# AC POWER SYSTEMS CATALOG



# LOW POWER BENCH AC

500VA and 1000VA 150V / 300V Ranges 45 - 500Hz

# SINGLE PHASE AC & DC

600VA to 5000VA 150/300Vac & 212/424Vdc DC, 15 - 1200Hz

# **THREE PHASE AC & DC**

3kVA and 6kVA 150/300Vac & 210/420Vdc DC, 40 - 1000Hz

## **HIGH POWER SYSTEMS**

3kVA to 180kVA 150V / 300V / 600V 45 - 500Hz

# "Your Best Choice in Power"



# ADAPTIVE POWER SYSTEMS

www.adaptivepower.com

## **Company Profile**

Adaptive Power Systems (APS) was created in 2003 to manufacture and distribute a complete and extensive line of AC and DC power equipment to meet world-wide applications. Our equipment is sold by independent sales representatives and distributors throughout the world.

Adaptive Power Systems' products are designed to fill the needs of power conversion for either AC or DC applications.

- Our AC to AC converters provide frequencies and voltages found around the world and also for military avionics/shipboard applications. The APS Frequency changer product range is available in power levels from 500 VA to 180 kVA, single- and three-phase output.
- For DC power requirements, we offer a broad range of highly efficient and compact programmable AC/DC power supplies for banch or rack mount use ranging from 2000 Watts to 100's of kild



bench or rack mount use ranging from 3000 Watts to 100's of kilo Watts. A wide selection of power levels and voltage ranges to choose from ensures optimal solutions at very competitive prices.

• In addition to AC and DC power sources, we offer a range of AC and DC programmable electronic loads for a wide range of power test and development applications. You can find these products on the subsequent pages of this Electronic Load Catalog.

Adaptive Power Systems' customer base consists of major U.S. and international corporations. Markets served include production test, household appliance and consumer product manufacturing, defense, commercial aviation, telecommunications, semiconductor manufacturing, industrial manufacturing and compliance test agencies.

With design, manufacturing, sales and service centers around the world, Adaptive Power Systems is a global provider of affordable power test solutions. Put us to the test.

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### FC200 SERIES - BENCH TOP VOLTAGE & FREQUENCY CHANGERS

### **FC200 SERIES**

The series consists of two single phase output instruments in sizes of 500VA and 1kVA. The solid state frequency changers allow the user to duplicate a utility grid of either 50 or 60 Hertz for export product testing or operation of imported equipment.

The frequency can also be adjusted to 400 Hertz for applications such as the testing of military/avionics equipment or for the operation of 400 hertz electronics that are on board an aircraft or a military vessel.

The adjustable frequency band of 45 to 500 Hertz in conjunction with the dual voltage ranges of 0-150 volts or 0-300 volts provides full capabilities for testing and operating electronics worldwide.

Setup and operation of the FC200 Series is exceptionally easy. The simple front panel layout allows users to continuously vary voltage and frequency or to select preset standard frequency settings. Individual meter displays provide digital readouts for frequency, voltage and current while a digital multimeter displays power or power factor.

The FC200 Series converters are a simple and cost effective solution for all of your AC power conversion needs!

Bench Top Power: 500VA or 1000VA Voltage: 0-150V / 0-300V Frequency: 45-500Hz



#### FC200 SERIES MODELS

MODEL	RATED POWER (VA)	FREQ RANGE (Hz)	VOLTAGE (VL-N)	CURRENT (A)	AC INPUT POWER	HEIGHT
FC205	500	45 - 500	0-150 / 0-300	4.2 / 2.1	115V/230V, 47-63 Hz	2U
FC210	1000	45 - 500	0-150 / 0-300	8.4 / 4.2	115V/230V, 47-63 Hz	2U

#### **TECHNICAL SPECIFICATIONS**

ΑС ΟυΤΡυΤ	r	FC205	FC210			
Power		500 VA	1000 VA			
<b>Output Phas</b>	ses	1ø, 2 Wire	+ ground			
Voltage	Ranges	Low: 0-150VL-N,	High: 0-300VL-N			
	Resolution	0.	1 V			
	Accuracy	± ( 0.5% of se	etting + 0.2 V )			
Load Regula	tion	± 0.5%				
Harmonic Di	istortion (Vthd)	$\leq$ 0.5% ( Resistance Load )				
Frequency	Range	45 - 500 Hz				
	Resolution	0.1 Hz at 45 - 99.9 Hz 1 Hz at 100 - 500 Hz				
	Accuracy	± 0.2%				
Current	150V range	4.2 A	8.4 A			
	300V range	2.1 A	4.2 A			
<b>Crest Factor</b>		≥ 4	to 1			
Protection		Over Current, Short, Over Temp.				

AC INPUT	
Input Phases	1Ø / 2 Wire + Ground
Voltage	115 / 230V ± 15%
Frequency	47 - 63Hz

#### **DISPLAYS & CONTROLS**

4 Digit LED Meters	Frequency, Voltage, Current, Power or Power Factor ( simultaneously )				
Memory (standard)	3 Programmable Memory Locations for Voltage, Frequency and Current				
Calibration	Front Panel	Calibration			
Interface (optional)	PLC Interface. (Adds 4 Setup Memory Locations for total of 7 Locations)				
Auto Voltage Adjust	Enables improved voltage regulation within $\pm$ 0.1 V				
MECHANICAL	FC205	FC210			
Dimensions (HxDxW)	3.5″ x 16″ x 17″ 89 x 400 x 430 mm				
Weight (Kg / lbs.)	22/48	37 / 81			
ENVIRONMENTAL					
Operating Temperature	32° - 104° F / 0° - 40° C				
Relative Humidity	80%, non-condensing				
Altitude Below 6500 feet / 2000 m					
REGULATORY COMPLIAN	ICE				
Approvals	CE Mark				

#### CFS100 SERIES

The CFS100 series consists of three single phase output instruments in sizes of 800VA, 1600VA and 4kVA. All CFS100 models are fully programmable and capable of both AC and DC output.

In AC mode, the frequency can be adjusted from 40Hz to 500Hz for a broad range of applications, such as: industrial/commercial applications, testing of military/avionics equipment, or the operation of 400Hz electronics for on-board aircraft or military vessels.

The adjustable frequency band of 40 to 500 Hertz in conjunction with the ability to switch between AC and DC modes provides comprehensive capabilities for testing and operating of both AC and DC powered equipment.

Setup and operation of the CFS100 Series is easy. The simple front panel layout with direct entry keypad and shuttle knob allows users to easily set or vary voltage and frequency. For product testing, 50 memories with 9 test steps each are available for output sequencing and measurement pass/fail checking.

The CFS100 Series power sources are a simple and cost effective solution for all of your AC and DC power test needs!

USBer

**Bench or Rack-mount** Power: 800VA to 4000VA Voltage: AC: 5-150V / 5-300V DC: 5-200V / 0-400V Frequency: 40-500Hz

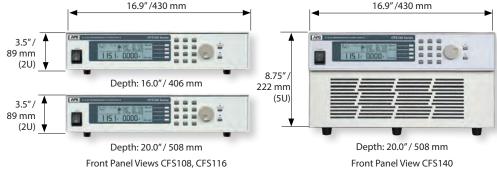


CFS100.	Series	Models
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MODEL	RATED POWER	FREQ RANGE	VOLTAGE	CURRENT (A)	AC INPUT POWER	HEIGHT
CFS108	AC: 800VA			AC: 9.2 / 4.6	120V/230V, 47-63 Hz	
CFS108-LAN	DC: 400W			DC: 4.6 / 2.3	1200/2300, 47-03 HZ	
CFS116-208					208V, 1ø, 47-63 Hz	211
CFS116-208-LAN	AC: 1600VA			AC: 18.4 / 9.2 DC: 9.2 / 4.6	2000, 10, 47-03 112	20
CFS116-230	DC: 800W	40 50011-	AC: 5-150 / 5-300 DC: 5-200 / 5-400		230V, 1ø, 47-63 Hz	
CFS116-230-LAN	-	40 - 500 Hz				
CFS140-208						
CFS140-208-LAN	AC: 4000VA			AC: 36.8 / 18.4	208V, 1ø, 47-63 Hz	
CFS140-230	DC: 2000W			DC: 18.4 / 9.2		50
CFS140-230-LAN					230V, 1ø, 47-63 Hz	

