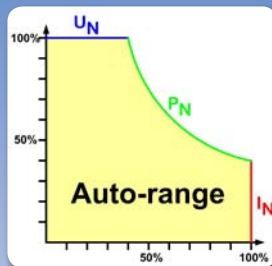


EA-PS 9000 1500W - 9000W 實驗室電源供應器 / LABORATORY POWER SUPPLIES

U
 I
 19"
 IEEE
 CAN



- 寬範圍輸入電壓90...264V，帶主動式PFC
- 效率高達 90%
- 輸出功率: 1500W 至9000W
- 輸出電壓: 0...80V 至 0...750V
- 輸出電流: 0...15A 至 0...300A
- 功率自動調整輸出
- 10圈電位器調節電壓和電流
- 有過壓保護 (OVP)
- 有過溫保護 (OT)
- 3½數顯屏顯示電壓和電流
- LED指示狀態和提示
- 遠端感測功能
- 多功能類比界面
通過 0...10V電壓可對U / I / P編程
通過 0...10V電壓可監控U / I
- 溫控風扇制冷
- 有桌面式結構類型和2U至6U的19"類型
- 其它選項

- Wide input voltage range with active PFC
- High efficiency up to 90%
- Output power ratings: 1500W up to 9000W
- Output voltages: 0...80V up to 0...750V
- Output currents: 0...15A up to 0...300A
- Auto-ranging output stage
- Voltage and current adjustable via 10-turn potentiometer
- Overvoltage protection (OVP)
- Overtemperature protection (OT)
- 3½ digit display for voltage and current
- Status indication via LEDs
- Remote sense
- Analogue interface with
U / I / P programmable with 0...10V
U / I monitoring with 0...10V
- Temperature controlled fans for cooling
- Desktop model and 19" models 2U up to 6U
- Various options

概要

EA-PS 9000 系列是一款由微處理器控制，採用最新技術設計的實驗室電源。它配備多種功能和特徵，讓用戶使用起來更方便、有效。

功率

本系列輸出功率靈活變化，在低電流時輸出更高的電壓，或在低電壓時輸出更大的電流，都由最大輸出功率來限制。

因此一臺該儀器能涵蓋廣範圍的應用領域。

General

The state-of-the-art and thousandfold approved laboratory power supplies of the series EA-PS 9000 offer a wide variety of useful integrated functions and features, turning them into an extremely effective and highly comfortable tool for the user.

Power

The units are equipped with a flexible, auto-ranging output stage which provides a higher output voltage at lower output current, resp. a higher output current at lower output voltage, while always being limited to the max. output power.

Therefore, a wide range of applications can already be covered by the use of just one single unit.

EA-PS 9000 1500W - 9000W 實驗室電源供應器 / LABORATORY POWER SUPPLIES



EA-PS 9080-100 (2U)

輸入

所有型號都採用主動式功率因數校正，使產品在全世界範圍內都適用。輸入電壓低時功率降額功能啟用。本系列還有單相，兩相和三相操作。關於主電源和功率降額的資訊請參考技術參數表。

輸出

本系列有不同型號，可選擇80V和750V輸出電壓，15A和300A輸出電流，1.5kW和9kW輸出功率的類型。

內置有源負載（可選項）

若想從高電壓快速躍變至低電壓，要配上兩象限散功率模組。通過散功率模組對電源的內部濾波電容和連接負載的輸入濾波電容放電，實現電壓的快速變化。

過壓保護(OVP)

為保護連接負載，可設定一過壓保護極限值(OVP)。

若輸出電壓超過調節極限值，輸出被關斷，LED燈和類比界面發出狀態信號。

遠程感測端

300V以下型號配有一遠程感測輸入端，可直接連到負載設備，以補償連線上的壓降。

顯示和控制件

輸出電壓和電流清晰顯示於3½ 數位顯示器上。

操作狀態用LED燈指示，簡單、直觀。

10圈電位器可調節電壓、電流和過壓保護OVP。

固定電壓模式

用“Value Fix”開關可選擇產品輸出固定電壓。此時電流和電壓調節用10圈電位器不工作，而內部電位器工作，從前面板伸入螺絲刀可調節。

Input

All models have an active PFC and can be used worldwide. For low mains voltage inputs the units employ a derating. Models are available for single, 2 and 3-phase operations. Information for mains input and derating is in the technical data sheet.

Output

A choice of output voltages between 80V and 750V, output currents between 15A and 300A and output powers between 1.5kW and 9kW is available.

Internal, active load (optional)

If a fast changeover of voltage from a high to a low voltage value is required, this series can be equipped with a power-sink module. The fast voltage change is achieved by the capability of this power-sink module to discharge the internal filter capacitor of the power supply as well as the input filter capacitors of the equipment connected.

Overvoltage protection (OVP)

Intended to protect connected loads, it is possible to define an overvoltage protection limit (OVP).

