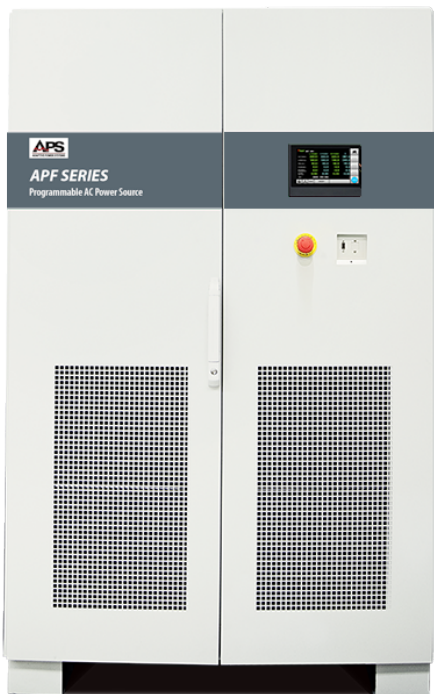




APF3000 Series | Three-Phase

High Power Programmable AC Source

15 up to 150 kVA/KW



RoHS 
Compliant

15~150 kVA / kW

- Output Voltage:
 - 0-155V low range, 0-310V high range
 - Option: 0-400V (L-N) or 0-600V (L-N)
- Output Frequency: 45-120Hz standard
 - Option: 45-500Hz or 300-840Hz
- Total Harmonic Distortion (THD): $\leq 0.5\%$
- Precise Output Regulation: $\leq 0.5\%$
- Up to 200% overload capability (optional)

Standard

RS-232

RS-485

Ethernet

Option

GPIO

Analog

USB

APF3000 Series: Designed for Performance, Reliability & Precision

The **Adaptive Power Systems APF3000 Series** provides a practical, reliable, and easy to use test solution for high power applications *without complexity*.

Ideal for programmable high-power testing and simulation applications, the APF Series provides clean, stable power with **low harmonic distortion (THD $\leq 0.5\%$)** and **precise output regulation ($\leq 0.5\%$)**, ensuring accuracy in the most demanding environments.

Key Advantages

- Affordable Programmable Power
- User-Friendly Interface, Easy to Use
- Clean, Stable Power with Low THD
- Consistent, Reliable Performance
- Practical Power Simulation Capabilities
- Adaptable for Diverse Needs
- Layers of Safety
- Excellent Customer Support

Applications



Frequency Conversion

Accurately simulate range of frequency conditions.



Home Appliance Testing

Simulate real-world voltage conditions for reliability testing.



Motor, Transformer Testing

Deliver precise frequency and voltage adjustments for performance evaluation.



Medical Equipment

Ensure stable and clean power for critical devices.



Lighting and EMC Laboratory Use

Meet industry standards for compliance testing.

Advanced Programmability *Without the Complexity*

User-Friendly Touch Screen

Simplifies setup and monitoring with an easy-to-use interface.



Three Phase RAMP and STEP Adjustment

Easily simulate power line disturbances using built-in STEP and RAMP functions.

Easily automate high line / low line voltage immunity test sequences using either mode.