#### **CFS100 SERIES MODELS**

Output Phases     1Ø / 3 Wire (L, N, Gnd)       Voltage     AC Mode     Low AC Range: 5-150U-, N, High AC Range: 5-300V-       DC Mode     Low DC Range: 5-200Vdc, High DC Range: 5-400Vdc       Resolution     0.1 V       Accuracy     ± (0.2% setting + 0.3 V)       Load Regulation     0.1 V       Harmonic Distortion (Vthd)     < 1.0%, 80-140V on Low Range, < 1.0%, 160-280V on High Range (Resistance Load)       Frequency     Range     40 - 500 Hz       Resolution     0.1 Hz       Accuracy     ±1.0 Hz       Accuracy     ±1.0 Hz       Accuracy     ±1.0 Hz       Current     AC: 150V/300V     9.2 Aac / 4.6 Aac     18.4 Aac / 9.2 Aac       DC: 200V/400V     4.6 Adc / 2.3 Adc     9.2 Adc / 4.6 Adc     18.4 Adc / 9.2 Adc       Protection     Over Current, Over Power, Short Circuit, Over Temp.     Efficiency     > 80% (at full load)       AC INPUT     CFS108     CFS116     CFS140       Input Phases     1Ø / 2 Wire + Ground     1Ø / 2 Wire + Ground     1Ø / 2 Wire + Ground       Input Phases     10Ø / 2 Wire + Ground     1Ø / 2 Wire + Ground     1Ø / 2 Wire + Ground	AC OUTPUT		CFS108	CFS116		CFS140	
AC Mode Resolution     Low AC Range: 5-1500/v.w, High AC Range: 5-300/v.w Accuracy     Environment (0,1 V)       Accuracy     ± (0.2% setting + 0.3 V)     1       Load Regulation     ± (0.2% setting + 0.3 V)     1       Load Regulation     ± (0.2% setting + 0.3 V)     1       Frequency     Range     40 - 500 Hz     1       Resolution     0.1 Hz     40 - 500 Hz     1       Accuracy     ± 1.0 Ha     36.8 Aac/ / 18.4 Aac     36.8 Aac/ / 18.4 Aac       Crist Factor     1.0 Accuracy     ± 1.0 Hz     36.8 Aac/ / 18.4 Aac       Crest Factor     0.1 V     30.8 (at full load)     10 / 2 Wire + Ground     10 / 2 Wire + Ground       Input Phases     10 / 2 Wire + Ground       Prequency     115 V or 230V ± 10%     2.08 V a32 mm     2222 X 508 x 432 mm     222 X 508 x 432 mm       MECHANICAL     CF5108     CF5116     CF5140       Dimensions     inches     3.5 "x 16" x17     3.5 "x 20" x 17"     8.7 5" x 20" x 17"       MECHANICAL     VER Jows 10 % A06 x 432 mm     30.8 Kg 068 lbs.     64.8 Kg / 143 lbs.	Power		AC: 800VA DC: 400W	AC: 1600VA	DC: 800W	AC: 4000VA DC: 20	000V
Voltage DC Mode Low DC Range: 5-200Vdc, High DC Range: 5-400Vdc   Resolution 0.1V   Accuracy ± 0.2% setting + 0.3 V)   Load Regulation ± 1.0% Range + 1V, Road   Harmonic Distortion (VHd) < 1.0%, 80-140V on Low Range, < 1.0%, 160-280V on High Range (Resistance Load)	Output Phas						
Accuracy 0.1V   Accuracy ± (0.2% setting + 0.3 V)   Load Regulation ± 1.0% Bange + 1V, R Load   Harmonic Distortion (Vthd) < 1.0%, 80-140V on Low Range, < 1.0%, 160-280V on High Range (Resistance Load)	Voltage						
Accuracy   ± 10.0% Resting + 0.3 V)     Load Regulation   ± 1.0% Range + 1V, R. Load     Harmonic Distortion (Vthd)   < 1.0%, 80-140V on Low Range < 1.0%, 160-280V on High Range (Resistance Load)			Low		DC Range: 5	-400Vdc	
Laad Reyulation ± 1.0% Range + 11, R Load Harmonic Distortion (Vthd) < 1.0%, 80-140V on Low Range, < 1.0%, 160-280V on High Range (Resistance Load) ) Frequency Range 40 - 500 Hz Accuracy ±1.0 Hz Current AC: 150V/300V 9.2 Aac / 4.6 Aac 18.4 Aac / 9.2 Aac 36.8 Aac / 18.4 Aac DC: 200V/400V 4.6 Adc / 2.3 Adc 9.2 Adc / 4.6 Adc 18.4 Adc / 9.2 Adc Crest Factor 23 to 1 Protection Over Current, Over Power, Short Circuit, Over Temp. Efficiency > 80% (at full load) AC INPUT CF5108 CF5116 CF5140 Input Phases 10/2 Wire + Ground 10/2 Wire + G					031/)		
Harmonic Distortion (Vthd)   < 1.0%, 80-140V on Low Range, < 1.0%, 10-280V on High Range (Resistance Load)	Load Regula						
Frequency Resolution Actoracy 40 - 500 Hz   Accuracy ±1.0 Hz   Current AC: 150V/300V 9.2 Aac / 4.6 Aac 18.4 Aac / 9.2 Aac 36.8 Aac/ / 18.4 Aac   DC: 200V/400V 4.6 Adc / 2.3 Adc 9.2 Adc / 4.6 Adc 18.4 Aac / 9.2 Aac 36.8 Aac/ / 18.4 Aac   DC: 200V/400V 4.6 Adc / 2.3 Adc 9.2 Adc / 4.6 Adc 18.4 Aac / 9.2 Aac 36.8 Aac/ / 18.4 Aac   DC: 200V/400V 4.6 Adc / 2.3 Adc 9.2 Adc / 4.6 Adc 18.4 Aac / 9.2 Adc 4.6 Adc / 9.2 Adc   Protection Over Current, Over Power, Short Circuit, Over Temp. > 80% (at full load) 50% (at full load)   AC INPUT CF5108 CF5116 CF5140   Input Phases 10 / 2 Wire + Ground 10 / 2 Wire + Ground 10 / 2 Wire + Ground   Voltage 115V or 230V ± 10% 208V or 230V (2W+G) ± 10% Frequency   Frequency 47 - 63Hz ACF5140 10 / 2 Wire + Ground   Dimensions inches 3.5*x 16*x 17 3.5*x 20*x 17" 8.75*x 20*x 17"   (HxDxW) mm< 89 x 406 x 432 mm			< 1.0%, 80-140V on			Range ( Resistance Load )	
Accuracy   ±1.0 Hz     Current   AC: 150V/300V   9.2 Aac / 4.6 Aac   18.4 Aac / 9.2 Aac   3.6.8 Aac/ / 18.4 Aac     DC: 200V/400V   4.6 Adc / 2.3 Adc   9.2 Adc / 4.6 Adc   18.4 Aac / 9.2 Aac     Crest Factor   > 3 to 1   Protection   Over Current, Over Power, Short Circuit, Over Temp.     Protection   Over Current, Over Power, Short Circuit, Over Temp.   > 80% (at full load)     AC INPUT   CF5108   CF5116   CF5140     Input Phases   1Ø / 2 Wire + Ground     Voltage   115V or 230V ± 10%   208V or 230V (2W+G) ±10%   208V or 230V (2W+G) ±10%     Frequency   47 - 63Hz   47 - 63Hz   10     MECHANICAL   CF5108   CF5116   CF5140     Dimensions   inches   3.5" x 16" x 17   3.5" x 20" x 17"   8.75" x 20" x 17"     (HxDxW)   mm   89 x 406 x 432 mm   89 x 508 x 432 mm   222 x 508 x 432 mm     Weight (Kg / Ibs.)   19 Kg / 42 lbs.   30.8 Kg / 68 lbs.   64.8 Kg / 143 lbs.     Display   Menus, Settings, Measurements panel, Relay contact closures and Current panel, Relay contact closures and Current panel, Relay contact clo						5.	
Current     AC: 150//300V     9.2 Aac / 4.6 Aac     18.4 Aac / 9.2 Aac     36.8 Aac / 18.4 Aac       DC: 200V/400V     4.6 Adc / 2.3 Adc     9.2 Adc / 4.6 Adc     18.4 Adc / 9.2 Adc       Crest Factor     > 3 to 1     > 3 to 1       Protection     > 3 to 1     > 3 to 1       Protection     Over Current, Over Power, Short Circuit, Over Temp. > 80% (at full load)     > 80% (at full load)       AC INPUT     CF5108     CF5116     CF5140       Input Phases     10 / 2 Wire + Ground     10 / 2 Wire + Ground     10 / 2 Wire + Ground       Voltage     115V or 230V ± 10%     208V or 230V (2W+G) ±10%     Frequency       Frequency     47 - 63Hz     875 x 20" x 17"     8.75" x 20" x 17"       MECHANICAL     CF5108     CF5116     CF5140       Dimensions     inches     3.5" x 16" x 17     3.5" x 20" x 17"     8.75" x 20" x 17"       (HXDXW)     mm     89 x 406 x 432 mm     89 x 508 x 432 mm     222 x 508 x 432 mm       Displar Kotyr     Jp Kg / 42 lbs.     30.8 Kg / 68 lbs.     64.8 Kg / 143 lbs.       Displar Kotyr     Decimal Keypad, Test/Reset, Lock     Relative Humidity     80%		Resolution		0.1 Hz			
