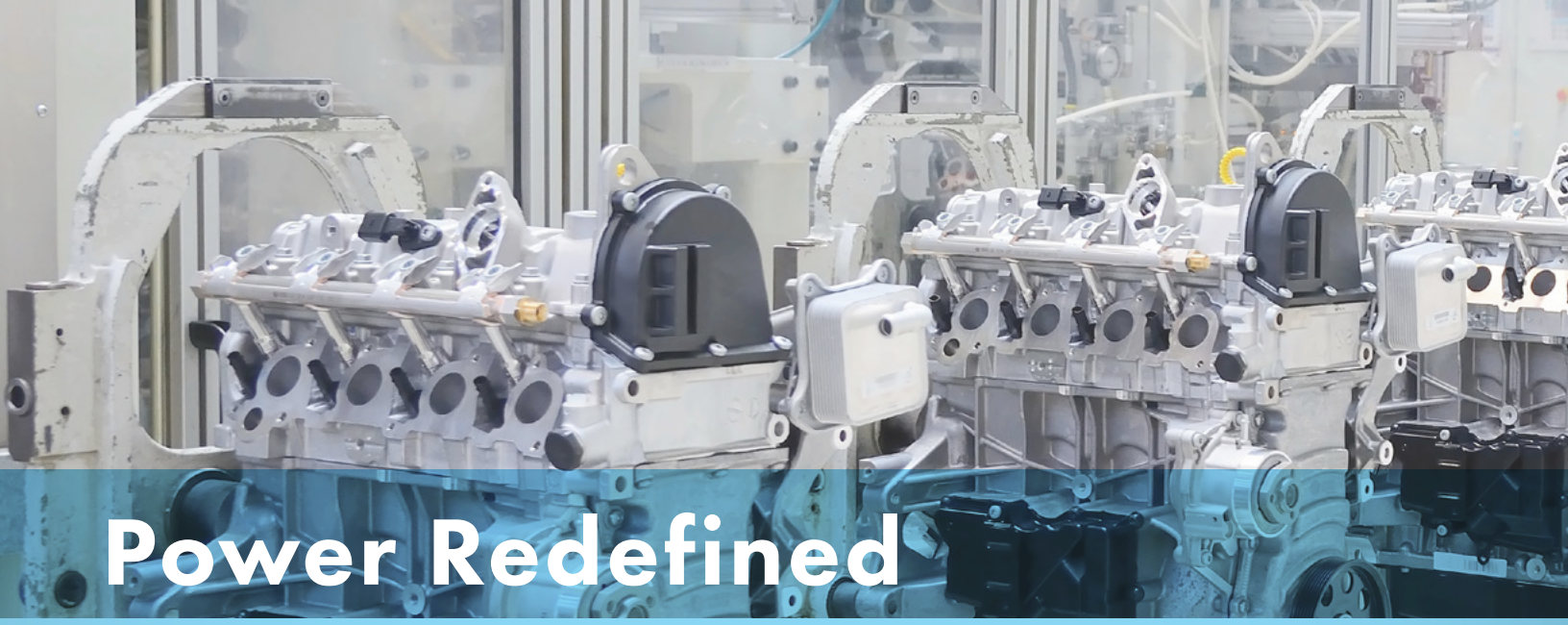
AC Power Sources

Manual • Automated • Modular • Programmable

Power Redefined



Power Redefined

Our Power Sources are designed and supported in the USA. We're factory direct, so you'll never have to deal with a middle man. Our highly trained sales staff focuses on every customer no matter the size of the order. From our industry-leading warranty to our return and repair policies, we have redefined how the power source industry does business. When you compare our dedicated people and extensive support programs, to our competitors, you'll be sure to choose APT.

