

- U
- I
- P
- R
- OTP
- USB
- RS232
- LAN
- IEEE
- CAN



EA-EL 3160-60

- 功率级别: 0...400W
- 输入电压: 0...160V或0...400V
- 输入电流: 0...60A或0...25A
- 阻值: 0...400Ω至0...800Ω
- 过温保护(OT)
- 带可调占空比与可调升/降时间的脉动操作
- 操作模式
 - 恒流 (CC)
 - 恒压 (CV)
 - 恒功率 (CP)
 - 恒阻 (CR)
- 远程感测, 触发输入, 触发输出*
- 电池测试模式, 带时间和容量计算器
- 选购件, 数字接口
 - RS232, CAN, USB, GPIB (IEEE), Ethernet

- **Power rating: 0...400W**
- **Input voltages: 0...160V or 0...400V**
- **Input currents: 0...60A or 0...25A**
- **Resistances: 0...400Ω up to 0...800Ω**
- **Overtemperature protection (OT)**
- **Pulsed operation with adjustable duty cycle and variable rise/fall time**
- **Operation modes**
 - **Constant current (CC)**
 - **Constant voltage (CV)**
 - **Constant power (CP)**
 - **Constant resistance (CR)**
- **Remote sense, trigger input, trigger output**
- **Battery test mode with time and capacity counter**
- **Optional, digital interface cards**
 - **RS232, CAN, USB, GPIB (IEEE), Ethernet**

概述

EA-EL 3000系列是一款由微处理器控制的电子负载, 它能满足现代化实验室和工业的各种需求。

操作模式

本负载提供下列几种典型的操作模式: 恒流 (CC), 恒功率(CP), 恒阻(CR)和恒压 (CV)。

用一开关可预选上述操作模式。其它设定则对保护测试设备有效。举例: 恒流模式下可设定一个最大功率, 而恒压、恒功率或恒阻模式则可设定一最大电流。

静态操作

在静态操作模式下, 可通过调节旋钮设定A、B两组数据。用户手动地在这两组数间转换。

经数字或模拟接口执行的远程控制下, 通过合适的机械操纵也能实现很复杂的曲线特性。

动态操作

在动态操作模式下, 产品可以在A和B两数值间转换。这两个数能应用到U, I, P或R四组参数上。这两个值的脉宽能分别在50μs与100s之间调节, 达到可变占空比。此外, 可设置30μs至200ms的上跃和下降时间。模拟接口上还有一外部触发输入脚, 用来给外部设备供电, 从而从外部转换A和B数值。

General

The microprocessor controlled electronic loads of the EA-EL 3000 series satisfy practically every need of modern laboratories and industry.

Operation modes

The loads provide the typical operation modes Constant Current (CC), Constant Power (CP), Constant Resistance (CR) and Constant Voltage (CV).

The mode is preselected by a switch. Other settings are additionally effective to protect the test equipment. For example, constant current can have a maximum power setting while constant voltage, power or resistance can have a maximum current setting.

Static operation

In static operation two values, A and B, can be set using an adjustment knob. The user can manually switch between these two values in order to achieve steps.

In remote control via digital or analog interface, even complex characteristics can be realised by using proper control mechanisms.

Dynamic Operation

In dynamic operation, the device switches between two values A and B, which can be applied to all four physical units U, I, P or R. For both values, the pulse width can be adjusted separately between 50μs and 100s, achieving a variable duty cycle. In addition, rise and fall can be adjusted between 30μs and 200ms. There is also an external trigger input on the analog interface to feed an external source in order to control the alternation from A to B externally.

电池测试模式

在电池测试模式下，电池以恒流、恒功率或恒阻放电，直至电池电压达到可调极限，然后测试自动终止。放电时间与消耗容量会被测量并显示出来。

显示器

所有重要信息都直接显示于屏幕上。因此关于U, I, P, R的实际输出值或预设值、实际调整模式(CV, CC, CP, CR)、错误信息与设置菜单的设定，在屏幕上都清晰可见。同样地，可选数字接口的设定也会显示出来。

模拟接口

此接口提供有电压、电流、功率和阻值设定值输入脚，电压和电流监控用输出脚，控制输入脚，信号输出脚和触发输入脚。

触发输出

在动态操作模式下，A和B数值转换用的内部触发信号可用于来控制或同步操作其它设备。

数字接口

在产品后板有一个接口插槽，用户可在此装上一个接口卡或者替换原有的接口卡。产品会自动检测接口，无需或只需几步配置。

随接口卡附有一免费Windows软件，适合RS232, USB或Ethernet卡，该软件用来控制与监控，数据记录与半自动序列也可见120与125页。

可选项

- 经RS232, CAN, USB和GPIB (IEEE), Ethernet/LAN绝缘数字接口卡，可用个人电脑控制。

Battery test mode

In the battery test mode, a battery can be discharged with a constant current, constant power or constant resistance until the battery voltage reaches an adjustable threshold, where the test automatically stops. The discharge time and consumed charge (Ah) are measured and displayed.

