EA-PS 9000 1U 1500 W & 3000 W

可编程实验室直流电源
Programmable laboratory DC Power supplies

EA-PS 9080-100 1U

U | I | P | OVP | OCP | OPP | OTP | 19“ | USB | LAN

- 宽范围输入电压100...264 V（1500 W型号）
- 效率高达 95%
- 输出功率：0..1500 W 或 0..3000 W
- 输出电压：0...80 V 至 0...750 V
- 输出电流：0...6 A 至 0...100 A
- 灵活的功率调整输出级
- 有多种保护电路（OVP, OCP, OPP, OTP）
- 带按键的蓝屏控制面板，可显示实际值，设定值，状态与报警信息
- 远程感测
- 共享总线支持并联连接
- 电隔离模拟接口
- 超低的高度，仅1 U高（44 mm）
- 温控风扇制冷
- 内置USB与以太网端口
- EMC符合EN 550220 等级B标准
- 支持SCPI指令语言

概要

EA-PS 9000 1U系列是一款由微处理器控制的实验室电源。其标准型号配备多种功能和特征，让用户使用起来更方便、有效。所有这些功能全部浓缩在44 mm高度的产品内。

控制面板上清晰地分布有两个旋钮、六个按键，以及两个LED灯。同时还有一显示所有数值与状态的蓝色液晶显示器，从而简化了产品的使用。

交流输入

本系列所有型号都采用主动式功率因数校正线路，1.5 kW以下型号可在100 V_{AC}至264 V_{AC}的输入电压范围下使用。

- **Wide input range 100...264 V (1500W models)**
- **High efficiency up to 95%**
- **Output power ratings: 0..1500 W or 0...3000 W**
- **Output voltages: 0...40 V up to 0...750 V**
- **Output currents: 0...6 A up to 0...100 A**
- **Flexible, power regulated output stage**
- **Various protection circuits (OVP, OCP, OPP, OTP)**
- **Control panel with pushbuttons and blue LCD for actual values, set values, status and alarms**
- **Remote sensing**
- **Share bus for support of parallel connection**
- **Galvanically isolated, analog interface**
- **Very low height of only 1 U (44 mm)**
- **Temperature controlled fans for cooling**
- **USB and Ethernet port integrated**
- **EMC according to EN 55022 Class B**
- **SCPI command language supported**

General

The microprocessor controlled laboratory power supplies of series EA-PS 9000 1U offer many functions and features in their standard version, making the use of this equipment remarkably easy and most effective. All this comes in a flat design with only 44 mm of height.

The clearly arranged control panel features two rotary knobs, six pushbuttons and two LEDs. Together with an illuminated, blue LCD display for all values and status it simplifies the use of the device.

AC input

All units are provided with an active **P**ower **F**actor **C**orrection circuit and models up to 1.5 kW are even suitable for a worldwide operation on a supply from 100 V_{AC} up to 264 V_{AC}.

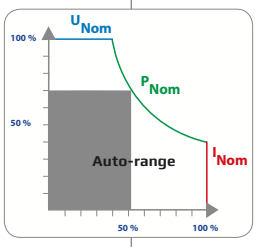
EA-PS 9000 1U 1500 W & 3000 W

两种功率级别的产品都会在输入电压低时自动减少输出功率，因此1.5 kW型号在输入电压为100...1150 V_{AC}时仍有1 kW。3 kW型号在输入电压为180...207V_{AC}时仍可供应2.5 kW。

Both power classes reduce the output power automatically when the input supply is low, so the 1.5 kW models can still provide 1 kW power with an input supply of 100...150 V_{AC} and the 3 kW models can still provide 2.5 kW at 180...207 V_{AC}.

功率

所有型号的输出功率都可灵活调整。可在较低电流时输出较高电压，或在低电压时输出较高电流，但总是维持在最大额定功率范围内。它们的设定功率都可调，因此仅用一台产品就能覆盖广泛的应用。



Power

All models are equipped with a flexible auto-ranging output stage which provides a higher output voltage at lower output current, or a higher output current at lower output voltage, always limited to the max. nominal output power. The power set value is adjustable with these models. Therefore, a wide range of applications can already be covered by the use of just one unit.

直流输出

本系列有多款不同型号，可选择0...80 V至0...750 V输出电压，0...6 A至0...100 A输出电流，0...1500 W至0...3000 W输出功率的类型。因此不管是手动控制还是远程控制（模拟或数字），都可在0%与100%之间连续调节电流、电压与功率。直流输出端位于产品后板。

DC output

DC output voltages between 0...80 V and 0...750 V, output currents between 0...6 A and 0...100 A and output power ratings of 0...1500 W or 0...3000 W are available. Current, voltage and power can thus be adjusted continuously between 0% and 100%, no matter if manually or remotely controlled (analog or digital).The DC output is located on the rear panel of the devices.

放电电路

额定输出电压为200 V或以上的产品，其输出电容都配有一放电电路。在空载或带小负载时，它能确保危险电压在直流输出关闭后降至60 V DC以下。该电压值被认为是对人体安全的最高电压。

Discharge circuit

Models with a nominal output voltage of 200 V or higher include a discharge circuit for the output capacities. For no load or low load situations, it ensures that the dangerous output voltage can sink to under 60 V DC after the DC output has been switched off. This value is considered as limit for voltages dangerous to human safety.

保护功能

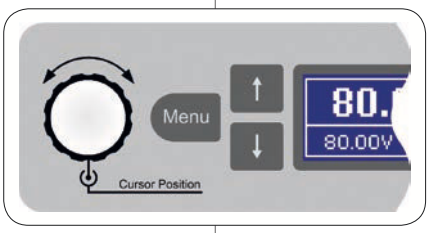
为保护连接设备，可给产品设定一过压保护极限值(OVP)，以及过流(OCP)与过功率(OPP)保护极限值。
一旦因故超过这三个值中的一个，直流输出会被立即切断，并在显示器与接口端发出一状态信号。
本产品还有过温保护，如果产品过热，它会关断直流输出。

Protective features

For protection of the equipment connected, it is possible to set an overvoltage protection threshold (OVP), as well as one for overcurrent (OCP) and overpower (OPP).
As soon as one of these thresholds is reached for any reason, the DC output will be immediately shut off and a status signal will be generated on the display and via the interfaces. There is furthermore an overtemperature protection, which will shut off the DC output if the device overheats.

显示器和控制键

产品所有重要信息都清晰地显示在点阵显示屏上。通过该显示器，电压与电流的实际输出值和预设值，(CV, CC, CP) 实际控制状态与其它状态，报警与设置菜单的设定，都清晰展现出来。
为了便于旋钮能调节参数，只需按一下该旋钮，就可更换数值小数点后的光标位置。所有这些特性都有助于操作者的便利性。其面板锁定功能可锁住整个面板，从而保护产品与连接负载免受意外误用。

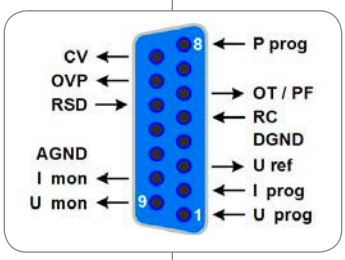


Display and controls

All important information is clearly visualised on a dot matrix display.
With this, information about the actual output values and set values of voltage and current, the actual control state (CV, CC, CP) and other statuses, as well as alarms and settings of the setup menu are clearly displayed.
In order to ease adjusting of values by the rotary knobs, pushing them can switch between decimal positions of a value. All these features contribute to an operator friendliness. With a panel lock feature, the whole panel can be locked in order to protect the equipment and the loads from unintentional misuse.

模拟接口

产品后板上装有一隔离模拟接口端子。它具有一模拟输入脚，接上0 V...10 V或0 V...5 V电压，可设置0...100%的输出电压、电流与功率。要监控输出电压与电流，可给模拟输出脚接上0 V...10 V或0 V...5 V电压来完成。此外，还有几个输入脚和输出脚，可用来控制和监控产品状态。



Analog interface

There is a galvanically isolated analog interface terminal, located on the rear of the device. It offers analog inputs to set voltage, current and power from 0...100% through control voltages of 0 V...10 V or 0 V...5 V.
To monitor the output voltage and current, there are analog outputs with voltage ranges of 0 V...10 V or 0 V...5 V. Also, several inputs and outputs are available for controlling and monitoring the device status.

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数字接口

本系列标配有两个电隔离数字接口。分别是1x USB & 1x Ethernet。可通过发送SCPI语言指令或ModBus RTU协议，经它们控制和监控产品。
产品的远程控制可由所供软件EA Power Control或者客户定制应用来完成，我们提供有编程文档，以及LabView™ Virtual Instruments (VIs)。

Digital interfaces

All models features two galvanically isolated, digital interfaces by default. These are 1x USB and 1x Ethernet. Both can be used to control and monitor the devices with SCPI language commands or ModBus RTU protocol.
Remote control of a device can be done either by the included software EA Power Control or by a custom application, which is supported by a programming documentation, as well as LabView™ Virtual Instruments (VIs).