CHANGING the way the POWER SOURCE INDUSTRY DOES BUSINESS

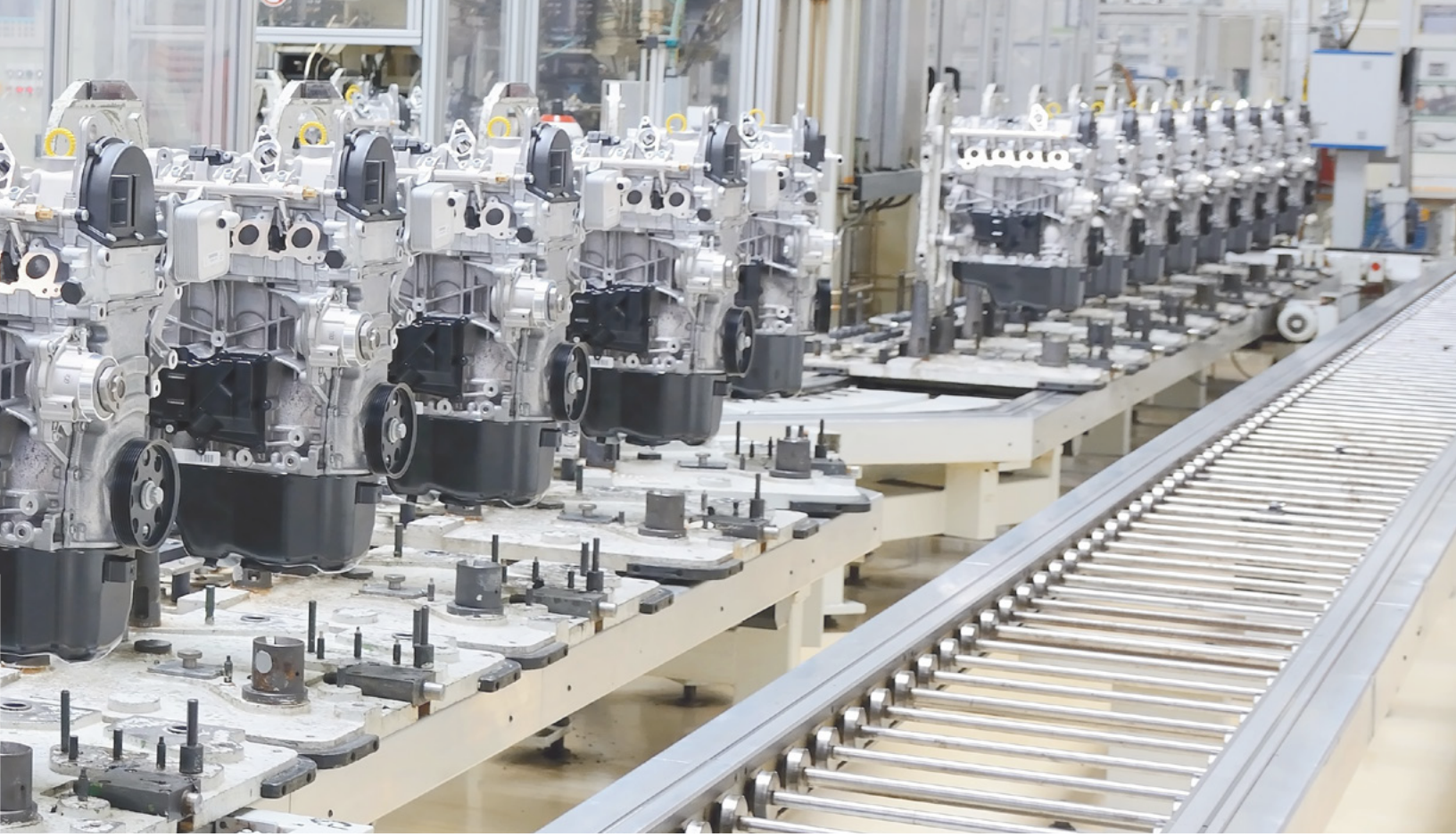
When you choose APT, you're choosing a partner that will continue to assist you throughout the life of your product, no matter what the application.

UNPARALLELED SERVICE & SUPPORT

No competitor can match our dedication to service and support. With 1 business day shipping on all models and 5 business day turnaround on all repairs, APT keeps your business up and running with minimal down-time.

TRADE-IN & TRADE-UP

We are proud to have a generous and responsible trade-in program. It is our little way of saying thanks for continuing to use our instruments. Simply send us your old instrument and we'll give you a credit towards your purchase. We accept any brand, make or model towards your trade-in discount of your new APT instrument.*
*Offer only available in North America.



CUSTOMER HAPPINESS PROMISE

We aim to provide an amazing experience and quality power sources that last a long time. If you're not satisfied with your power source, return it within 45 days for a full refund. Calibrate annually with us, or one of our authorized partners, and we'll extend your warranty an additional year for the service life of your power source, and at least five years after discontinuation. If it breaks during that time, we promise to fix it for free (unless abuse or excessive damage is present). When your power source reaches the end of its service life, we'll responsibly recycle it and give you a discount on a replacement.

*Annual calibration and inspection must be made in each successive year starting one year after the original purchase date in order to remain eligible for extended warranty coverage beyond the standard warranty period (five years).

5 YEAR WARRANTY

Your new power source is warranted to be free from defects in workmanship and material for a period of (5) years from date of shipment.

**5 year warranty is valid on any model purchased in 2021 or after.

ONGOING SUPPORT

We work to provide the best service and support in the industry. With decades of industry experience we are the pros you can trust to help you be compliant to NRTL standards. We'll work closely with you to help you achieve your goals. We've built a worldwide network of knowledgable partners, so you're covered no matter where you are.

Product Reference Chart

	Output Power Capability									Output Configurations		
Model	500 VA	1 kVA	2 kVA	3 kVA	4 kVA	6 kVA	8 kVA	12 kVA	18 kVA	1 Phase	Split 1 Phase (2 Lines/1 Neutral)	3 Phase
460XAC						●				●	●	●
8505	●									●		
8512			●							●		
8520				●						●		
8540						●				●		

1 Day Shipping

All APT power sources are shipped from our factory within 1 business day guaranteed.
If your order ships late, we pay the freight.

	Output Capabilities of V, Hz & A			General Features		
Model	Voltage Output Max	Frequency Output Range	Max A @ ≤110V/220V (per phase)	PC Control	CE Mark	Free GUI Available
460XAC	300/600/520*	40-1000	18.4A/9.2A	●	●	●
8505	310	5.0-1200	5.0A/2.5A	Progammable Mode Only	●	Progammable Mode Only
8512	310	5.0-1200	12.5A/6.25A	Progammable Mode Only	●	Progammable Mode Only
8520	310	5.0-1200	20A/10A	Progammable Mode Only	●	Progammable Mode Only
8540	310	5.0-1200	40A/20A	Progammable Mode Only	●	Progammable Mode Only

x2 = the number of sources required to achieve an output rating.
x3 = the number of sources required to achieve an output rating and 3 phase.
300/600/520* = 300V phase 1Ø, 600V split 1Ø, 520V 3Ø

PowerTRAC™ AC Power Source Control and Data Capture Software

Our PowerTRAC software takes the industry standard Power Source control software to the next level with data capture. Quickly export your test results to an Excel spreadsheet and improve traceabilty.

