

EA-PS 800 R 320W - 5000W

内嵌式直流电源 / BUILT-IN DC POWER SUPPLIES

U
OT
RS232



- 宽范围输入电压90...264V (1500W以下型号)
- 两相输入电压340...460V (5000W型号)
- 效率高达 93.5%
- 输出功率: 320W 至 5000W
- 输出电压: 0...16V 至 0...500V
- 输出电流: 4A 至 170A
- 灵活的功率调整输出**
- 有过压保护(OVP)
- 有过温保护(OT)
- LED灯指示状态
- 自动检测远程感测
- 0...10V模拟接口
- 自然风冷却*
- 温控风扇制冷**

- Wide range input 90...264V (models up to 1500W)**
- Two-phase input 340...460V (5000W models)**
- High efficiency up to 93.5%**
- Output power ratings: 320W up to 5000W**
- Output voltages: 0...16V up to 0...500V**
- Output currents: 4A up to 170A**
- Auto-ranging output stage****
- Overvoltage protection (OVP)**
- Overtemperature protection (OT)**
- Status indication via LEDs**
- Remote sense with automatic detection**
- Analogue interface for 0...10V**
- Natural convection cooling***
- Temperature controlled fans for cooling****

概要

EA-PS 800 R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。它配备多种功能，是用户使用非常方便和极其有效的工具。

1kW 以上型号输出功率灵活变化，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，都由最大输出功率来限制。因此一台该仪器能涵盖广范围的应用领域。

输入

采用主动式功率因数校正线路，使产品在全世界范围内都适用，输入电压为 90V 至 264V AC (针对 1.5kW 以下型号)，也可在 340V...460V AC 两相输入电压下操作。

General

The microprocessor controlled wall mount power supplies of the series EA-PS 800 R offer useful integrated functions, turning them into an extremely effective and highly comfortable tool for the user.

Units as from 1000W output power are equipped with a flexible autoranging 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 single unit.

Input

The equipment uses an active PFC and is suitable for worldwide operation on mains supply of 90...264V (models up to 1.5kW) or require a two-phase input with 340...460V AC.

* 650W以下型号
** 1000W以上型号

* Models up to 650W
** Models from 1000W

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输出

本系列有多款不同型号，可选择0...16V和0...500V输出电压，4A和170A输出电流，320W, 640W, 1000W, 1500W和5kW输出功率的类型。输出电压可分成3个调节范围。电压和电流不可调，故限制在额定值范围内。

过压保护(OVP)

为避免连接负载接收过多电压，可设定一过压保护值(OVP)。它会根据输出电压自动调整。意即，它会以一固定偏移值随调节后输出电压变动。若出现过压，输出自动被切断，前板和模拟接口端口发出报警信号。

远程感测端

远程感测输入端可直接连到负载设备，以补偿连线上的压降。如果输入端已接上负载，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。

模拟接口

模拟输入脚接上0V...10V电压，可设置0...100%的输出电压和电流，然后通过模拟输出脚接上0V...10V电压来监控输出电压和电流。此外，还有几个输入脚和输出脚，用来控制和监控产品状态。

并联

1kW - 5kW型号有一额外的共享总线端子，可轻易将10台产品并联，从而获得均匀的电流分布。

选项

- 水冷制冷方式（仅供5kW型号产品）

Output

Different units with output voltages from 0...16V to 0...500V, currents from 4A to 170A and power ratings of 320W, 640W, 1000W, 1500W and 5kW are available. The output voltage of each model is divided into three selectable adjustment ranges. The power limitation is not adjustable and thus limited to the nominal value, the current limitation is adjustable via the analogue interface only.

Overvoltage protection (OVP)

To protect equipment connected against excess of voltage, an overvoltage protection (OVP) is implemented, which will automatically adjust according to the output voltage. It means, it will follow the adjusted output voltage with a fixed offset. In case of overvoltage, the output will disconnect automatically and an alarm will be generated both on the front panel and the analogue interface.

Remote sense

The sense input can be connected directly to the load to compensate voltage drops along the power leads. If the sense input is connected to the load, the power supply will correct the output voltage automatically in order to ensure that the accurate required voltage is available on the load.