技术参数	Technical Data	Series EA-PS 9000 1U / 系列	
交流供电	AC Supply	Models 1500 W / 型号: 100...264 V, 45...65 Hz, PF = 0.99 Models 3000 W / 型号: 180...264 V, 45...65 Hz, PF = 0.99	
- 功率降额	- Derating	Models 1500 W / 型号: < 150 V AC 时降至 / to $P_{out\,max}$ 1000 W Models 3000 W / 型号: < 207 V AC 时降至 / to $P_{out\,max}$ 2500 W	
直流：电压	DC: Voltage		
- 精确度	- Accuracy	<额定值的0.1% / <0.1% of rated value	
- 0-100%的负载调整率	- Load regulation 0-100%	<额定值的0.05% / <0.05% of rated value	
- ±10% ΔU_{AC}的线性调整率	- Line regulation ±10% ΔU_{AC}	<额定值的0.02% / <0.02% of rated value	
- 带载10-100%调整需时	- Regulation 10-100% load	<2.2 ms	
- 带载10-90% (CV)的斜率	- Rise time 10-90% (CV)	最大 / Max. 15 ms	
直流：电流	DC: Current		
- 精确度	- Accuracy	<额定值的0.2% / <0.2% of rated value	
- 1-100% ΔU_{DC}的负载调整率	- Load regulation 1-100% ΔU_{DC}	<额定值的0.15% / <0.15% of rated value	
- ±10% ΔU_{AC}的线性调整率	- Line regulation ±10% ΔU_{AC}	<额定值的0.05% / <0.05% of rated value	
直流：功率	DC: Power		
- 精确度	- Accuracy	<额定值的1% / <1% of rated value	
过压类别	Overvoltage category	2	
保护功能	Protection	OTP, OVP, OCP, OPP, PF (1	
隔离耐压	Insulation		
- 交流输入对外壳	- AC input to enclosure	2500 V DC	
- 交流输入对直流输出	- AC input to DC output	2500 V DC	
- 直流输出对外壳 (PE)	- DC output to enclosure (PE)	负极：最大400 V DC，正极：最大400 V DC + 输出电压 / Negative: max. 400 V DC, positive: max. 400 V DC + output voltage	
污染等级	Degree of pollution	2	
保护等级	Protection class	1	
模拟接口	Analog interface	内置15-针D-Sub母插，电隔离 / Built in, 15-pole D-Sub (female), galvanically isolated	
- 信号范围	- Signal range	0...5 V 或 0...10 V (可切换) / 0...5 V or 0...10 V (switchable)	
- U / I / P精确度	- Accuracy U / I / P	0...10 V: <0.2%	0...5 V: <0.4%
- 输入脚	- Inputs	U, I, P, 远程开-关，直流输出开-关 / U, I, P, Remote on-off, DC output on-off	
- 输出脚	- Outputs	U / I, 过压，报警，参考电压 / U / I, Overvoltage, alarms, reference voltage	
并联操作	Parallel operation	可实现，利用共享总线操作或模拟接口 / Possible, via Share Bus operation or via analog interface	
- 主-从	- Master-Slave	无 / No	
安规标准	Standards	EN 60950, EN 61326, EN 55022 等级 B / Class B	
制冷方式	Cooling	温控风扇 / Temperature controlled fan(s)	
工作温度	Operation temperature	0...50 °C	
储存温度	Storage temperature	-20...70 °C	
湿度	Humidity	<80%, 无凝露 / non-condensing	
工作高度	Operation altitude	<2000 m	
机械结构	Mechanics	1500 W	3000 W
- 重量 (2	- Weight (2	~10.5 kg	11 kg
- 尺寸 (宽 高 深) (3	- Dimensions (W H D) (3	19" x 1 HE/U x 500 mm	19" x 1 HE/U x 500 mm

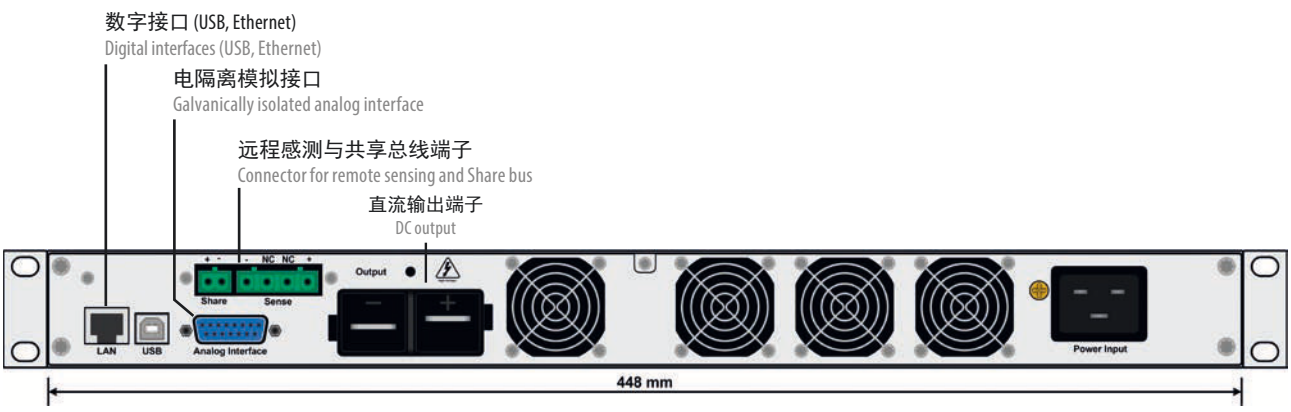
(1 见第146页 / See page 146
(2 为标准版，带选项功能的则会不同 / Standard version, models with options may vary
(3 为标准版的外壳尺寸，非整体尺寸，带选项功能的则会不同 / Enclosure of the standard version and not overall size, versions with options may vary

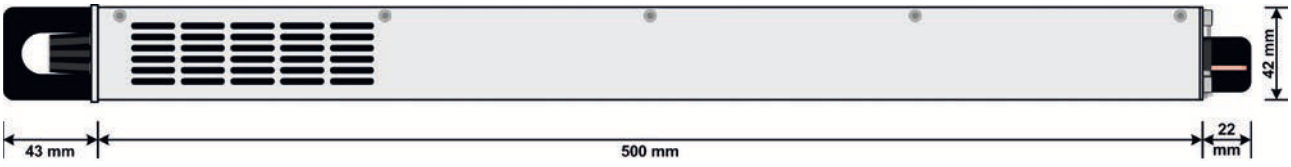
EA-PS 9000 1U 1500 W & 3000 W

型号	电压	电流	功率	效率	U的纹波 (2	I的纹波 (2	编程 (1		订购编号
Model	Voltage	Current	Power	Efficiency	Ripple U (2	Ripple I (2	U (typ.)	I (typ.)	Ordering number
PS 9080-50 1U	0...80 V	0...50 A	0...1500 W	≤91%	100 mV_{PP} / 5.2 mV_{RMS}	4 mA_{RMS}	3 mV	2 mA	06230400
PS 9200-25 1U	0...200 V	0...25 A	0...1500 W	≤93%	293 mV_{PP} / 51 mV_{RMS}	8 mA_{RMS}	8 mV	1 mA	06230401
PS 9360-15 1U	0...360 V	0...15 A	0...1500 W	≤94%	195 mV_{PP} / 33 mV_{RMS}	1.6 mA_{RMS}	14 mV	0.6 mA	06230402
PS 9500-10 1U	0...500 V	0...10 A	0...1500 W	≤94%	293 mV_{PP} / 63 mV_{RMS}	1.4 mA_{RMS}	20 mV	0.4 mA	06230403
PS 9750-06 1U	0...750 V	0...6 A	0...1500 W	≤95%	260 mV_{PP} / 40 mV_{RMS}	0.6 mA_{RMS}	30 mV	0.25 mA	06230404
PS 9080-100 1U	0...80 V	0...100 A	0...3000 W	≤92%	76 mV_{PP} / 4.2 mV_{RMS}	6 mA_{RMS}	3 mV	4 mA	06230405
PS 9200-50 1U	0...200 V	0...50 A	0...3000 W	≤93%	234 mV_{PP} / 40 mV_{RMS}	10 mA_{RMS}	8 mV	2 mA	06230406
PS 9360-30 1U	0...360 V	0...30 A	0...3000 W	≤93%	156 mV_{PP} / 26 mV_{RMS}	1.9 mA_{RMS}	14 mV	1.5 mA	06230407
PS 9500-20 1U	0...500 V	0...20 A	0...3000 W	≤93%	234 mV_{PP} / 50 mV_{RMS}	1.9 mA_{RMS}	20 mV	0.8 mA	06230408
PS 9750-12 1U	0...750 V	0...12 A	0...3000 W	≤93%	260 mV_{PP} / 40 mV_{RMS}	0.7 mA_{RMS}	30 mV	0.5 mA	06230409

(1 忽略产品错误时的可编程分辨率 / Programmable resolution disregarding device errors
(2 RMS值：在BWL 300 kHz时测量的LF值，PP值：在BWL 20MHz时测量的HF值/ RMS value: measures at LF with BWL 300kHz, PP value: measured at HF with BWL 20MHz