- 24 STEP Entries available
- 12 RAMP Entries available

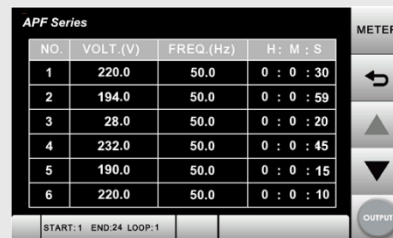


Figure 1 STEP Mode Screen

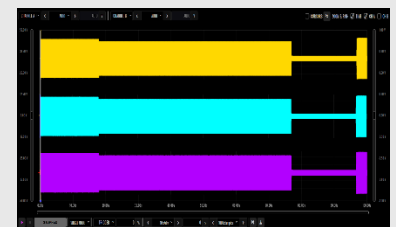


Figure 2 Scope Capture STEP Output

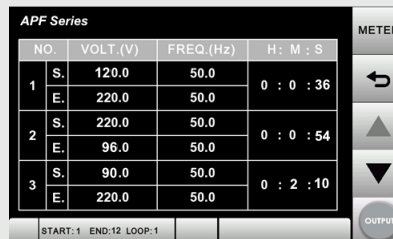


Figure 3 RAMP Mode Screen

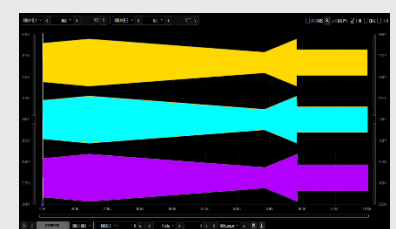
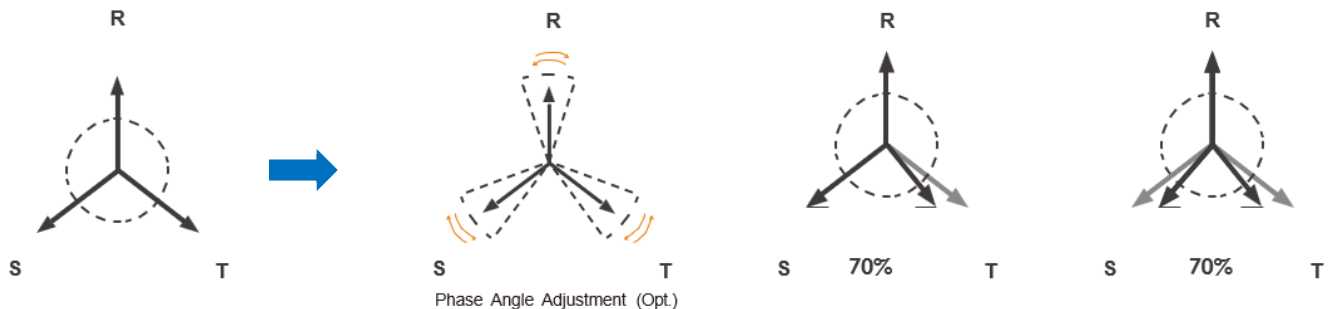


Figure 4 Scope Capture RAMP Output

Independent Phase Angle Adjustment (Option) for Effective Power Line Simulation



Flexible Options to Meet Your Test Requirements

Broader Frequency & Higher Voltage Range (Optional)

- **Optional frequency from 300 to 840Hz** ideal for aerospace and defense or used for double frequency test of a transformer.
- **Optional Output up to 400V(L-N)/690V(L-L) or 600V(L-N)/1039V(L-L)** motors that need higher input voltage.



300 to 840 Hz Option



400V, 600V Option

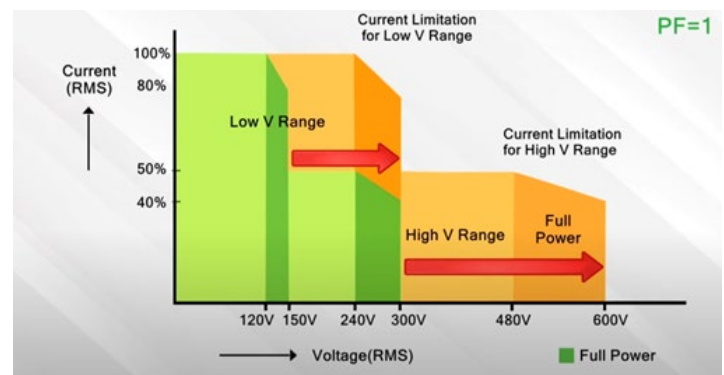
Overload Capability (Optional)

An inductive UUT (Unit under Test), such as motor or water pump, can generate significant inrush current when activated. The APF Series has optional overload capability that can support this inrush current as needed.

200% 2 sec

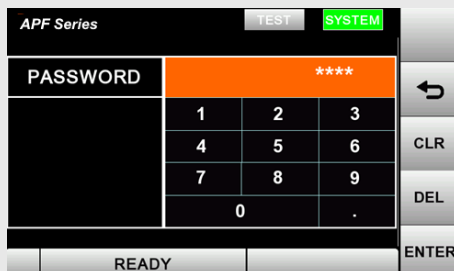
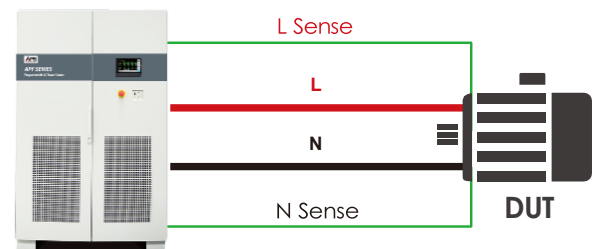
150% 5 sec

125% 15 sec



Remote Voltage Drop Compensation (Optional)

Remote Sensing capability compensates for voltage drop caused by long cable lengths so there is no need to adjust the set voltage.



Built-in Safety Protection Features

- **Comprehensive Under/Over Protections:** UVP, OVP, OCP, OTP
- **29 Additional Safety Features:** Protects the power source & DUT
- **Screen Lock Password Function:** Restrict unauthorized access to critical settings
- **CE and RoHS Certified:** Meets international safety and environmental standards.