DC: 200V/400V4.6 Adc / 2.3 Adc9.2 Adc / 4.6 Adc18.4 Adc / 9.2 AdcCrest Factor $\geq$ 3 to 1ProtectionOver Current, Over Power, Short Circuit, Over Temp. > 80% (at full load)AC INPUTCF5108CF5116CF5140AC INPUTCF5108CF5116CF5140Input Phases10/2 Wire + Ground10/2 Wire + Ground10/2 Wire + Ground10/2 Wire + GroundVoltage115V or 230V ± 10%208V or 230V (2W+G) ±10%Frequency47 - 63HzMECHANICALCF5108CF5116CF5140Dimensionsinches3.5" x 16" x 173.5" x 20" x 17"8.75" x 20" x 17"(HxDxW)mm89 x 406 x 432 mm89 x 508 x 432 mm222 x 508 x 432 mmWeight (Kg / Ibs.)19 Kg / 42 Ibs.30.8 Kg / 68 Ibs.64.8 Kg / 143 Ibs.DISPLAYS & CONTROLS KeysDecimal Keypad, Test/Reset, Lock and Current panel, Relay contact closures memory (standard)S0P rogrammable Memory Locations with 9 test steps each (AC mode)Shuttle50 Programmable Memory Locations with 9 test steps each (AC mode)AltitudeBelow 6562 feet / 2000 rCalibrationFront Panel Calibration mith 9 test steps each (AC mode)S0 Frogrammable Memory Locations with 9 test steps each (AC mode)CalibrationFront Panel Calibration hterfacesUSB, RS232 std. LAN Option		Accuracy		±1.0 Hz			
Crest Factor   ≥ 3 to 1     Protection   Over Current, Over Power, Short Circuit, Over Temp.     Efficiency   > 80% (at full load)     AC INPUT   CF5108   CF5116     MECHANICAL   CF5108   CF5116     MECHANICAL   CF5108   CF5116     Dimensions   inches   3.5" x 16" x 17     MECHANICAL   CF5108   CF5116     Vittage   3.5" x 16" x 17   3.5" x 20" x 17"     (HADXW)   m   89 x 406 x 432 mm   89 x 508 x 432 mm     Weight (Kg / Ibs.)   19 Kg / 42 Ibs.   30.8 Kg / 68 Ibs.   64.8 Kg / 143 Ibs.     DISPLAYS & CONTROLS   ENVIRONMENTAL   Operating Temperature   41° - 104° F / 5° - 40° C     Keys   Decimal Keypad, Test/Reset, Lock   No feating Temperature   41° - 104° F / 5° - 40° C     Nemory (standard)   So Programmable Memory Locations   SoP Programmable Memory Locations   SoP Programmable Memory L	Current	AC: 150V/300V	9.2 Aac / 4.6 Aac	18.4 Aac / 9.2	Aac	36.8 Aac/ / 18.4 Aac	
Protection   Over Current, Over Power, Short Circuit, Over Temp.     Efficiency   > 80% (at full load)     AC INPUT   CFS108   CFS116   CFS140     Input Phases   1Ø / 2 Wire + Ground     Voltage   115V or 230V ± 10%   208V or 230V (2W+G) ±10%   208V or 230V (2W+G) ±10%     Frequency   47 - 63Hz   CFS116   CFS140     Dimensions   inches   3.5" x 16" x 17   3.5" x 20" x 17"   8.75" x 20" x 17"     (HxDxW)   mm   89 x 406 x 432 mm   89 x 508 x 432 mm   222 x 508 x 432 mm     Weight (Kg / Ibs.)   19 Kg / 42 lbs.   30.8 Kg / 68 lbs.   64.8 Kg / 143 lbs.     DISPLAYS & CONTROLS   ENVIRONMENTAL   Operating Temperature   41° - 104° F / 5° - 40° C     Relative Humidity   80%, non-condensing and Current   Altitude   Below 6562 feet / 2000 I     Digital Outputs   Pass, Fail, Test in Progress, DB9, rear panel, Relay contact closures   Altitude   Below 6562 feet / 2000 I     Memory (standard)   50 Programmable Memory Locations with 9 test steps each (AC mode)   Statt Statter   Statter     Calibration   Front Panel Calibration		DC: 200V/400\	/ 4.6 Adc / 2.3 Adc	9.2 Adc / 4.6 A	١dc	18.4 Adc / 9.2 Adc	
Efficiency   > 80% (at full load)     AC INPUT   CFS108   CFS116   CFS140     Input Phases   1Ø / 2 Wire + Ground   10 / 2 Wire + Ground   <						_	
AC INPUT   CF5108   CF5116   CF5140     Input Phases   1Ø / 2 Wire + Ground   10 / 2			Ove			er Temp.	
Input Phases10/2 Wire + Ground10/2 Wire + Ground10/2 Wire + GroundVoltage115V or 230V ± 10%208V or 230V (2W+G) ±10%Frequency47 - 63HzMECHANICALCFS108CFS116CFS140Dimensionsinches3.5"x 16"x 173.5"x 20"x 17"8.75"x 20"x 17"(HxDxW)mm89 x 406 x 432 mm89 x 508 x 432 mm222 x 508 x 432 mmWeight (Kg / Ibs.)19 Kg / 42 Ibs.30.8 Kg / 68 Ibs.64.8 Kg / 143 Ibs.DISPLAYS & CONTROLSENVIRONMENTALLCD DisplayMenus, Settings, MeasurementsOperating Temperature41° - 104° F / 5° - 40° CShuttleDigital Rotary Shuttle to slew voltage and Currentand Current80%, non-condensingDigital OutputsPass, Fail, Test in Progress, DB9, rear panel, Relay contact closuresBelow 6562 feet / 2000 nMemory (standard)50 Programmable Memory Locations with 9 test steps each (AC mode)AltitudeCalibrationFront Panel CalibrationFront Panel CalibrationInterfacesUSB, RS232 std. LAN OptionAltitude	Emciency			> 80% (at full l	Dad)		
Voltage115V or 230V ± 10%208V or 230V (2W+G) ±10%Frequency47 - 63HzMECHANICALCF5108CF5116Dimensionsinches3.5" x 16" x 173.5" x 20" x 17"(HxDxW)mm89 x 406 x 432 mm89 x 508 x 432 mm222 x 508 x 432 mmWeight (Kg / Ibs.)19 Kg / 42 lbs.30.8 Kg / 68 lbs.64.8 Kg / 143 lbs.DISPLAYS & CONTROLSENVIRONMENTALOperating Temperature41° - 104° F / 5° - 40° CLCD DisplayMenus, Settings, Measurements and CurrentOperating Temperature41° - 104° F / 5° - 40° CShuttleDigital Rotary Shuttle to slew voltage and CurrentAltitudeBelow 6562 feet / 2000 nDigital OutputsPass, Fail, Test in Progress, DB9, rear panel, Relay contact closuresS0 Programmable Memory Locations with 9 test steps each (AC mode)AltitudeCalibrationFront Panel Calibration InterfacesUSB, R5232 std. LAN OptionAltitudeAltitude	AC INPUT		CFS108	CFS116		CFS140	
Frequency 47 - 63Hz   MECHANICAL CFS108 CFS116 CFS140   Dimensions inches 3.5" x 16" x 17 3.5" x 20" x 17" 8.75" x 20" x 17"   (HxDxW) mm 89 x 406 x 432 mm 89 x 508 x 432 mm 222 x 508 x 432 mm   Weight (Kg / Ibs.) 19 Kg / 42 lbs. 30.8 Kg / 68 lbs. 64.8 Kg / 143 lbs.   DISPLAYS & CONTROLS ENVIRONMENTAL Operating Temperature 41° - 104° F / 5° - 40° C   LCD Display Menus, Settings, Measurements Operating Temperature 41° - 104° F / 5° - 40° C   Keys Decimal Keypad, Test/Reset, Lock Operating Temperature 41° - 104° F / 5° - 40° C   Shuttle Digital Rotary Shuttle to slew voltage and Current Altitude Below 6562 feet / 2000 r   Digital Outputs Pass, Fail, Test in Progress, DB9, rear panel, Relay contact closures Altitude Below 6562 feet / 2000 r   Memory (standard) 50 Programmable Memory Locations with 9 test steps each (AC mode) South and Substandard Substandard   Calibration Front Panel Calibration Front Panel Calibration Substandard   Interfaces USB, RS232 std. LAN Option Substandard Substandard	Input Phases		1Ø / 2 Wire + Ground	1Ø / 2 Wire + Gr	ound	1Ø / 2 Wire + Grou	Ind
