



Powering Production.®



Manual • Automated • Programmable

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▶ OUR STORY

Since 1978 EEC has been providing AC Power Sources for the power conversion industry. Our commitment to quality, innovation, and customer service has helped set the expectation for the industry. In 2020 we introduced the 8500 Series Power Source, the world's highest power density single phase AC Source. As of 2021 we joined the Ikonix Family to become an Ikonix brand, where we continued to innovate and shape the power conversion industry.

▶ CUSTOMER HAPPINESS PROMISE

We aim to provide an amazing experience and quality testers 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 knowledgeable partners, so you're covered no matter where you are.





A TIMELINE OF OUR HISTORY



▶ A HISTORY OF INNOVATION

- 1978** EEC is founded in Taipei City, Taiwan.
- 1979** Introduced the CFC Series AC power source and become the first AC power Source/Inverter professional manufacturer in Taiwan.
- 1988** Introduced the CFC-100W Series Digital AC power sources.
- 1991** The first Ikonix investment in EEC.
EEC became the sole manufacturer of Battery Charges for the Taiwan military – General Headquarters of Combined Service Force.
- 1994** Collaboration with Associated Research, Inc. (An Ikonix Brand) to become an ODM partner.
- 2001** Expanded into Suzhou, China and Japan.
- 2002** Introduced the 6300/6400/6500 High Power Switch Mode Power Supplies.
- 2008** Moved the Taipei headquarters to a larger facility in Taipei Neihu Technology Park.
- 2009** Announced the 61000 Series Programmable Power Source.
Introduced the 8500 Series Power Source – the world's highest power density single phase AC source.
- 2020** The final Ikonix purchase of all EEC shares.
- 2021** EEC joins the Ikonix family to become an Ikonix Brand.



CAPABILITIES & FEATURES

▶ PRODUCT REFERENCE CHART

Model	Output Power Capability						Output Configurations		
	500 VA	1.25 kVA	2 kVA	3 kVA	4 kVA	6 kVA	1 Phase	Split 1 Phase (2 Lines/1 Neutral)	3 Phase
430XAC				•			•	•	•
460XAC						•	•	•	•
8505	•						•		
8512		•					•		
8520			•				•		
8530				•			•		
8540					•		•		
8560						•	•		

Model	Output Capabilities of V, Hz & A			General Features		
	Voltage Output Max	Frequency Output Range	Max A @ ≤110V/220V (per phase)	PC Control	CE Mark	Free GUI Available
430XAC	300/600/520*	40-1000	9.2A/4.6A	•	•	•
460XAC	300/600/520*	40-1000	18.4A/9.2A	•	•	•
8505	310	5.0-1200	5.0A/2.5A	•	•	•
8512	310	5.0-1200	12.5A/6.25A	•	•	•
8520	310	5.0-1200	20A/10A	•	•	•
8530	310	5.0-1200	30A/15A	•	•	•
8540	310	5.0-1200	40A/20A	•	•	•
8560	310	5.0-1200	60A/30A	•	•	•

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



BROWSE OUR POWER SOURCES

8500 Series

Programmable AC Power Source

The EEC 8500 Series is the most power dense and functionality rich power source in our history, giving you improved capability, functionality, and a reduced footprint all in one series. This series is manufactured or simulating common grid faults, voltage dips, and other power abnormalities. The 8500 Series provides an output voltage up to 310VAC and an output frequency ranging from 5 Hz – 1,200 Hz making it the obvious solution for all kinds of applications. Not to mention, an enhanced interface to all models completely designed with the end-user in mind. Our 8500 Sources can be configured as a simple AC Power Source in MANUAL mode, as an upgraded option with Standard mode or incorporating all functions with Advanced Mode. Advanced mode adds the benefits of a sweep of voltage, frequencies, transients, and DC bias over the course of a single sequence or several different tests. The 8500 Series includes the following models: 8505, 8512, 8520, 8530, 8540, & 8560.



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.
- Advanced 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.
- Legacy Mode allows you to keep your command set from your 6000, 7000, or 300XAC series.

