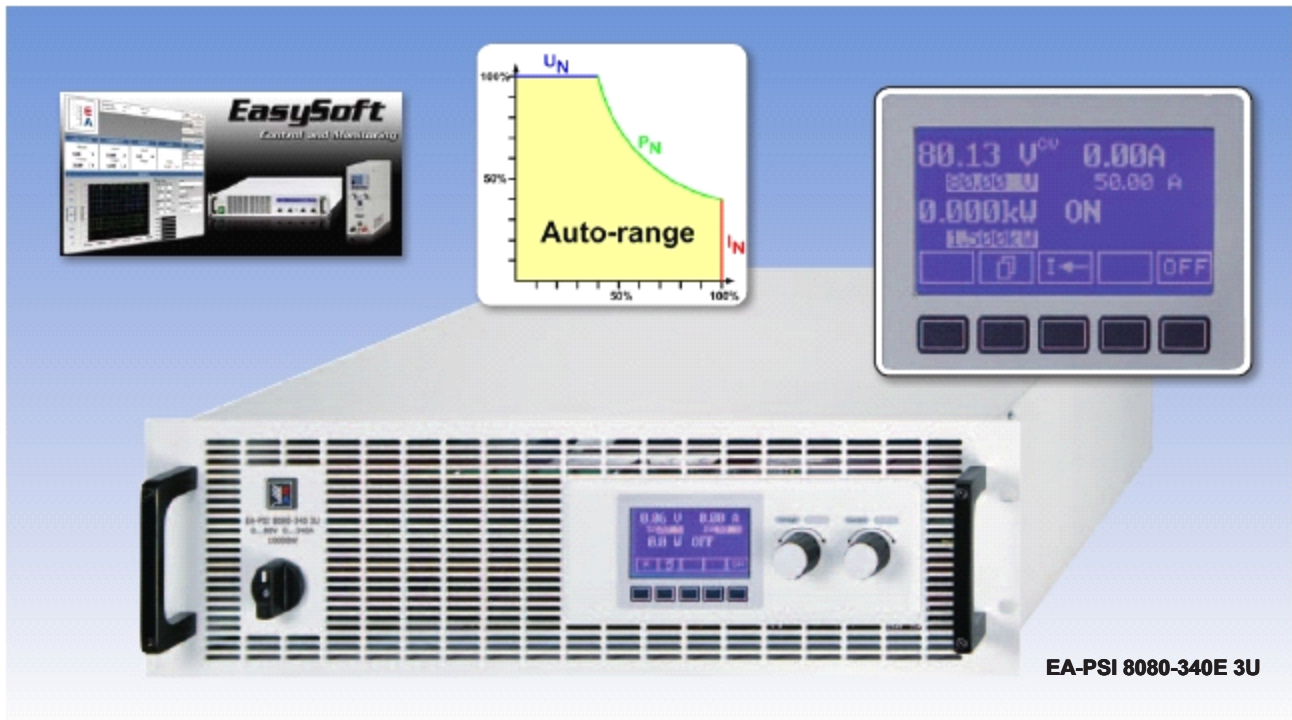


EA-PSI 8000E 3U 5KW - 150KW

高效实验室电源供应器 / HIGH EFFICIENCY LABORATORY POWER SUPPLIES



EA-PSI 8080-340E 3U

- 多相输入 340...460V_{AC} 50/60Hz
- 效率高达93.5%
- 输出功率有: 0...5kW, 0...10kW, 0...15kW
还可扩展至0...150kW
- 输出电压: 0...80V 至 0...1500V
- 输出电流: 0...30A 至 0...510A
还可扩展至0...5100A
- 功率自动调整输出
- 有过压保护 (OVP)
- 有过温保护 (OT)
- 带菜单的图形显示器
- 冗余操作 (10kW以上型号)
- 可自动检测的远程感测端
- 仅3U的19" 外壳
- 报警管理系统
- 内置函数管理器
- 用户配置文档存储区
- 温控风扇制冷
- 可选, 数字接口卡
- 产品升级款 (加强型)