产品视图 Product views





右视图 View from the right side

带直流外盖的左视图 von links, mit DC-Abdeckung View from the left side, with DC cover

EA-PS 9000 2U 1000 W - 3000 W

可编程实验室直流电源
Programmable laboratory DC Power supplies

EA-PS 9500-20 2U

U | I | P | OVP | OCP | OPP | OTP | 19“ | USB | LAN | Option: IEEE

- 多相输入90...264 VAC，带主动式PFC
- 效率高达93%
- 输出功率有：0...1000 W至0...3000 W
- 输出电压：0...40 V 至 0...750 V
- 输出电流：0...4 A 至 0...120 A
- 灵活的功率调整输出
- 各种保护功能 (OVP, OCP, OPP, OTP)
- 带按键的控制面板与彩色液晶显示器，可显示实际值、设定值、状态与报警
- 隔离模拟接口
- 符合SELV标准 (EN 60950)的40 V产品型号
- 配放电电路(在10 s内Uout < 60 V)
- 所有型号都可配高速选项功能
- 内置USB与以太网端口，或选择安装IEEE/GPIB端口
- EMC符合EN 55022等级B标准
- 支持SCPI指令语言

概要

EA-PS 9000 2U系列是一款由微处理器控制的实验室电源，其标准型号配备多种功能和特征，让用户使用起来更方便、有效。
控制面板上清晰地分布有两个旋钮，六个按键和两个LED灯。同时还有一显示所有数值与状态的彩色TFT液晶显示器，从而简化了产品的使用。

AC输入

所有型号都采用主动式功率因数校正线路，1.5 kW以下型号可在90 V_{AC}至264 V_{AC}的输入电压范围下使用。1.5 kW型号在输入电压<150 V_{AC}时，输出功率降至1 kW。3 kW型号在输入电压<205 V_{AC}时降至2.5 kW。

- **Wide input voltage range 90...264 V, with active PFC**
- **High efficiency up to 93%**
- **Output power ratings: 0..1000 W up to 0...3000 W**
- **Output voltages: 0...40 V up to 0...750 V**
- **Output currents: 0...4 A up to 0...120 A**
- **Flexible, power regulated output stage**
- **Various protection circuits (OVP, OCP, OPP, OTP)**
- **Control panel with pushbuttons and color TFT for actual values, set values, status and alarms**
- **Galvanically isolated, analog interface with**
- **40 V models according to SELV (EN 60950)**
- **Discharge circuit (U_{out} < 60 V in ≤ 10 s)**
- **High speed versions of all models**
- **USB and Ethernet port integrated or alternatively installed IEEE/GPIB port**
- **EMC according to EN 55022 Class B**
- **SCPI command language supported**

General

The microprocessor controlled laboratory power supplies of series EA-PS 9000 2U offer many functions and features in their standard version, making the use of this equipment remarkably easy and most effective.
The clearly arranged control panel features two rotary knobs, six pushbuttons and two LEDs. Together with a colour TFT display for all values and status it simplifies the use of the device.

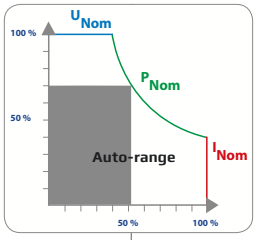
AC input

All units are provided with an active **P**ower **F**actor **C**orrection circuit and models up to 1.5 kW are even suitable for a worldwide operation on a supply from 90 V_{AC} up to 264 V_{AC}. With the 1.5 kW models, the output power is automatically reduced to 1 kW if the supply voltage is <150 V_{AC} and with the 3 kW models is reduced to 2.5 kW at <205 V_{AC}.

EA-PS 9000 2U 1000 W - 3000 W

功率级自动调整

本系列所有型号的输出功率都可灵活调整。可在较低电流时输出较高电压，或在低电压时输出较高电流，但总是维持在最大额定功率范围内。它们的设定功率都可调，因此仅用一台产品就能覆盖广泛的应用。



Power

All models are equipped with a flexible auto-ranging output stage which provides a higher output voltage at lower output current, or a higher output current at lower output voltage, always limited to the max. nominal output power. The power set value is adjustable with these models. Therefore, a wide range of applications can already be covered by the use of just one unit.

直流输出

本系列有0...40 V和0...750 V输出电压，0...4 A和0...120 A输出电流，0...1000 W与0...3000 W输出功率的不同型号。

因此不管是手动控制还是远程控制（模拟或数字），都可在0%与100%之间连续调节电流、电压与功率。输出端位于产品后面板上。

DC output

DC output voltages between 0...40 V and 0...750 V, output currents between 0...4 A and 0...120 A and output power ratings between 0...1000 W and 0...3000 W are available.

Current, voltage and power can thus be adjusted continuously between 0% and 100%, no matter if manually or remotely controlled (analog or digital). The DC output is located on the rear panel of the devices.

放电电路

额定输出电压为200 V或以上的产品，其输出电容都配有一放电电路。在空载或带小负载时，它能确保危险电压在直流输出关闭后降至60 V DC以下。该电压值被认为是对人体安全的最高电压。

Discharge circuit

Models with a nominal output voltage of 200 V or higher include a discharge circuit for the output capacities. For no load or low load situations, it ensures that the dangerous output voltage can sink to under 60 V DC after the DC output has been switched off. This value is considered as limit for voltages dangerous to human safety.

保护功能

为保护连接设备，可给产品设定一过压保护极限值(OVP)，以及过流(OCP)与过功率(OPP)保护极限值。

一旦因故超过这三个值中的一个，直流输出会被立即切断，并在显示器与接口端发出一状态信号。

本产品还有过温保护，如果产品过热，它会关断直流输出。

Protective features

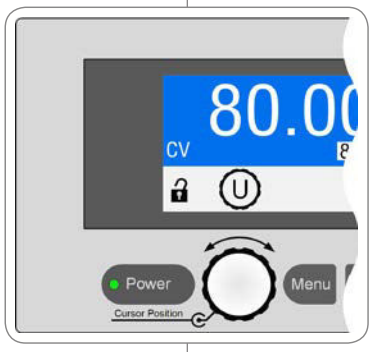
For protection of the equipment connected, it is possible to set an overvoltage protection threshold (OVP), as well as one for overcurrent (OCP) and overpower (OPP).

As soon as one of these thresholds is reached for any reason, the DC output will be immediately shut off and a status signal will be generated on the display and via the interfaces. There is furthermore an overtemperature protection, which will shut off the DC output if the device overheats.

显示器和控制键

产品所有重要信息都清晰地显示在彩色的TFT显示屏上。

通过该显示器，电压与电流的实际输出值和预设值，(CV, CC, CP) 实际控制状态与其它状态，报警与设置菜单的设定，都清晰显示出来。



为使旋钮可以调节参数，只需按一下该旋钮，就可更换数值小数点后的光标位置。所有这些特性都有助于操作者的便利性。

其面板锁定功能可锁住整个面板，从而保护产品与连接负载免受意外误用。

Display and controls

All important information is clearly visualised on a colour TFT display.

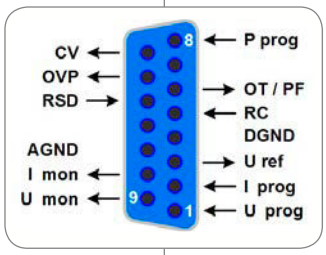
With this, information about the actual output values and set values of voltage and current, the actual control state (CV, CC, CP) and other statuses, as well as alarms and settings of the setup menu are clearly displayed.

In order to ease adjusting of values by the rotary knobs, pushing them can switch between decimal positions of a value. All these features contribute to an operator friendliness.

With a panel lock feature, the whole panel can be locked in order to protect the equipment and the loads from unintentional misuse.

模拟接口

产品后板上装有一隔离模拟接口端子。它具有一模拟输入脚，接上0 V...10 V或0 V...5 V电压，可设置0...100%的输出电压、电流与功率。要监控输出电压与电流，可给模拟输出脚接上0 V...10 V或0 V...5 V电压来完成。此外，还有几个输入脚和输出脚，可用来控制和监控产品状态。



Analog interface

There is a galvanically isolated analog interface terminal, located on the rear of the device. It offers analog inputs to set voltage, current and power from 0...100% through control voltages of 0 V...10 V or 0 V...5 V.

To monitor the output voltage and current, there are analog outputs with voltage ranges of 0 V...10 V or 0 V...5 V. Also, several inputs and outputs are available for controlling and monitoring the device status.