Call +1-847-367-4077



Applicable Industries



Aerospace



Appliance



Laboratory



Networking



System Integrator



Lighting



Medical

EEC Benefits



Standard

USB/RS-232 Interface

Ethernet Interface

Options

GPIB Interface



Modes

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

Specifications – 8500

8500 SPECIFICATIONS								
MODEL		8505	8512	8520	8530	8540	8560	
AC OUTPUT								
Phase		1Ø2W						
Power Rating		500VA	1250VA	2kVA	3kVA	4kVA	6kVA	
Voltage	Range	0 - 310V, 155/310V Auto Range						
	Resolution	0.1V						
	Accuracy	±(0.2% of setting + 3counts)				±(0.2% of setting + 6counts)		
Max. Current (r.m.s) ¹	0 - 155V	5A	12.5A	20A	30A	40A	60A	
	0 - 310V	2.5A	6.25A	10A	15A	20A	30A	
Frequency	Range	DC, 5 - 1200Hz Full Range Adjust						
	Resolution	0.1Hz at 0.0 - 999.9Hz , 1Hz at 1000 - 1200Hz						
	Accuracy ²	±0.03% of setting(≥ 15Hz) , ±0.3% of setting(<15Hz)						
Total Harmonic Distortion (THD) ³		≤ 0.3% @ 50/60Hz (Full Resistive Load)						
Crest Factor ⁴		≥ 3	≥ 3	≥ 3	2.5	≥ 3	2.5	
Inrush Current		4	4	4	3	4	3	
Line Regulation		± 0.1V						
Load Regulation ⁵		±0.2V,<1s response time						
DC OUTPUT								
Power rating		300W	750W	1200W	1800W	2400W	3600W	
Voltage	Range	0 - 420V, 210/420V Auto Range						
	Resolution	0.1V						
	Accuracy	±(0.2% of setting + 3counts)				±(0.2% of setting + 6counts)		
Max. Current (r.m.s) ²	0 - 210V	3.0A	7.5A	12.0A	18.0A	24.0A	36.0A	
	0 - 420V	1.5A	3.75A	6.0A	9.0A	12.0A	18.0A	
Ripple and Noise (r.m.s) ⁶	Range	L	< 700mV				< 800mV	
		H	< 700mV				< 800mV	
Ripple and Noise (p-p) ⁶		< 6.0Vp-p				< 7.0Vp-p		
Load Regulation ⁵		±0.2V,<1s response time						

Specifications – 8500

8500 SPECIFICATIONS							
MODEL	8505	8512	8520	8530	8540	8560	
SETTINGS							
Start/End Angle	Range	0-359					
	Resolution	1					
Current Hi Limit (OC Fold=OFF)	0 - 155V	0.05-5.00A	0.05-12.50A	0.05-20.00A	0.10-30.00A	0.10-40.00A	0.10-60.00A
	0 - 310V	0.05-2.50A	0.05-6.25A	0.05-10.00A	0.10-15.00A	0.10-20.00A	0.10-30.00A
	Resolution	0.01A					
OC Fold Back (OC Fold = ON)	Accuracy	± (2.0% of setting + 4 counts)					
OC Fold Back Response Time ⁷		< 1.4s					
Time	Range	1.0 - 999.9h/ 1.0 - 999.9m /1.0 - 999.9s /0.2 - 999.9ms					
	Resolution	0.1h/ 0.1m/ 0.1s/ 0.1ms					
	Accuracy	± (0.1% + 0.1 h)/ ± (0.1% + 0.1 m)/ ± (0.1% + 0.1 s)/ ± (0.1% + 0.1 ms)					
Time unit		h, m, s, 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 s) at Output frequency > 10Hz					
INPUT							
Phase		1Ø				1Ø or 3Ø	
Voltage		100 - 240 V ± 10%		200 - 240 V ± 10%		1Ø/3Ø3W: 200-240V±10% 3Ø4W: 346 - 416V ± 10%	
Max. Current		8A	18A	30A	22A	30A	1Ø :45A/3Ø3W: 38A 3Ø4W: 22A
Frequency		50 / 60 Hz					
Power Factor ⁸		≥ 0.93	≥ 0.97				