- **Multi-phase input 340...460V_{AC} 50/60Hz**
- **High efficiency up to 93.5%**
- **Output powers: 0...5kW, 0...10kW, 0...15kW**
Expandable up to 0...150kW
- **Output voltages: 0...80V up to 0...1500V**
- **Output currents: 0...30A up to 0...510A**
Expandable up to 0...5100A
- **Auto-ranging output stage**
- **Overvoltage protection (OVP)**
- **Overtemperature protection (OT)**
- **Graphical display with menus**
- **Redundancy (from 10kW)**
- **Remote sense with automatic detection**
- **19" housing in 3U**
- **Alarm management**
- **Integrated function manager**
- **Memory bank for user profiles**
- **Temperature controlled fans for cooling**
- **Optional, digital interface cards**
- **Product upgrade (enhanced)**

概要

EA-PSI 8000E 3U系列是一款由微处理器控制的高效实验室电源, 作为PSI 8000 3U升级款, 更可长时间满负荷运行, 性能较老款更稳定, 响应时间更快, 可应用于更广阔的专业试验领域。

可对用户和进程文档进行编辑、存储, 以及再次上载, 从而改善重复测试或其它应用。

根据客户规格需求, 可配置高达150kW和42U的机柜。

General

The microprocessor controlled high efficiency laboratory power supplies of series EA-PSI 8000E 3U offer multiple functions and features in their standard version. User-friendly, interactive menu navigation makes the use of this equipment remarkably easy and most effective.

User and process profiles can be edited, saved and archived so that the reproducibility of a test or other application is improved.

Cabinets with up to 150kW and 42U can be configured to meet user specifications.

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功率

本系列所有产品输出功率灵活变化，在低电流时输出更高电压，或在低电压时输出更大电流，都由最大输出功率来限制。

因此一台该仪器能涵盖大范围的应用领域。

输入

本系列所有型号都采用主动式PFC功率因数校正，需要在340V...460V AC多相输入电压，或带中间脚的588...796V电压（针对15kW型号）下操作。

输出

本系列有不同型号，可选择0...80V和0...1500V输出电压，0...40A和0...510A输出电流，0...5kW, 0...10kW或0...15kW输出功率的类型。输出端位于产品后板。

过压保护(OVP)

为保护连接负载，可设定一过压保护极限值(OVP)。

若输出电压超过定义极限，输出被关断，产品发出声频报警信号，显示器也发送一个状态信号。

报警管理系统

为监控正确的输出电压和电流，可定义上、下限。

若偏差超过该调节极限，应用设备将出现三种可能性反应：

- 只显示信号；即使错误仍存在，也不影响输出。
 - 警告一直持续，消除错误后必须确认警告资讯。
 - 报警会暂时关断输出。
- 报警和警告发出可听信号。

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，本电源会自动纠正输出电压，以确保负载获得准确所需的电压值。

显示和控制件

输出电压、电流和功率的设定值与实际值都显示于图形显示器上，还包括产品的运作状态，菜单指引和按钮当前功能，故用户能直观地操作本产品。

Power

All units are equipped with a flexible, auto-ranging output stage which provides a higher output voltage at lower output current, resp. a higher output current at lower output voltage, while always being limited to the maximum output power.

Therefore, a wide range of applications can already be covered by the use of just one single unit.

Input

All models are provided with an active Power Factor Correction circuit and require a multi-phase input with 340...460V AC or optionally 588...796V plus middle point (15kW models only).

Output

Output voltages between 0...80V and 0...1500V, output currents between 0...40A and 0...510A and output power ratings of 0...5kW, 0...10kW or 0...15kW are available. The output terminal is located in the rear side.

Overvoltage protection (OVP)

Intended to protect connected loads, it is possible to define an overvoltage protection limit (OVP).

If the output voltage exceeds the defined limit, the output is shut-off and an acoustic warning signal will be given by the unit and also a status message signal in the display is available.

Alarm management

For monitoring the correct output voltage and output current, lower and upper limits can be defined.

If the deviation exceeds the adjusted limits, three possibilities are available as to how the appliance should react.

- Signals are displayed only, even if the fault is still active, without affecting to the output.
- Warnings remain active and must be acknowledged after the fault is removed.
- Alarms will shut off the output instantly in case the deviation exceeds the adjusted limits.

Alarms and Warnings can be signalled audibly.

Remote sense

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

Display and controls

Set values and actual values of output voltage, output current and output power are clearly represented on the graphic display. The operating state of the device, the menu guidance and the current assignment of the pushbuttons are also shown on the display. So the user is able to operate the unit intuitively.

