

8500 Series

Programmable AC Power Source

The EEC 8500 Series is the most power dense and functionality rich source in EEC 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, Advanced mode, to be used with an interface to a PC. 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.
- Easily upgrade and keep your command set from your 6000, 7000, or 300XAC Series with the legacy program mode.

Call +60-3-78429168



Applicable Industries



Aerospace



Appliance



Laboratory



Networking



System Integrator



Lighting



Medical

EEC Benefits



Standard

USB Interface

Ethernet Interface

Options

GPIO Interface

RS-232 Interface



Modes

INPUT	MANUAL MODE	STANDARD MODE	ADVANCED MODE
Manual Operation	•	•	•
PC Interface (USB/LAN standard, optional RS-232, 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 Ωresponse 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) OC Fold Back (OC Fold=ON)	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					
	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	V×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	$\sqrt{(VA)^2 - (W)^2}$, 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	Terminal Block					
Memory	Manual	10 x 100 (file x sequence) / MANUAL only 10 file no sequence				
	Standard / Advanced	100 x 100 (file x sequence) / MANUAL, STEP, PULSE only 100 file no sequence				
Sync Signal/ Ext Trigger	Manual / Standard	ON/OFF				
	Advanced	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 for Standard / Advanced mode Only PLC Remote forManual mode					
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					

Specifications subject to change