Specifications – 8500

8500 SPECIFICATIONS													
MODEL	8505		8512		8520		8530		8540		8560		
MEASUREMENT													
Voltage(AC)	Range		0 - 310V, 155/310V Auto Range										
	Resolution		0.1V										
	Accuracy ²		±(0.2% of reading + 3counts) at voltage > 5V					±(0.2% of reading + 6counts) at voltage > 5V					
Voltage(DC)	Range		0 - 420V, 210/420V Auto Range										
	Resolution		0.1V										
	Accuracy ²		±(0.2% of reading + 3counts) at voltage > 5V					±(0.2% of reading + 6counts) at voltage > 5V					
Current ⁹	Range	L	0.050 - 1.200A		0.050 - 5.000A		-						
		Resolution	1.00 - 6.25A		4.00 - 15.62A		4.00 - 25.00A		0.10 - 37.50A		0.10 - 50.00A		0.10 - 75.00A
	Resolution ³	L	0.001A					-					
		H	0.01A										
	Accuracy ²	L	± (1% of reading + 10counts) at CF < 3					-					
		H	± (0.5% of reading +8counts)					± (0.5% of reading +12counts)					
Frequency	Range		0.0 - 1200Hz										
	Resolution		0.1Hz / 1Hz										
	Accuracy		±0.1Hz @ 5 - 999.9Hz. / ±1Hz @ 1000 - 1200Hz										
Power ¹⁰ (AC,DC)	Range	L	0.0 - 75.0W		0.0 - 300.0W		-						
		H	60 - 625W		240 - 1563W		240 - 2500W		0 - 3750W		0 - 5000W		0 - 7500W
	Resolution	L	0.1W					-					
		H	1W										
	Accuracy	L	± (1% of reading +10 counts) at PF ≥ 0.35 and voltage > 5V		± (2% of reading +15 counts) at PF ≥ 0.35 and voltage > 5V		-						
		H	± (1% of reading +5 counts) at PF ≥ 0.35 and voltage > 5V		± (1% of reading +10 counts) at PF ≥ 0.35 and voltage > 5V		± (1% of reading +20 counts) at PF ≥ 0.35 and voltage > 5V						
Power Factor	Range		0.000 - 1.000										
	Resolution		0.001										
	Accuracy		W/VA, Calculated and displayed to three significant digits										
Power Apparent (VA)	Range	L	0.0 - 75.0VA		0.0 - 300.0VA		-						
		H	60 - 625VA		240 - 1563VA		240 - 2500VA		0 - 3750VA		0 - 5000VA		0 - 7500VA
	Resolution	L	0.1VA					-					
		H	1VA										
Calculated Formula		$\sqrt{V \times A}$, Calculated value											
Peak Current Measurement	Range		0.0 - 20.0Apk		0.0 - 50.0Apk		0.0 - 80.0Apk		0.0 - 120.0Apk		0.0 - 160.0Apk		0.0 - 240.0Apk
	Resolution		0.1A										
	Accuracy		± (0.5% of reading +8counts)					± (0.5% of reading +12counts)					
Reactive Power Measurement	Range	L	0.0 - 75.0VAR		0.0 - 300.0VAR		-						
		H	60 - 625VAR		240 - 1563VAR		240 - 2500VAR		0 - 3750VAR		0 - 5000VAR		0 - 7500VAR
	Resolution	L	0.1VAR					-					
		H	1VAR										
Calculated Formula		$\sqrt{(VA)^2 - (A)^2}$, Calculated value											
Crest Factor Measurement	Range		0.00 - 10.00										
	Resolution		0.01										
	Accuracy		Ap / A										

Specifications – 8500

8500 SPECIFICATIONS						
MODEL	8505	8512	8520	8530	8540	8560
GENERAL						
PLC Remote Control	Input:Output ON, Output OFF/Reset, Output Verify, Interlock,File Recall M1 through M7, Trigger Output: Fail, Test-in-Process					
Rear Input	AC Outlet	Terminal Block				
Memory	Std.	10 x 100 (file x sequence) / MANUAL only 10 file no sequence				
	Adv.	100 x 100 (file x sequence) / MANUAL, STEP, PULSE only 100 file no sequence				
Sync Signal/ Ext Trigger	Std.	ON/OFF				
	Adv.	ON / START / END / BOTH / OFF / EVENT, Output Signal 5V ,BNC type				
Display	4.3" TFT LCD					
Protection	OCP, OVP, OPP, OTP, LVP, RCP and FAN.					
Interface	Standard USB, PLC remote, LAN, Analog / Option GPIB, RS-232					
Eeciency (at Full load) ¹¹	≥ 74%	≥ 81%	≥ 84%	≥ 83%	≥ 84%	≥ 84%
Response Time (Tr/Tf) ¹²	275-400usec (Typical)					
Electromagnetic compatibility (EMC)	Complies with the requirements of the following directive and standards. EMC Directive 2014/30/EU EN 55011:2016/A1:2017 (Group 1, Class A), EN 61326-1:2013, EN 61326-2-1:2013, EN 61000-3-11:2000, EN 61000-3-12:2011					
Safety	Complies with the requirements of the following directive and standards. Low Voltage Directive 2014/30/EU, EN 61010-1					
Op. / Non-Op. Temp. / Humidity ¹³	0 to 40°C/-40 to 75°C/20 to 80%RH					
Dimension (W x H x D), mm	430 x 88 x 500	430 x 88 x 500	430 x 88 x 500	430 x 88 x 500	430 x 176 x 500	430 x 176 x 500
Weight	15KG	15KG	15KG	15KG	28KG	28KG
STANDARD ACCESSORIES						
Interlock Disable Key (1505)	X1					
USB Cable	X1					
Shorting bar	X1					
Power Cord (125Vac/10A)	X1	-				