- Complete control from anywhere
- Real world simulation of voltage and frequency
- Visually see what your output and transients look like

AVAILABLE AS A FREE DOWNLOAD!

8500 Series

Programmable AC Power Source

The APT 8500 Series is the most power dense and functionality rich source in APT history, giving you improved capability, functionality, and a reduced footprint in one series. These new models provide an output voltage of up to 310 VAC and an output frequency ranging from 5 Hz - 1,200 Hz, making it the obvious solution for all kinds of applications. Configure this power source as a simple bench top AC Power Source in Manual mode or, as an upgraded option, Programmable mode, to be used with an interface to a PC. The 8500 Series includes the following models: 8505, 8512, 8520, 8540

Features

- 14 pre-configured waveforms allow you to simulate nearly any abnormal condition on your DUT by simply selecting the waveform you would like to output.
- With expanded output voltage to 310VAC and output frequency from 5Hz to 1200Hz, the 8500 provides a single, simple solution to meet a wide variety of testing applications.
- Programmable mode option allows you to easily simulate voltage surges, voltage drops, voltage pulses, voltage sweeps, DC bias, and frequency sweeps to help make meeting the specific needs of your testing application easier than it has ever been.
- High power density with a reduced overall footprint offers you the flexibility you need to use your 8500 Series power source in either a bench top or rack mount application.
- Easily upgrade and keep your command set from your 6000, 7000, or 300XAC Series with the legacy program mode.

Standard

- USB/RS-232 Interface
- Ethernet Interface

Options

- GPIB Interface

DRIVER AVAILABLE

Start Output
PowerTRAC™ AVAILABLE

Applicable Industries

Aerospace | Appliance | Laboratory | Networking | System Integrator | Lighting | Medical

APT Benefits

5 YEAR WARRANTY

1 DAY GUARANTEED SHIPMENT

Modes

INPUT	MANUAL MODE (STANDARD)	PROGRAMMABLE MODE (OPTION)
Manual Operation	•	•
PC Interface (USB/LAN standard, optional GPIB)		•
PowerTRAC Compatibility		•
Voltage, Frequency, Transient, and DC Bias Sweeps		•

Specifications – 8500

INPUT			8505	8512	8520	8540
Phase			1Ø2W			
Voltage			100 - 240 V ± 10%			200 - 240 V ± 10%
Max. Current			8A	18A	30A	30A
Power Factor			≥0.93 at Full load	≥0.97 at Full load		
AC OUTPUT						
Power Rating	1Ø2W		500VA	1250VA	2000VA	4000VA
Max. Current (RMS)	1Ø2W	0 - 155V	5A @ 100V	12.5A @ 100V	20A @ 100V	40A @ 100V
		0 - 310V	2.5A @ 200V	6.25A @ 200V	10A @ 200V	20A @ 200V
Inrush Current (peak)	1Ø2W	0 - 155V	20A	50A	80A	160A
		0 - 310V	10A	25A	40A	80A
Frequency			5.0 - 1200 Hz			
Phase			1Ø2W			
THD (Total Harmonic Distortion)			≤0.3% @ 50/60Hz (Full Resistive Load) ≤1.1% @ 5 -1000Hz (Full Resistive Load) ≤1.2% @1001-1200Hz (Full Resistive Load)			
Crest Factor			≥3			
Line Regulation			± 0.1 V			
Load Regulation (Hardware)			± (1% of output +0.5V) @ Resistive Load, < 400µS response time			
Load Regulation (Software)			±0.2V, <1S response time			
DC offset			DC Offset ≤±30mV (typical)			
DC OUTPUT						
Power Rating			300W	750W	1200W	2400W
Max. Current	0 - 210V		3.0A	7.5A	12.0A	24.0A
	0 - 420V		1.5A	3.75A	12.0A	24.0A
Ripple & Noise (rms)	Range	L	< 700mV			< 800mV
		H	< 700mV			< 800mV
Ripple & Noise (p-p)			< 6.0Vp-p			< 7.0Vp-p
SETTINGS			**8505**	**8512**	**8520**	**8540**
Voltage (AC)	Range		0 - 310V, 155/310V Auto Range			
	Resolution		0.1V			
	Accuracy		±(0.2% of setting + 3 counts)			±(0.2% of setting + 6counts)
Voltage (DC)	Range		0 - 420V, 210/420V Auto Range			
	Resolution		0.1V			
	Accuracy		±(0.2% of setting + 3counts)			±(0.2% of setting + 6counts)
Frequency	Range		DC, 5 - 1200Hz Full Range Adjust			
	Resolution		0.1Hz at 0.0 - 999.9Hz, 1Hz at 1000 - 1200Hz			
	Accuracy		±0.03% of setting (≥15Hz)			
Start Angle	Range		0~359o			
	Resolution		1o			