Analogue interface

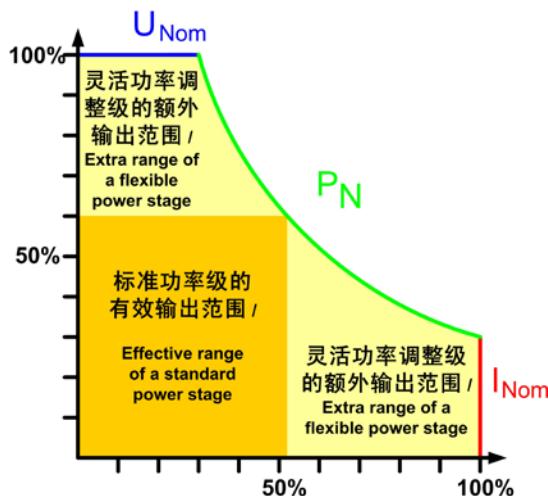
Analogue inputs for control voltages in the common 0...10V range for setting voltage and current from 0...100% are available. To monitor output voltage and current, analogue outputs are realised with voltage range of 0...10V. Furthermore, there are several digital inputs and outputs to control and monitor the device status.

Parallel connection

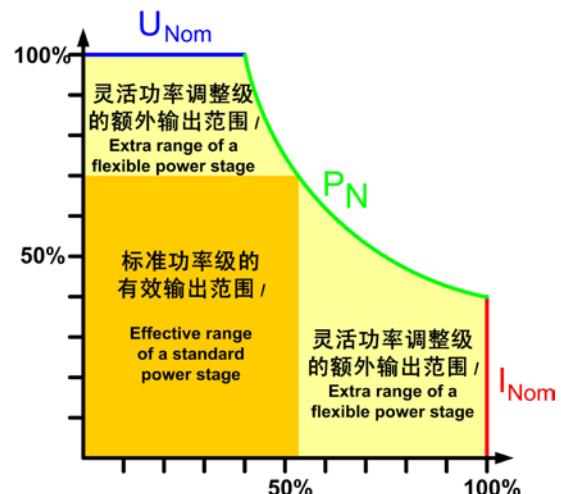
The 1kW - 5kW models feature an additional Sharebus connector, which makes it easy to connect up to 10 units in parallel operation and in order to gain symmetric current distribution.

Options

- Water cooling (only for 5kW models)



1000/1500W型号的功率范围 /
Power range of 1000/1500W models



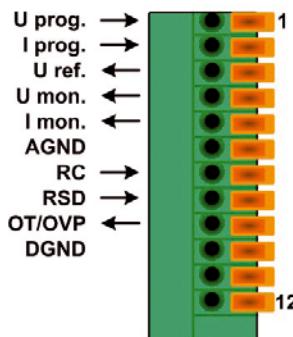
5000W型号的功率范围 /
Power range of 5000W models

EA-PS 800 R 320W - 5000W

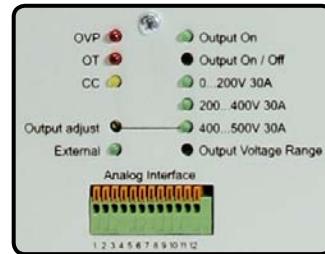
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模拟接口 / Analogue interface