Specifications subject to change

400XAC

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 400XAC Series consists of two models: the 430XAC is a 3 kVA AC power source and 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.



Applicable Industries



Aerospace



Appliance



Laboratory



Motor

EEC Benefits



Standard

USB/RS-232 Interface

Options

GPIO Interface

Ethernet Interface



Specifications – 400XAC

INPUT		430XAC	460XAC	
Phase		1Ø	1Ø or 3Ø	
Voltage		200 - 240 VAC	1Ø : 200~240 VAC ± 10% 3Ø3W : 200~240 VAC ± 10% 3Ø4W : 346~416 VAC ± 10%	
Frequency		47 - 63 Hz		
AC OUTPUT				
Power Rating	1Ø2W	3000 VA	6000 VA	
	1Ø3W	Total 2000 VA (1000 VA per phase)	Total 4000 VA (2000 VA per phase)	
	3Ø4W	Total 3000 VA (1000 VA per phase)	Total 6000 VA (2000 VA per phase)	
	DC	3000 VA	6000 VA	
Max. Current (RMS)	1Ø2W	5- 150 V	27.6 A @ ≤110 V	55.2 A @ ≤110 V
		5- 300 V	13.8 A @ ≤220 V	27.6 A @ ≤220 V
	1Ø3W	5- 150 V	9.2 A @ ≤110 V for per phase	18.4 A @ ≤110 V for per phase
		5- 300 V	4.6 A @ ≤220 V for per phase	9.2 A @ ≤220 V for per phase
	3Ø4W	5- 150 V	9.2 A @ ≤110 V for per phase	18.4 A @ ≤110 V for per phase
		5- 300 V	4.6 A @ ≤220 V for per phase	9.2 A @ ≤220 V for per phase
Inrush Current (peak)	1Ø2W	5- 150 V	110.4 A	220.8 A
		5- 300 V	55.2 A	110.4 A
	1Ø3W	5- 150 V	36.8 A for per phase	73.6 A for per phase
		5- 300 V	18.4 A for per phase	36.8 A for per phase
	3Ø4W	5- 150 V	36.8 A for per phase	73.6 A for per phase
		5- 300 V	18.4 A for per phase	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		430XAC	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	0.01~9.20 A	0.01~18.40 A	
	5V~300 V	0.01~4.60 A	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		430XAC	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 – 400XAC

Poly-phase mode (3Ø4W) for per phase measurement			430XAC	460XAC
Current (RMS)	Range	L	0.005 A~1.200 A	0.005 A~2.400 A
		H	1.00 A~13.00 A	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) ≤3.6 A	± (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) ≤27.6 A	± (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~38.0 A		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~120.0 W	0.0 W~240.0 W
		H	100 W~1300 W	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~120.0 VA	0.0 VA~240.0 VA
		H	100 VA~1300 VA	200 VA~2600 VA
	Accuracy	V×A, Calculated value		
Power Reactive (Q)	Range	L	0.0 VAR ~ ± 120.0 VAR	0.0 VAR ~ ± 240.0 VAR
		H	0 VAR ~ ± 1300 VAR	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			430XAC	460XAC
Frequency	Range	0.0-1000.0 Hz		
	Accuracy	± 0.1 Hz (501-1000 Hz Accuracy ±0.2 Hz)		
Voltage	Range	0.0-727.5 V		
	Calculated Formula	$(A+B+C)/\sqrt{3}$, Calculated and displayed to one significant digits		
Current (RMS)	Range	L	0.005A~1.200A	0.005A~2.400A
		H	1.00A~13.00A	2.00A~26.00A
	Calculated Formula	L	$\frac{\sum I^2}{\sum V} / \sqrt{3}$	
		H		
Power	Range	L	0.0W~360.0W	0.0W~720.0W
		H	300W~3900W	600W~7800W
	Accuracy	L	$\frac{\sum P}{\sum I^2}$ A Power + B Power + C Power, Calculated value	
		H		
Power Factor	Range	0 - 1.000		
	Resolution	0.001		
	Accuracy	Calculated and displayed to three significant digits		
Power Apparent (VA)	Range	L	0.0VA~360.0VA	0.0VA~720.0VA
		H	300VA~3900VA	600VA~7800VA
	Calculated Formula	L	$\sqrt{(\sum W)^2 + (\sum Q)^2}$	
		H		
Power Reactive (Q)	Range	L	0.0VAR~360.0VAR	0.0VAR~720.0VAR
		H	300VAR~3900VAR	600VAR~7800VAR
	Accuracy	L	A VAR + B VAR + C VAR, Calculated value	
		H		
Single-phase mode (1Ø2W) Setting			430XAC	460XAC
Voltage	Range	5.0~300 VAC, 150/300 V Auto Range		
	Resolution	0.1 V		
	Accuracy	± (0.2% of setting + 3 counts)		

