

## Modular Programmable AC Power Source



## 【特點】

- 輸出容量：1KVA - 6KVA
- 內建主動式輸入功率因數改善線路 ( $PF \geq 0.97$ )，且輸入電壓全範圍 90 - 264V，符合 CE 認證
- 可多台電源並聯或接成三相輸出，滿足客戶容量擴充或三相輸出的應用 (選購 Linking Card)
- 輸出電壓 0 - 300V 及頻率 40 - 1000Hz 設定全範圍可調
- 大型的 240 X 64 Graphic LCD 顯示器
- 在阻性負載下波形失真小於 1%
- 超強輸出波峰因數比，於滿電流的輸出狀態下可達 3 : 1
- 短暫反應快，在瞬間加重載或除載時波形可於 400 $\mu$ sec 內恢復
- 全範圍輸出電壓的穩壓率可達 1%
- 可程式 50 個記憶組：內含 9 測試步驟，記憶組及步驟可單獨設定迴圈，記憶組間亦可連結測試以模擬各種負載的電源特性
- 可執行自動循環測試，最高可執行 999900 次
- 針對被測物的壽命試驗，可依需求設定以秒、分、時為測試執行時間單位
- 特殊的恆流裝置，可輕易啟動馬達、壓縮機等高啟動電流之負載
- 高啟動負載能力，浪湧電流可達額定電流的 4 倍，並可維持 1000ms 不切斷保護
- 可設定當加載電流超過上限電流設定值時：維持設定值電流恆定輸出 (反應時間 < 1400mSec)
- 選配遠端遙控輸入界面，可執行 Test / Reset 及 7 組記憶組 (M1 - M7) 快速輸出
- 內建 PLC 遙控輸出界面
- 輸出過電流、短路、過電壓、過功率、過溫度及逆灌電流保護及警報
- 前面板輸入軟體校正
- 針對 IEC61000-4-11 標準的應用，可設定啓始角，電壓暫降 (Dips)，瞬斷及電壓變化
- 測試中可以透過飛梭旋鈕 (Rotary Knob) 即時的調整顯示中的電壓 / 頻率輸出
- 標準 RS232 & USB 界面，可選購 GPIB 界面
- 具有交流 (AC)、直流 (DC) 可程式輸出模式，一台抵兩台滿足客戶的測試應用
- 可量測電壓、頻率、電流 (RMS & Peak)、實功率、視在功率、虛功率、電流波峰及功率因數
- 具有密碼鎖定，記憶組鎖定，及鍵盤鎖定功能

## 【Features】

- Capacity : 1KVA - 6KVA
- Built-in input active Power Factor Correction circuit ( $PF > 0.97$ ), and be provided with large input voltage range 90 - 264V
- Enhanced ability to parallel or link with several units to expand capacity or form three phases output
- Adjustable AC output voltage 0 - 300V / frequency 40 - 1000HZ
- Large 240 X 64 Graphic LCD display
- Waveform distortion less than 1% on resistance load
- Enhanced crest factor. The rate is up to 3 : 1 at rating current output
- Fast recovering time, 0.4 milliseconds
- Line and load regulation maintains the output voltage within 1% of setting
- Programmable 50 memories and 9 steps per memory, for interconnection between each step to simulate different test conditions of the DUT
- Auto loop cycle, up to 999900 cycles
- For Aging or Life test on DUT, the user able to change the timer either in second, minute or hour
- Unique regulation function in providing capability to turn on high inrush current loads such as motors and compressors
- Capable to withstand inrush current up to 4 times of rated current and able to maintain 1000ms without protection
- Over Current Fold Back Mode (Response time < 1400mSec)
- Optional PLC remote interface control, including TEST / RESET and recall 7 memories quick output
- Built-in PLC remote output interface
- Protections and alerts for over current, short circuit, over voltage, over power, over temperature and reverse current
- Front panel software calibration
- Capable to set the starting angle, voltage dips, short interruptions and voltage variations to meet test application of IEC61000-4-11
- Adjust voltage / frequency setting via Rotary Knob when output is turn ON
- Standard RS232 & USB interface and optional GPIB interface
- AC and DC output selection to fulfill the test application needs in several power modes
- Comprehensive measurement of V, Irms, Ipk, W, VA, VAR, PF, CF of current etc.
- Memory and keypad lock functions with password setting