MECHANICALCFS108CFS116CFS140Dimensionsinches3.5" x 16" x 173.5" x 20" x 17"8.75" x 20" x 17"(HxDXW)mm89 x 406 x 432 mm89 x 508 x 432 mm222 x 508 x 432 mmWeight (Kg / Ibs.)19 Kg / 42 lbs.30.8 Kg / 68 lbs.64.8 Kg / 143 lbs.DISPLAYS & CONTROLSENVIRONMENTALOperating Temperature41° - 104° F / 5° - 40° CLCD DisplayMenus, Settings, MeasurementsOperating Temperature41° - 104° F / 5° - 40° CKeysDecimal Keypad, Test/Reset, LockOperating Temperature41° - 104° F / 5° - 40° CShuttleDigital Rotary Shuttle to slew voltage and CurrentAltitudeBelow 6562 feet / 2000 rDigital OutputsPass, Fail, Test in Progress, DB9, rear panel, Relay contact closuresAltitudeBelow 6562 feet / 2000 rMemory (standard)50 Programmable Memory Locations with 9 test steps each (AC mode)Shut AN OptionCalibrationFront Panel Calibration InterfacesUSB, RS232 std. LAN Option	Voltage		115V or 230V ± 10%	20	8V or 230V (	2W+G) ±10%	
Dimensionsinches3.5" x 16" x 173.5" x 20" x 17"8.75" x 20" x 17"(HxDxW)mm89 x 406 x 432 mm89 x 508 x 432 mm222 x 508 x 432 mmWeight (Kg / lbs.)19 Kg / 42 lbs.30.8 Kg / 68 lbs.64.8 Kg / 143 lbs.DISPLAYS & CONTROLSENVIRONMENTALLCD DisplayMenus, Settings, MeasurementsOperating Temperature41° - 104° F / 5° - 40° CKeysDecimal Keypad, Test/Reset, LockOperating Temperature41° - 104° F / 5° - 40° CShuttleDigital Rotary Shuttle to slew voltage and CurrentAltitudeBelow 6562 feet / 2000 mDigital OutputsPass, Fail, Test in Progress, DB9, rear panel, Relay contact closuresAltitudeBelow 6562 feet / 2000 mMemory (standard)50 Programmable Memory Locations with 9 test steps each (AC mode)S0 Programmable Memory Locations with 9 test steps each (AC mode)CalibrationFront Panel Calibration lInterfacesUSB, RS232 std. LAN Option	Frequency			47 - 63Hz			
(HxDxW)mm89 x 406 x 432 mm89 x 508 x 432 mm222 x 508 x 432 mmWeight (Kg / Ibs.)19 Kg / 42 lbs.30.8 Kg / 68 lbs.64.8 Kg / 143 lbs.DISPLAYS & CONTROLSENVIRONMENTALLCD DisplayMenus, Settings, Measurements KeysDecimal Keypad, Test/Reset, Lock Digital Rotary Shuttle to slew voltage and CurrentOperating Temperature41° - 104° F / 5° - 40° C Relative Humidity80%, non-condensing AltitudeDigital OutputsPass, Fail, Test in Progress, DB9, rear panel, Relay contact closuresAltitudeBelow 6562 feet / 2000 n Below 6562 feet / 2000 n ShuttleCalibrationFront Panel Calibration USB, RS232 std. LAN OptionSUSB, RS232 std. LAN Option	MECHANICA	AL.	CFS108	CFS116		CFS140	
Weight (Kg / lbs.)19 Kg / 42 lbs.30.8 Kg / 68 lbs.64.8 Kg / 143 lbs.DISPLAYS & CONTROLSENVIRONMENTALLCD DisplayMenus, Settings, Measurements Decimal Keypad, Test/Reset, Lock Digital Rotary Shuttle to slew voltage and CurrentOperating Temperature41° - 104° F / 5° - 40° C Relative HumidityDigital OutputsPass, Fail, Test in Progress, DB9, rear panel, Relay contact closuresAltitudeBelow 6562 feet / 2000	Dimensions	inches	3.5″ x 16″ x 17	3.5″ x 20″ x 1	7″	8.75″ x 20″ x 17″	
DISPLAYS & CONTROLS   ENVIRONMENTAL     LCD Display   Menus, Settings, Measurements     Keys   Decimal Keypad, Test/Reset, Lock     Shuttle   Digital Rotary Shuttle to slew voltage and Current     Digital Outputs   Pass, Fail, Test in Progress, DB9, rear panel, Relay contact closures     Memory (standard)   50 Programmable Memory Locations with 9 test steps each (AC mode)     Calibration   Front Panel Calibration     Interfaces   USB, RS232 std. LAN Option	(HxDxW	/) mm	89 x 406 x 432 mm	89 x 508 x 432	mm	222 x 508 x 432 mm	1
LCD DisplayMenus, Settings, MeasurementsOperating Temperature $41^\circ$ - 104° F / 5° - 40° CKeysDecimal Keypad, Test/Reset, LockRelative Humidity80%, non-condensingShuttleDigital Rotary Shuttle to slew voltage and CurrentAltitudeBelow 6562 feet / 2000 fDigital OutputsPass, Fail, Test in Progress, DB9, rear panel, Relay contact closuresAltitudeBelow 6562 feet / 2000 fMemory (standard)50 Programmable Memory Locations with 9 test steps each (AC mode)Front Panel CalibrationFront Panel CalibrationInterfacesUSB, RS232 std. LAN OptionUSB, RS232 std. LAN OptionFront Panel Calibration	Weight (Kg /	lbs.)	19 Kg / 42 lbs.	30.8 Kg / 68 l	bs.	64.8 Kg / 143 lbs.	
KeysDecimal Keypad, Test/Reset, LockRelative Humidity80%, non-condensingShuttleDigital Rotary Shuttle to slew voltage and CurrentAltitudeBelow 6562 feet / 2000 fDigital OutputsPass, Fail, Test in Progress, DB9, rear panel, Relay contact closuresAltitudeBelow 6562 feet / 2000 fMemory (standard)50 Programmable Memory Locations with 9 test steps each (AC mode)50 Programmable Memory Locations USB, RS232 std. LAN OptionFront Panel Calibration	DISPLAYS &	CONTROLS		ENVIRONMENT	AL		
KeysDecimal Keypad, Test/Reset, LockRelative Humidity80%, non-condensingShuttleDigital Rotary Shuttle to slew voltage and CurrentAltitudeBelow 6562 feet / 2000 fDigital OutputsPass, Fail, Test in Progress, DB9, rear panel, Relay contact closuresAltitudeBelow 6562 feet / 2000 fMemory (standard)50 Programmable Memory Locations with 9 test steps each (AC mode)So Programmable Memory Locations USB, RS232 std. LAN OptionInterfaces	LCD Display		Menus, Settings, Measurements	Operating Temp	erature	41° - 104° F / 5° - 40° C	
ShuttleDigital Rotary Shuttle to slew voltage and CurrentAltitudeBelow 6562 feet / 2000 fDigital OutputsPass, Fail, Test in Progress, DB9, rear panel, Relay contact closuresAltitudeBelow 6562 feet / 2000 fMemory (standard)50 Programmable Memory Locations with 9 test steps each (AC mode)Front Panel CalibrationCalibrationFront Panel CalibrationInterfacesUSB, RS232 std. LAN Option			_			80%, non-condensing	
Digital OutputsPass, Fail, Test in Progress, DB9, rear panel, Relay contact closuresMemory (standard)50 Programmable Memory Locations with 9 test steps each (AC mode)CalibrationFront Panel CalibrationInterfacesUSB, RS232 std. LAN Option			Digital Rotary Shuttle to slew voltage		,	Below 6562 feet / 2000 n	n
Memory (standard)50 Programmable Memory Locations with 9 test steps each (AC mode)CalibrationFront Panel CalibrationInterfacesUSB, RS232 std. LAN Option	Digital Outp	uts					
CalibrationFront Panel CalibrationInterfacesUSB, RS232 std. LAN Option	Memory (sta	ndard)	50 Programmable Memory Location	S			
Interfaces USB, RS232 std. LAN Option	Calibration						
Dimensions							
			Dimensio	ns			
16.9″ /430 mm 16.9″ /430 mm			Dimensio			16 9″ /430 mm	



