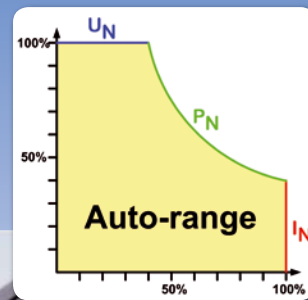


EA-PS 8000 DT 320W - 1500W

实验室直流电源 / LABORATORY DC POWER SUPPLIES



EA-PS 8080-60 DT

- 宽范围输入电压90...264V，带主动式PFC
- 效率高达 92%
- 输出功率：320W 至1500W
- 输出电压：0...16V 至 0...360V
- 输出电流：0...4A 至 0...60A
- 灵活的功率调整输出级*
- 有过压保护 (OVP)
- 有过温保护 (OT)
- 四位数显示器读显电压和电流
- LED灯和显示器指示状态
- 可自动检测的远程感测端
- 多功能模拟接口
 - 通过 0...10V 或 0...5V电压可对U / I / P*编程
 - 通过 0...10V 或 0...5V电压可监控U / I
- 温控风扇制冷
- 可选购多款数字接口卡

- **Wide input voltage range 90...264V with active PFC**
- **High efficiency up to 92%**
- **Output power ratings: 320W up to 1500W**
- **Output voltages: 0...16V up to 0...360V**
- **Output currents: 0...4A up to 0...60A**
- **Flexible, power regulated output stage***
- **Overvoltage protection (OVP)**
- **Overtemperature protection (OT)**
- **Four-digit display for voltage and current**
- **Status indication via LEDs and display**
- **Remote sense with automatic detection**
- **Analogue interface with multiple functions**
 - **U / I / P* programmable via 0...10V or 0...5V**
 - **U / I monitoring via 0...10V or 0...5V**
- **Temperature controlled fans for cooling**
- **Optional, digital interface cards**

概要

EA-PS8000 DT 系列是一款由微处理器控制，采用最新技术设计的实验室电源。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。

本系列可记忆 5 组不同的预设值，仅需按下一按钮，即可存储以及再次上载这些数值。对频繁使用本产品的用户来说，可即刻取出频繁使用的设置参数，工作起来简单，又省时。

本系列为桌面式结构，增加一提手还可改成立式结构。

General

The microprocessor controlled laboratory power supplies of series EA-PS 8000 DT cover state-of-the-art technology. They offer many features in their standard version, making the use of this equipment remarkably easy and most effective.

The units are provided with a memory function for five different preset values, with the ability to save and recall these just by the push of a button. Thus frequently used settings are at immediate reach to the user, making the work easy and time efficient.

The models are designed with a desktop housing, which can optionally be extended by a carrying handle that also serves as tilt stand.

* 针对1kW以上型号

* Models from 1kW

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输入

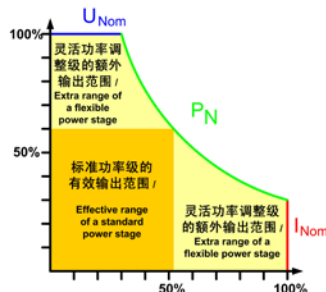
所有型号都采用主动式功率因数校正线路，使产品在 90V 至 264V AC 全世界宽范围输入电压下都适用。1.5kW 型号在输入电压低于 150V AC 时输出功率减少至 1kW。

Input

All units are provided with an active Power Factor Correction circuit and suitable for a worldwide usage on a mains supply from 90V up to 264V AC.

功率

1kW 以上型号输出功率可灵活调整。可在低电流时输出更高的电压，或在低电压时输出更大的电流，都由最大额定输出功率来限制。因此一台该产品能涵盖大范围的应用领域。设定功率可从 0..100% 之间可调，或手动调节或远程控制。1.5kW 型号产品有功率降额功能，即：在输入电压 <150V_{AC} 时最大输出功率减少至 1kW。



Power

Models from 1kW output power are equipped with a flexible, auto-ranging output stage. It provides a higher output voltage at lower output current or a higher output current at lower output voltage, always limited the max. nominal output power. Therefore, a wide range of applications can already be covered by the use of just one single unit. The power set value is adjustable on these models from 0..100%, either manually or in remote control. Units with 1.5kW are derated, i.e. reduced to 1kW max. power at input voltages below 150V_{AC}.