Technical Specifications



Three Phase Output Models – 15kVA to 45kVA

Model:		APF3015		APF3030		APF3045	
AC Output							
Power (kVA / kW)		15		30		45	
Phase Mode		Three Phase, 4 Wire + Ground					
Voltage Range		Low: 0 ~ 155 V L-N; High: 0 ~ 310 V L-N					
Resolution		0.1 V					
Accuracy		0.5% F.S. + 4 Counts					
Frequency Range ¹		A version: 45~500Hz, B version: 45~120Hz, C version: 300~840Hz					
Resolution		0.1 Hz					
Accuracy		± 0.02% F.S.					
Current RMS max.		Low Vrange	41.7 A	83.3 A	125.0 A		
		High Vrange	20.8 A	41.7 A	62.5 A		
Line Regulation		< 0.5 %					
Load Regulation		≤ 0.5% (Resistive Load)					
Voltage Distortion		THD ²	≤ 0.5% (Resistive Load)				
Response Time		V change	≤ 1 msec				
Crest Factor		Current	≥ 3:1				
Measurements							
		Range		Resolution:		Accuracy:	
Voltage	Vrms	0 ~ 310V		0.1 V		0.5% F.S. + 4 counts	
Frequency	Hz	45.0 ~ 840 Hz		0.01 Hz		±0.02% F.S.	
Current	Arms	See Current Spec.		0.1 A		0.5% F.S. + 4 counts	
Power	KWatt	See kVA Spec.		0.1 kW		1.0% F.S + 6 counts	
AC Input Mains							
Frequency Line		47 Hz ~ 63 Hz					
Phase Mode		3 Phase / 3 Wire + Ground					
Input Voltage ³		-208	208Vac ± 10%				
Line Current		Max ⁴	60	121	181		
Input Voltage ³		-480	480Vac ± 10%				
Line Current		Max ⁴	26	52	78		
Input Power Factor		≥ 0.9 @ Max. Power					
General Specifications							
Efficiency		> 90% at Max. Power					
User Interface		7" Color Touch Screen					
Program Modes		STEP: 24 sets / 255 cycles. (Volt./Freq./Time) RAMP: 12 sets / 255 cycles. (Volt./Freq./Time)					
Soft Start		Setting: Rated Volt. / Rated Freq. / Start Volt. / Start Freq. / Delay Time / Ramp Time					
Protections		Input: Input No Fuse Breaker (N.F.B), Over Voltage, Under Voltage, Output: Over Voltage, Over Current, Over Temperature; Unit will display the error code and give a warning sound.					
Remote Control		Standard: RS-232/RS-422/RS-485/Ethernet; Available Options: GPIB, Analog, USB					
Temp/Humidity		Temperature: 0° ~ 45° operating; Humidity: 0 ~ 90%, non-condensing					
Dimensions (Including wheels)		H x W x D	1440 x 628 x 840 mm 56.7" x 24.7" x 33"	1440 x 628 x 840 mm 56.7" x 24.7" x 33"	1645 x 828 x 840 mm 64.8" x 32.6" x 33"		
Weight		kg / lbs	305kg / 672.4lb	400kg / 882lb	560kg / 1234.6		

1. For type A(45-500Hz) and models with output power of 20kVA +, the available output power derates from 100% at 100Hz to 60% at 500Hz.
2. THD shown is for the output frequency from 45 to 65Hz and output voltage setting from 90 - 140Vac on Low voltage range or 180 - 280Vac on High voltage range and with a resistive load. THD for type C 300-840Hz frequency range models is ≤ 2%, Please contact us for other available input voltage specifications options.
3. The max. input current is calculated at stated AC input voltage nominal - 15% (low line)

All specifications are subject to change without notice.