Specifications – 8500 Series

SETTINGS			8505	8512	8520	8540
Current Hi Limit OC Fold=OFF) OC Fold Back (OC Fold = ON)	0 - 155V		0.05 - 5.00A	0.05 - 12.50A	0.05 - 20.00A	0.10 - 40.00A
	(0 - 310V		0.05 - 2.50A	0.05 - 6.25A	0.05 - 10.00A	0.10 - 20.00A
	Resolution		0.01 A			
	Accuracy		± (2.0% of setting + 4 counts)			
OC Fold Back Response Time			< 1.4S			
Time†	Range		1.0 - 999.9H 1.0 - 999.9M 1.0 - 999.9s 0.1 - 999.9ms			
	Resolution		0.1h 0.1Min 0.1s 0.1ms			
	Accuracy		± (0.1% + 0.1 Hour) ± (0.1% + 0.1 Minute) ± (0.1% + 0.1 sec) ± (0.1% + 0.1 ms)			
Time Unit†			Hour, Minute, Second, ms			
Ramp Up†	Range		0.1 - 999.9s, 0 = OFF			
	Resolution		0.1s			
	Accuracy		± (0.1% + 1 Cycle) at Output frequency ≤ 10Hz ± (0.1% + 0.1 sec) at Output frequency > 10Hz			
MEASUREMENT						
Frequency	Range		0.0~1200Hz			
	Resolution		0.1Hz / 1Hz			
	Accuracy		±0.1Hz @ 5 - 999.9Hz. ±1Hz @ 1000 - 1200Hz			
Voltage (AC)	Range		0 - 310V, 155/310V Auto Range			
	Resolution		0.1V			
	Accuracy		±(0.2% of reading + 3 counts) at voltage > 5V			±(0.2% of reading + 6 counts) at voltage > 5V
Voltage (DC)	Range		0 - 420V, 210/420V Auto Range			
	Resolution		0.1V			
	Accuracy		±(0.2% of reading + 3 counts) at voltage > 5V			±(0.2% of reading + 6 counts) at voltage > 5V
Current (AC, DC)	Range	L	0.0 - 75.0W	0.0 - 300.0W		-
		H	60 - 625W	240 - 1563W	240 - 2500W	0 - 5000W
	Resolution	L	0.1W			-
		H	1W			
	Accuracy	L	± (1% of reading +10 counts) at PF ≥ 0.3 and voltage > 5V	± (2% of reading +15 counts) at PF ≥ 0.3 and voltage > 5V		-
		H	± (1% of reading +5 counts) at PF ≥ 0.3 and voltage > 5V	± (1% of reading +10 counts) at PF ≥ 0.3 and voltage > 5V	± (1% of reading +10 counts) at PF ≥ 0.3 and voltage > 5V	± (1% of reading +20 counts) at PF ≥ 0.3 and voltage > 5V
Power (AC, DC)	Range	L	0.0 - 75.0W	0.0 - 300.0W		-
		H	60 - 625W	240 - 1563W	240 - 2500W	0 - 5000W
	Resolution	L	0.1W			-
		H	1W			
	Accuracy	L	± (1% of reading +10 counts) at PF ≥ 0.3 and voltage > 5V	± (2% of reading +15 counts) at PF ≥ 0.3 and voltage > 5V		-
		H	± (1% of reading +5 counts) at PF ≥ 0.3 and voltage > 5V	± (1% of reading +10 counts) at PF ≥ 0.3 and voltage > 5V	± (1% of reading +10 counts) at PF ≥ 0.3 and voltage > 5V	± (1% of reading +20 counts) at PF ≥ 0.3 and voltage > 5V
Power Factor	Range		0.000 - 1.000			
	Resolution		0.001			
	Accuracy		W/VA, Calculated and displayed to three significant digits			

† Available on in programmable mode option

MEASUREMENT			8505	8512	8520	8540
Power Apparent (VA)†	Range	L	0.0 - 75.0VA	0.0 - 300.0VA		
		H	60 - 625VA	240 - 1563VA	240 - 2500VA	0 - 5000VA
	Resolution	L	0.1VA			
		H	1VA			
	Calculated Formula		V×A, Calculated value			
Peak Current Measurement†	Range		0.0 - 20.0Apk	0.0 - 50.0Apk	0.0 - 80.0Apk	0.0 -160.0Apk
	Resolution		0.1A			
	Accuracy		± (0.5% of reading + 8 counts)			± (0.5% of reading +12 counts)
Reactive Power Measurement†	Range	L	0.0 - 75.0VAR	0.0 - 300.0VAR		-
		H	60 - 625VAR	240 - 1563VAR	240 - 2500VAR	0 - 5000VAR
	Resolution	L	0.01A			
		H	0.01A			
	Calculated Formula		$\sqrt{(VA)2 - (W)2}$			
Crest Factor Measurement†	Range		0.00 - 10.00			
	Resolution		0.01			
	Calculated Formula		Ap / A			
Software OCP			≤110% of full rated current (102% < Io ≤110%), >5 second output shut down >110% of full rated current, <1.5 second output shut down			
Output Short Shut Down Speed			<1 second			
Software OPP			≤110% of full rated current (102% < Po ≤110%), >5 second output shut down >110% of full rated current, <1.5 second output shut down			
Software OVP			Over voltage 105% of full rated voltage			
Software VSENSE OVP		H	When measurement voltage exceeds setting voltage 10V			
		L	When measurement voltage exceeds setting voltage 5V			
Software VSENSE LVP		H	When measurement voltage is lower than setting voltage 10V			
		L	L When measurement voltage is lower than setting voltage 5V			
Hardware OTP			Temperature over 108oC on power component of the PFC and DDC Temperature over 100oC on heatsink of the power amplifier			
Software RCP (Reverse Current Protection)			When reverse power over 5% of full rated power			
Hardware FAN FAIL			When fan fails and fan is blocked			
DIMENSION						
Dimension by Model (mm)	W		430	430	430	430
	H		88	88	88	176
	D		500	500	500	500
Weight			15KG / 33LBS	15KG /33LBS	15KG /33LBS	28KG / 61.7LBS
Storage Environment			-40° to 75°C			
Operation Environment			0-40oC/20-85% RH			

† Available on in programmable mode option

460XAC

3 Phase AC Power Sources

With a unique feature set and competitive price point, our 400XAC Series provides 3Ø AC power in a single box. Our exclusive SmartCONFIG feature allows you to switch from 1Ø to 3Ø or DC output with the push of a button. This maximizes your investment while giving you the AC power that your application needs. The 460XAC is a 6 kVA AC power source.