EA-PS 9000 2U 1000 W - 3000 W

数字接口

所有型号在其后板默认有两个电隔离数字接口（标准版：1x USB & 1x Ethernet，带3W选项的：1x USB & 1x GPIB）。可通过发送SCPI语言指令或ModBus RTU协议，经USB与Ethernet接口，控制和监控产品，而GPIB仅支持SCPI语言。

软件与编程

通过电脑远程控制本产品，可以使用随附产品的EA Power Control软件。它可同时应用于多台不同或同型号的PS 9000 2U 系列产品上，对其监控与控制。本软件还有一固件更新工具，以及数据记录功能，和用半自动表格处理来控制产品的特征。
对于更复杂的应用，还提供有一个完整的编程文件，以及可直接应用的LabView VIs。

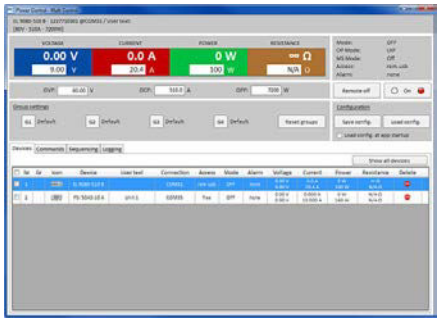
PS 9000 2U所有型号支持通用**SCPI**指令语言，以及**ModBus RTU**通讯协议。但是带3 W选项功能的型号，通过GPIB端口仅能使用SCPI语言。

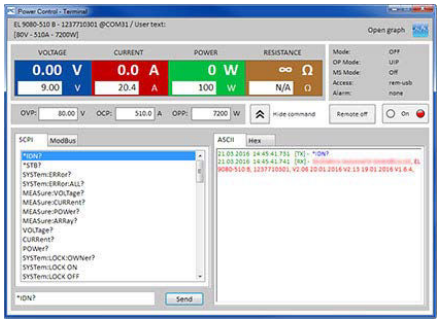
Digital interfaces

All models features two galvanically isolated, digital interfaces by default (standard: 1x USB & 1x Ethernet, with option 3W: 1x USB & 1x GPIB), which are located on the rear side. USB and Ethernet can be used to control and monitor the devices either with SCPI language commands or ModBus RTU protocol, while with GPIB only SCPI is supported.

Software and programming

For remote control from a Windows PC there is a software EA Power Control included with the device. It can be used with multiple different or identical models of series PS 9000 2U to monitor and control the units. The software furthermore includes a firmware update tool, as well as a feature to record data and to control the units by a semi-automatic table processing.
For even more sophisticated, customer specific applications there is a complete programming documentation and also LabView VIs for direct implementation available.
All models of series PS 9000 2U support the common command language **SCPI** and the **ModBus RTU** protocol via both, Ethernet and USB. Models with option 3W can only use SCPI via the GPIB port.





远程感测

远程感测输入端可直接用线连到负载设备，以补偿连线上的部分压降。如果感测输入端已接到负载上，本电源会自动调整输出电压，以确保负载获得准确所需的电压值。
远程感测连接端子在产品后板。

选购件

- 还可安装带固定GPIB端口的三位接口（3W），代替默认以太网插槽

Remote sensing

Remote sensing can be done via a dedicated input which is directly connected to the load equipment, in order to compensate voltage drops along the load cables. The power supply detects automatically whether the sensing input is connected and will stabilise the voltage directly at the load.
The connection for the remote sensing is located on the rear of the device.

Options

- Three-way interface (3W) with a rigid GPIB port installed instead of the default Ethernet port

EA-PS 9000 2U 1000 W - 3000 W

技术参数	Technical Data	Series PS 9000 2U / 系列	
交流供电	AC Supply		
- 电压	- Voltage	90...264 V, 1ph+N (型号 / Models 1000 W - 1500 W) 180...264 V, 1ph+N (型号 / Models 3000 W)	
- 频率	- Frequency	45...66 Hz	
- 功率因数	- Power factor	>0.99	
- 功率降额	- Derating	型号 / Models 1500 W: < 150 V AC 时降至 / to $P_{out\ max}$ 1000 W 型号 / Models 3000 W: < 207 V AC 时降至 / to $P_{out\ max}$ 2500 W	
直流：电压	DC: Voltage		
- 精确度	- Accuracy	<额定值的0.1% / <0.1% of rated value	
- 0-100%的负载调整率	- Load regulation 0-100%	<额定值的0.05% / <0.05% of rated value	
- ±10% ΔU_{AC}线性调整率	- Line regulation ±10% ΔU_{AC}	<额定值的0.02% / <0.02% of rated value	
- 带载10-100%调整需时	- Regulation 10-100% load	<2 ms	
- 带载10-90%上升时间	- Rise time 10-90%	最大 / Max. 30 ms	
- 过压保护	- Overvoltage protection	可调，0...110% U_{Nenn} / Adjustable, 0...110% U_{Nom}	
直流：电流	DC: Current		
- 精确度	- Accuracy	<额定值的0.2% / <0.2% of rated value	
- 1-100% ΔI_{DC}的负载调整率	- Load regulation 1-100% ΔU_{DC}	<额定值的0.15% / <0.15% of rated value	
- ±10% ΔU_{AC}的线性调整率	- Line regulation ±10% ΔU_{AC}	<额定值的0.05% / <0.05% of rated value	
直流：功率	DC: Power		
- 精确度	- Accuracy	<额定值的1% / <1% of rated value	
过压类别	Overvoltage category	2	
保护功能	Protection	OTP, OVP, OCP, OPP, PF (1	
隔离耐压	Insulation		
- 交流输入对外壳	- AC input to enclosure	2500 V DC	
- 交流输入对直流输出	- AC input to DC output	2500 V DC	
- 直流输出对外壳 (PE)	- DC output to enclosure (PE)	负极：最大400 V DC，正极：最大400 V DC + 输出电压 / Negative: max. 400 V DC, positive: max. 400 V DC + output voltage	
污染等级	Degree of pollution	2	
保护等级	Protection class	1	
显示器与面板	Display and panel	彩色显示器，调节旋钮与按钮 / Colour display, knobs and pushbuttons	
数字接口	Digital interfaces		
- 内置	- Built-in	1x 通讯用B类USB端口, 1x Ethernet / 1x USB type B for communication, 1x Ethernet 可选：1x GPIB (针对3W选项功能) / optional: 1x GPIB (with option 3W)	
模拟接口	Analog interface	内置15-针D-Sub母插，电隔离 / Built in, 15-pole D-Sub (female), galvanically isolated	
- 信号范围	- Signal range	0...5 V 或 0...10 V (可切换) / 0...5 V or 0...10 V (switchable)	
- 输入脚	- Inputs	U, I, P, 远程开-关，直流输出开-关 / U, I, P, Remote on-off, DC output on-off	
- 输出脚	- Outputs	U / I, 过压，报警，参考电压 / U / I, Overvoltage, alarms, reference voltage	
- U / I / P精确度	- Accuracy U / I / P	0...10 V: <0.2%	0...5 V: <0.4%
并联操作	Parallel operation	可实现，利用共享总线操作或模拟接口 / Possible, via Share Bus operation or via analog interface	
- 主-从	- Master-Slave	无 / No	
安规标准	Standards	EN 60950, EN 61326, EN 55022 等级 B / Class B	
制冷方式	Cooling	温控风扇 / Temperature controlled fan(s)	
工作温度	Operation temperature	0...50 °C	
储存温度	Storage temperature	-20...70 °C	
湿度	Humidity	<80%, 无凝露 / non-condensing	
湿度	Humidity	<80%	
工作高度	Operation altitude	<2000 m	
机械结构	Mechanics	1000 W / 1500 W	3000 W
- 重量 (2	- Weight (2	12 kg	15 kg
- 尺寸 (宽 高 深) (3	- Dimensions (W H D) (3	19" x 2 HE/U x 463 mm	19" x 2 HE/U x 463 mm

(1 见第146页 / See page 146
(2 为标准版参数，带选项功能的则会不同 / Standard version, models with options may vary
(3 仅为标准版的外壳尺寸，非整体尺寸，带选项功能的还会不同 / Enclosure of the standard version and not overall size, versions with options may vary

