

EA-PS 2084-05 B

- 微处理器控制
- 专为下列应用而设计
 - 学校, 大学与实验室
 - 工业与系统应用
 - 工作间与研发部
 - 实验室与测试机构
- 输出功率分别有: 100 W, 160 W 或 320 W*
- 输出电压: 0...42 V 与 0...84 V
- 输出电流: 高达0...20 A
- 带过温保护 (OT)
- 四位数字显示屏指示电压和电流
- 自然对流冷却
- 密封式上盖与底座
- 安全输出插座
- 符合EN 60950安规标准

- Microprocessor controlled
- Designed for
 - Schools, university and laboratories
 - Industry and system applications
 - Workshop and development
 - Laboratories and test institutes
- Output power ratings: 100 W, 160 W or 320 W
- Output voltages: 0...42 V and 0...84 V
- Output currents: up to 0...20 A
- Overtemperature protection (OT)
- Four-digit display for voltage and current
- Convection or fan cooling
- Chassis top and bottom closed
- Safety output sockets
- Safety EN60950

概要

EA-PS 2000 B系列实验室电源有三种额定输出功率, 100 W、160 W和320 W。本系列的优点为结构紧凑, 外壳实用, 输出参数优越。其上下盖完全封闭, 无外置散热片。故特别适用于学校和培训机构。

产品前板装有安全输出插座。可从零至所需电压和电流之间自由调节。该系列允许多个并联或串联。灵活的功率管理系统保证在满载时操作稳定可靠。

保护功能

本系列除了具有标准保护功能如过压保护(OVP)外, 还可阻止峰值电压或高电压输送给用户应用设备。并带可调极限 (0...110% 额定电流) 的过流保护特性, 过流时它会即刻切断输出, 从而避免损坏应用设备。

电脑接口

通过产品前板的标准USB端口, 可监控和远程控制本系列产品。用户可选择给特定应用编程 (LabView VIs), 或者用另外的Windows软件, 这个则需购买一许可证。

General

The laboratory power supplies of the EA-PS 2000 B series are available in three power ratings of 100 W, 160 W or 320 W. The series demonstrates compact design, practical enclosure and excellent value. The units are closed at top and bottom and have no external heatsinks. Thus they are especially suitable for use in schools and other educational establishments. The safety output sockets are located on the front of the unit. Voltage and current can be adjusted from zero to the required value. The units can be connected in parallel or in series. A flexible power management ensures reliable operation at full load.

Protective features

Besides standard features, such as overvoltage protection (OVP), which is intended to protect sensitive user applications against unwanted voltage peaks or high voltage, the series now features an overcurrent protection with an adjustable threshold of 0...110% nominal current. It will protect a malfunctioning application from overcurrent by immediate output shutdown.

PC interface

The unit can be monitored and remotely controlled via the front USB port, which is equipped as standard. The user can choose between programming of a custom application (LabView VIs are available) or using a separately available Windows software for which a licence can be purchased.

灵活可选的功率范围

设定电压和电流值可相互调整，根据 $P = U \cdot I$ 公式，保证这些输出值维持在最大输出功率范围内。这样用户可选择输出高电压或大电流。

控制和监控软件

EasyPS2000软件以CD方式供应，该软件能完全远程控制或监控本产品。所有功能都显示于图形用户界面上。为了解锁软件操作时的远程控制功能，需为每一台产品购买一个许可证代码。

主要特征：

- 事件日志
- 许可证解锁对话框
- 通过CSV表格进行半自动控制（排序）
- CSV格式的数据记录
- 兼容Windows操作系统
- 使用简便的图形用户界面
- 一台PS 2000 B产品一个实例

选项功能

- EasyPS2000软件的产品许可证

Flexible power ranging

The set values of voltage and current adjust each other in order to maintain the max. output power according to $P = U \cdot I$. This allows working with either high output voltage or with high output current.

Control and monitoring software

The software EasyPS2000, which is contained on an optionally available CD, allows complete remote control or monitoring of one PS 2000 B unit. All functions of the device are available on a graphical user interface. In order to unlock the remote control features in the software, a separate licence code for every unit is required.