Specifications – 400XAC

Single-phase mode (1Ø2W) Setting			430XAC	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	0.01~27.60 A	0.01~55.20 A		
	5V~300V	0.01~13.80 A	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			430XAC	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~39.00 A	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) ≤82.8 A	± (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~114.0 A	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~3900 W	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~3900 VA	0 VA~7800 VA		
	Accuracy	V×A, Calculated value			
Power Reactive (Q)	Range	0 VAR~3900 VAR	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			430XAC	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	0.01~9.20 A	0.01~18.40 A		
	5V~300V	0.01~4.60 A	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			430XAC	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~1.200 A	0.005 A~2.400 A	
		H	1.00 A~13.00 A	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) ≤3.6 A	± (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 + 5counts) at 40.0-500 Hz ± (1% of reading +5 counts) at 501-1000 Hz, CF <1.5 and Current (peak) ≤27.6 A	± (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 – 400XAC

Poly-phase mode (1Ø3W) for per phase measurement			430XAC	460XAC
Current (peak)	Range		0.0 A~38.0 A	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~120.0 W	0.0 W~240.0 W
		H	100 W~1300 W	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~120.0 VA	0.0 VA~240.0 VA
		H	100 VA~1300 VA	200 VA~2600 VA
	Accuracy		VxA, Calculated value	
Power Reactive (Q)	Range	L	0.0 VAR~120.0 VAR	0.0 VAR~240.0 VAR
		H	0 VAR~1300 VAR	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			430XAC	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~1.200A	0.005A~2.400A
		H	1.00A~13.00A	2.00~26.00A
	Calculated Formula	L	$\frac{\sum I^2}{\sum V}$	
		H		
Power	Range	L	0.0W~240.0W	0.0W~480.0W
		H	200W~2600W	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~240.0VA	0.0W~480.0VA
		H	200W~2600VA	± 400W~5200VA
	Calculated Formula	L	$\sqrt{(\sum W)^2 + (\sum Q)^2}$ Calculated value	
		H		
Power Reactive (Q)	Range	L	0.0VAR ~ ± 240.0VAR	0.0VAR ~ ± 480.0VAR
		H	± 200VAR ~ ± 2600VAR	± 400VAR ~ ± 5200VAR
	Calculated Formula	L	L1 VAR + L2 VAR, Calculated value	
		H		
DC OUTPUT				
Max. Power			3000 W	6000 W
Max. Current	0-210 V		14.4 A	28.8 A
	0-420 V		7.2 A	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		14.40 A	0.10 - 28.80 A
	5 V-420 V		7.20 A	0.10 - 14.40 A
	Accuracy		± (2.0% of setting + 2 counts)	
OC Fold Back Response Time			<1.4 s	

Specifications – 400XAC

DC MEASUREMENT		430XAC	460XAC
Voltage	Range	0.0-420.0 V	
	Accuracy	± (0.2% of setting + 5 counts)	
Current	Range	0.05 A~19.50 A	0.05 A~39.00 A
	Accuracy	± (1% of reading +5 counts)	
Power	Range	0 W~3900 W	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 95 degree C on the power amp and PFC heatsink	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		105.8 lbs (48 kg)	125.6 lbs (57 kg)
Operation Environment		0-40°/20-80% RH	

Specifications subject to change

Why We Use Counts

EEC 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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