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显示器和控制面板

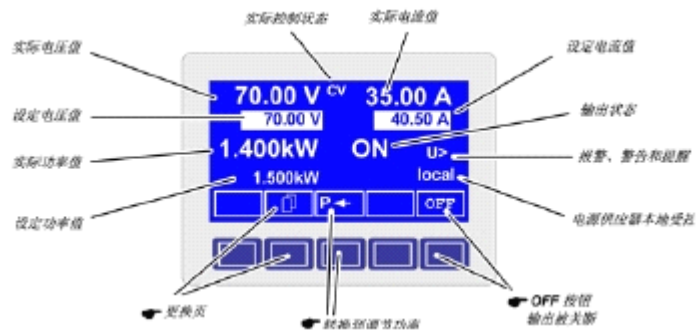
输出电压、电流和功率或可调内阻的调节，由两个旋转编码器完成。旋转编码器可在不同菜单下更改数值。

为避免误操作，所有操作控制键都可锁定。

Display and control panel

The adjustment of output voltage, output current and output power, or optional internal resistance, is realised by two rotary encoders. The rotary encoders are required for changing values in the different menus as well.

To prevent unintentional operations, all operation controls may be locked.



函数管理器

函数由序列组成，通过控制面板或数字接口可对其进行控制。也可读取、重写和存档。

一个函数段由最多5个序列组成，可按任意顺序排列，重复次数最多为5次。

每个序列可设置最大功率或可选内阻，重复次数为一至254次，或者无穷大。

同样地，整个函数段的重复次数可以设置成一至254次，或无穷大。

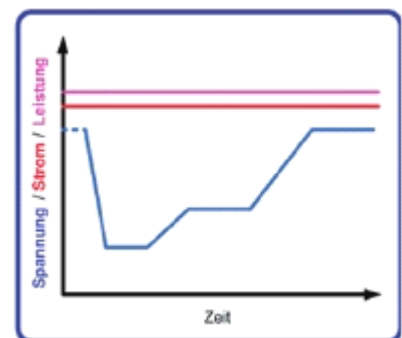
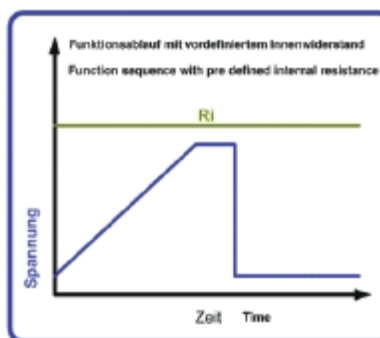
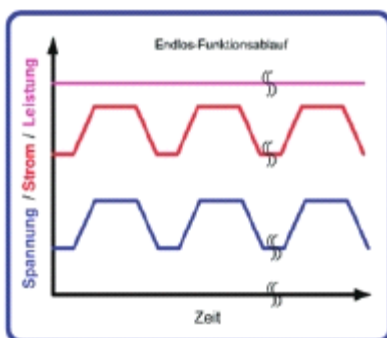
Function manager

Functions consist of sequences and can be modified via the control panel or the optional, digital interfaces. They can also be read, written and filed.

Up to five different sequences can be assigned to a function in any succession or be repeated up to five times.

For each sequence, the maximum power, or optionally the internal resistance, and a repetition value from once up to 254 times or endless can be configured.

As well, the repetition of a whole function can be configured from once up to 254 times or endless.



用户配置文档

利用控制面板可存储多达四种用户配置文档。

用户配置文档用来设置和存储用户指定的参数块。

User profiles

Via the control panel up to four different user profiles can be stored.

The user profiles are designed to set and save user specified parameter blocks.