If the output voltage exceeds the defined limit, the output is shut off and a status message signal via LED and via the analogue interface will be generated.

Remote sense

Models up to 300V provide a sense input that can be connected directly to the load to compensate voltage drops along the high power leads.

Displays and controls

Output voltage and output current are clearly represented on 3½ figure displays.

The operation states of the equipment will be indicated by LEDs, simplifying operation for the user.

The adjustment of voltage, current and OVP is realised by 10-turn potentiometers.

Fixed voltage mode

The functionality of a fixed voltage unit is selected by the “Value Fix” switch. The 10-turn potentiometers for current and voltage are disabled and switched over to an internal trimmer which can be adjusted on the front panel by a screwdriver.

EA-PS 9000 1500W - 9000W 實驗室電源供應器 / LABORATORY POWER SUPPLIES



EA-PS 9080-200 (4U)

輸出值的預設

要設置輸出值，但不影響輸出狀態，可採用預設功能。

通過此功能用戶可預設輸出電壓、輸出電流和過壓保護值 (OVP)。

類比界面

桌面式機構產品的類比界面位於產品前面板，19"結構的則在產品後板。

此處有類比界面輸入端，接上0V...10V或0V...5V電壓，可設置0...100%的輸出電壓、電流和功率。

類比輸出端接上0V...10V或0V...5V電壓，可監控輸出電壓、電流。此外，還有幾個輸入端和輸出端，用來控制和監控產品狀態。

750V型號由于安全原因沒有配備類比界面。

主從操作

產品後板“System Bus”端子上有一感測輸入端和主從接綫輸入端。

因此不用很費力，即可將本產品融入完整的系統內。

選購件

- GPIB (IEEE, 帶RS232界面)或CAN用內置數位界面。界面槽在產品後板上。
- 經內置類比界面通過外部USB界面EA-UTA 12數位控制產品，於是通過該USB界面可將產品連到電腦，從而進行編程。同時可參考60頁。
- 內置有源負載（兩象限模組）（僅針對19"結構，400V以下產品，見57頁）
- 水冷系統
- 提手和斜立腳架（僅針對后綴為“T”的型號）

Presetting of output values

To set output values, without affecting the output condition, there is a preset function.

With this function the user can preset the values for the output voltage, output current and over voltage protection (OVP).

Analogue interface

The connection for the analogue interface is located on the front panel, with the desktop models, and with the 19" models it is on the rear panel of the device.

There are analogue inputs for the voltage range 0V...10V available, which are used to set output voltage, current and power from 0...100%.

To monitor output voltage and current, analogue outputs are available for the voltage range 0V...10V. Furthermore, several inputs and outputs are available for controlling and monitoring the device status.

The 750V model is not equipped with an analogue interface because of safety reasons.

Master-Slave

A „System Bus“ at the rear of the unit provides a remote sense input and additional inputs for master-slave wiring. So the units can, with minor effort, be integrated into complete systems.

Options

- Internal, digital interface for either IEEE (GPIB, with RS232) or CAN, accessible on the rear panel.
- External USB interface EA-UTA 12 to digitally control the device via its internal analogue interface. In this way the units can be connected via USB to a PC for programming. Also see page 60.
- Internal, active load (two-quadrants module)(19" models only, up to 400V, see p. 57)
- Water cooling
- Carrying handle and tilt stand (only „T“ models)

EA-PS 9000 1500W - 9000W 實驗室電源供應器 / LABORATORY POWER SUPPLIES



EA-PS 9080-300 (6U)