The main features:

- Event log
- Unlocking dialogue for device licence
- Semi-automatic control by CSV tables (sequencing)
- Data logging to CSV
- Windows compatible
- Easy to use GUI
- One PS 2000 B per instance

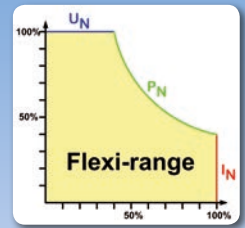
Options

- Device licence for EasyPS2000 control software

技术参数	Technical Data	PS 2042-06B	PS 2042-10B	PS 2042-20B	PS 2084-03B	PS 2084-05B	PS 2084-10B
AC输入电压	Input voltage AC	90...264 V	90...264 V	90...264 V	90...264 V	90...264 V	90...264 V
-频率	- Frequency	45...65 Hz	45...65 Hz	45...65 Hz	45...65 Hz	45...65 Hz	45...65 Hz
-功率因数	- Power factor	>0.99	>0.99	>0.99	>0.99	>0.99	>0.99
DC输出电压	Output voltage DC	0...42 V	0...42 V	0...42 V	0...84 V	0...84 V	0...84 V
- 0-100% 的负载调整率	- Load regulation 0-100%	<0.15%	<0.15%	<0.15%	<0.15%	<0.15%	<0.15%
- $\pm 10\% \Delta U_{AC}$ 的线性调整率	- Line regulation $\pm 10\% \Delta U_{AC}$	<0.02%	<0.02%	<0.02%	<0.02%	<0.02%	<0.02%
-纹波 ⁽¹⁾	- Ripple ⁽¹⁾	<100 mV _{PP} <4 mV _{RMS}	<63 mV _{PP} <5 mV _{RMS}	<150 mV _{PP} <2 mV _{RMS}	<48 mV _{PP} <4 mV _{RMS}	<96 mV _{PP} <24 mV _{RMS}	<150 mV _{PP} <2 mV _{RMS}
-负载从10%-100%调整需时	- Regulation 10-100% load	<1 ms	<2 ms	<2 ms	<2 ms	<1 ms	<1 ms
-OVP过压保护调节范围	- OVP adjustment	0...46.2 V	0...46.2 V	0...46.2 V	0...92.4 V	0...92.4 V	0...92.4 V
-精确度	- Accuracy	$\leq 0.2\%$	$\leq 0.2\%$	$\leq 0.2\%$	$\leq 0.2\%$	$\leq 0.2\%$	$\leq 0.2\%$
输出电流	Output current	0...6 A	0...10 A	0...20 A	0...3 A	0...5 A	0...10 A
-0-100% ΔU_{OUT} 的负载调整率	- Load regulation 0-100% ΔU_{DC}	<0.05%	<0.05%	<0.05%	<0.05%	<0.05%	<0.05%
-在 $\pm 10\% \Delta U_{IN}$ 时的线性调整率	- Line regulation $\pm 10\% \Delta U_{AC}$	<0.15%	<0.15%	<0.15%	<0.15%	<0.15%	<0.15%
-纹波 ⁽¹⁾	- Ripple ⁽¹⁾	<10 mA _{PP} <4 mA _{RMS}	<13 mA _{PP} <5 mA _{RMS}	<15 mA _{PP} <6 mA _{RMS}	<6 mA _{PP} <2 mA _{RMS}	<9 mA _{PP} <3 mA _{RMS}	<3.8 mA _{PP} <1.4 mA _{RMS}
-精确度	- Accuracy	$\leq 0.2\%$	$\leq 0.2\%$	$\leq 0.2\%$	$\leq 0.2\%$	$\leq 0.2\%$	$\leq 0.2\%$
效率	Efficiency	85%	85%	85%	85%	85%	85%
输出功率	Output power	100 W	160 W	320 W	100 W	160 W	320 W
制冷方式	Cooling	自然冷却 / natural convection		风扇 / Fan	自然冷却 / natural convection		风扇 / Fan
保护级别	Protection class	1					
工作温度	Operation temperature	0...50°C					
储存温度	Storage temperature	-20...70°C					
尺寸(宽x高x长)	Dimensions (WxHxD)	174x82x240mm	174x82x240mm	174x82x320mm	174x82x240mm	174x82x240mm	174x82x320mm
重量	Weight	1.9 kg	2 kg	2.3 kg	1.9 kg	2 kg	2.3 kg
订购编号	Ordering number	39200112	39200113	39200114	39200116	39200117	39200118