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扩展功能

本系列的单个产品可按客户需求组合成不同配置，最多可组合一个42U的机柜。无控制面板的功率模块就是为此而制作。在一主机上可建立一个总功率高达150kW的系统。可选择串联或并联单机，最后在主机上形成总功率、总电压和电流。

选购件

- 适合RS232、CAN、USB、GPIB (IEEE)、PROFIBUS或以太网/LAN的绝缘数字接口卡，经电脑可控制产品。接口卡内含有免费Windows软件，具有控制和监控，数据记录和序列自动排列功能。
- 绝缘模拟接口卡
- 内阻调整
- 高速跃变
- 水制冷

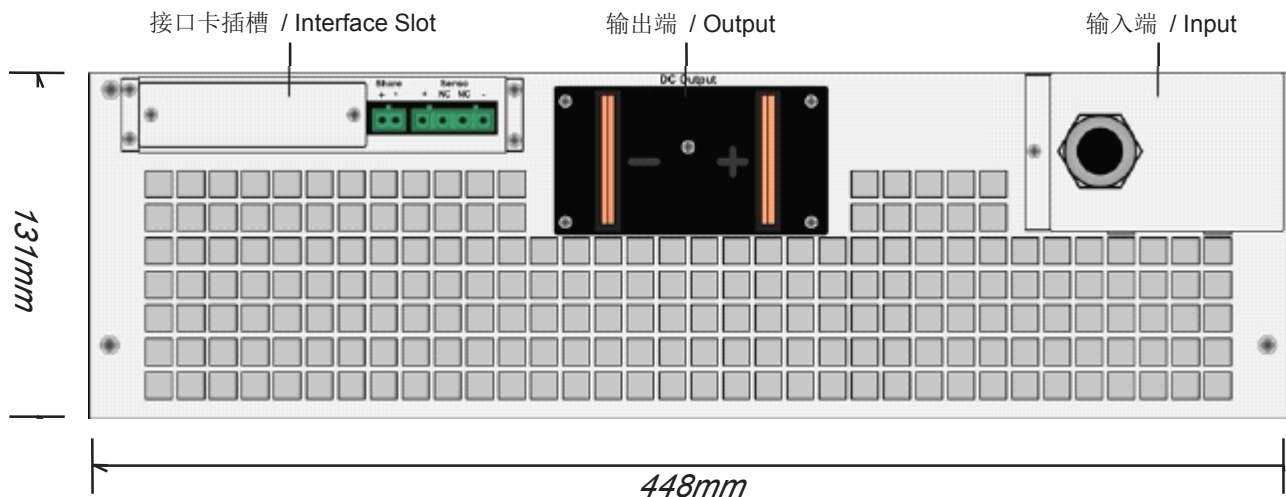
Extensibility

The singles units can be combined into various configurations upon request, in cabinets of up to 42U. Power-only modules without control panel are available for this purpose, which are set up with a main unit to a system of up to 150kW total power.

Options

- Isolated digital interface cards for RS232, CAN, USB, GPIB (IEEE) or Ethernet/LAN to control the device by PC. Included with the interface cards is a free Windows software which provides control and monitoring, data logging and automated sequences.
- Isolated analogue interface card
- Internal resistance regulation
- High speed ramping
- Water cooling