## **CFS300 SERIES - THREE PHASE AC & DC POWER SOURCES**

#### CFS300 SERIES

The CFS300 series consists of two three phase output capable instruments in sizes of 3kVA and 6kVA. All CFS300 models are fully programmable and capable of both AC and DC output.

In AC mode, the frequency can also be adjusted from 40 Hz to 1000Hz to cover both industrial/commercial and applications such as the testing of military/avionics equipment at either 400Hz fixed frequency or 360Hz to 800Hz variable frequency.

The adjustable frequency band of 40 to 1000 Hertz in conjunction with selectable single, split or three phase output modes and the ability to switch between AC and DC modes provides comprehensive capabilities for testing and operating of both AC and DC powered equipment.

Setup and operation of the CFS300 Series is easy. The simple front panel layout with direct entry keypad and shuttle knob allows users to easily set or vary voltage and frequency. For product testing, 50 memories with 9 test steps each are available for output sequencing and measurement pass/fail checking.

The CFS300 Series three phase power sources are a simple and cost effective solution for all of your AC and DC power test needs!

USB**e**r RS232

**Bench or Rack-mount** Power: 3kVA & 6kVA Voltage: AC: 5-150V / 5-300V 8.7-260V / 8.7-520V DC: 5-210V / 0-420V Frequency: 40-1000Hz



MODEL	RATED POWER	FREQ RANGE	VOLTAGE	CURRENT (A)	AC INPUT POWER	HEIGHT
CFS330	AC: 3000VA			AC: 27.6 / 13.8 1ø	200V-240V, 1ø	
CFS330-LAN	DC: 1500W	40 1000 11-	AC: 5-150 / 5-300 VLN 8.7-260 / 8.7-520VLL DC: 5-210 / 5-420	9.2 / 4.6 3ø DC: 14.4 / 7.2	47-63 Hz	011
CFS360	AC: 6000VA	40 - 1000 Hz		AC: 55.2 / 27.6 1ø 18.4 / 9.2 3ø DC: 28.8 / 14.4	200V-240V, 1ø (2W) 200V-240V, 3ø (3W) 346V-416V, 3ø (4W) 47-63 Hz	9U
CFS360-LAN	DC: 3000W					

#### CFS300 SERIES MODELS

AC OUTPUT		CFS330		CFS360	
Power		AC: 800VA DC	2: 400W	AC: 1600VA	DC: 800W
Output Phases				l), 3Ø / 4 Wire (L1, L2, L3, N	
Voltano	AC Mode			C Range: 5-300VL-N ,8.7-520	VL-L
5	DC Mode	Low DC F	Range: 5-200Vdc, High DC	. Range: 5-400Vdc	
	Resolution Accuracy		0.1 V ± ( 0.2% setting + 0.1	2 \/ \	
Load Regulation			$\pm 1.0\%$ Range + 1V, R		
Harmonic Dist		< 0.5% < 70Hz, 80-140V on Low I			esistance Load )
	Range		40 - 1000 Hz		
	Resolution	0.1 Hz fr	om 40.0-99.9 Hz / 1 Hz fro	om 100 - 1000 Hz	
,	Accuracy		± 0.03% Setting		
Current	AC: 150V/300V	27.6 Aac / 13.8 Adc (1ø), 9.2 Aac / 4.6	5 Aac (2ø&3ø) 55.2	Aac / 27.6 Aac (1ø), 18.4 A	ac / 9.2 Aac (2ø&3ø
	DC: 200V/400\	/ 14.4 Adc / 7.2 Adc		28.8 Adc/ 14.4	Adc
Crest Factor			≥ 3 to 1		
Protection		Over Cur	rent, Over Power, Short C		
Efficiency			> 78% (at full load	(k	
AC INPUT		CF\$330		CFS360	
Input Phases		1Ø / 2 Wire + Ground		1Ø or 3Ø	
Voltage		200Vac-240Vac	:	200V-240V, 1ø (2W) or 200 346V-416V, 3ø (	, , ,
Frequency			47 - 63Hz		
MECHANICAL	L	CFS330		CFS360	
Dimensions	inches	15.75″ x 19.7″ x 16.7		15.75″ x 19.7″ x	16.7
(HxDxW)	mm	400 x 500 x 400 mm		400 x 500 x 400	mm
Weight (Kg / Ik	bs.)	48 Kg / 108.5 lbs.		57 Kg / 125.6	bs.
DISPLAYS & C	CONTROLS		ENVIRONMENTAL		
LCD Display		Menus, Settings, Measurements	<b>Operating Tempera</b>	ture 41° - 104	° F / 5° - 40° C
Keys		Decimal Keypad, Test/Reset, Lock	Relative Humidity		-condensing
Shuttle		Digital Rotary Shuttle to slew voltage and Current	Altitude	Below 656	2 feet / 2000 m
Digital Output	ts	Pass, Fail, Test in Progress, rear panel, Relay contact closures			
Memory (stan	dard)	50 Programmable Memory Locations with 9 test steps each (AC mode)			
Calibration		Front Panel Calibration			
Interfaces		USB, RS232 std. LAN Option			
		Dimensions		16.9	″/430 mm



#### **CPS100 SERIES**

The CPS100 series consists of fourteen single phase power sources with power output ratings ranging from 600VA/W to 5000VA /W. All CPS100 models are fully programmable and capable of AC, DC and AC+DC output.