Features

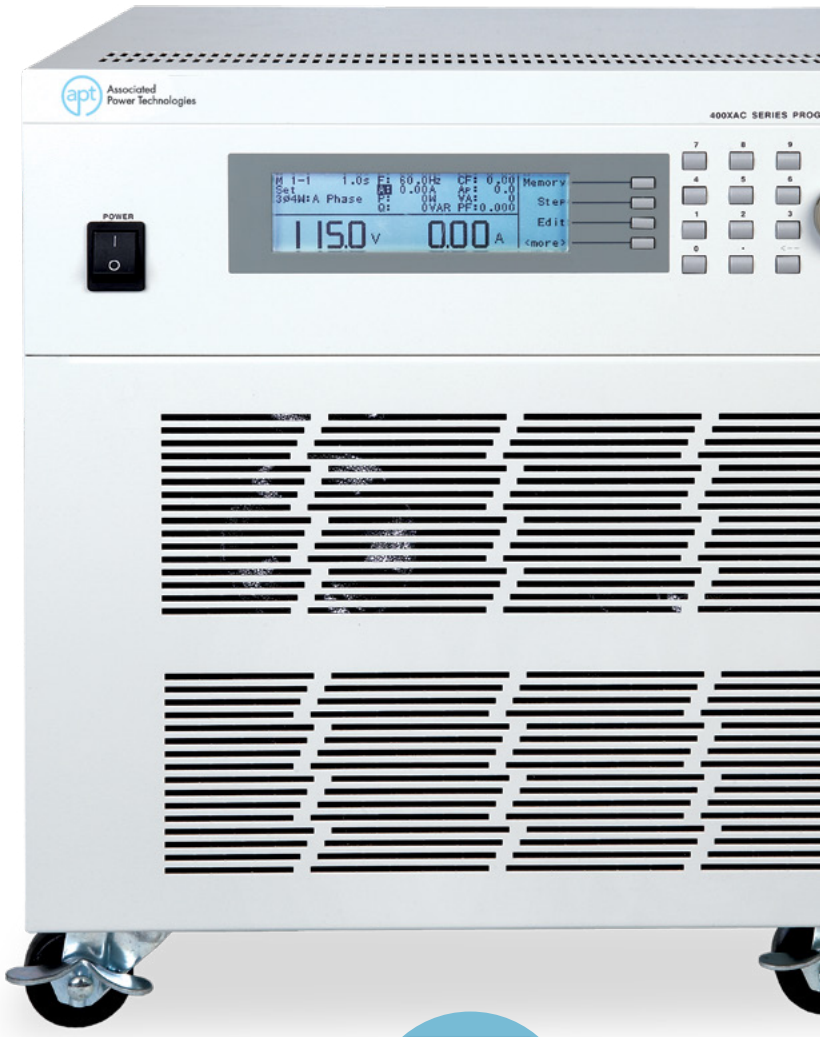
- Exclusive SmartCONFIG feature allows for push button switch of 1Ø, 3Ø, or DC output
- Single phase input power requirements
- 50 built-in memory locations with 9 test steps
- Built-in power factor correction (PFC)
- Advanced metering circuits monitor voltage, current, peak current, power, apparent power, reactive power, power factor, and crest factor
- External voltage sensing for accurate metering
- Transient feature simulates voltage variations, brownouts, and transient voltage conditions
- Programmable starting and ending angle of the output sine wave
- Rack mount handle kit included