直流输出

本系列有多款不同型号，可选择 0...16V 至 0...360V 输出电压，0...4A 至 0...60A 输出电流，320W 至 0...1500W 输出功率的型号。输出端位于产品前面板。

DC output

Output voltages between 0...16V and 0...360V, output currents between 0...4A and 0...60A and output power ratings between 320W and 0...1500W are available. The output terminals are located on the front panel.

过压保护 (OVP)

为保护连接负载，可设定一过压保护极限值 (OVP)。若输出电压由于某种原因超出设定极限值，输出会被立即关断，LED 灯和模拟接口，以及显示屏上会发出一状态信号。

Overvoltage protection (OVP)

In order to protect the connected loads it is possible to adjust an overvoltage protection threshold (OVP). If the output voltage exceeds the adjusted limit, the output is shut down and status signals via a LED and via the analogue interface will be generated.

远程感测端

远程感测经一可直接连到负载设备的特定输入端执行，以便补偿负载线上的压降。它自动检测输入端是否已连接，并直接稳定负载上的电压。该感测输入端在产品后板上。

Remote sense

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

显示和控制键

产品的所有重要信息都于一点阵显示器上清晰可见。

Display and controls

All important information is clearly visualised on a dot matrix display.

通过该显示器，电压、电流、功率 (1kW 以上型号) 的实际输出值和预设值，过压与欠压保护值，(CV, CC, CP) 实际控制状态，错误信息与设置菜单的设定，都清晰显示于显示器上。

With this, information about the actual output values, preset set values for voltage, current and power (models from 1kW), over- and undervoltage protection, the actual control state (CV,CC,CP), errors and settings of the setup manu are clearly displayed.

用旋钮可简化数值的调节，只要按一下按钮即可在粗调和精调模式间转换。

In order to ease adjusting of values by the rotary knobs, they can switch between coarse and fine setting mode, just by a push.

这都归功于方便用户的操作功能。按下 LOCK 键可锁定控制键，以免发生无意识的误操作，从而保护产品和负载。

All these features contribute to an operator-friendliness. With the LOCK pushbutton the controls can be locked, in order to protect the equipment and the loads from unintentional misuse.

产品后板“System Bus”端子上有一感测输入脚和主从线路输入脚 (串并联模式)。故可将产品轻易地整合到一完整系统内。

The „System Bus“ on the rear of the unit provides sense inputs and a Master-Slave circuit (serial and parallel modes) input. Thus the devices can be integrated into a complete system without much effort.

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输出值的预设

若不想直接将设定输出值传输到输出端，可采用预设功能。

通过此功能用户可预设输出电压、电流、过压保护值 (OVP)、欠压保护调节极限 (UVL) 和功率 (1kW 以上型号)。

模拟接口

模拟接口位于产品前面板。它有模拟接口输入脚，接上 0V...10V 或 0V...5V 电压，可设置 0...100% 的输出电压、电流 (1kW 以上型号)。

模拟输出脚接上 0V...10V 或 0V...5V 电压，可监控输出电压和电流。此外，还有输入脚和输出脚，可用来控制和监控产品状态。

选购件

- 本系列电源可通过 RS232、CAN、USB、GPIB (IEEE)、以太网/LAN 或 Profibus 不同的隔离数字接口，用电脑进行遥控。接口插槽在产品后板上，方便用户插上新接口或替换当前接口。也见 63 和 64 页。
- 高速跃变 (1kW 以上产品)，见 118 页
- 提手

Presetting of output values

To set output values without a direct transmission to the output, a preset function is implemented.

With this function the user can preset values for the output voltage, output current, overvoltage protection (OVP), under-voltage adjustment limit (UVL) and power (models from 1kW).

Analogue Interface

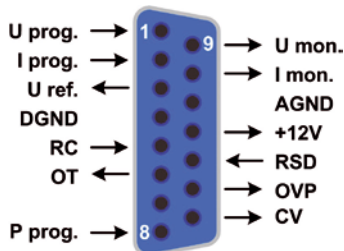
The analogue interface terminal is located on the rear of the device. It offers analogue inputs to set voltage, current and power (models from 1kW) from 0...100% through control voltages from 0V...10V or 0V...5V.