2U型後面板圖 / Rear view 2U model

技術參數	Technical Data	EA-PS 9080-50T	EA-PS 9080-50	EA-PS 9080-100	EA-PS 9080-200	EA-PS 9080-300
輸入電壓	Input voltage	90...264V	90...264V	207...264V	2x 207...264V	3x 207...264V
-90...180V時功率降額	-Derating 90...180V	至 / to 1,2 kW	至 / to 1,2 kW	- -	- -	- -
-180...207V L-N 功率降額	-Derating 180...207V L-N	- -	- -	至 / to 2,5 kW	至 / to 5,0 kW	至 / to 7,5 kW
-頻率	-Frequency	45...65Hz	45...65Hz	45...65Hz	45...65Hz	45...65Hz
-功率因數	-Power factor	>0,99	>0,99	>0,99	>0,99	>0,99
-電源保險絲	-Mains fuse	16A	16A	16A	2x 16A	3x 16A
輸出電壓	Output voltage	0...80V	0...80V	0...80V	0...80V	0...80V
-負載0-100% 時的穩定度	-Stability at 0-100% load	<0,05%	<0,05%	<0,05%	<0,05%	<0,05%
-在±10% Δ U _{IN} 時的穩定度	-Stability at ±10% Δ U _{IN}	<0,02%	<0,02%	<0,02%	<0,02%	<0,02%
-紋波	-Ripple	<70mV _{pp}	<70mV _{pp}	<70mV _{pp}	<70mV _{pp}	<70mV _{pp}
-負載從10%-100%調整需時	-Regulation 10-100% load	<2ms	<2ms	<2ms	<2ms	<2ms
-OVP過壓保護調節範圍	-OVP adjustment	0...88V	0...88V	0...88V	0...88V	0...88V
輸出電流	Output current	0...50A	0...50A	0...100A	0...200A	0...300A
-0-100% Δ U _{OUT} 時的穩定度	-Stability at 0-100% Δ U _{OUT}	<0,15%	<0,15%	<0,15%	<0,15%	<0,15%
-±10% Δ U _{IN} 時的穩定度	-Stability at ±10% Δ U _{IN}	<0,05%	<0,05%	<0,05%	<0,05%	<0,05%
-紋波	-Ripple	<100mA _{pp}	<100mA _{pp}	<100mA _{pp}	<100mA _{pp}	<100mA _{pp}
輸出功率	Output power	0...1500W	0...1500W	0...3000W	0...6000W	0...9000W
安全標準	Safety	EN60950, CE	EN60950, CE	EN60950, CE	EN60950, CE	EN60950, CE
EMI	EMI	EN61000-6-2	EN61000-6-2	EN61000-6-2	EN61000-6-2	EN61000-6-2
工作溫度	Operating temperature	0...40°C	0...40°C	0...40°C	0...40°C	0...40°C
儲存溫度	Storage temperature	-25°C...85°C	-25°C...85°C	-25°C...85°C	-25°C...85°C	-25°C...85°C
相對濕度	Relative humidity	0...95% 無凝露	0...95% 無凝露	0...95% 無凝露	0...95% 無凝露	0...95% 無凝露
使用高度	Operating altitude	0...2000m	0...2000m	0...2000m	0...2000m	0...2000m
尺寸 (WxHxD)	Dimensions (WxHxD)	331x133x380	19" 2HE 380mm	19" 2HE 460mm	19" 4HE 460mm	19" 6HE 460mm
重量	Weight	10,5kg	13,5kg	16,5kg	26,5kg	36,5kg
產品編號	Article No.	15100520	15100768	15100770	15100771	15100772

EA-PS 9000 1500W - 9000W

可編程實驗室電源供應器 / LABORATORY POWER SUPPLIES

技術參數	Technical Data	EA-PS 9300-15T	EA-PS 9300-15	EA-PS 9300-25	EA-PS 9300-50	EA-PS 9300-75
輸入電壓	Input voltage	90...264V	90...264V	207...264V	2x 207...264V	3x 207...264V
-90...180V時功率降額	-Derating 90...180V	至 / to 1,2 kW	至 / to 1,2 kW	- -	- -	- -
-180...207V L-N 功率降額	-Derating 180...207V L-N	- -	- -	至 / to 2,5 kW	至 / to 5,0 kW	至 / to 7,5 kW
-頻率	-Frequency	45...65Hz	45...65Hz	45...65Hz	45...65Hz	45...65Hz
-功率因數	-Power factor	>0,99	>0,99	>0,99	>0,99	>0,99
-電源保險絲	-Mains fuse	16A	16A	16A	2x 16A	3x 16A
輸出電壓	Output voltage	0...300V	0...300V	0...300V	0...300V	0...300V
-負載0-100% 時的穩定度	-Stability at 0-100% load	<0,05%	<0,05%	<0,05%	<0,05%	<0,05%
-在±10% Δ U _{IN} 時的穩定度	-Stability at ±10% Δ U _{IN}	<0,02%	<0,02%	<0,02%	<0,02%	<0,02%
-紋波	-Ripple	<70mV _{pp}	<70mV _{pp}	<70mV _{pp}	<70mV _{pp}	<70mV _{pp}
-負載從10%-100%調整需時	-Regulation 10-100% load	<2ms	<2ms	<2ms	<2ms	<2ms
-OVP過壓保護調節範圍	-OVP adjustment	0...330V	0...330V	0...330V	0...330V	0...330V
輸出電流	Output current	0...15A	0...15A	0...25A	0...50A	0...75A
-0-100% Δ U _{OUT} 時的穩定度	-Stability at 0-100% Δ U _{OUT}	<0,15%	<0,15%	<0,15%	<0,15%	<0,15%
-±10% Δ U _{IN} 時的穩定度	-Stability at ±10% Δ U _{IN}	<0,05%	<0,05%	<0,05%	<0,05%	<0,05%
-紋波	-Ripple	<100mA _{pp}	<100mA _{pp}	<100mA _{pp}	<100mA _{pp}	<100mA _{pp}
輸出功率	Output power	0...1500W	0...1500W	0...3000W	0...6000W	0...9000W
安全標準	Safety	EN60950, CE	EN60950, CE	EN60950, CE	EN60950, CE	EN60950, CE
EMI	EMI	EN61000-6-2	EN61000-6-2	EN61000-6-2	EN61000-6-2	EN61000-6-2
工作溫度	Operating temperature	0...40°C	0...40°C	0...40°C	0...40°C	0...40°C
儲存溫度	Storage temperature	-25°C...85°C	-25°C...85°C	-25°C...85°C	-25°C...85°C	-25°C...85°C
相對濕度	Relative humidity	0...95% 無凝露	0...95% 無凝露	0...95% 無凝露	0...95% 無凝露	0...95% 無凝露
使用高度	Operating altitude	0...2000m	0...2000m	0...2000m	0...2000m	0...2000m
尺寸 (WxHxD)	Dimensions (WxHxD)	331x133x380	19" 2HE/U 380mm	19" 2HE/U 460mm	19" 4HE/U 460mm	19" 6HE/U 460mm
重量	Weight	10,5kg	13,5kg	16,5kg	26,5kg	36,5kg
產品編號	Article No.	15100521	15100769	15100773	15100774	15100775