控制面板
Control panel



5kW结构类型/type

技术参数	Technical Data	EA-PS 816-20 R	EA-PS 832-10 R	EA-PS 865-05 R	EA-PS 832-20 R	EA-PS 865-10 R
输入电压	Input voltage	90...264V	90...264V	90...264V	90...264V	90...264V
-频率	-Frequency	45...65Hz	45...65Hz	45...65Hz	45...65Hz	45...65Hz
-功率因数	-Power factor	>0.99	>0.99	>0.99	>0.99	>0.99
输出电压 (DC)	Output voltage (DC)	0...16V	0...32V	0...65V	0...32V	0...65V
-负载0-100% 时的稳定性	-Stability at 0-100% load	<0.05%	<0.05%	<0.05%	<0.05%	<0.05%
-在±10% Δ U _{IN} 时的稳定性	-Stability at ±10% Δ U _{IN}	<0.02%	<0.02%	<0.02%	<0.02%	<0.02%
-纹波	-Ripple	<40mV _{PP} <4mV _{RMS}	<100mV _{PP} <10mV _{RMS}	<150mV _{PP} <20mV _{RMS}	<100mV _{PP} <8mV _{RMS}	<150mV _{PP} <10mV _{RMS}
-负载从10%-100% 调整需时	-Regulation 10-100% load	<2ms	<2ms	<2ms	<2ms	<2ms
-感测端调整电压	-Sense regulation	max. 2V	max. 2V	max. 2V	max. 2V	max. 2V
-10-90% 的转换速率	-Slew rate 10-90%	max. 30ms	max. 30ms	max. 30ms	max. 30ms	max. 30ms
输出电流	Output current	0...20A	0...10A	0...5A	0...20A	0...10A
-0-100%ΔU _{OUT} 时的稳定性	-Stability at 0-100% ΔU _{OUT}	<0.15%	<0.15%	<0.15%	<0.15%	<0.15%
-±10% Δ U _{IN} 时的稳定性	-Stability at ±10% Δ U _{IN}	<0.05%	<0.05%	<0.05%	<0.05%	<0.05%
-纹波	-Ripple	<60mA _{PP} <10mA _{RMS}	<35mA _{PP} <7mA _{RMS}	<12mA _{PP} <3mA _{RMS}	<65mA _{PP} <10mA _{RMS}	<25mA _{PP} <3mA _{RMS}
输出功率	Output power	320W	320W	325W	640W	650W
效率	Efficiency	90.5%	89%	92%	90.5%	91%
过压类别	Overvoltage category				2	
污染等级	Pollution degree				2	
保护等级	Protection class				1	
模拟编程	Analogue programming			0...10V		
制冷方式	Cooling			底盖进风, 上盖排风/ Bottom air inlet and top exhaust		
工作温度	Operation temperature				0...50°C	
尺寸 (WxHxD)	Dimensions (WxHxD)	218x163x83mm	218x163x83mm	218x163x83mm	218x163x83mm	218x163x83mm
安装尺寸 (WxHxD)	Installation dim. (WxHxD)	218x190x85mm	218x190x85mm	218x190x85mm	218x190x85mm	218x190x85mm
重量	Weight	2.2kg	2.2kg	2.2kg	2.2kg	2.2kg
产品编号	Article No.	21540101	215401102	21540103	21540104	21540105

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技术参数	Technical Data	EA-PS 8160-04 R	EA-PS 880-40 R	EA-PS 8360-10 R	EA-PS 880-60 R	EA-PS 8360-15 R
输入电压	Input voltage	90...264V	90...264V	90...264V	90...264V	90...264V
-频率	-Frequency	45...65Hz	45...65Hz	45...65Hz	45...65Hz	45...65Hz
-功率因数	-Power factor	>0.99	>0.99	>0.99	>0.99	>0.99
输出电压 (DC)	Output voltage (DC)	0...160V	0...80V	0...360V	0...80V	0...360V
-负载0-100% 时的稳定性	-Stability at 0-100% load	<0.05%	<0.05%	<0.05%	<0.05%	<0.05%
-在±10% Δ U _{IN} 时的稳定性	-Stability at ±10% ΔU _{IN}	<0.02%	<0.02%	<0.02%	<0.02%	<0.02%
-纹波	-Ripple	<120mV _{PP} <20mV _{RMS}	<10mV _{PP} <5mV _{RMS}	<30mV _{PP} <12mV _{RMS}	<10mV _{PP} <5mV _{RMS}	<30mV _{PP} <12mV _{RMS}
-负载从10%-100% 调整需时	-Regulation 10-100% load	<2ms	<2ms	<2ms	<2ms	<2ms
-感测端调整电压	-Sense regulation	max. 2V	max. 2V	max. 8V	max. 2V	max. 8V
-10-90% 的转换速率	-Slew rate 10-90%	max. 30ms	max. 30ms	max. 30ms	max. 30ms	max. 30ms
输出电流	Output current	0...4A	0...40A	0...10A	0...60A	0...15A
-0-100%ΔU _{OUT} 时的稳定性	-Stability at 0-100% ΔU _{OUT}	<0.15%	<0.15%	<0.15%	<0.15%	<0.15%
-±10% Δ U _{IN} 时的稳定性	-Stability at ±10% ΔU _{IN}	<0.05%	<0.05%	<0.05%	<0.05%	<0.05%
-纹波	-Ripple	<3mA _{PP} <1mA _{RMS}	<19mA _{PP} <7mA _{RMS}	<1,2mA _{PP} <0,45mA _{RMS}	<19mA _{PP} <7mA _{RMS}	<1,2mA _{PP} <0,45mA _{RMS}
输出功率	Output power	640W	1000W	1000W	1500W	1500W
效率	Efficiency	92%	93%	93%	93%	93%
过压类别	Overvoltage category			2		
污染等级	Pollution degree			2		
保护等级	Protection class			1		
模拟编程	Analogue programming			0...10V		
制冷方式	Cooling			底盖进风, 上盖排风 / Bottom air inlet and top exhaust		
工作温度	Operation temperature			0...50°C		
尺寸 (WxHxD)	Dimensions (WxHxD)	218x163x83mm	90x360x240mm	90x360x240mm	90x360x240mm	90x360x240mm
安装尺寸 (WxHxD)	Installation dim. (WxHxD)	218x190x85mm	90x370x295mm	90x370x295mm	90x370x295mm	90x370x295mm
重量	Weight	2.2kg	6.4kg	6.4kg	6.4kg	6.4kg
产品编号	Article No.	21540106	215401107	21540109	21540108	21540110