In AC mode, the frequency can be adjusted from 15Hz to 1000Hz on Standard (S) models or from 15Hz to 1200Hz on Enhanced (E) models. This covers a broad range of applications, such as: industrial/commercial applications, testing of military/ avionics equipment, or the operation of 400Hz or 360Hz~800Hz equipment for on-board aircraft or military vessels.

Setup and operation of the CPS100 Series is very intuitive. The simple front panel layout combined with a large color touch sensitive LCD display allows easy entry of settings. A direct entry keypad and shuttle knob complements the touch interface. Standard models offer the vast majority of features requested by engineers and technicians.

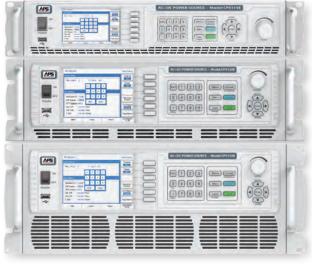
The Enhanced version E models add advanced functions like programmable output impedance, IEC 61000-4 immunity test modes and special functions like pass/fail limit testing and Triac dimmer simulation mode.

All CPS100 models offer a library of 50 THD harmonics waveforms or USER defined waveforms in addition to sinewave output.

The CPS100 Series power sources are sophisticated yet cost effective solution for all of your AC and DC power test needs!



Bench or Rack-mount Power: 600VA to 5000VA Voltage: AC: 0-150V / 0-300V DC: 0-212V / 0-424V Frequency: DC, 15-1000Hz DC, 15-1200Hz



CPS100 Series Models

CE

MODEL	RATED POWER	FREQ RANGE	VOLTAGE	CURRENT (Aac   Adc)	AC INPUT POWER	HEIGHT
CPS106S / CPS106E	600 VA/W			5.6/2.8   3.96/1.89	90V~265V, 1ø	2U
CPS110S / CPS110E	1000 VA/W	<i>.</i> .		9.2/4.6   6.5/3.3	47-63 Hz	2U
CPS115S / CPS115E	1500 VA/W	S version: DC, 15 - 1000 Hz	AC:	13.8/6.9   9.76/4.88	100V~265V, 1ø, 47-63 Hz	2U
CPS120S / CPS120E	2000 VA/W		0-150 / 0-300 DC:	16.0/8.0   11.3/5.65		3U
CPS130S / CPS130E	3000 VA/W	E version: DC, 15 - 1200 Hz	0-212/0-424	27.6/13.8   19.6/9.8	190V~265V, 1ø	4U
CPS140S / CPS140E	4000 VA/W	DC, 13 - 1200 HZ		32.0/16.0   22.6/11.3	47-63 Hz	4U
CPS150S / CPS150E	5000 VA/W			46.0/23.0   32.6/16.3		4U

#### **CPS100 SERIES MODELS**

AC SOUR	S.L.							Menu
UTPUT SETTIN	G							Config
Vac = 10.0	1	v	F	=	50.00	Hz		
Vdc = 50.0	1	v						LCD Setting
IEASUREMENT								Calibration
V = 50.92	V	1	= 2.03	A	Р	= 104.5	W	_
Vac = 9.98	V	lac	= 0.47	A	PF	= 1.00		1.000
Vdc = 49.94	V	ldc	= 1.97	А	VA	= 103.3	VA	
Vpk = 64.48	V	lpk	= 0.82	A	CF	= 1.59		Other
VAR= 0.0	Var	Is	= 0.26	A	F	= 50.00	Hz	
								Page Select
150V			Local	b.		SINE		2017/10/3

output setting + 15 measurements

#### S vs E MODEL FEATURES COMPARISON

FEATURES	STANDARD (S)	ENHANCED (E)
AC, DC, AC+DC Modes	•	•
Frequency Range	15-1000Hz	15-1200Hz
Arbitrary Waveforms	•	•
Waveform Synthesis	•	•
Transient List Mode	•	•
Measurements	•	•
Harmonic Analysis & THD		•
Programmable Impedance		•
IEC411	•	•
IEC413, IEC414, IEC428		•
Triac Function		•

AC OUTPUT		CFS106	CPS110	CPS	115	CPS120	CPS130	CPS140	CPS150	
Power		600 VA/W	1000 VA/W	1500			3000 VA/W	4000 VA/W	5000 VA/W	
Output Phase	20	000 VA/ W	1000 VA/W	1500		1Ø / 3 Wire (L, N, Gn		4000 VA/W	5000 VA/ W	
Voltage	AC Mode DC Mode Resolution				nge: (	0 - 150 VĿℕ, High AC 0 - 212 Vdc, High DC 0.1 V	Range: 0 - 300 Vi			
	Accuracy				± (	0.1 V 0.2% setting + 0.2%	6 FS )			
Load Regulat			15Hz	- 100Hz: =		% Range / 100.1Hz -		Range		
	stortion (Vthd)					/ 70.1Hz-1000Hz: < 1				
Frequency	Range		Sı	models: D	DC, 15	- 1000 Hz / E mode	ls: DC, 15 - 1200 l	Ηz		
	Resolution Accuracy					0.1 Hz ±1.0 Hz				
Current	AC: 150V/300V	5.6 / 2.8	9.2 / 6.4	13.8	/69	16.0 / 8.0	27.6 / 13.8	32.0 / 16.0	46.0 / 23.0	
current	DC: 200V/400V	3.96 / 1.89	6.5 / 3.3	9.76 /			19.6 / 9.8	22.6 / 11.3	32.6 / 16.3	
Crest Factor A		5.8 to 1	6 to 1	5.707 6 to		6 to 1	6 to 1	5 to 1	4 to 1	
Protection	ie current	5.0 10 1				Over Power, Short Ci			101	
Efficiency		> 80%	> 84%	> 8		> 86%	> 85%	> 86%	> 86%	
AC INPUT		CPS106, C	PS110		CPS1	15	CPS120, CPS	5130, CPS140, C	.PS150	
Input Phases		1Ø / 2 Wire +	Ground	1Ø/2	Wire -	+ Ground	1Ø / 2 Wire + Gn	d or 2Ø / 2 Wire	L-L + Gnd	
Voltage		90V ~ 265V	± 10%	100V <sup>,</sup>	~ 265	V ± 10%	190V	′ ~ 265V ± 10%		
Frequency						47 - 63Hz				
MECHANICA	L	CPS106, C	PS110, CPS115	•		CPS120		CPS130, CPS14	0, CPS150	
Dimensions	inches	3.5″ x	20.5″ x 17			5.25″ x 20.5″ x 17″		7.0″ x 20.5″	′x 17″	
(HxDxW	') mm	89 x 52	0 x 432 mm			89 x 520 x 432 mm	า	222 x 520 x 4	l32 mm	
Weight (Kg /	lbs.)	15.5 k	(g / 35 lbs.			21 Kg / 47.2 lbs.		29 Kg / 63.	9 lbs.	
DISPLAYS &	CONTROLS					ENVIRONMENTAL				
LCD Display		Color Touch	Sensitive LCD			Operating Temperat	ure	32° - 104° F / 0°	- 40° C	
Keys		Menus, Soft Key	s, Decimal Keyp	bad	I	Relative Humidity		95%, non-conde	ensing	
Shuttle	[	Digital Rotary Sh set	uttle to set or s tings	lew		Altitude	Be	elow 6550 feet /	2000 m	
Digital Outpu	ıts	Option E	XT or AUX							
Memory (star	ndard)	Settings,	Transients							
Calibration		Front Pane	l Calibration							
Interfaces		AN std on CPS12 CPS106~CPS11								
Dimensio	ons									
		19"/482 mm					16.9″/430	mm		
3.5″ / 89 mm (2U) ▼	Der	oth: 20.5″/ 520 mm				7.0″/ 177 mm				
		iews CPS106.CPS11	0, CPS115			(4U)				
5.25" / 133 mm (3U)						Fror		20.5" / 520 mm CPS130, CPS140, CPS150		
	-	oth: 20.5″ / 520 mm t Panel View CPS12	)							

#### **APS 1000 SERIES**

The APS1000 series consists of six 1 phase output instruments ranging in size from 3 kVA to 60 kVA. The converters allow the user to duplicate a utility grid of either 50 or 60 hertz for export product testing or operation of imported equipment.