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

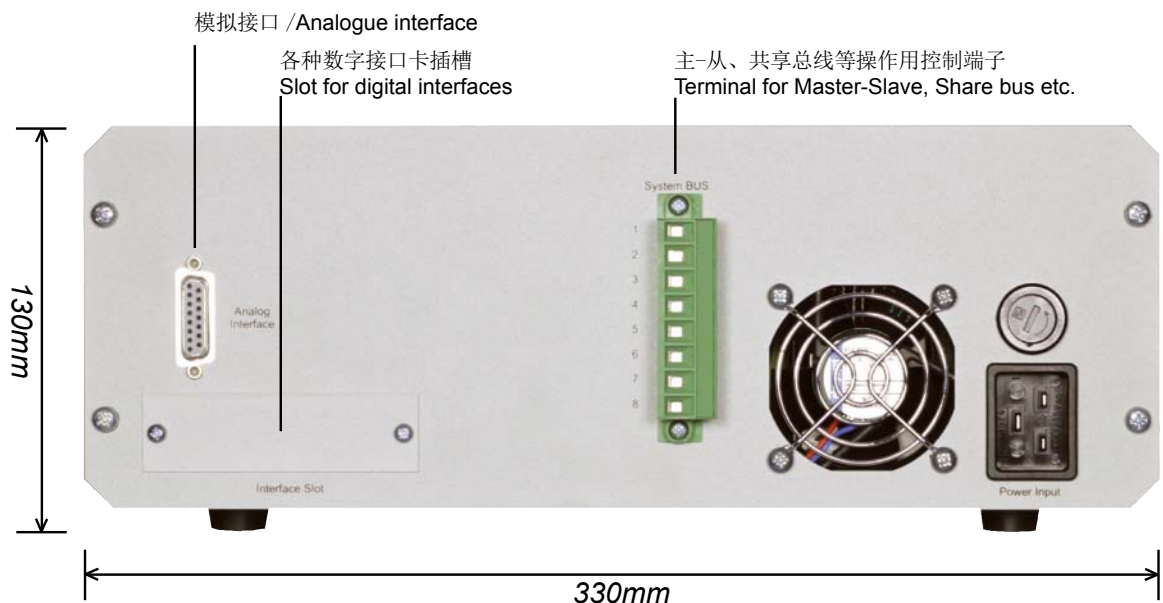
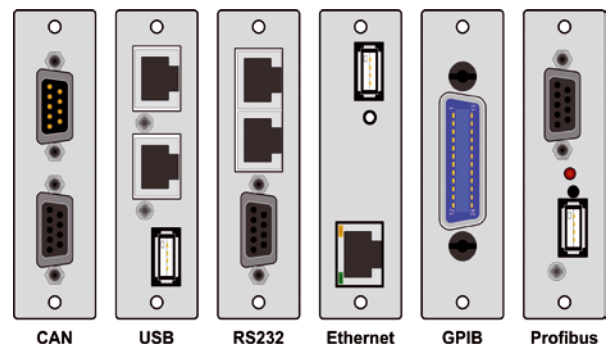
Options

- The power supplies can be remotely controlled by using a personal computer and different isolated digital interface cards for RS232, CAN, USB, GPIB (IEEE), Ethernet/LAN or Profibus. The interface slot is accessible at the rear panel, making it easy to plug a new interface or to replace an existing one. Also see pages 63 and 64.
- High speed ramping (models from 1kW), see page 118
- Carrying handle