## Modular Programmable AC Power Source

## [Specification]

MODEL	EAB-110	EAB-120	EAB-140	EAB-160		
<b>INPUT</b>						
Phase		1Ø		1Ø or 3Ø		
Voltage		100V - 240V ± 10%	200V - 240V ± 10%	1Ø / 3ØW : 200V - 240V ± 10% 3Ø4W : 346V - 416V ± 10%		
Frequency			47 - 63Hz			
Max. Current	15A	30A	30A	1Ø : 45A 3Ø3W : 26A 3Ø4W : 15A		
Power Factor			0.97			
<b>AC OUTPUT</b>						
Max Power	1000VA	2000VA	4000VA	6000VA		
Max Current 1Ø (r.m.s.) <sup>*1</sup>	0 - 150V	9.2 A	18.4 A	36.8 A		
	0 - 300V	4.6 A	9.2 A	18.4 A		
Inrush Current (peak)	0 - 150V	36.8A	73.6A	147.2A		
	0 - 300V	18.4A	36.8A	73.6A		
Phase		1Ø, (Linking Option 1Ø3W or 3Ø4W Poly - Phase)				
Total Harmonic Distortion (THD)		< 0.5% (Resistive Load) at 40.0 - 70.0Hz and output voltage within the 80 - 140Vac at Low Range or the 160 - 280Vac at High Range < 1% (Resistive Load) at 70.1 - 500Hz and output voltage within the 80 - 140Vac at Low Range or the 160 - 280Vac at High Range < 1% (Resistive Load) at 501 - 1000Hz and output voltage within the 100 - 140Vac at Low Range or the 160 - 280Vac at High Range				
Crest Factor		≥ 3				
Line Regulation		± 0.1 V				
Load Regulation		± (1% of output +1V) at Resistive Load				
Response Time		< 400 μsec				
<b>SETTINGS</b>						
Voltage	Range	5 - 300V, 150 / 300V Auto Range				
	Resolution	0.1 V				
	Accuracy	± (1% of setting + 2 counts)	± (1% of setting + 5 counts)			
Frequency	Range	40 - 1000Hz Full Range Adjust				
	Resolution	0.1Hz at 40.0 - 99.9Hz, 1Hz at 100 - 1000Hz				
	Accuracy	± 0.03% of setting				
Starting & Ending Phase Angle	Range	0 - 359°				
	Resolution	1°				
	Accuracy	± 1° (45 - 65Hz)				
<b>DC OUTPUT</b>						
Max. Power	1000W	2000W	4000W	6000W		
Max. Current	0 - 210V	4.8A	9.6A	19.2A		
	0 - 420V	2.4A	4.8A	9.6A		
Ripple & Noise (rms)	Range	L	< 500mV	< 700mV		
		H	< 800mV	< 1100mV		
Ripple & Noise (p-p)			< 3.0Vp-p	< 4.0Vp-p		
<b>SETTINGS</b>						
Voltage	Range	0 - 210V / 0 - 420V Selectable		0 - 210V / 0 - 420V Selectable > 5V		
	Resolution	0.1 V				
	Accuracy	± (1% of setting + 2 counts)	± (1% of setting + 5 counts)			

## Modular Programmable AC Power Source

安規測試

交流電源

直流電子負載

附件

MODEL			EAB-110	EAB-120	EAB-140	EAB-160		
Current Hi Limit (OC Fold = OFF) OC Fold Back (OC Fold = ON)	Range	L	0.01 - 4.80A	0.01 - 9.60A	0.10 - 19.20A	0.10 - 28.80A		
		H	0.01 - 2.40A	0.01 - 4.80A	0.10 - 9.60A	0.10 - 14.40A		
	Resolution		0.01 A					
Accuracy		$\pm$ (2.0% of setting + 2 counts)						
MEASUREMENT								
Voltage	Range		0 - 210V / 0 - 420V		0 - 210V / 0 - 420V Selectable > 5V			
	Resolution		0.1 V					
	Accuracy		$\pm$ (1% of reading + 2 counts) at Voltage > 5V		$\pm$ (1% of reading + 5 counts) at Voltage > 5V			
Frequency	Range		0.0 - 1000 Hz					
	Resolution		0.1 Hz					
	Accuracy		$\pm$ 0.1Hz (501 - 1000Hz Accuracy $\pm$ 0.2Hz)					
Current (AC & DC)	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	0.05 A - 52.00 A	0.05 A - 78.00 A		
	Resolution	L	0.001 A		-	-		
		H	0.01 A					
	Accuracy	L	$\pm$ (1% of reading + 5 counts) at Voltage > 5V		-	-		
		H	$\pm$ (1% of reading + 5 counts) at Voltage > 5V					
Current Peak	Range		0.0A - 38.0 A	0.0 A - 76.0 A	0.0 A - 152.0 A	0.0 A - 228.0A		
	Resolution		0.1 A					
	Accuracy		$\pm$ (1% of reading + 5 counts) at Voltage > 5V					
Power (AC)	Range	L	0.0 W - 120 W	0.0 W - 240 W	-	-		
		H	100 W - 1300 W	200 W - 2600 W	0 W - 5200 W	0 W - 7800 W		
	Resolution	L	0.1 W		-	-		
		H	1 W					
	Accuracy	L	$\pm$ (2% of reading + 15 counts ) at PF > 0.2, Voltage > 5V					
		H	$\pm$ (2% of reading + 5 counts) at PF > 0.2, Voltage > 5V		$\pm$ (2% of reading + 10 counts ) at PF > 0.2, Voltage > 5V			
Power (DC)	Range	L	0.0 W - 120 W	0.0 W - 240 W	-	-		
		H	100 W - 1300 W	200 W - 2600 W	0 W - 5200 W	0 W - 7800 W		
	Resolution	L	0.1 W		-	-		
		H	1 W					
	Accuracy	L	$\pm$ (2% of reading + 5 counts) at Voltage > 5V		-	-		
		H	$\pm$ (2% of reading + 5 counts) at Voltage > 5V					
Power Apparent (VA)	Range	L	0.0VA - 120.0VA	0.0VA - 240.0VA	-	-		
		H	100VA - 1300VA	200VA - 2600VA	0VA - 5200VA	0VA - 7800VA		
	Resolution	L	0.1VA		-	-		
		H	1VA					
	Accuracy		V x A, Calculated value					
Power Resistive (Q)	Range	L	0.0VAR - 120.0VAR	0.0VAR - 240.0VAR	-	-		
		H	0VAR - 1300VAR	0VAR - 2600VAR	0VAR - 5200VAR	0VAR - 7800VAR		
	Resolution	L	0.1VAR		-	-		
		H	1VAR					
	Accuracy		$\sqrt{(VA)^2 - (W)^2}$ , Calculated value					
Power Factor	Range		0.000 - 1.000					
	Resolution		0.001					
	Accuracy		W / VA, Calculated and displayed to three significant digits					
Crest Factor	Range		0 - 10.00					
	Resolution		0.01					
	Accuracy		Apeak / Arms, Calculated and displayed to two significant digits					