Standard

- USB/RS-232 Interface

Options

- GPIB Interface
- Ethernet Interface



IVI DRIVER AVAILABLE

Start Output

PowerTRAC™ AVAILABLE

Applicable Industries

- Aerospace
- Appliance
- Laboratory
- Motor

APT Benefits

- 5 YEAR WARRANTY
- 1 DAY GUARANTEED SHIPMENT

INPUT			460XAC
Phase			1Ø or 3Ø
Voltage			1Ø : 200~240 VAC ± 10% 3Ø3W : 200~240 VAC ± 10% 3Ø4W : 346~416 VAC ± 10%
Frequency			47 - 63 Hz
AC OUTPUT			
Power Rating	1Ø2W		6000 VA
	1Ø3W		Total 4000 VA (2000 VA per phase)
	3Ø4W		Total 6000 VA (2000 VA per phase)
	DC		6000 VA
Max. Current (RMS)	1Ø2W	5- 150 V	55.2 A @ ≤110 V
		5 - 300 V	27.6 A @ ≤220 V
	1Ø3W	5 - 150 V	18.4 A @ ≤110 V for per phase
		5 - 300 V	9.2 A @ ≤220 V for per phase
	3Ø4W	5 - 150 V	18.4 A @ ≤110 V for per phase
		5 - 300 V	9.2 A @ ≤220 V for per phase
Inrush Current (peak)	1Ø2W	5 - 150 V	220.8 A
		5 - 300 V	110.4 A
	1Ø3W	5 - 150 V	73.6 A for per phase
		5 - 300 V	36.8 A for per phase
	3Ø4W	5 - 150 V	73.6 A for per phase
		5 - 300 V	36.8 A for per phase
Phase			1Ø2W, 1Ø3W, 3Ø4W, provided option
THD (Total Harmonic Distortion)			<0.5% (Resistive Load) at 40.0~70.0 Hz and output voltage within the 80~140 VAC at Low Range or the 160~280 VAC at High Range. <1% (Resistive Load) at 70.1~1000 Hz and output voltage within the 80~140 VAC at Low Range or the 160~280 VAC at High Range.
Crest Factor			≥3
Line Regulation			± 0.1 V
Load Regulation (Hardware)			± (1% of output +1 V) at Resistive Load, <400 µS response time
Load Regulation (Software)			± 0.2 V, <1 S response time
DC offset			≤ ± 5 mV
Poly-phase mode (3Ø4W) for per phase output setting			**460XAC**
Voltage	Range		5.0~300 VAC (phase), 8.6~520 VAC (line), 150/300 V Auto Range
	Accuracy		± (0.2% of setting + 3 counts)
Frequency	Range		40~1000 Hz Full Range Adjust
	Accuracy		± 0.03% of setting
Starting & Ending Phase Angle	Range		0~359°
	Accuracy		±1°(45~65 HZ)
Current Hi Limit	5V~150 V		0.01~18.40 A
	5V~300 V		0.01~9.20 A
	Accuracy		± (2.0% of setting + 2 counts)
OC Fold Back Response Time			<1.4 s
Ramp-Up Timer (second)	Range		0.0~999.9 s
	Accuracy		± (0.1% + 0.05 sec)
Ramp-Down Timer (second)	Range		0.0~999.9 s
	Accuracy		± (0.1% + 0.05 sec)
Delay Timer	Range		1 s~999.9 s 0.1 m~999.9 min 0.1 h~999.9 h
	Accuracy		± (0.1% + 0.1 sec)
Dwell Timer	Range		0, 1s~999.9 h (0=continuous)
	Accuracy		± (0.1% + 0.1 sec)
Poly-phase mode (3Ø4W) for per phase measurement			**460XAC**
Frequency	Range		0.0-1000 Hz
	Resolution		0.1 Hz
	Accuracy		± 0.1 Hz (501-1000 Hz Accuracy ± 0.2 Hz)
Voltage	Range		0.0-420.0 V
	Resolution		0.1 V
	Accuracy		± (0.2% of reading + 3 counts)

Specifications – 460XAC

Poly-phase mode (3Ø4W) for per phase measurement			460XAC
Current (RMS)	Range	L	0.005 A~2.400 A
		H	2.00 A~26.00 A
	Accuracy	L	± (1% of reading +5 counts) at 40.0-500 Hz ± (1% of reading +5 counts) at 501-1000 Hz, CF <1.5 and Current (peak) ≤7.2 A
		H	± (1% of reading +5 counts) at 40.0-500 Hz ± (1% of reading +5 counts) at 501-1000 Hz, CF < 1.5 and Current (peak) ≤55.2 A
Current (peak)	Range		0.0 A~76.0 A
	Accuracy		± (1% of reading + 5 counts) at 40.0-70.0 Hz ± (1.5% of reading + 10 counts) at 70.1 - 500 Hz ± (1.5% of reading + 10 counts) at 501 - 1000 Hz and CF <1.5
Power	Range	L	0.0 W~240.0 W
		H	200 W~2600 W
	Accuracy	L	± (2% of reading +15 counts) at 40.0-500 Hz and PF ≥0.2 ± (2% of reading +30 counts) at 501-1000 Hz and PF ≥0.5
		H	± (2% of reading +5 counts) at 40.0-500 Hz and PF ≥0.2 ± (2% of reading +15 counts) at 501-1000 Hz and PF ≥0.5
Power Factor	Range		0 - 1.000
	Accuracy		W / VA, Calculated and displayed to three significant digits
Power Apparent (VA)	Range	L	0.0 VA~240.0 VA
		H	200 VA~2600 VA
	Accuracy		V×A, Calculated value
Power Reactive (Q)	Range	L	0.0 VAR ~ ± 240.0 VAR
		H	0 VAR ~ ± 2600 VAR
	Accuracy		$\sqrt{(VA)^2 - (W)^2}$, Calculated value
Crest Factor	Range		0 - 10.00
	Accuracy		Ap / A, Calculated and displayed to two significant digits

Poly-phase mode (3Ø4W) for Σ measurement			460XAC
Frequency	Range		0.0-1000.0 Hz
	Accuracy		± 0.1 Hz (501-1000 Hz Accuracy ±0.2 Hz)
Voltage	Range		± 0.1 Hz (501-1000 Hz Accuracy ±0.2 Hz)
	Calculated Formula		(A+B+C)/√3, Calculated and displayed to one significant digits
Current (RMS)	Range	L	0.005A~2.400A
		H	2.00A~26.00A
	Calculated Formula	L	$\frac{\sum VA}{\sum V} / \sqrt{3}$
		H	
Power	Range	L	0.0W~720.0W
		H	600W~7800W
	Accuracy	L	A Power + B Power + C Power, Calculated value
		H	
Power Factor	Range		0 - 1.000
	Resolution		0.001
	Accuracy		$\frac{\sum P}{\sum VA}$ Calculated and displayed to three significant digits
Power Apparent (VA)	Range	L	0.0VA~720.0VA
		H	600VA~7800VA
	Calculated Formula	L	$\sqrt{(\sum W)^2 + (\sum Q)^2}$
		H	
Power Reactive (Q)	Range	L	0.0VAR~720.0VAR
		H	600VAR~7800VAR
	Accuracy	L	A VAR + B VAR + C VAR, Calculated value
		H	