(1) RMS值：在BWL 300kHz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

- U**
- I**
- OVP**
- OCP**
- OTP**
- USB**

**EA-PS 2342-10B**

- 专为下列应用而设计
 - 学校，大学与实验室
 - 工业与系统应用
 - 工作间与研发部
 - 实验室与测试机构
- 输出电压：2x 0...42 V 或 2x 0...84 V
- 输出电流：0...3 A, 0...5 A, 0...6 A 或 0...10 A
- 辅助输出：3...6 V, 12 W
- 带过温保护 (OT)
- 四位数显示屏指示电压和电流
- 自然对流冷却
- 密封式上盖与底座
- 安全输出插座

- **Designed for**
 - Schools, university and laboratories
 - Industry and system applications
 - Workshop and development
 - Laboratories and test institutes
- **Output voltages: 2x 0...42 V or 2x 0...84 V**
- **Output currents: 0...3 A, 0...5 A, 0...6 A or 0...10 A**
- **Auxiliary output: 3...6 V, 12 W**
- **Overtemperature protection (OT)**
- **Four-digit display for voltage and current**
- **Convectional cooling**
- **Chassis top and bottom closed**
- **Safety output sockets**

概要

EA-PS 2000 B Triple系列实验室电源输出两组主输出，功率可为100 W或160 W，另外还有一组3...6 V与12 W的辅助输出。

新的“追踪”功能，让用户通过控制面板左边的旋钮可同时控制这两组输出。它们之间相互隔离，可以串联或并联。结合该追踪特征，用户可以设置另外一不同的输出，如±15 V。

安全输出插座位于产品前板。能从零到最大值之间调节电压和电流。

保护功能

本系列除了具有标准保护功能如过压保护(OVP)外，还可阻止峰值电压或高电压输送给用户应用设备。并带可调极限(0...110%额定电流)的过流保护特性，过流时它会即刻切断输出，从而避免损坏应用设备。

电脑接口

通过产品前板的标准USB端口，可监控和远程控制本系列产品。用户可选择给特定应用编程(LabView VIs)，或者用另外的Windows软件，这个则需购买一许可证。

General

The power supplies of the EA-PS 2000 B Triple series have two main outputs of 100 W or 160 W each and an auxiliary output with 3...6 V and 12 W.

The new „Tracking“ feature provides simultaneous control of both main outputs with the adjustment knobs of the leftside control panel. The outputs are galvanically isolated from each other and can be connected in series or parallel. In combination with the tracking feature, the user can, for example, set up a variable ±15 V output.

The safety output sockets are located on the front panel of the unit. Voltage and current can be adjusted from zero to maximum.

Protective features

Besides standard features, such as overvoltage protection (OVP), which is intended to protect sensitive user applications against unwanted voltage peaks or high voltage, the series now features an overcurrent protection with an adjustable threshold of 0...110% nominal current. It will protect a malfunctioning application from overcurrent by immediate output shutdown.

PC interface

The unit can be monitored and remotely controlled via the front USB port, which is equipped as standard. The user can choose between programming of a custom application (LabView VIs are available) or using a separately available Windows software for which a licence can be purchased.

灵活可选的功率范围

设定电压和电流值可相互调整，根据 $P = U \cdot I$ 公式，保证这些输出值维持在最大输出功率范围内。这样用户可选择输出高电压或大电流。

Flexible power ranging

The set values of voltage and current adjust each other in order to maintain the max. output power according to $P = U \cdot I$. This allows working with either high output voltage or with high output current.

控制和监控软件

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Control and monitoring software

The software EasyPS2000, which is contained on an optionally available CD, allows complete remote control or monitoring of one PS 2000 B unit. All functions of the device are available on a graphical user interface. In order to unlock the remote control features in the software, a separate licence code for every unit is required.