后面板图 / Rear view for 5-15kW



EA-PSI 8000E 3U 5KW - 150KW

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技术参数	Technical Data	PSI 8080-170E 3U	PSI 8200-70E 3U	PSI 8500-30E 3U	PSI 8080-340E 3U	PSI 8160-170E 3U
输入电压	Input voltage	340...460V	340...460V	340...460V	340...460V	340...460V
-频率	-Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
-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...80V	0...200V	0...500V	0...80V	0...160V
-0-100% 时的稳定度	-Stability at 0-100% load	<0,03%	<0,03%	<0,03%	<0,03%	<0,03%
-±10% ΔU _{IN} 时的稳定度	-Stability at ±10% ΔU _{IN}	<0,02%	<0,02%	<0,02%	<0,02%	<0,02%
-纹波 BWL 20MHz	-Ripple BWL 20MHz	<200mV _{PP} <12mV _{RMS}	<300mV _{PP} <18mV _{RMS}	<600mV _{PP} <40mV _{RMS}	<180mV _{PP} <9mV _{RMS}	<450mV _{PP} <25mV _{RMS}
-负载从10-100% 调整需时	-Regulation 10-100% load	<1ms	<1ms	<1ms	<1ms	<1ms
-OVP过压保护调节范围	-OVP adjustment	0...88V	0...220V	0...550V	0...88V	0...176V
-感测端调整	-Sense regulation	max. 2V				
-10-90% 的转换速率	-Slew rate 10-90%	max. 30ms				
输出电流	Output current	0...170A	0...70A	0...30A	0...340A	0...170A
-0-100% ΔU _{OUT} 时的稳定度	-Stability at 0-100% ΔU _{OUT}	<0,15%	<0,15%	<0,15%	<0,15%	<0,15%
-±10% ΔU _{IN} 时的稳定度	-Stability at ±10% ΔU _{IN}	<0,05%	<0,05%	<0,05%	<0,05%	<0,05%
-纹波 BWL 20MHz	-Ripple BWL 20MHz	<280mA _{PP} <25mA _{RMS}	<150mA _{PP} <6mA _{RMS}	<50mA _{PP} <3mA _{RMS}	<500mA _{PP} <14mA _{RMS}	<700mA _{PP} <25mA _{RMS}
输出功率	Output power	0...5000W	0...5000W	0...5000W	0...10000W	0...10000W
负载100%时的效率	Efficiency at 100% load	93,5% typ.	95,5% typ.	95,5% typ.	93,5% typ.	93,5% typ.
过压类别	Overvoltage category	2				
污染程度	Pollution degree	2				
保护等级	Protection class	1				
模拟编程	Analogue programming	0...5V 或 / or 0...10V (可转换 / switchable)				
制冷	Cooling	前板进风后板排风 / Front air stream inlet and rear exhaust				
工作温度	Operation temperature	0.. 50°C				
尺寸 (WxHxD)	Dimensions (W H D)	19" 3HE/U 595mm	19" 3HE/U 595mm	19" 3HE/U 595mm	19" 3HE/U 595mm	19" 3HE/U 595mm
重量 *	Weight *	19,5kg	19,5kg	19,5kg	26,5kg	26,5kg
产品编号	Article No.	09230430	09230440	09230435	09230431	09230433

技术参数	Technical Data	PSI 8200-140E 3U	PSI 8400-70E 3U	PSI 8500-60E 3U	PSI 81000-30E 3U	PSI 8080-510E 3U
输入电压	Input voltage	340...460V	340...460V	340...460V	340...460V	340...460V
输入电压 (可选)	Input voltage opt.	--	--	--	--	588...796V + MP
-频率	-Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
-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...200V	0...400V	0...500V	0...1000V	0.. 80V
-0-100% 时的稳定度	-Stability at 0-100% load	<0,03%	<0,03%	<0,03%	<0,03%	<0,03%
-±10% ΔU _{IN} 时的稳定度	-Stability at ±10% ΔU _{IN}	<0,02%	<0,02%	<0,02%	<0,02%	<0,02%
-纹波 BWL 20MHz	-Ripple BWL 20MHz	<270mV _{PP} <15mV _{RMS}	<650mV _{PP} <40mV _{RMS}	<300mV _{PP} <30mV _{RMS}	<1400mV _{PP} <40mV _{RMS}	<180mV _{PP} <9mV _{RMS}
-负载从10-100% 调整需时	-Regulation 10-100% load	<1ms	<1ms	<1ms	<1ms	<1ms
-OVP过压保护调节范围	-OVP adjustment	0...220V	0...440V	0...550V	0...1100V	0.. 88V
-感测端调整	-Sense regulation	max. 2V				
-10-90% 的转换速率	-Slew rate 10-90%	max. 30ms				
输出电流	Output current	0...140A	0...70A	0...60A	0.. 30A	0.. 510A
-0-100% ΔU _{OUT} 时的稳定度	-Stability at 0-100% ΔU _{OUT}	<0,15%	<0,15%	<0,15%	<0,15%	<0,15%
-±10% ΔU _{IN} 时的稳定度	-Stability at ±10% ΔU _{IN}	<0,05%	<0,05%	<0,05%	<0,05%	<0,05%
-纹波 BWL 20MHz	-Ripple BWL 20MHz	<220mA _{PP} <6mA _{RMS}	<170mA _{PP} <5mA _{RMS}	<80mA _{PP} <3mA _{RMS}	<60mA _{PP} <1mA _{RMS}	<750mA _{PP} <21mA _{RMS}
输出功率	Output power	0...10000W	0...10000W	0...10000W	0...10000W	0...15000W
负载100%时的效率	Efficiency at 100% load	93,5% typ.	95,5% typ.	95,5% typ.	95,5% typ.	93,5% typ.
过压类别	Overvoltage category	2				
污染程度	Pollution degree	2				
保护等级	Protection class	1				
模拟编程	Analogue programming	0...5V 或 / or 0...10V (可转换 / switchable)				
制冷	Cooling	前板进风后板排风 / Front air stream inlet and rear exhaust				
工作温度	Operation temperature	0.. 50°C				
尺寸 (WxHxD)	Dimensions (W H D)	19" 3HE/U 595mm	19" 3HE/U 595mm	19" 3HE/U 595mm	19" 3HE/U 595mm	19" 3HE/U 595mm
重量 *	Weight *	26,5kg	26,5kg	26,5kg	26,5kg	32,5kg
产品编号	Article No.	09230441	09230443	09230436	09230438	09230432

