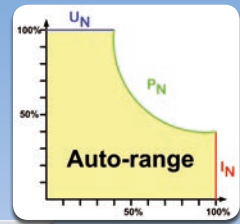


- U
- I
- P
- OVP
- OTP
- USB
- RS232
- LAN
- IEEE
- CAN
- Profibus



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*
- 有过压保护 (OVP)
- 有过温保护 (OT)
- 四位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
- 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 displays for voltage and current**
- **Status indication via LEDs and Display**
- **Remote sense with automatic detection**
- **Analog interface with**
 - **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，只需按一下按钮，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，增加一抓手还可改成立式结构。

输入

采用主动式功率因数校正线路，使产品在90V_{AC}至264V_{AC}全世界宽范围输入电压下都适用。功率为1.5kW的型号在输入电压<150V_{AC}时总输出功率将降至1kW。

* 针对1kW以上型号

General

The microprocessor controlled laboratory power supplies of series EA-PS 8000 DT cover state-of-the-art technology. They already offer many functions and 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 enclosure, which can optionally be extended by a carrying handle that also serves as stand.

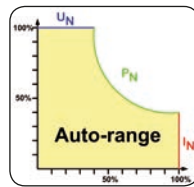
Input

All units are provided with an active Power Factor Correction circuit and suitable for a worldwide usage on a mains supply from 90V_{AC} up to 264V_{AC}. The 1.5kW models automatically derate, i.e. reduce, the output power to 1kW if the input voltage drops below 150V_{AC}.

* Models from 1kW

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。这些型号的设置功率都可调。



Power

Models with 1kW or higher output power are equipped with a flexible, auto-ranging power stage that allows a higher output voltage at lower output current or higher output current at lower output voltage, always limited to the maximum nominal output power. The power set value is adjustable with these models.

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。直流输出端子位于产品前面板。

DC output

DC 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 DC 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)。

Overvoltage protection (OVP)

For protection of the equipment connected, it is possible to set an overvoltage protection threshold (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。

In case the output voltage exceeds the adjusted threshold for any reason, the output will be immediately shut off and a status signal will be generated via the analog interface, as well as an indication on the display.

远程感测端

经一特定输入端可直接连到负载设备进行远程感测，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。

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.

该感测输入端在产品后板上。

The connection for the remote sense input is located on the rear of the device.

显示器和控制键

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，都清晰地显示于显示器上。

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 menu 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 adjustment of values by the rotary knobs, they can switch between coarse and fine setting mode, just by a push. 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. 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.

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。

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。

Presetting of output values

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

输出值的预设

设定输出值但不传输到输出端，可采用预设功能。

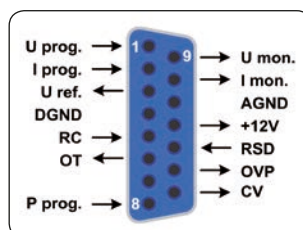
With this function the user can preset values for the output voltage, output current, overvoltage protection (OVP), undervoltage adjustment limit (UVL) and power (models from 1kW).