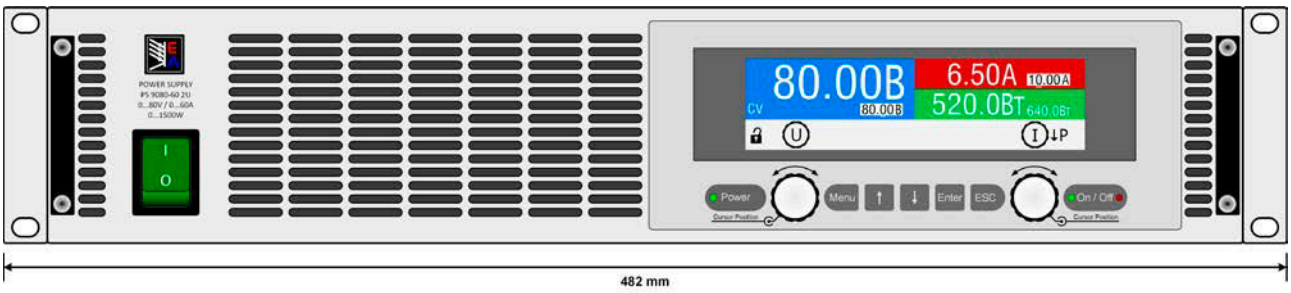
EA-PS 9000 2U 1000 W - 3000 W

型号 Model	电压 Voltage	电流 Current	功率 Power	效率 Efficiency	U的纹波 (2 Ripple U (2	I的纹波 (2 Ripple I (2	编程 (1 U (typ.)	 I (typ.)	订购编号 (3 Ordering number (3
PS 9040-40 2U	0...40 V	0...40 A	0...1000 W	≤92%	114 mV_{PP} / 8 mV_{RMS}	3.7 mA_{RMS}	~1.5 mV	~1.5 mA	06230219
PS 9080-40 2U	0...80 V	0...40 A	0...1000 W	≤92%	114 mV_{PP} / 8 mV_{RMS}	3.7 mA_{RMS}	~3 mV	~1.5 mA	06230204
PS 9200-15 2U	0...200 V	0...15 A	0...1000 W	≤93%	164 mV_{PP} / 34 mV_{RMS}	2.2 mA_{RMS}	~7.6 mV	~0.6 mA	06230205
PS 9360-10 2U	0...360 V	0...10 A	0...1000 W	≤93%	210 mV_{PP} / 59 mV_{RMS}	1.6 mA_{RMS}	~13.7 mV	~0.4 mA	06230206
PS 9500-06 2U	0...500 V	0...6 A	0...1000 W	≤93%	190 mV_{PP} / 48 mV_{RMS}	0.5 mA_{RMS}	~19 mV	~0.23 mA	06230207
PS 9750-04 2U	0...750 V	0...4 A	0...1000 W	≤93%	212 mV_{PP} / 60 mV_{RMS}	0.3 mA_{RMS}	~28.6 mV	~0.15 mA	06230208
PS 9040-60 2U	0...40 V	0...60 A	0...1500 W	≤92%	114 mV_{PP} / 8 mV_{RMS}	5.6 mA_{RMS}	~1.5 mV	~2.3 mA	06230220
PS 9080-60 2U	0...80 V	0...60 A	0...1500 W	≤92%	114 mV_{PP} / 8 mV_{RMS}	5.6 mA_{RMS}	~3 mV	~2.3 mA	06230209
PS 9200-25 2U	0...200 V	0...25 A	0...1500 W	≤93%	164 mV_{PP} / 34 mV_{RMS}	3.3 mA_{RMS}	~7.6 mV	~1 mA	06230210
PS 9360-15 2U	0...360 V	0...15 A	0...1500 W	≤93%	210 mV_{PP} / 59 mV_{RMS}	2.4 mA_{RMS}	~13.7 mV	~0.6 mA	06230211
PS 9500-10 2U	0...500 V	0...10 A	0...1500 W	≤93%	190 mV_{PP} / 48 mV_{RMS}	0.7 mA_{RMS}	~19 mV	~0.4 mA	06230212
PS 9750-06 2U	0...750 V	0...6 A	0...1500 W	≤93%	212 mV_{PP} / 60 mV_{RMS}	0.5 mA_{RMS}	~28.6 mV	~0.23 mA	06230213
PS 9040-120 2U	0...40 V	0...120 A	0...3000 W	≤92%	114 mV_{PP} / 8 mV_{RMS}	11 mA_{RMS}	~3 mV	~4.6 mA	06230221
PS 9080-120 2U	0...80 V	0...120 A	0...3000 W	≤92%	114 mV_{PP} / 8 mV_{RMS}	11 mA_{RMS}	~1.5 mV	~4.6 mA	06230214
PS 9200-50 2U	0...200 V	0...50 A	0...3000 W	≤93%	164 mV_{PP} / 34 mV_{RMS}	6.5 mA_{RMS}	~7.6 mV	~1.9 mA	06230215
PS 9360-30 2U	0...360 V	0...30 A	0...3000 W	≤93%	210 mV_{PP} / 59 mV_{RMS}	5 mA_{RMS}	~13.7 mV	~1.2 mA	06230216
PS 9500-20 2U	0...500 V	0...20 A	0...3000 W	≤93%	190 mV_{PP} / 48 mV_{RMS}	1.5 mA_{RMS}	~19 mV	~0.8 mA	06230217
PS 9750-12 2U	0...750 V	0...12 A	0...3000 W	≤93%	212 mV_{PP} / 60 mV_{RMS}	0.9 mA_{RMS}	~28.6 mV	~0.5 mA	06230218

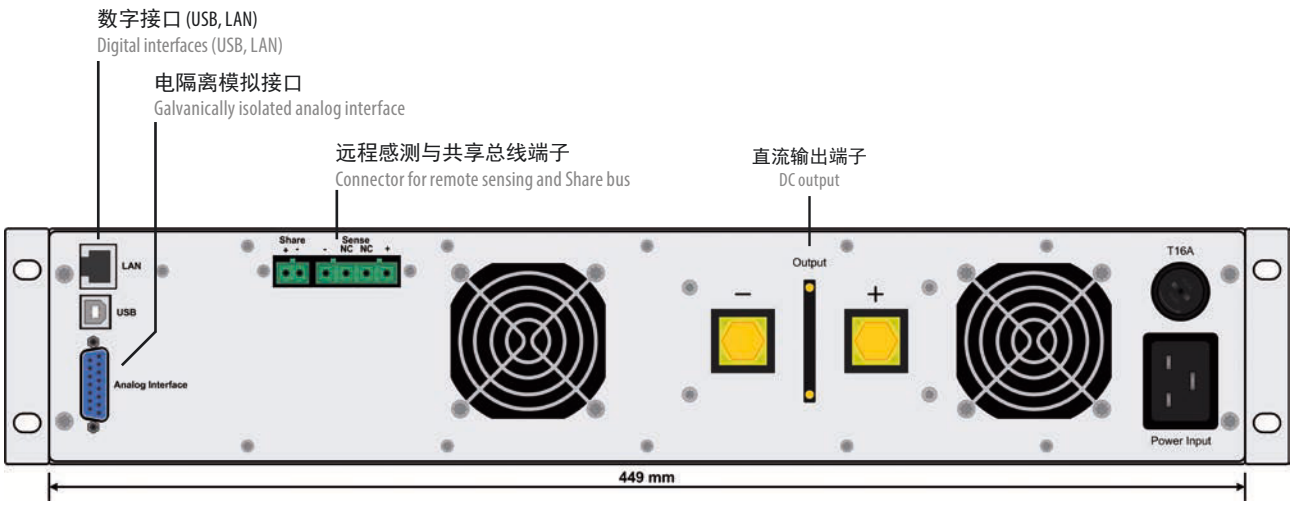
(1 忽略产品错误时的可编程分辨率 / Programmable resolution disregarding device errors
(2 RMS值：在BWL 300 kHz时测量的LF值，PP值：在BWL 20MHz时测量的HF值 / RMS value: measures at LF with BWL 300 kHz, PP value: measured at HF with BWL 20MHz
(3 为标准版的订购编号，带3W选项功能的型号则为不同 / Ordering number of the standard version, models with option 3W installed have different ordering numbers