Single-phase mode (1Ø2W) Setting		460XAC
Voltage	Range	5.0~300 VAC, 150/300 V Auto Range
	Resolution	0.1 V
	Accuracy	± (0.2% of setting + 3 counts)

Single-phase mode (1Ø2W) Setting			460XAC
Frequency	Range		40~1000 Hz Full Range Adjust
	Resolution		0.1 Hz at 40.0~99.9 Hz , 1 Hz at 100~1000 Hz
	Accuracy		± 0.03% of setting
Starting & Ending Phase Angle	Range		0~359°
	Resolution		1°
	Accuracy		± 1°(45~65 HZ)
Current Hi Limit	5V~150V		0.01~55.20 A
	5V~300V		0.01~27.60 A
	Accuracy		± (2.0% of setting + 2 counts)
OC Fold Back Response Time			< 1.4 s
Single-phase mode (1Ø2W) measurement			**460XAC**
Frequency	Range		0.0~1000 Hz
	Accuracy		± 0.1 Hz (501~1000 Hz Accuracy ±0.2 Hz)
Voltage	Range		0.0~420.0 V
	Accuracy		± (0.2% of reading + 3 counts)
Current (RMS)	Range		0.05 A~78.00
	Accuracy		± (1% of reading +5 counts) at 40.0~500 Hz ± (1% of reading +5 counts) at 501~1000 Hz, CF <1.5 and Current (peak) ≤165.6 A
Current (peak)	Range		0.0 A~228.0 A
	Accuracy		± (1% of reading + 5 counts) at 40.0~70.0 Hz ± (1.5% of reading + 10 counts) at 70.1~500 Hz ± (1.5% of reading + 10 counts) at 501~1000 Hz and CF<1.5
Power	Range		0 W~7800 W
	Accuracy		± (2% of reading +5 counts) at 40.0~500 Hz and PF ≥0.2 ± (2% of reading +15 counts) at 501~1000 Hz and PF ≥0.5
Power Factor	Range		0 - 1.000
	Accuracy		W / VA, Calculated and displayed to three significant digits
Power Apparent	Range		0 VA~7800 VA
	Accuracy		V×A, Calculated value
Power Reactive (Q)	Range		0 VAR~7800 VAR
	Accuracy		$\sqrt{(VA)^2 - (W)^2}$, Calculated value
Crest Factor	Range		0 - 10.00
	Accuracy		Ap / A, Calculated and displayed to two significant digits
Poly-phase mode (1Ø3W) for per phase output setting			**460XAC**
Voltage	Range		5.0~300 VAC (phase), 10.0~600 VAC (line), 150/300 V Auto Range
	Accuracy		± (0.2% of setting + 3 counts)
Frequency	Range		40~1000 Hz Full Range Adjust
	Accuracy		± 0.03% of setting
Starting & Ending Phase Angle	Range		0~359°
	Accuracy		± 1°(45~65 HZ)
Current RI Limit	5V~150V		0.01~18.40 A
	5V~300V		0.01~9.20 A
	Accuracy		± (2.0% of setting + 2 counts)
OC Fold Back Response Time			<1.4 s
Poly-phase mode (1Ø3W) for per phase measurement			**460XAC**
Frequency	Range		0.0-1000 Hz
	Accuracy		± 0.1 Hz (501-1000 Hz Accuracy ±0.2 Hz)
Voltage	Range		0.0-420.0 V
	Accuracy		± (0.2% of reading + 3 counts)
Current (RMS)	Range	L	0.005 A~2.400 A
		H	2.00 A~26.00 A
	Accuracy	L	± (1% of reading +5 counts) at 40.0-500 Hz ± (1% of reading +5 counts) at 501-1000 Hz, CF <1.5 and Current (peak) ≤7.2 A
		H	± (1% of reading +5 counts) at 40.0-500 Hz ± (1% of reading +5 counts) at 501-1000 Hz, CF <1.5 and Current (peak) ≤55.2 A