主要特征:

- 事件日志
- 许可证解锁对话框
- 通过CSV表格进行半自动控制（排序）
- CSV格式的数据记录
- 兼容Windows操作系统
- 使用简便的图形用户界面
- 一台PS 2000 B产品一个实例

The main features:

- Event log
- Unlocking dialogue for device licences
- Semi-automatic control by CSV tables (sequencing)
- Data logging to CSV
- Windows compatible
- Easy to use GUI
- One PS 2000 B per instance

选项功能

- EasyPS2000软件的产品许可证

Options

- Device licence for EasyPS2000 control software

技术参数	Technical Data	EA-PS 2342-06 B	EA-PS 2342-10 B	EA-PS 2384-03 B	EA-PS 2384-05 B
AC输入电压	Input voltage AC	90...264 V	90...264 V	90...264 V	90...264 V
-频率	- Frequency	45...65 Hz	45...65 Hz	45...65 Hz	45...65 Hz
-功率因数	- Power factor	>0.99	>0.99	>0.99	>0.99
DC输出电压	Output voltage DC	1+2路输出: 0...42 V 3路输出: 3...6 V	1+2路输出: 0...42 V 3路输出: 3...6 V	1+2路输出: 0...84 V 3路输出: 3...6 V	1+2路输出: 0...84 V 3路输出: 3...6 V
-0-100% 的负载调整率	- Load regulation 0-100% load	<0.15%	<0.15%	<0.15%	<0.15%
- ±10% ΔU _{AC} 的线性调整率	- Line regulation ±10% ΔU _{AC}	<0.02%	<0.02%	<0.02%	<0.02%
-1+2路输出端纹波	- Ripple output 1+2 ⁽¹⁾	<100 mV _{PP} / <4 mV _{RMS}	<63 mV _{PP} / <5 mV _{RMS}	<48 mV _{PP} / <4 mV _{RMS}	<96 mV _{PP} / <24 mV _{RMS}
-负载从10%-90%调整需时	- Regulation 10-90% load	<2 ms	<2 ms	<2 ms	<2 ms
-OVP过压保护调节范围	- Overvoltage protection	0...46.2 V	0...46.2 V	0...92.4 V	0...92.4 V
-精确度	- Accuracy	≤0.2%	≤0.2%	≤0.2%	≤0.2%
输出电流	Output current	1+2路输出: 0...6 A 3路输出: max. 4 A	1+2路输出: 0...10 A 3路输出: max. 4 A	1+2路输出: 0...3 A 3路输出: max. 4 A	1+2路输出: 0...5 A 3路输出: max. 4 A
-0-100% ΔU _{DC} 的负载调整率	- Load regulation 0-100% ΔU _{DC}	<0.15%	<0.15%	<0.15%	<0.15%
-1+2路输出端纹波	- Ripple output 1+2 ⁽¹⁾	<25 mA _{PP} / <9 mA _{RMS}	<40 mA _{PP} / <15 mA _{RMS}	<6 mA _{PP} / <2 mA _{RMS}	<9 mA _{PP} / <3 mA _{RMS}
-精确度	- Accuracy	≤0.2%	≤0.2%	≤0.2%	≤0.2%
效率	Efficiency	85%	85%	85%	85%
输出功率	Output power	2x 100 W + 1x 12 W	2x 160 W + 1x 12 W	2x 100 W + 1x 12 W	2x 160 W + 1x 12 W
保护级别	Protection class	1			
制冷方式	Cooling	无风扇，自然对流冷却 / fanless, natural convection			
工作温度	Operation temperature	0...50°C			
储存温度	Storage temperature	-20...70°C			
尺寸(宽x高x长)	Dimensions (WxHxD)	外壳尺寸 / Enclosure: 282x82x243 mm 整体尺寸 / Overall: 282x90x260 mm			
重量	Weight	3.8 kg	4 kg	3.8 kg	4 kg
订购编号	Ordering number	39200120	39200121	39200125	39200126

(1) RMS值: 在BWL 300KHz时测量的LF值, PP值: 在BWL 20MHz时测量的HF值 / RMS value: measured at LF with BWL 300 kHz, PP value: measured at HF with BWL 20MHz