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。



1kW以上型号才有P prog. 引脚/
P prog. only with models from 1kW

Analog Interface

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

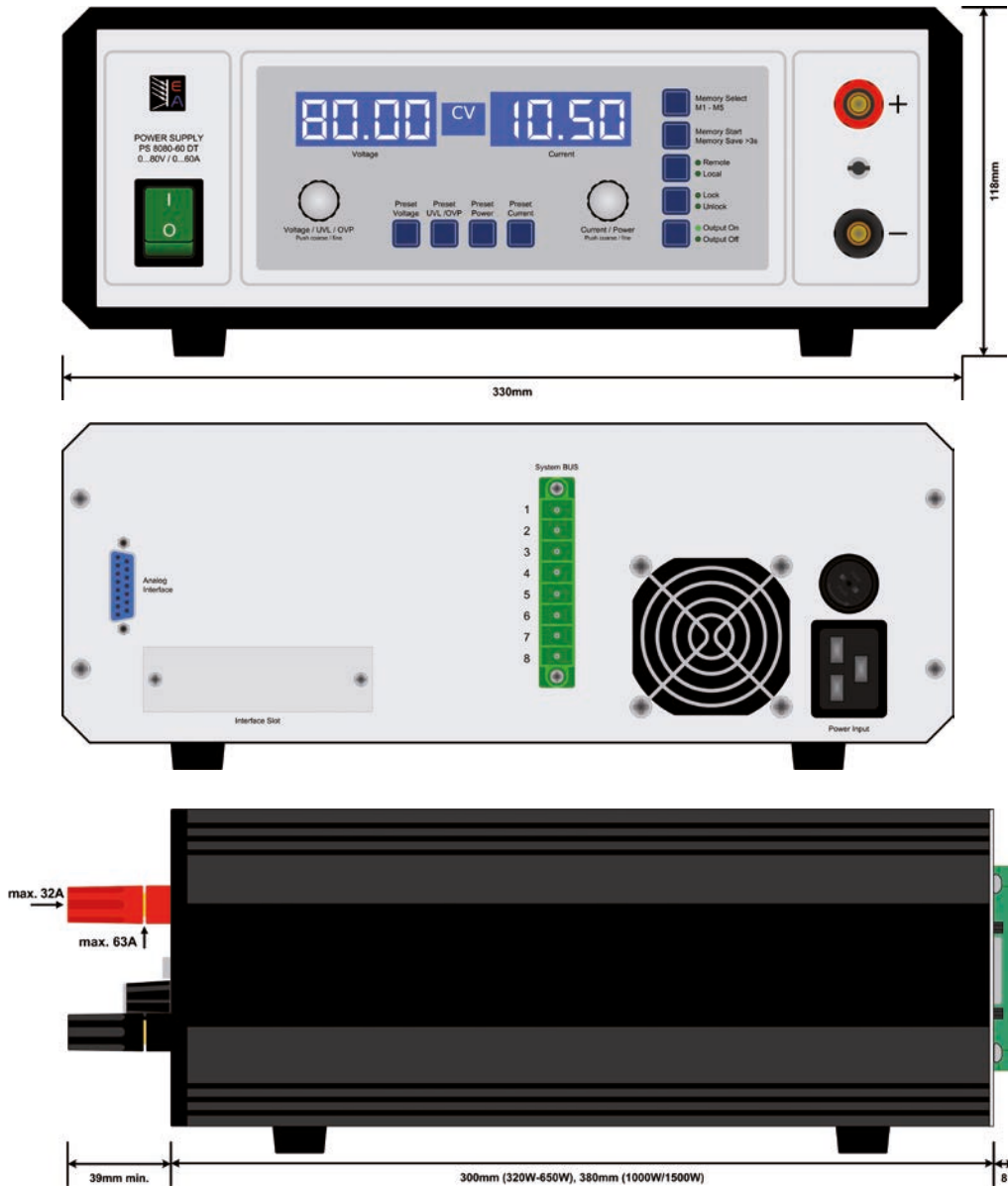
To monitor the output voltage and current, there are analog outputs with voltage ranges of 0V...10V or 0V...5V. Furthermore, there are inputs and outputs available for controlling and monitoring the device status.

选购件

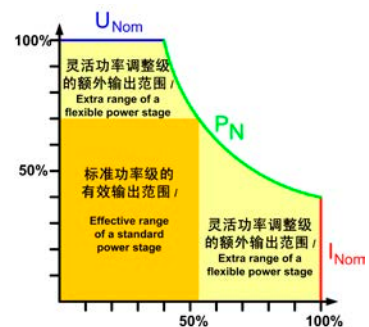
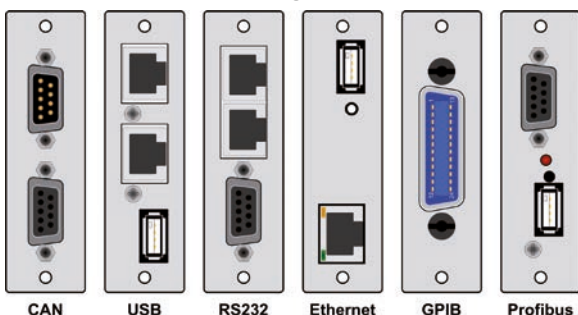
- 本系列电源可通过RS232、CAN、USB、GPIB (IEEE)、以太网或Profibus隔离数字接口卡，用电脑进行遥控。接口插槽在产品后板上，方便用户插上新接口或替换当前接口。产品会自动检测接口类型，并提示需进行几步设置或不用设置。随接口卡附有适合RS232/USB/GPIB (IEEE)/Ethernet的免费Windows软件，它可控制、监控、记录数据和排序。详情请见120和125页。
- 高速跃变（仅针对1kW以上产品，见132页）
- 提手

Options

- Isolated digital interface cards for RS232, CAN, USB, GPIB (IEEE), Profibus or Ethernet to control the device by PC. The interface slot is located on the rear panel, making it easy for the user to plug in a new interface or to replace an existing one. The interface will be automatically detected by the device and requires no or only little configuration. Included with the interface cards is a free Windows software for RS232/USB/GPIB/Ethernet which provides control and monitoring, data logging and semi-automatic sequences. Also see pages 120 and 125.
- High speed ramping (only for models as from 1kW, see page 132)
- Carrying handle