技術參數	Technical Data	EA-PS 9160-100	EA-PS 9240-100	EA-PS 9600-15	EA-PS 9600-25	EA-PS 9750-25
輸入電壓	Input voltage	2x 207...264V	3x 207...264V	2x 90...264V	2x 207...264V	3x 207...264V
-90...180V時功率降額	-Derating 90...180V	- -	- -	至 / to 2,4 kW	- -	- -
-180...207V L-N 功率降額	-Derating 180...207V L-N	至 / to 5,0 kW	至 / to 7,5 kW	- -	至 / to 5,0 kW	至 / to 7,5 kW
-頻率	-Frequency	45...65Hz	45...65Hz	45...65Hz	45...65Hz	45...65Hz
-功率因數	-Power factor	>0,99	>0,99	>0,99	>0,99	>0,99
-電源保險絲	-Mains fuse	2x 16A	3x 16A	2x 16A	2x 16A	3x 16A
輸出電壓	Output voltage	0...160V	0...240V	0...600V	0...600V	0...750V
-負載0-100% 時的穩定度	-Stability at 0-100% load	<0,05%	<0,05%	<0,05%	<0,05%	<0,05%
-在±10% Δ U _{IN} 時的穩定度	-Stability at ±10% Δ U _{IN}	<0,02%	<0,02%	<0,02%	<0,02%	<0,02%
-紋波	-Ripple	<70mV _{pp}	<70mV _{pp}	<70mV _{pp}	<70mV _{pp}	<70mV _{pp}
-負載從10%-100%調整需時	-Regulation 10-100% load	<2ms	<2ms	<2ms	<2ms	<2ms
-OVP過壓保護調節範圍	-OVP adjustment	0...176V	0...264V	0...660V	0...660V	0...825V
輸出電流	Output current	0...100A	0...100A	0...15A	0...25A	0...25A
-0-100% Δ U _{OUT} 時的穩定度	-Stability at 0-100% Δ U _{OUT}	<0,15%	<0,15%	<0,15%	<0,15%	<0,15%
-±10% Δ U _{IN} 時的穩定度	-Stability at ±10% Δ U _{IN}	<0,05%	<0,05%	<0,05%	<0,05%	<0,05%
-紋波	-Ripple	<100mA _{pp}	<100mA _{pp}	<100mA _{pp}	<100mA _{pp}	<100mA _{pp}
輸出功率	Output power	0...6000W	0...9000W	0...3000W	0...6000W	0...9000W
安全標準	Safety	EN60950, CE	EN60950, CE	EN60950, CE	EN60950, CE	EN60950, CE
EMI	EMI	EN61000-6-2	EN61000-6-2	EN61000-6-2	EN61000-6-2	EN61000-6-2
工作溫度	Operating temperature	0...40°C	0...40°C	0...40°C	0...40°C	0...40°C
儲存溫度	Storage temperature	-25°C...85°C	-25°C...85°C	-25°C...85°C	-25°C...85°C	-25°C...85°C
相對濕度	Relative humidity	0...95% 無凝露	0...95% 無凝露	0...95% 無凝露	0...95% 無凝露	0...95% 無凝露
使用高度	Operating altitude	0...2000m	0...2000m	0...2000m	0...2000m	0...2000m
尺寸 (WxHxD)	Dimensions (WxHxD)	19" 4HE/U 460mm	19" 6HE/U 460mm	19" 4HE/U 460mm	19" 4HE/U 460mm	19" 6HE/U 460mm
重量	Weight	26,5kg	36,5kg	21,5kg	26,5kg	36,5kg
產品編號	Article No.	15100782	15100783	15100784	15100776	15100777