230/400 V	
V	240/415 V	
W	254/440 V	
X	100/200 V	1Ø3W+G
Y	110/220 V	
Z	115/230 V	

* 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.





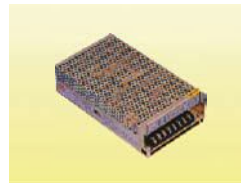
Application



Microwave oven



Air conditioner



Switching Power Supply



Compressor for Air Conditioner



Motor



Transformer



EMC Testing



Life Testing



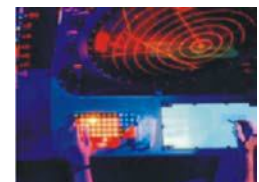
Product R & D



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

- OAEquipment
- 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®

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