The frequency can be adjusted to 400 hertz for applications such as the testing of military/avionics equipment or for the operation of 400 hertz electronics that are on board an aircraft or a military vessel. The adjustable frequency band of 45 to 500 Hertz in conjunction with the dual voltage ranges of 0-150 volts or 0-300 volts provides full capabilities for testing and operating electronics worldwide. Setup and operation of the APS 1000 Series is exceptionally easy. The simple front panel layout allows users to continuously vary voltage and frequency or to select preset standard frequency settings. Individual meter displays provide digital readouts for frequency, voltage and current while a digital multimeter displays power or power factor. The APS 1000 Series converters are a simple and cost effective solution for all of your AC power conversion needs!

#### Key Features & Specifications for the APS 1000 Series

- Dual Output Voltage Ranges
- Input to Output Isolation •
- Output Voltage Distortion (Vthd) less than 1% •
- . Input Requirements: 208, 220, 240, 380, 415, 480 VAC ± 10%, 3 phase, 47-63 Hz (3kVA and 5kVA, 230VAC ± 15%, 1 phase)
- **Intuitive Front Panel Controls**
- Easy to Read LED Displays: Frequency, Voltage, Current, • Power and Power Factor
- Memory Locations: Can save three desired settings of any • voltage, frequency and current limit output parameters



**Single Phase Power** Power: 3kVA to 60kVA Voltage: 150V/300V/600V Frequency: 45-500Hz



#### **AVAILABLE 1000 SERIES MODELS**

MODEL	RATED POWER (VA)	No. PHASES	FREQ RANGE (Hz)	VOLTAGE (VL-N)	CURRENT (A)	AC INPUT POWER	DIMENSION
APS 1003	3,000	1	45 - 500	0-150 / 0-300	25.2 / 12.6	230V, 1ø, 47-63 Hz	12 x 26 x 17″
APS 1005	5,000	1	45 - 500	0-150 / 0-300	42 / 21	230V, 1ø, 47-63 Hz	12 x 26 x 17″
APS 1010	10,000	1	45 - 500	0-150 / 0-300	84 / 42	208-480, 3ø, 47-63 Hz	28 x 29 x 17″
APS 1020	20,000	1	45 - 500	0-150 / 0-300	168 / 84	208-480, 3ø, 47-63 Hz	33 x 29 x 17″
APS 1030	30,000	1	45 - 500	0-150 / 0-300	252 / 126	208-480, 3ø, 47-63 Hz	43 x 39 x 24"
APS 1040	40,000	1	45 - 500	0-150 / 0-300	336 / 168	208-480, 3ø, 47-63 Hz	43 x 39 x 24″
APS 1060	60,000	1	45 - 500	0-150 / 0-300	504 / 252	208-480, 3ø, 47-63 Hz	66 x 39 x 32"

AC OUTPUT	r	APS 1003	APS 1005	APS 1010	APS 1020	APS 1030	APS 1040	APS 1060		
Power		3 kVA	5 kVA	10 kVA	20 kVA	30 kVA	40 kVA	60 kVA		
Output Phas	ses				) / 3 Wire (L, N, Gnd					
Voltage	Ranges	Low Range: 0-150VL-N, High Range: 0-300VL-N 300VL-N/600VL-N Ranges available on 10KVA to 60KVA models - Option 600								
	Resolution				0.1 V					
	Accuracy				± ( 1.0% + 0.2 V )					
Load Regula		\ \		. 1/	± 0.5%					
Harmonic Di Frequency	istortion (Vthd Range	)		≤ I'	% ( Resistance Load 45 - 500 Hz	) )				
riequency	5			0	1 Hz at 45 - 99.9 Hz	,				
	Resolution				Hz at 100 - 500 Hz					
	Accuracy			± 0.	2%					
Current	150V range	25.2 A	42.0 A	84.0 A	168.0 A	252.0 A	336.0 A	500.0 A		
	300V range	12.6 A	21.0 A	42.0 A	84.0 A	126.0 A	168.0 A	250.0 A		
Crest Factor					≥ 3 to 1					
Protection					nt, Short Circuit, O	ver Temp.				
Efficiency				>	85% (at full load)					
AC INPUT		APS 1003	APS 1005	APS 1010	APS 1020	APS 1030	APS 1040	APS 1060		
Input Phases	s	1Ø / 2 Wire	+ Ground		3Ø	/ 3W + groun	d			
Voltage		230V :	±15%	208\	/, 220V, 240V (3W+	G), 380V, 415\	/, 480V (4W+G) :	±10%		
Frequency					47 - 63Hz					
MECHANIC	AL	APS 1003	APS 1005	APS 1010	APS 1020	APS 1030	APS 1040	APS 1060		
Dimensions	inches	12 x 2	бх17	28 x 29 x 17	33 x 29 x 17	43 x	39 x 24	66 x 39 x 32		
(HxDxW	V) mm	305 x 66	i0 x 432	709 x 730 x 430	839 x 730 x 430	1079 x	980 x 600	1662x980x800		
Weight (Kg /	′ lbs.)	95/210	125/275	228/503	350/772	592/1305	663/1462	885/1951		
DISPLAYS &	CONTROLS			EN	IVIRONMENTAL					
4 Digit LED N	Meters	Frequency, Voltag			erating Temperatu	re	32° - 104° F / 0	° - 40° C		
	neters		( simultaneousl		ative Humidity		80%, non-con	densing		
PLC Remote	Interface	Run Programs P1 O	, P2, P3, and Ou n/Off	utput Alt	itude		Below 6500 feet	: / 2000 m		
Memory (sta	andard)	3 Programmable M each for Voltage, Delay Time, Cur L	Frequency, Test	Time,						
Calibration		Front Pan	el Calibration		5					
Interface (op	otional)	GPIB	or RS232			APS				
		Expands Men	nories from 3 to	8		100000000				
Auto Voltage	e Adjust	Enables improve withi	d voltage regul n $\pm$ 0.1 V	ation						
						A.M.				
					Cooling fans —	<u>UU</u>				
				Output ci	rcuit breaker —			Input circuit b		

Rear Panel View

Casters

## **APS 3000 SERIES**

The APS 3000 series consists of eight 3 phase output instruments ranging in size from 3 kVA to 120 kVA. The converters allow the user to duplicate a utility grid of either 50 or 60 hertz for export product testing or operation of imported equipment.

The frequency can be adjusted to 400 hertz for applications such as the testing of military/avionics equipment or for the operation of 400 hertz electronics that are on-board an aircraft or a military vessel. The adjustable frequency band of 45 to 500 Hertz in conjunction with the dual voltage ranges of 0-150 volts or 0-300 volts provides full capabilities for testing and operating electronics worldwide. Setup and operation of the APS 3000 Series is exceptionally easy. The simple front panel layout allows users to continuously vary voltage and frequency or to select preset standard frequency settings. Individual meter displays provide digital readouts for frequency, voltage and current while a digital multimeter displays power or power factor. The APS 3000 Series converters are a simple and cost effective solution for all of your AC power conversion needs!