EA-PS 9000 2U 1000 W - 3000 W

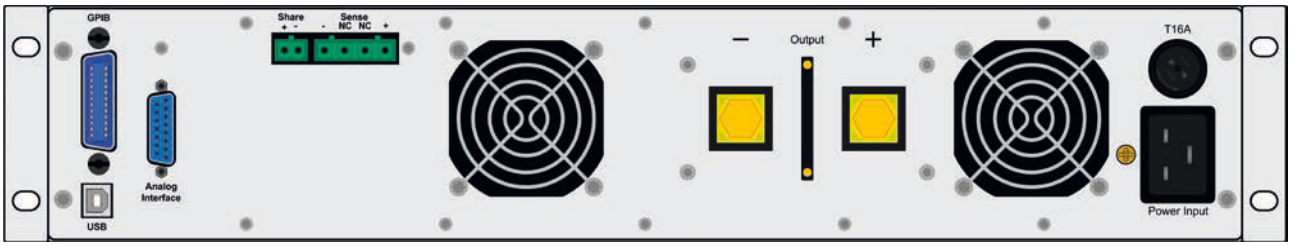
产品图片 **Product views**



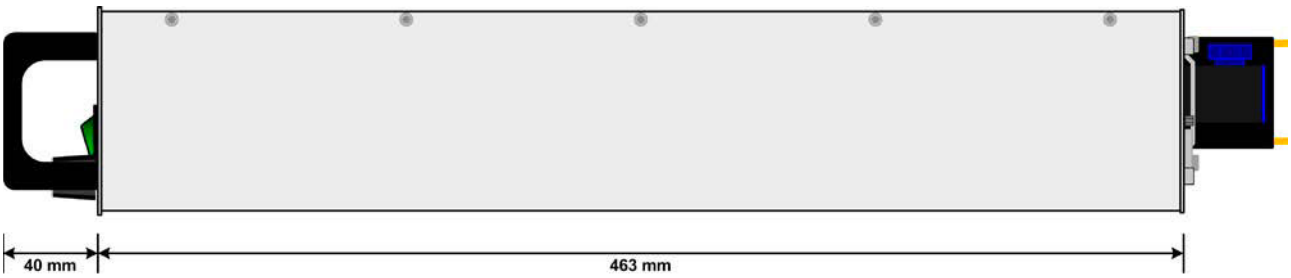
前视图 Front view



标准版后视图 Rear view of base model



带3W选项的后视图 Rear view of model with option 3W



标准版侧视图 Side view of base model

EA-PS 9000 3U 3.3 kW - 15 kW

可编程高效直流电源
Programmable high efficiency DC Power supplies

EA-PS 9500-90 3U

U I P OVP OCP OPP OTP 19“

USB LAN Option: IEEE WC

- 多相输入电压340...460 V_{AC}
- 效率高达95.5%
- 输出功率等级：3.3 kW, 5 kW, 6.6 kW, 10 kW, 或15 kW, 还可扩展至480 kW
- 输出电压：0...40 V 至 0...1500 V
- 输出电流：30 A 至 510 A，还可扩展至5100 A
- 灵活的功率调整输出级
- 各种保护功能 (OVP, OCP, OPP, OTP)
- 带按键的控制面板与液晶显示器，可显示实际值、设定值、状态与报警
- 隔离模拟接口
- 温控风扇制冷
- 40 V产品型号符合SELV标准 (EN 60950)
- 配放电电路(在10 s内U_{out} < 60 V)
- 内置USB与以太网端口，或可选择安装IEEE/GPIB端口
- EMC符合EN 61010 等级B，且获得TÜV认证
- 支持SCPI指令语言

概要

EA-PS 9000 3U系列是一款由微处理器控制的高效实验室电源，其标准型号配备多种功能和特征，用户使用起来更方便、有效。

控制面板上清晰地分布有两个旋钮，六个按键，以及两个LED灯。同时还有一显示所有数值与状态的彩色TFT液晶显示器，从而简化了产品的使用。
若想获得比单机更大的输出功率，可按用户需求，配置高达42U的机柜，以获得最大150 kW的功率。也可见138页。

- **Multi-phase input 340...460 V_{AC}**
- **High efficiency up to 95.5%**
- **Output power ratings: 3.3 kW, 5 kW, 6.6 kW, 10 kW or 15 kW, expandable up to 480 kW**
- **Output voltages: 0...40 V up to 0...1500 V**
- **Output currents: 30 A up to 510 A, expandable up to 5100 A**
- **Auto-ranging output stage**
- **Various protection circuits (OVP, OCP, OPP, OTP)**
- **Control panel with pushbuttons and colored TFT for actual values, set values, status and alarms**
- **Galvanically isolated, analog interface**
- **Temperature controlled fans for cooling**
- **40 V models according to SELV (EN 60950)**
- **Discharge circuit (U_{out} < 60 V in ≤ 10 s)**
- **USB and Ethernet port integrated or alternatively installed IEEE/GPIB port**
- **EMC TÜV approved for EN 61010 Class B**
- **SCPI command language supported**

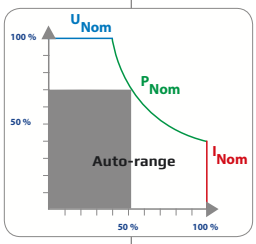
General

The microprocessor controlled high efficiency laboratory power supplies of series EA-PS 9000 3U offer many functions and features in their standard version, making the use of this equipment remarkably easy and most effective.
The clearly arranged control panel features two rotary knobs, six pushbuttons and two LEDs. Together with a colour TFT display for all values and status it simplifies the use of the device.
In order to achieve even higher output power than the single units can supply, cabinets with up to 150 kW and up to 42U size can be configured to suit the user's requirements. Also see page 138.

EA-PS 9000 3U 3.3 kW - 15 kW

AC输入
所有型号都采用主动式功率因数，专门设计成在340 V至460 V AC 的三相交流电。

功率级
本系列所有型号的输出功率都可灵活调整。可在较低电流时输出较高电压，或在低电压时输出较高电流，但总是维持在最大额定功率范围内。因此仅用一台产品就能覆盖广泛的应用。



直流输出
本系列有0...40 V和0...1500 V输出电压，0...30 A和0...510 A输出电流，0...3.3 kW，0...5 kW，0...6.6 kW，0...10 kW或0...15 kW输出功率的不同型号。输出端位于产品后面板上。

放电电路
额定输出电压为200 V或以上的产品，其输出电容都配有一放电电路。在空载或带小负载时，它能确保危险电压在直流输出关闭后降至60 V DC以下。该电压值被认为是对人体安全的最高电压。

保护功能
为保护连接设备，可给产品设定一过压保护极限值(OVP)，以及过流(OCP)与过功率(OPP)保护极限值。
一旦因故超过这三个值中的一个，直流输出会被立即切断，并在显示器与接口端发出一状态信号。
本产品还有过温保护，如果产品过热，它会关断直流输出。

显示器和控制键
产品所有重要信息都清晰地显示在彩色的TFT显示屏上。
通过该显示器，电压与电流的实际输出值和预设值，(CV, CC, CP) 实际控制状态与其它状态，报警与设置菜单的设定，都清晰显示出来。

为了便于旋钮能调节参数，只需按一下该旋钮，就可更换数值小数点后的光标位置。所有这些特性有助于操作者的便利性。
其面板锁定功能可锁住整个面板，从而保护产品与连接负载免受意外误用。

扩展功能
可按需求将本系列单机产品组成各种配置，并装于高至42U的机柜内，并联后获得一个总功率高达480 kW的组合系统。也可参考第138页。

AC input
All models are provided with an active Power Factor Correction circuit and are designed for a usage on a three-phase supply with 340 V up to 460 V AC.

Power
The devices are equipped with a flexible auto-ranging output stage which provides a higher output voltage at lower output current, or a higher output current at lower output voltage, always limited to the max. nominal output power. Therefore, a wide range of applications can already be covered by the use of just one unit.

DC output
DC output voltages between 0...40 V and 0...1500 V, output currents between 0...30 A and 0...510 A and output power ratings of 0...3.3 kW, 0...5 kW, 0...6.6 kW, 0...10 kW or 0...15 kW are available. The output terminal is located in the rear panel.

Discharge circuit
Models with a nominal output voltage of 200 V or higher include a discharge circuit for the output capacities. For no load or low load situations, it ensures that the dangerous output voltage can sink to under 60 V DC after the DC output has been switched off. This value is considered as limit for voltages dangerous to human safety.

Protective features
For protection of the equipment connected, it is possible to set an overvoltage protection threshold (OVP), as well as one for overcurrent (OCP) and overpower (OPP).
As soon as one of these thresholds is reached for any reason, the DC output will be immediately shut off and a status signal will be generated on the display and via the interfaces. There is furthermore an overtemperature protection, which will shut off the DC output if the device overheats.

Display and controls
All important information is clearly visualised on a colour TFT display.
With this, information about the actual output values and set values of voltage and current, the actual control state (CV, CC, CP) and other statuses, as well as alarms and settings of the setup menu are clearly displayed.
In order to ease adjusting of values by the rotary knobs, pushing them can switch between decimal positions of a value. All these features contribute to an operator friendliness.
With a panel lock feature, the whole panel can be locked in order to protect the equipment and the loads from unintentional misuse.

Extensibility
The single units can be combined into various configurations upon request and in cabinets of up to 42U height, in order to build parallel systems of up to 480 kW total power. Also see page 138.

EA-PS 9000 3U 3.3 kW - 15 kW

远程感测

远程感测输入端可直接用线连到负载设备，以补偿连线上的部分压降。如果感测输入端已接到负载上，本电源会自动调整输出电压，以确保负载获得准确所需的电压值。

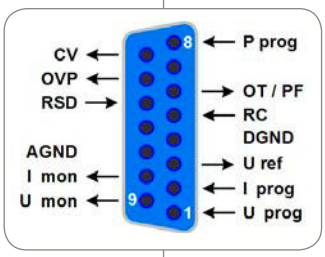
数字接口

所有型号在其后板默认有两个电隔离数字接口（标准版：1x USB & 1x Ethernet，带3W选项的：1x USB & 1x GPIB）。可通过发送SCPI语言指令或ModBus RTU协议，经USB与Ethernet接口，控制和监控产品，而GPIB仅支持SCPI语言。

模拟接口

产品后板上装有一隔离模拟接口端子。它具有一模拟输入脚，接上0 V...10 V或0 V...5 V电压，可设置0...100%的输出电压、电流与功率。

要监控输出电压与电流，可给模拟输出脚接上0 V...10 V或0 V...5 V电压完成。此外，还有几个输入脚和输出脚，可用来控制和监控产品状态。



可选件

- 高速跃变（也可见144) *
- 水制冷（仅针对200 V以下型号）
- 还可安装带固定GPIB端口的三位接口（3 W），而非接口模块用的默认插槽

* 并非针对所有电压--具体请咨询

Remote sensing

The standard sensing input can be connected directly to the load in order to compensate voltage drops along the power cables. If the sensing input is connected to the load, the power supply will adjust the output voltage automatically to ensure the required voltage is available at the load.