Three Phase Output Models – 60kVA to 150kVA

Model:		APF3060	APF3075	APF3100	APF150
AC Output					
Power (kVA / kW)		60	75	100	150
Phase Mode		Three Phase, 4 Wire + Ground			
Voltage Range		Low: 0 ~ 155 V L-N; High: 0 ~ 310 V L-N			
Resolution		0.1 V			
Accuracy		0.5% F.S. + 4 Counts			
Frequency Range ¹		A version: 45~500Hz, B version: 45~120Hz, C version: 300~840Hz			
Resolution		0.1 Hz			
Accuracy		± 0.02% F.S.			
Current RMS max.	Low Vrange	166.7 A	208.3 A	277.8 A	416.7A
	High Vrange	83.3 A	104.2 A	138.9 A	208.3A
Line Regulation		< 0.5 %			
Load Regulation		≤ 0.5% (Resistive Load)			
Voltage Distortion	THD ²	≤ 0.5% (Resistive Load)			
Response Time	V change	≤ 1 msec			
Crest Factor	Current	≥ 3:1			
Measurements					
		Range	Resolution:	Accuracy:	
Voltage	Vrms	0 ~ 310V	0.1 V	0.5% F.S. + 4 counts	
Frequency	Hz	45.0 ~ 840 Hz	0.01 Hz	±0.02% F.S.	
Current	Arms	See Current Spec.	0.1 A	0.5% F.S. + 4 counts	
Power	KWatt	See kVA Spec.	0.1 kW	1.0% F.S + 6 counts	
AC Input Mains					
Frequency Line		47 Hz ~ 63 Hz			
Phase Mode		3 Phase / 3 Wire + Ground			
Input Voltage ³	-480 Model	480Vac ± 10%			
Line Current	Max ⁴	105	131	184	297.9
Input Power Factor		≥ 0.9 @ Max. Power			
General Specifications					
Efficiency	> 90% at Max. Power				
User Interface	7" Color Touch Screen				
Program Modes	STEP: 24 sets / 255 cycles. (Volt./Freq./Time) RAMP: 12 sets / 255 cycles. (Volt./Freq./Time)				
Soft Start	Setting: Rated Volt. / Rated Freq. / Start Volt. / Start Freq. / Delay Time / Ramp Time				
Protections	Input: Input No Fuse Breaker (N.F.B), Over Voltage, Under Voltage, Output: Over Voltage, Over Current, Over Temperature; Unit will display the error code and give a warning sound.				
Remote Control	Standard: RS-232/RS-422/RS-485/Ethernet; Available Options: GPIB, Analog, USB				
Temp/Humidity	Temperature: 0° ~ 45° operating; Humidity: 0 ~ 90%, non-condensing				
Dimensions (Including wheels)	H x W x D	1645 x 828 x 840 mm 64.8" x 32.6" x 33.1"	1900 x 1178 x 1200 mm 74.8" x 46.4" x 47.2"		
Weight	kg / lbs	670kg / 1477.1/b	960kg / 2116.4lb	1170kg / 2579.4lb	1835Kg / 4045 lbs

1. For type A (45-500Hz) and models with output power of 20kVA +, the available output power derates from 100% at 100Hz to 60% at 500Hz.
2. THD shown is for the output frequency from 45 to 65Hz and output voltage setting from 90 - 140Vac on Low voltage range or 180 - 280Vac on High voltage range and with a resistive load. THD for type C 300-840Hz frequency range models is ≤ 2%.
3. Please contact us for other available input voltage specifications options.
4. The max. input current is calculated at stated AC input voltage nominal - 15% (low line).

All specifications are subject to change without notice.

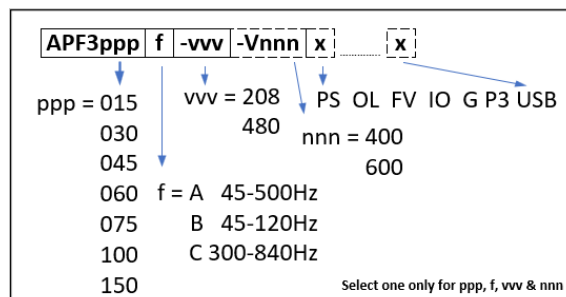
Ordering Information



Standard Models	Description	AC Input
APF3015	AC Power Source, Three Phase Output, 15kVA	-208 or -480V
APF3030	AC Power Source, Three Phase Output, 30kVA	-208 or -480V
APF3045	AC Power Source, Three Phase Output, 45kVA	-208 or -480V
APF3060	AC Power Source, Three Phase Output, 60kVA	-208 or -480V
APF3075	AC Power Source, Three Phase Output, 75kVA	-480V
APF3100	AC Power Source, Three Phase Output, 100kVA	-480V
APF3150	AC Power Source, Three Phase Output, 150kVA	-480V

APS Option	Power (VA)	Note
A	Type A: Output Frequency 45-500Hz*3.	Changes "B" postfix to A
B	Type B: Output Frequency 45-120Hz*3.	No Charge.
C	Type C: Output Frequency 300-840Hz*1*3	Changes "B" postfix to C
PS	Programmable Start Angle 0-359°*3	
OL	Overload Capability 200% 2 sec, 150% 5 sec, 125% 15 sec*3	
FV	Fast Voltage Response Option (with Time Setting Resolution 0.01S)*2	
IO	Analog Control Interface	
G	GPIO Interface	
P3	Three Phase Angle Adjustment (3 Phase Models only)	
-200	Input Voltage 200V*3	
-208	Input Voltage 208V*3	
-240	Input Voltage 240V*3	
-400	Input Voltage 400V	
-480	Input Voltage 480V	
V400	Output Voltage 0-400V (L-N)	
V600	Output Voltage 0-600V (L-N)	
U	Interface Card (Ethernet/RS-232&RS-485/ USB)	Replaces standard Ethernet / RS232 / RS485

Ordering Encoder



Note: For A,B,C, these three alternative frequency ranges are **mutually exclusive** and have to be selected at time of order. **E.g. APS3015A-208-V400PSOLU** - Three phase, 15kVA AC source with 208Vac Grid Input, the optional 400Vac range output transformer option and the programmable start phase angle option PS with Overload and USB options