数字接口卡 / Digital interfaces



EA-PS 8000 DT 320W - 1500W

可编程实验室直流电源 / PROGRAMMABLE LABORATORY DC POWER SUPPLIES



技术参数	Technical Data	Series EA-PS 8000 DT / 系列
AC输入电压	Input voltage AC	90...264V, 1ph+N
- 频率	- Frequency	45...65Hz
- 功率因数	- Power factor	>0.99
DC输出电压	Output: Voltage DC	
- 精确度	- Accuracy	<0.2%
- 负载0-100% 时的稳定度	- Stability at 0-100% load	<0.05%
- 在±10% Δ U _{IN} 时的稳定度	- Stability at ±10% ΔU _{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
- 过压保护	- Overvoltage protection	可调, 0...110% U _{nom} / adjustable, 0...110% U _{nom}
输出电流	Output: Current	
- 精确度	- Accuracy	<0.2%
- 负载0-100% Δ U _A 时的稳定度	- Stability at 0-100% ΔU _{OUT}	<0.15%
- 在±10% Δ U _{IN} 时的稳定度	- Stability at ±10% ΔU _{IN}	<0.05%
过压类别	Overvoltage category	2
保护功能	Protection	OT, OVP ⁽²⁾
隔离耐压	Isolation	
- 输入对外壳	- Input to enclosure	2500V DC
- 输入对输出	- Input to output	2500V DC
- 输出对外壳	- Output to enclosure	DC-对PE最大耐压为300V / Max.300V on DC- against PE
污染等级	Pollution degree	2
保护级别	Protection class	1
模拟接口	Analog interface	内置15-针D-Sub母插 / Built in, 15-pole D-Sub, female
- 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...10V: <0.2% 0...5V: <0.4%
- 编程分辨率	- Programming resolution	见下表 / See table below
串联操作	Series operation	可实现, 任意直流负载端对PE有最大300V DC的电压转移 / Possible, with max. potential shift of 300V DC of any DC minus against PE
并联操作	Parallel operation	可实现, 通过共享总线操作 (1000W以上型号) 或模拟接口 / Possible, via Share Bus operation (models from 1000W) or via analog interface
安全标准	Standards	EN 60950, EN 61326, EN 55022 等级 B / Class B
制冷方式	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	Relative humidity	<80% 无凝露 / not condensing
使用高度	Operation altitude	<2000m
重量	Weight	320W - 650W: 6.5kg 1000W - 1500W: 8.5kg
产品尺寸 (宽x高x长) ⁽¹⁾	Dimensions (WxHxD)⁽¹⁾	320W - 650W: 330x118x308mm 1000W - 1500W: 330x118x388mm

型号	电压	电流	功率	效率	U最大时的纹波 ⁽⁴⁾	I最大时的纹波 ⁽⁴⁾	编程 / Programming ⁽³⁾			产品编号
Model	Voltage	Current	Power	Efficiency	Ripple U max. ⁽⁴⁾	Ripple I max. ⁽⁴⁾	U (typ.)	I (typ.)	P (typ.)	Article number
PS 8016-20 DT	0...16V	0...20A	320W	90,5%	40mV _{PP} / 4mV _{RMS}	60mA _{PP} / 10mA _{RMS}	4mV	6mA	-	09200130
PS 8032-10 DT	0...32V	0...10A	320W	89%	100mV _{PP} / 10mV _{RMS}	35mA _{PP} / 7mA _{RMS}	9mV	3mA	-	09200131
PS 8065-05 DT	0...65V	0...5A	325W	93%	150mV _{PP} / 20mV _{RMS}	12mA _{PP} / 3mA _{RMS}	18mV	1.5mA	-	09200132
PS 8032-20 DT	0...32V	0...20A	640W	90,5%	100mV _{PP} / 8mV _{RMS}	65mA _{PP} / 10mA _{RMS}	9mV	5mA	-	09200133
PS 8065-10 DT	0...65V	0...10A	650W	91%	150mV _{PP} / 10mV _{RMS}	25mA _{PP} / 3mA _{RMS}	18mV	3mA	-	09200134
PS 8160-04 DT	0...160V	0...4A	640W	92%	120mV _{PP} / 20mV _{RMS}	3mA _{PP} / 1mA _{RMS}	43mV	1.5mA	-	09200135
PS 8080-40 DT	0...80V	0...40A	0...1000W	93%	10mV _{PP} / 4mV _{RMS}	19mA _{PP} / 7mA _{RMS}	20mV	11mA	0.27W	09200136
PS 8360-10 DT	0...360V	0...10A	0...1000W	92%	30mV _{PP} / 11mV _{RMS}	1mA _{PP} / 0.45mA _{RMS}	88mV	3mA	0.27W	09200138
PS 8080-60 DT	0...80V	0...60A	0...1500W	93%	10mV _{PP} / 4mV _{RMS}	19mA _{PP} / 7mA _{RMS}	20mV	16mA	0.41W	09200137
PS 8360-15 DT	0...360V	0...15A	0...1500W	93%	50mV _{PP} / 8mV _{RMS}	1mA _{PP} / 0.45mA _{RMS}	88mV	4mA	0.41W	09200139

⁽¹⁾ 仅为外壳尺寸, 非产品整体尺寸 / Enclosure only, not overall

⁽²⁾ 见第133页 / See page 133

⁽³⁾ 无产品错误时的可编程分辨率 / Programmable resolution without device error

⁽⁴⁾ RMS值: LF 0...300KHz, PP值: HF 0...20MHz / RMS value: LF 0...300kHz, PP值: HF 0...20MHz