Digital interfaces

All models features two galvanically isolated, digital interfaces by default (standard: 1x USB & 1x Ethernet, with option 3W: 1x USB & 1x GPIB), which are located on the rear side. USB and Ethernet can be used to control and monitor the devices either with SCPI language commands or ModBus RTU protocol, while with GPIB only SCPI is supported.

Analog interface

There is a galvanically isolated analog interface terminal, located on the rear of the device. It offers analog inputs to set voltage, current and power from 0...100% through control voltages of 0...10 V or 0...5 V.

To monitor the output voltage and current, there are analog outputs with voltage ranges of 0...10 V or 0...5 V. Also, several status inputs and outputs are available.

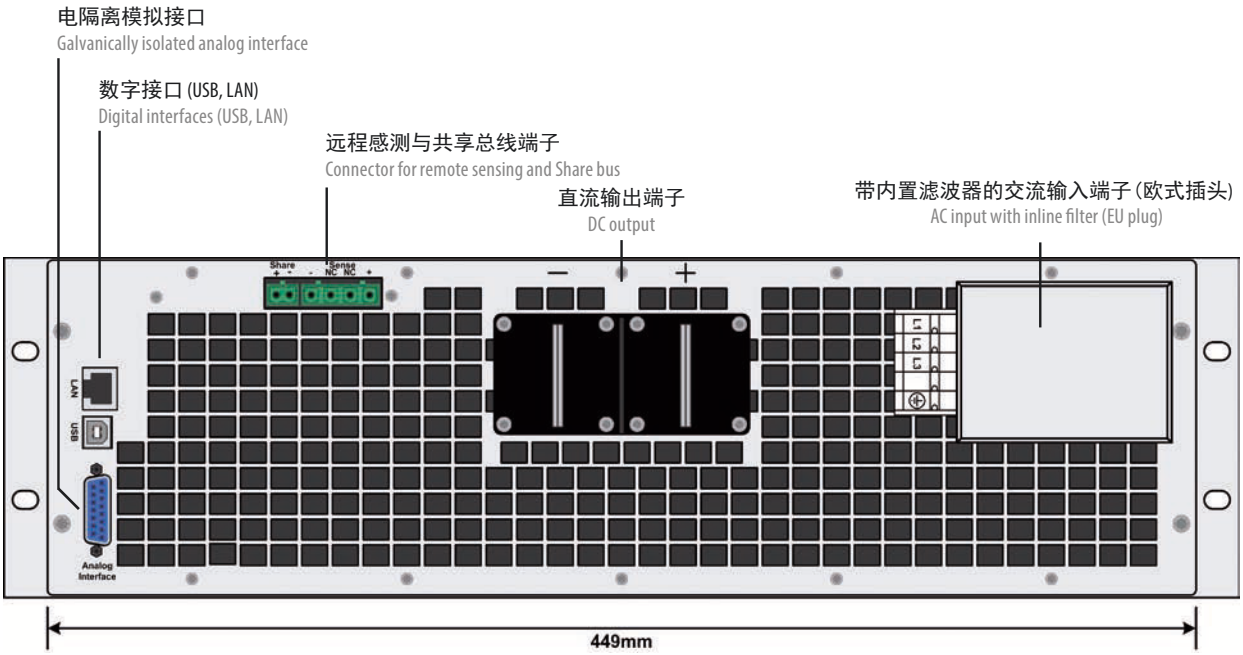
Options

- High speed ramping (see page 144) *
- Water cooling (only for models up to 200 V)
- Three-way interface (3W) with a rigid GPIB port installed instead of the default Ethernet port

* Not available for all voltages - please quote for availability

产品视图

Product views



EA-PS 9000 3U 3.3 kW - 15 kW

技术参数	Technical Data	Series PS 9000 3U / 系列
交流：供电	AC: Supply	
- 电压	- Voltage	340...460 V, 2ph/3ph
- 频率	- Frequency	45...66 Hz
- 功率因数	- Power factor	>0.99
直流：电压	DC: Voltage	
- 精确度	- Accuracy	<额定值的0.1% / <0.1% of rated value
- 0-100%的负载调整率	- Load regulation 0-100%	<额定值的0.05% / <0.05% of rated value
- ±10% ΔU_{AC}线性调整率	- Line regulation ±10% ΔU_{AC}	<额定值的0.02% / <0.02% of rated value
- 带载10-100%调整需时	- Regulation 10-100% load	<2 ms
- 带载10-90%上升时间	- Rise time 10-90%	最大 / Max. 30 ms
- 过压保护	- Overvoltage protection	可调， 0...110% U_{Nenn} / Adjustable, 0...110% U_{Nom}
直流关闭时空载放电时间	- No load discharge time on DC off	100% U 降至 / to <60 V: 少于 10 s / less than 10 s
直流：电流	DC: Current	
- 精确度	- Accuracy	<额定值的0.2% / <0.2% of rated value
- 1-100% ΔI_{DC}的负载调整率	- Load regulation 1-100% ΔU_{DC}	<额定值的0.15% / <0.15% of rated value
- ±10% ΔU_{AC}的线性调整率	- Line regulation ±10% ΔU_{AC}	<额定值的0.05% / <0.05% of rated value
直流：功率	DC: Power	
- 精确度	- Accuracy	<额定值的1% / <1% of rated value
过压类别	Overvoltage category	2
保护功能	Protection	OTP, OVP, OCP, OPP, PF (1
隔离耐压	Insulation	
- 交流输入对外壳	- AC input to enclosure	2500 V DC
- 交流输入对直流输出	- AC input to DC output	2500 V DC
- 直流输出对外壳 (PE)	- DC output to enclosure (PE)	取决于具体型号，见各型号规格表 / Depending on models, see tables
污染等级	Degree of pollution	2
保护等级	Protection class	1
显示器与面板	Display and panel	彩色显示器，调节旋钮与按钮 / Colour display, knobs and pushbuttons
数字接口	Digital interfaces	
- 内置	- Built-in	1x 通讯用B类USB端口, 1x Ethernet / 1x USB type B for communication, 1x Ethernet 可选： 1x GPIB (针对3W选项功能) / optional: 1x GPIB (with option 3W)
模拟接口	Analog interface	内置15-针D-Sub母插，电隔离 / Built in, 15-pole D-Sub (female), galvanically isolated
- 信号范围	- Signal range	0...5 V 或 0...10 V (可切换) / 0...5 V or 0...10 V (switchable)
- 输入脚	- Inputs	U, I, P, 远程开-关，直流输出开-关 / U, I, P, Remote on-off, DC output on-off
- 输出脚	- Outputs	U / I, 过压，报警，参考电压 / U / I, Overvoltage, alarms, reference voltage
- U / I / P精确度	- Accuracy U / I / P	0...10 V: <0.2% 0...5 V: <0.4%
并联操作	Parallel operation	可实现 / Possible
- 主-从	- Master-Slave	无 / No
安规标准	Standards	EN 61326, IEC 1010, EN 61010 EMC通过了TÜV认证，符合 / EMC TÜV approved according to IEC 61000-6-2:2005 IEC 61000-6-3:2006 Class B / 等级 B
制冷方式	Cooling	温控风扇（可选：水冷） / Temperature controlled fans (optional: water)
工作温度	Operation temperature	0...50 °C
储存温度	Storage temperature	-20...70 °C
湿度	Humidity	<80%, 无凝露 / non-condensing
工作高度	Operation altitude	<2000 m
尺寸 (宽 高 深) (2	Dimensions (W H D) (2	19" x 3 HE/U x 609 mm

(1 见第146页 / See page 146
(2 为标准版的外壳尺寸，非整体尺寸，带选项功能的则不同 / Enclosure of the standard version and not overall size, versions with options may vary

EA-PS 9000 3U 3.3 kW - 15 kW

技术参数	Technical Data	PS 9040-170 3U	PS 9080-170 3U	PS 9200-70 3U	PS 9360-40 3U
额定电压&范围	Rated voltage & range	0...40 V	0...80 V	0...200 V	0...360 V
- 纹波 (1	- Ripple (1	<200 mV_{PP} <16 mV_{RMS}	<200 mV_{PP} <16 mV_{RMS}	<300 mV_{PP} <40 mV_{RMS}	<550 mV_{PP} <65 mV_{RMS}
- 感测补偿电压	-Sensing compensation	~1 V	~2 V	~5 V	~7.5 V
隔离耐压	Insulation				
- 直流负极 <-> PE	- Negative DC pole <-> PE	±400 V DC	±400 V DC	±400 V DC	±400 V DC
- 直流正极 <-> PE	- Positive DC pole <-> PE	±400 V DC	±400 V DC	±600 V DC	±600 V DC
额定电流&范围	Rated current & range	0...170 A	0...170 A	0...70 A	0...40 A
- 纹波 (1	- Ripple (1	<80 mA_{RMS}	<80 mA_{RMS}	<22 mA_{RMS}	<18 mA_{RMS}
额定功率&范围	Rated power & range	0...3300 W	0...5000 W	0...5000 W	0...5000 W
效率	Efficiency	~93%	~93%	~95%	~93%
U的编程分辨率	Programming resolution U	≤2 mV	≤4 mV	≤9 mV	≤15 mV
I的编程分辨率	Programming resolution I	≤7 mA	≤7 mA	≤3 mA	≤2 mA
重量 (2	Weight (2	~17 kg	~17 kg	~17 kg	~17 kg
订购编号-欧版 (3	Ordering number EU model (3	06230250	06230251	06230252	06230253
订购编号-美版 (3	Ordering number US model (3	06238250	06238251	06238252	06238253