## Modular Programmable AC Power Source

MODEL	EAB-110	EAB-120	EAB-140	EAB-160		
<b>GENERAL</b>						
Transient (only for 40 - 70Hz)	Trans - Volt : 0.0 - 300.0V, Resolution : 0.1V Trans - Site : 0.0 - 25.0mS, Resolution : 0.1mS Trans - Time : 0.5 - 999.9mS, Resolution : 0.1mS Trans - Cycle : 0 - 9999, 0 - Constant					
Inrush Current	4 times current rating					
Enhanced Over Load Capacity	Over current 110% can hold for 1000 ms without protection					
Operation Key Feature	Soft key, Numeric key, Rotary Knob					
Remote Input Signal (Option)	Test, Reset, Recall program memory 1 through 7					
Remote Output Signal	Pass, Fail, Test-in-Process					
Calibration	Front Panel Calibration					
Key Lock	Yes, Password Driven					
Synch Output Signal	ON / Event / OFF, Output Signal 5V, BNC type, Between the sync signal and the output voltage will be 0.5ms time difference					
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					
Interface (Option)	Ethernet, GPIB, Linking Card, PLC Remote Input Card					
Protection Circuits	OCP, OVP, OPP, OTP, RCP (Over Current, Over Voltage, Over Power, Over Temp)					
Fan	Temperature Control					
Rear Output	Terminal Block (L, N, G, Ls, Ns)					
Rack mount Handles	Yes					
PFC	PF ≥ 0.97 at Full load					
Efficiency	≥ 75% (at Full load)		≥ 80% (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					
CE Mark	Yes					
Parallel Output for 1Ø Output	Yes					
Linking Output for 3Ø Output	Yes					
Operation Environment	0 - 40°C / 20 - 80% RH					
Dimension, mm <sup>*2</sup>	W	430	430	430		
	H	133.5 (148)	133.5 (148)	267 (281)		
	D	530	530	500		
Net Weight		20kg	21kg	40kg		
				53kg		

<sup>\*1</sup> At working voltage 110V / 220V<sup>\*2</sup> Figure in parentheses are maximum values

\*Product specifications are subject to change without notice.

**[Ordering Information]**

- EAB-110 Modular Programmable AC Power Source 0 - 300V / 40 - 1000Hz (1000VA)
- EAB-120 Modular Programmable AC Power Source 0 - 300V / 40 - 1000Hz (2000VA)
- EAB-140 Modular Programmable AC Power Source 0 - 300V / 40 - 1000Hz (4000VA)
- EAB-160 Modular Programmable AC Power Source 0 - 300V / 40 - 1000Hz (6000VA)
- Opt.612 PLC Remote I/P Interface
- Opt.627 GPIB Interface Card
- Opt.642 Parallel & Multiphase Linking Card
- Opt.643 USB & RS232 PC Control Card
- Opt.647 Ethernet Card
- 1937 Universal Socket
- 1937Y Universal Socket for China