技术参数	Technical Data	EA-PS 880-170 R	EA-PS 8200-70 R	EA-PS 8500-30 R
输入电压	Input voltage	2x 340...460V	2x 340...460V	2x 340...460V
-频率	-Frequency	50/60Hz	50/60Hz	50/60Hz
-功率因数	-Power factor	>0.99	>0.99	>0.99
输出电压 (DC)	Output voltage (DC)	0...80V	0...200V	0...500V
-负载0-100% 时的稳定性	-Stability at 0-100% load	<0.05%	<0.05%	<0.05%
-在±10% Δ U _{IN} 时的稳定性	-Stability at ±10% ΔU _{IN}	<0.02%	<0.02%	<0.02%
-纹波	-Ripple	<150mV _{PP} / <10mV _{RMS}	<200mV _{PP} / <25mV _{RMS}	<250mV _{PP} / <70mV _{RMS}
-负载从10%-100% 调整需时	-Regulation 10-100% load	<1ms	<2ms	<2ms
-感测端调整电压	-Sense regulation	max. 2.5V	max. 6V	max. 10V
-10-90% 的转换速率	-Slew rate 10-90%	17ms	17ms	17ms
输出电流	Output current	0...170A	0...70A	0...30A
-0-100%ΔU _{OUT} 时的稳定性	-Stability at 0-100% ΔU _{OUT}	<0.15%	<0.15%	<0.15%
-±10% Δ U _{IN} 时的稳定性	-Stability at ±10% ΔU _{IN}	<0.05%	<0.05%	<0.05%
-纹波	-Ripple	<300mA _{PP} / <40mA _{RMS}	<44mA _{PP} / <11mA _{RMS}	<14mA _{PP} / <8mA _{RMS}
输出功率	Output power	5000W	5000W	5000W
效率	Efficiency	93%	95.2%	95.5%
过压类别	Overvoltage category		2	
污染等级	Pollution degree		2	
保护等级	Protection class		1	
模拟编程	Analogue programming		0...10V	
制冷方式	Cooling		底盖进风, 上盖排风 / Bottom air inlet and top exhaust	
工作温度	Operation temperature		0...50°C	
尺寸 (WxHxD)	Dimensions (WxHxD)	180x530x171mm	180x530x171mm	180x530x171mm
安装尺寸 (WxHxD)	Installation dim. (WxHxD)	180x595x175mm	180x595x175mm	180x595x175mm
重量	Weight	12kg	12kg	12kg
产品编号	Article No.	21540122	21540124	21540123