技术参数	Technical Data	PS 9500-30 3U	PS 9750-20 3U	PS 9040-340 3U	PS 9040-510 3U
额定电压&范围	Rated voltage & range	0...500 V	0...750 V	0...40 V	0...40 V
- 纹波 (1	- Ripple (1	<350 mV_{PP} <70 mV_{RMS}	<800 mV_{PP} <200 mV_{RMS}	<320 mV_{PP} <25 mV_{RMS}	<320 mV_{PP} <25 mV_{RMS}
- 感测补偿电压	-Sensing compensation	~10 V	~15 V	~1 V	~1 V
隔离耐压	Insulation				
- 直流负极 <-> PE	- Negative DC pole <-> PE	±725 V DC	±725 V DC	±400 V DC	±400 V DC
- 直流正极 <-> PE	- Positive DC pole <-> PE	±1000 V DC	±1000 V DC	±400 V DC	±400 V DC
额定电流&范围	Rated current & range	0...30 A	0...20 A	0...340 A	0...510 A
- 纹波 (1	- Ripple (1	<16 mA_{RMS}	<16 mA_{RMS}	<160 mA_{RMS}	<120 mA_{RMS}
额定功率&范围	Rated power & range	0...5000 W	0...5000 W	0...6600 W	0...10000 W
效率	Efficiency	~95.5%	~94%	~93%	~93%
U的编程分辨率	Programming resolution U	≤21 mV	≤31 mV	≤2 mV	≤2 mV
I的编程分辨率	Programming resolution I	≤2 mA	≤1 mA	≤14 mA	≤21 mA
重量 (2	Weight (2	~17 kg	~17 kg	~24 kg	~30 kg
订购编号-欧版 (3	Ordering number EU model (3	06230254	06230255	06230256	06230263
订购编号-美版 (3	Ordering number US model (3	06238254	06238255	06238256	06238263

技术参数	Technical Data	PS 9080-340 3U	PS 9200-140 3U	PS 9360-80 3U	PS 9500-60 3U
额定电压&范围	Rated voltage & range	0...80 V	0...200 V	0...360 V	0...500 V
- 纹波 (1	- Ripple (1	<320 mV_{PP} <25 mV_{RMS}	<300 mV_{PP} <40 mV_{RMS}	<550 mV_{PP} <65 mV_{RMS}	<350 mV_{PP} <70 mV_{RMS}
- 感测补偿电压	-Sensing compensation	~2 V	~5 V	~7.5 V	~10 V
隔离耐压	Insulation				
- 直流负极 <-> PE	- Negative DC pole <-> PE	±400 V DC	±400 V DC	±400 V DC	±725 V DC
- 直流正极 <-> PE	- Positive DC pole <-> PE	±400 V DC	±600 V DC	±600 V DC	±1000 V DC
额定电流&范围	Rated current & range	0...340 A	0...140 A	0...80 A	0...60 A
- 纹波 (1	- Ripple (1	<160 mA_{RMS}	<44 mA_{RMS}	<35 mA_{RMS}	<32 mA_{RMS}
额定功率&范围	Rated power & range	0...10000 W	0...10000 W	0...10000 W	0...10000 W
效率	Efficiency	~93%	~95%	~93%	~95%
U的编程分辨率	Programming resolution U	≤4 mV	≤9 mV	≤15 mV	≤21 mV
I的编程分辨率	Programming resolution I	≤14 mA	≤6 mA	≤4 mA	≤3 mA
重量 (2	Weight (2	~24 kg	~24 kg	~24 kg	~24 kg
订购编号-欧版 (3	Ordering number EU model (3	06230257	06230258	06230259	06230260
订购编号-美版 (3	Ordering number US model (3	06238257	06238258	06238259	06238260

(1 RMS值：在BWL 300 kHz时测量的LF值，PP值：在BWL 20MHz时测量的HF值 / RMS value: measures at LF with BWL 300 kHz, PP value: measured at HF with BWL 20MHz
(2 为标准版的重量，带选项功能的则不同 / Weight of the base version, models with option(s) may vary
(3 为标准版的订购编号，带选项功能的则不同 / Ordering number of the base version, models with option(s) installed have different ordering numbers

EA-PS 9000 3U 3.3 kW - 15 kW

技术参数	Technical Data	PS 9750-40 3U	PS 91000-30 3U	PS 9080-510 3U	PS 9200-210 3U
额定电压&范围	Rated voltage & range	0...750 V	0...1000 V	0...80 V	0...200 V
- 纹波 (1	- Ripple (1	<800 mV_{PP} <200 mV_{RMS}	<1600 mV_{PP} <350 mV_{RMS}	<320 mV_{PP} <25 mV_{RMS}	<300 mV_{PP} <40 mV_{RMS}
- 感测补偿电压	-Sensing compensation	~15 V	~20 V	~2.5 V	~6 V
隔离耐压	Insulation				
- 直流负极 <-> PE	- Negative DC pole <-> PE	±725 V DC	±725 V DC	±400 V DC	±400 V DC
- 直流正极 <-> PE	- Positive DC pole <-> PE	±1000 V DC	±1000 V DC	±400 V DC	±600 V DC
额定电流&范围	Rated current & range	0...40 A	0...30 A	0...510 A	0...210 A
- 纹波 (1	- Ripple (1	<32 mA_{RMS}	<22 mA_{RMS}	<240 mA_{RMS}	<66 mA_{RMS}
额定功率&范围	Rated power & range	0...10000 W	0...10000 W	0...15000 W	0...15000 W
效率	Efficiency	~94%	~95%	~93%	~95%
U的编程分辨率	Programming resolution U	≤31 mV	≤41 mV	≤4 mV	≤9 mV
I的编程分辨率	Programming resolution I	≤2 mA	≤2 mA	≤21 mA	≤9 mA
重量 (2	Weight (2	~24 kg	~24 kg	~30 kg	~30 kg
订购编号-欧版 (3	Ordering number EU model (3	06230261	06230262	06230264	06230265
订购编号-美版 (3	Ordering number US model (3	06238261	06238262	06238264	06238265

技术参数	Technical Data	PS 9360-120 3U	PS 9500-90 3U	PS 9750-60 3U	PS 91000-40 3U	PS 91500-30 3U
额定电压&范围	Rated voltage & range	0...360 V	0...500 V	0...750 V	0...1000 V	0...1500 V
- 纹波 (1	- Ripple (1	<550 mV_{PP} <65 mV_{RMS}	<350 mV_{PP} <70 mV_{RMS}	<800 mV_{PP} <200 mV_{RMS}	<2000 mV_{PP} <300 mV_{RMS}	<2400 mV_{PP} <400 mV_{RMS}
- 感测补偿电压	-Sensing compensation	~7.5 V	~10 V	~15 V	~20 V	~30 V
隔离耐压	Insulation					
- 直流负极 <-> PE	- Negative DC pole <-> PE	±400 V DC	±725 V DC	±725 V DC	±725 V DC	±725 V DC
- 直流正极 <-> PE	- Positive DC pole <-> PE	±600 V DC	±1000 V DC	±1000 V DC	±1000 V DC	±1500 V DC
额定电流&范围	Rated current & range	0...120 A	0...90 A	0...60 A	0...40 A	0...30 A
- 纹波 (1	- Ripple (1	<50 mA_{RMS}	<48 mA_{RMS}	<48 mA_{RMS}	<22 mA_{RMS}	<26 mA_{RMS}
额定功率&范围	Rated power & range	0...15000 W	0...15000 W	0...15000 W	0...15000 W	0...15000 W
效率	Efficiency	~93%	~95%	~94%	~95%	~95%
U的编程分辨率	Programming resolution U	≤15 mV	≤21 mV	≤31 mV	≤41 mV	≤61 mV
I的编程分辨率	Programming resolution I	≤5 mA	≤4 mA	≤3 mA	≤2 mA	≤2 mA
重量 (2	Weight (2	~30 kg	~30 kg	~30 kg	~30 kg	~30 kg
订购编号-欧版 (3	Ordering number EU model (3	06230266	06230267	06230268	06230270	06230269
订购编号-美版 (3	Ordering number US model (3	06238266	06238267	06238268	06238270	06238269

(1 RMS值：在BWL 300 kHz时测量的LF值，PP值：在BWL 20MHz时测量的HF值 / RMS value: measures at LF with BWL 300 kHz, PP value: measured at HF with BWL 20MHz
(2 为标准版的重量，带选项功能的则不同 / Weight of the base version, models with option(s) may vary
(3 为标准版的订购编号，带选项功能的则不同 / Ordering number of the base version, models with option(s) installed have different ordering numbers

产品视图 Product views