* 标准重量, 带选项功能的可能不同 / of standard version, models with options may vary

EA-PSI 8000 3U 5KW - 150KW

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技术参数	Technical Data	PSI 8200-210E 3U	PSI 8240-170E 3U	PSI 8500-90E 3U	PSI 8600-70E 3U	PSI 81500-30E 3U
输入电压	Input voltage	340...460V	340...460V	340...460V	340...460V	340...460V
输入电压 (可选)	Input voltage opt.	588...796V + MP	588...796V + MP	588...796V + MP	588...796V + MP	588...796V + MP
-频率	-Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
-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...200V	0...240V	0...500V	0...600V	0...1500V
-0-100% 时的稳定度	-Stability at 0-100% load	<0,03%	<0,03%	<0,03%	<0,03%	<0,03%
-±10% ΔU _{IN} 时的稳定度	-Stability at ±10% ΔU _{IN}	<0,02%	<0,02%	<0,02%	<0,02%	<0,02%
-纹波 BWL 20MHz	-Ripple BWL 20MHz	<270mV _{PP} <15mV _{rms}	<450mV _{PP} <25mV _{rms}	<500mV _{PP} <30mV _{rms}	<450mV _{PP} <25mV _{rms}	<1400mV _{PP} <40mV _{rms}
-负载从10-100% 调整需时	-Regulation 10-100% load	<1ms	<1ms	<1ms	<1ms	<1ms
-OVP过压保护调节范围	-OVP adjustment	0...220V	0...264V	0...550V	0...660V	0...1650V
-感测端调整	-Sense regulation	max. 2V				
-10-90% 的转换速率	-Slew rate 10-90%	max. 30ms				
输出电流	Output current	0...210A	0...170A	0...90A	0...70A	0.. 30A
-0-100% ΔU _{OUT} 时的稳定度	-Stability at 0-100% ΔU _{OUT}	<0,15%	<0,15%	<0,15%	<0,15%	<0,15%
-±10% ΔU _{IN} 时的稳定度	-Stability at ±10% ΔU _{IN}	<0,05%	<0,05%	<0,05%	<0,05%	<0,05%
-纹波 BWL 20MHz	-Ripple BWL 20MHz	<410mA _{PP} <12mA _{rms}	<700mA _{PP} <25mA _{rms}	<125mA _{PP} <4mA _{rms}	<700mA _{PP} <15mA _{rms}	<60mA _{PP} <1mA _{rms}
输出功率	Output power	0...15000W	0...15000W	0...15000W	0...15000W	0...15000W
负载100%时的效率	Efficiency at 100% load (typ.)	93,5%	93,5%	95,5%	95,5%	95,5%
过压类别	Overvoltage category	2				
污染程度	Pollution degree	2				
保护等级	Protection class	1				
模拟编程	Analogue programming	0...5V 或 / or 0...10V (可转换 / switchable)				
制冷	Cooling	前板进风后板排风 / Front air stream inlet and rear exhaust				
工作温度	Operation temperature	0.. 50°C				
尺寸 (WxHxD)	Dimensions (W H D)	19" 3HE/U 595mm	19" 3HE/U 595mm	19" 3HE/U 595mm	19" 3HE/U 595mm	19" 3HE/U 595mm
重量 *	Weight *	32,5kg	32,5kg	32,5kg	32,5kg	32,5kg
产品编号	Article No.	09230442	09230434	09230437	09230444	09230439

* 标准重量, 带选项功能的可能会不同 / of standard version, models with options may vary