Specifications – 460XAC

Poly-phase mode (1Ø3W) for per phase measurement			460XAC
Current (peak)	Range		0.0 A~76.0 A
	Accuracy		± (1% of reading + 5 counts) at 40.0-70.0 Hz ± (1.5% of reading + 10 counts) at 70.1-500 Hz ± (1.5% of reading + 10 counts) at 501-1000 Hz and CF <1.5
Power	Range	L	0.0 W~240.0 W
		H	200 W~2600 W
	Accuracy	L	± (2% of reading +15 counts) at 40.0-500 Hz and PF ≥0.2 ± (2% of reading +30 counts) at 501-1000 Hz and PF ≥0.5
		H	± (2% of reading +5 counts) at 40.0-500 Hz and PF ≥0.2 ± (2% of reading +15 counts) at 501-1000 Hz and PF ≥0.5
Power Factor	Range		0 - 1.000
	Accuracy		W / VA, Calculated and displayed to three significant digits
Power Apparent (VA)	Range	L	0.0 VA~240.0 VA
		H	200 VA~2600 VA
	Accuracy		VxA, Calculated value
Power Reactive (Q)	Range	L	0.0 VAR~240.0 VAR
		H	0 VAR~2600 VAR
	Accuracy		$\sqrt{(VA)^2 - (W)^2}$, Calculated value
Crest Factor	Range		0-10.00
	Accuracy		Ap / A, Calculated and displayed to two significant digits
Poly-phase mode (1Ø3W) for L1-L2 measurement			**460XAC**
Frequency	Range		0.0-1000.0 Hz
	Accuracy		± 0.1 Hz (501-1000 Hz Accuracy ± 0.2 Hz)
Voltage	Range		0.0-840.0V
	Accuracy		L1 Voltage + L2 Voltage, Calculated and displayed to one significant digits
Current (RMS)	Range	L	0.005A~2.400A
		H	2.00~26.00A
	Calculated Formula	L	$\frac{\sum VA}{\sum V}$
		H	
Power	Range	L	0.0W~480.0W
		H	400W~5200W
	Accuracy	L	L1 Power + L2 Power, Calculated value
		H	
Power Factor	Range		0 - 1.000
	Calculated Formula		(L1 P + L2 P) / (L1 VA + L2 VA), Calculated and displayed to three significant digits
Power Apparent (VA)	Range	L	0.0W~480.0VA
		H	± 400W~5200VA
	Calculated Formula	L	$\sqrt{(\sum W)^2 + (\sum Q)^2}$ Calculated value
		H	
Power Reactive (Q)	Range	L	0.0VAR ~ ± 480.0VAR
		H	± 400VAR ~ ± 5200VAR
	Calculated Formula	L	L1 VAR + L2 VAR, Calculated value
		H	
DC OUTPUT			
Max. Power			6000 W
Max. Current	0-210 V		28.8 A
	0-420 V		14.4 A
Ripple and Noise (RMS)			Range: 5-210 V <700 mV Range: 5-420 V <1100 mV
Ripple and Noise (p-p)			<4.0 Vp-p
DC SETTINGS			
Voltage	Range		5-210 V / 5-420 V Selectable
	Accuracy		± (0.2% of setting + 3 counts)
Current Hi Limit	5 V-210 V		0.10 - 28.80 A
	5 V-420 V		0.10 - 14.40 A
	Accuracy		± (2.0% of setting + 2 counts)
OC Fold Back Response Time			<1.4 s

DC MEASUREMENT		460XAC
Voltage	Range	0.0-420.0 V
	Accuracy	± (0.2% of setting + 5 counts)
Current	Range	0.05 A~39.00 A
	Accuracy	± (1% of reading +5 counts)
Power	Range	0 W~7800 W
	Accuracy	± (2% of reading +5 counts)
PROTECTION		
Software OCP		Over Current 110% of full rated current >1 second
Output Short Shut Down Speed		<1 second
Software OPP		When over Power 105 ~ 110% of full power >5 second. When over Power >110% of full power <1 second.
Software OTP		Temperature over 120 degree C on the power amp and PFC heatsink
Software OVP	L	When output frequency < 100Hz, maximum voltage deviation + 5V When output frequency 101-500Hz, maximum voltage deviation + 15V When output frequency 501-1000Hz, maximum voltage deviation + 20V
	H	When output frequency < 100Hz, maximum voltage deviation + 10V When output frequency 101-500Hz, maximum voltage deviation + 30V When output frequency 501-1000Hz, maximum voltage deviation + 40V
Software LVP	L	When output frequency < 100Hz, maximum voltage deviation -5V > 0.5 second When output frequency 101-500Hz, maximum voltage deviation -15V > 0.5 second When output frequency 501-1000Hz, maximum voltage deviation -20V > 0.5 second
	H	When output frequency < 100Hz, maximum voltage deviation -10V > 0.5 second When output frequency 101-500Hz, maximum voltage deviation -30V > 0.5 second When output frequency 501-1000Hz, maximum voltage deviation -40V > 0.5 second
Reverse Current Protection (RCP)		Over 75W
GENERAL		
Transient (only for 40~70 Hz)		Trans-Volt 0.0-300.0 V Resolution 0.1 V Trans-Site 0°~359° Resolution 1° Trans-Time 0.5-999.9 mS Resolution 0.1 mS Trans-Cycle 0-9999, 0-Constant
Operation Key Feature		Soft key, Numeric key, Rotary Knob
Remote Input Signal		Test, Reset, Interlock, Recall program memory 1 through 7
Remote Output Signal		Pass, Fail , Test-in Process
Key Lock		Yes, Password Driven
Memory		50 memories, 9 steps/memory
Ext Trigger		START / END / BOTH / OFF in the Program mode, Output Signal 5 V, BNC type
Alarm Volume Setting		Range: 0-9 ; 0 = OFF, 1 is softest volume, 9 is loudest volume.
Graphic Display		240 x 64 dot resolution Monographic LCD/Contrast 9 Levels 1-9
PFC		PF ≥0.97 at Full load
Efficiency		≥78% (at Full load)
Auto Loop cycle		0 = Continuous, OFF, 2~9999
Over Current Fold Back		On/Off, Setting On when output current over setting Hi-A value it will fold back output voltage to keep constant output current is setting Hi-A value, Response time <1400ms
Safety Agency		CE Listed
Dimensions (W x H x D)		430 x 400.5 x 500 mm
		16.93 x 15.77 x 19.69 in
Net Weight		125.6 lbs (57 kg)
Operation Environment		0-40°/20-80% RH

Specifications subject to change

Why We Use Counts
APT publishes some specifications using "counts" which allows us to provide a better indication of the power source's capabilities across measurement ranges. A count refers to the lowest resolution of the display for a given measurement range. For example, if the resolution for voltage is 1V then 2 counts = 2V.

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