模拟接口 / Analogue interface



数字接口 / Digital interfaces



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技术参数	Technical Data	EA-PS 8000 DT
输入电压	Input voltage	90...264V AC
-频率	-Frequency	45...65Hz
-功率因数	-Power factor	>0.99
输入：电压	Output: Voltage	
-型号	-Type	直流 / DC
-精确度	-Accuracy	<0.2%
-负载0-100%时的稳定度	-Stability at 0-100% load	<0.05%
-在 $\pm 10\% \Delta U_{IN}$ 时的稳定度	-Stability at $\pm 10\% \Delta U_{IN}$	<0.02%
-负载从10%-100%调整需时	-Regulation 10-100% load	<2ms
-负载从10-90%上升需时	-Rise time 10-90%	最长 30ms / max. 30ms
-过压保护	-Overvoltage protection	可调, 范围为0...110% U_{Nom} / adjustable, 0...110% U_{Nom}
输入：电流	Output: Current	
-精确度	-Accuracy	<0.2%
-负载0-100% ΔU_A 时的稳定度	-Stability at 0-100% ΔU_{OUT}	<0.15%
-在 $\pm 10\% \Delta U_{IN}$ 时的稳定度	-Stability at $\pm 10\% \Delta U_{IN}$	<0.05%
过压类别	Overvoltage category	2
过热保护	Thermal protection	输出关闭 / Shutdown of the output
隔离耐压	Isolation	
-输入对输出	-Input to output	2500V DC
-输出对外壳	-Output to enclosure	500V DC
污染等级	Pollution degree	2
保护级别	Protection class	1
模拟编程	Analogue programming	
-输入范围	-Input range	0...5V 或 / or 0...10V (可转换 / switchable)
-U/I的精确度	-Accuracy U / I	<0.2%
-输入阻抗	-Input impedance	53k Ω
串联	Series operation	最高600V
-主-从	-Master-Slave	无 / no
并联	Parallel operation	不限 / no limit
-主-从	-Master-Slave	有, 经共享总线端可操作多至30台产品 / yes, via Share bus, up to 30 units
安全标准	Standards	EN 60950, EN 61326, EN 55022 级别 B / Class B
制冷	Cooling	风扇 / Fan
工作温度	Operation temperature	0...50°C
储存温度	Storage temperature	-20...70°C
相对湿度	Humidity	<80%
使用高度	Operation altitude	<2000m

型号	电压	电流	功率	效率	U最大时的纹波	I最大时的纹波	远程感测补偿电压	尺寸 WxHxD	重量	产品编号
Model	Voltage	Current	Power	Efficiency	Ripple U max.	Ripple I max.	Remote sense compensation	Dimensions WxHxD	Weight	Article number
PS 8016-20 DT	0...16V	0...20A	320W	90.5%	40mV _{PP} / 4mV _{RMS}	60mA _{PP} / 10mA _{RMS}	max. 2V	330x118x308mm	6.5kg	09200130
PS 8032-10 DT	0...32V	0...10A	320W	89%	100mV _{PP} / 10mV _{RMS}	35mA _{PP} / 7mA _{RMS}	max. 2V	330x118x308mm	6.5kg	09200131
PS 8065-05 DT	0...65V	0...5A	325W	93%	150mV _{PP} / 20mV _{RMS}	12mA _{PP} / 3mA _{RMS}	max. 2V	330x118x308mm	6.5kg	09200132
PS 8032-20 DT	0...32V	0...20A	640W	90.5%	100mV _{PP} / 8mV _{RMS}	65mA _{PP} / 10mA _{RMS}	max. 2V	330x118x308mm	6.5kg	09200133
PS 8065-10 DT	0...65V	0...10A	650W	91%	150mV _{PP} / 10mV _{RMS}	25mA _{PP} / 3mA _{RMS}	max. 2V	330x118x308mm	6.5kg	09200134
PS 8160-04 DT	0...160V	0...4A	640W	92%	120mV _{PP} / 20mV _{RMS}	3mA _{PP} / 1mA _{RMS}	max. 2V	330x118x308mm	6.5kg	09200135
PS 8080-40 DT	0...80V	0...40A	1000W	93%	10mV _{PP} / 4mV _{RMS}	19mA _{PP} / 7mA _{RMS}	max. 2.5V	330x118x388mm	8.5kg	09200136
PS 8360-10 DT	0...360V	0...10A	1000W	92%	30mV _{PP} / 11mV _{RMS}	1mA _{PP} / 0.45mA _{RMS}	max. 8V	330x118x388mm	8.5kg	09200138
PS 8080-60 DT	0...80V	0...60A	1500W	93%	10mV _{PP} / 4mV _{RMS}	19mA _{PP} / 7mA _{RMS}	max. 2.5V	330x118x388mm	8.5kg	09200137
PS 8360-15 DT	0...360V	0...15A	1500W	93%	50mV _{PP} / 8mV _{RMS}	1mA _{PP} / 0.45mA _{RMS}	max. 8V	330x118x388mm	8.5kg	09200139