#### Key Features & Specifications for the APS 3000 Series

- Dual Output Voltage Ranges
- Input to Output Isolation
- Output Voltage Distortion (Vthd) less than 1%
- Input Requirements: 208, 220, 240, 380, 415, 480 VAC ± 10%, 3 phase, 47-63 Hz. (3kVA and 6kVA, 220, 230, 240VAC 1 phase, APS 3090 and larger require 380V or higher)
- Intuitive Front Panel Controls
- Easy to Read LED Displays: Frequency, Voltage, Current, Power and Power Factor
- Memory Locations: Can save three desired settings of any voltage, frequency and current limit output parameters

## AVAILABLE 3000 SERIES MODELS



Three Phase Power Power: 3kVA to 180kVA Voltage: 150V/300V/600V Frequency: 45-500Hz



Model APS 3060

MODEL	RATED POWER (VA)	No. PHASES	FREQ RANGE (Hz)	VOLTAGE	CURRENT (A) per Phase	AC INPUT POWER	DIMENSION
APS 3003	3,000	3	45 - 500	0-150 / 0-300VL-N 0-260 / 0-520VL-L	8.4 / 2.1	230V, 1ø, 47-63 Hz	34 x 26 x 17″
APS 3006	6,000	3	45 - 500	0-150 / 0-300VL-N 0-260 / 0-520VL-L	16.8 / 8.4	230V, 1ø, 47-63 Hz	34 x 26 x 17″
APS 3009	9,000	3	45 - 500	0-150 / 0-300VL-N 0-260 / 0-520VL-L	25.5 / 12.6	208-480, 3ø, 47-63 Hz	33 x 39 x 24″
APS 3015	15,000	3	45 - 500	0-150 / 0-300VL-N 0-260 / 0-520VL-L	42 / 21	208-480, 3ø, 47-63 Hz	33 x 39 x 24″
APS 3030	30,000	3	45 - 500	0-150 / 0-300VL-N 0-260 / 0-520VL-L	84 / 42	208-480, 3ø, 47-63 Hz	38 x 39 x 24″
APS 3060	60,000	3	45 - 500	0-150 / 0-300VL-N 0-260 / 0-520VL-L	168 /84	208-480, 3ø, 47-63 Hz	65 x 39 x 32″
APS 3090	90,000	3	45 - 500	0-150 / 0-300VL-N 0-260 / 0-520VL-L	252 / 126	380-480, 3ø, 47-63 Hz	71 x 39 x 48″
APS 3120	120,000	3	45 - 500	0-150 / 0-300VL-N 0-260 / 0-520VL-L	336/168	380-480, 3ø, 47-63 Hz	71 x 47 x 48″
APS 3150	150,000	3	45 - 500	0-150 / 0-300VL-N 0-260 / 0-520VL-L	420 / 210	380-480, 3ø, 47-63 Hz	71 x 47 x 63″
APS 3180	180,000	3	45 - 500	0-150 / 0-300VL-N 0-260 / 0-520VL-L	504 / 252	380-480, 3ø, 47-63 Hz	71 x 47 x 63″

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AC OUTPUT		AP\$3003	AP\$3006	APS3009	APS3015	APS3030	AP\$3060	APS3090	APS3120	APS3150	APS3180
Power	Total	3 kVA	6 kVA	9 kVA	15 kVA	30 kVA	60 kVA	90 kVA	120 kVA	150 kVA	180 kVA
	Per Phase	1 kVA	2 kVA	3 kVA	5 kVA	10 kVA	20 kVA	30 kVA	40 kVA	50 kVA	60 kVA
Output Phases						/ 5 Wire (L1					
Voltage	Ranges					-N / 260VL-L,				<u>^</u>	
5	Resolution		-	300VL-N/520\	/L-L and 600		-∟ Kange pai 1 V	rs available	- Option 60	0	
	Accuracy						+ 0.2 V )				
Load Regulatio							.5%				
Harmonic Disto		)				$\leq$ 1% ( Resis	tance Load	)			
Frequency	Range						00 Hz				
	Resolution	0.1 Hz at 45 - 99.9 Hz 1 Hz at 100 - 500 Hz									
	Accuracy						.2%				
Phase Current		e 8.4 A	16.8 A	25.2 A	42.0 A	84.0 A	168.0 A	252.0 A	336.0 A	417.0 A	500.0 A
	300V range		8.4 A	12.6 A	21.0 A	42.0 A	84.0 A	126.0 A	168.0 A	208.0 A	250.0 A
Crest Factor	j						to 1				
Protection					Over Cu	urrent, Short	t Circuit, Ove	er Temp.			
Efficiency						> 85% (at	t full load)				
AC INPUT		AP\$3003	AP\$3006	APS3009	APS3015	APS3030	APS3060	APS3090	APS3120	APS3150	APS3180
nput Phases		1Ø / 2 Wire	e + Ground			+ ground				+ ground	
Voltage		2301/	± 15%	208V, 220	V, 240V (3W	/+G), 380V, 4	15V, 480V	3801	V, 415V, 480	_	100%
-		2500	± 1 <b>3</b> /0		(4W+C	5) ±10%		200	v, TJV, TOU	v (+vv+0) ±	.1070
Frequency						47 -	63Hz				
MECHANICAL		APS3003	APS3006	APS3009	APS3015	AP\$3030	APS3060	APS3090	APS3120	APS3150	APS3180
Dimensions	inches	34 x 2	26 x 17	33 x 3	9 x 24	38 x 39 x 24	65 x 38 x 32	71 x 39 x 48	71 x 47 x 48	71 x 47 x 63	71 x 47 x 63
(HxDxW)	mm	864 x 60	60 x 432	839 x 98	30 x 600	949x980x600	1662x980x800	1805x980x1200	1805x1180x1200	1805x1180x1200	1805x1180x1200
Weight (Kg / lb	s.)	140/308	175/385	299/659	362/798	547/1206	909/2004	1505/3318	2139/4716	1800/3968	1800/3968
DISPLAYS & C						ENVIRON	MENTAI				
		Frequency,	Voltage, Cur	rrent. Power	or			e	32° - 104	° F / 0° - 40°	C
4 Digit LED Met	ters		actor ( simul			Operating Temperature $32^\circ$ - $104^\circ$ F / $0^\circ$ - $40^\circ$ CRelative Humidity $80\%$ , non-condensing					
PLC Remote Int	torfaco	Run Progra	ms P1, P2, P	3, and Outp	ut				Below 6500 feet / 2000 m		
LC Remote mi			On/Off			,				0.000, 200	• • • • •
		3 Programma									
Memory (stand	lard)	each for Volt		ency, Test Fir Power and Pl							
		Delay IIII	Limits	ower and th	I						
Calibration		Fron	nt Panel Cali	bration			ā.				
nterface (optio	onal)		GPIB or RS2	32			-	APS		-	
•		Expands	s Memories	from 3 to 8							
Auto Voltage A	diuct			age regulatio	on						
Auto voltage A	ujust		within ± 0.1	1 V			-				
								~			
						Cooling	fans 🔶			)).	
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					Outp	ut circuit bre	aker —			In	put circuit br
								1-1-1-1			
					Out	put connect	ions —	×		· 🔶 In	put connecti
					Out	put connect	ions —	>		In	put connecti
					Out	-	ions ————————————————————————————————————			- In	put connecti

#### Service and Support

Adaptive Power Systems' customer support is second to none. Our Customer Support Program provides the training, repair, calibration, and technical support services that our customers value. So, in addition to receiving the right test equipment, our customers can also count on excellent support before, during and after the sale. With company owned support and service centers around the world, support is never far away.





## Warranty and Service Centers

**New Product Warranty:** All AC Power Products carry a one year factory warranty. Complete calibration and repair services are offered at our US, Europe or China manufacturing facilities (see contact info below). Calibrations are to original factory specifications and are traceable to NIST (National Institute of Standards and Technology).

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