Display

All important information is directly represented on the display. Thus, information about the actual output values or set values for U, I, P, R, the actual regulation mode (CV, CC, CP, CR), error messages and settings in the setup menu are clearly available. Similarly, settings of the optionally available digital interfaces will be shown.

Analog interface

Inputs for voltage, current, power and resistance set values, outputs for voltage and current monitoring, control inputs, signal outputs and a trigger input are available.

Trigger output

In dynamic operation, the internal trigger signal, which is generated for switching between A and B values, can be used to control or synchronise other applications.

Digital interfaces

There is an interface slot located on the rear panel, making it easy for the user to retrofit an 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 or Ethernet connection, which provides control and monitoring, data logging and semi-automatic sequences. Also see pages 120 and 125.

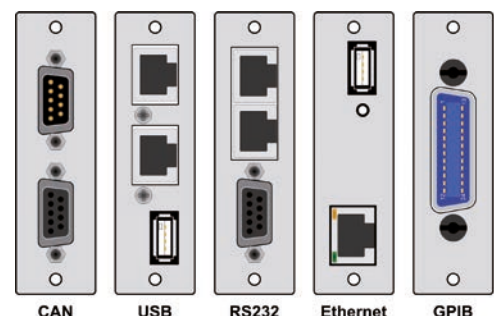
Options

- Isolated, digital interface cards for RS232, CAN, USB, GPIB (IEEE), Ethernet/LAN to control the device by PC.

Software EasyLoad Lite软件



数字接口卡 / Digital interfaces

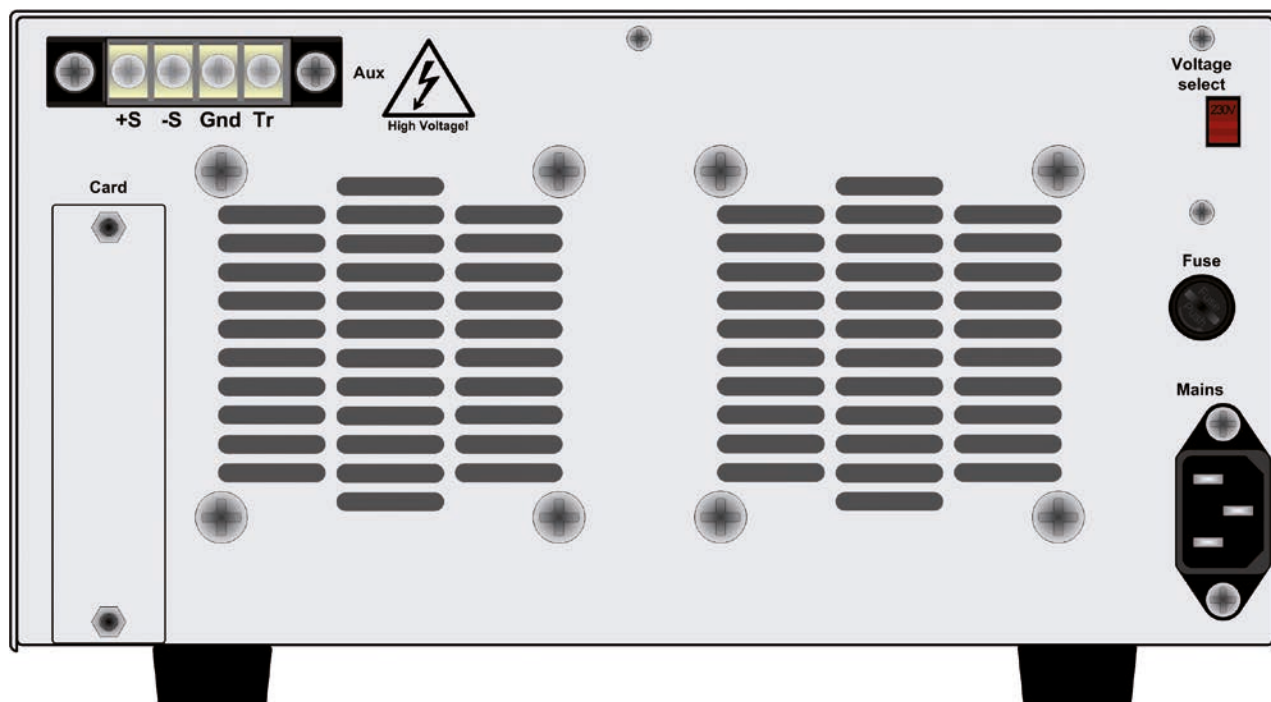
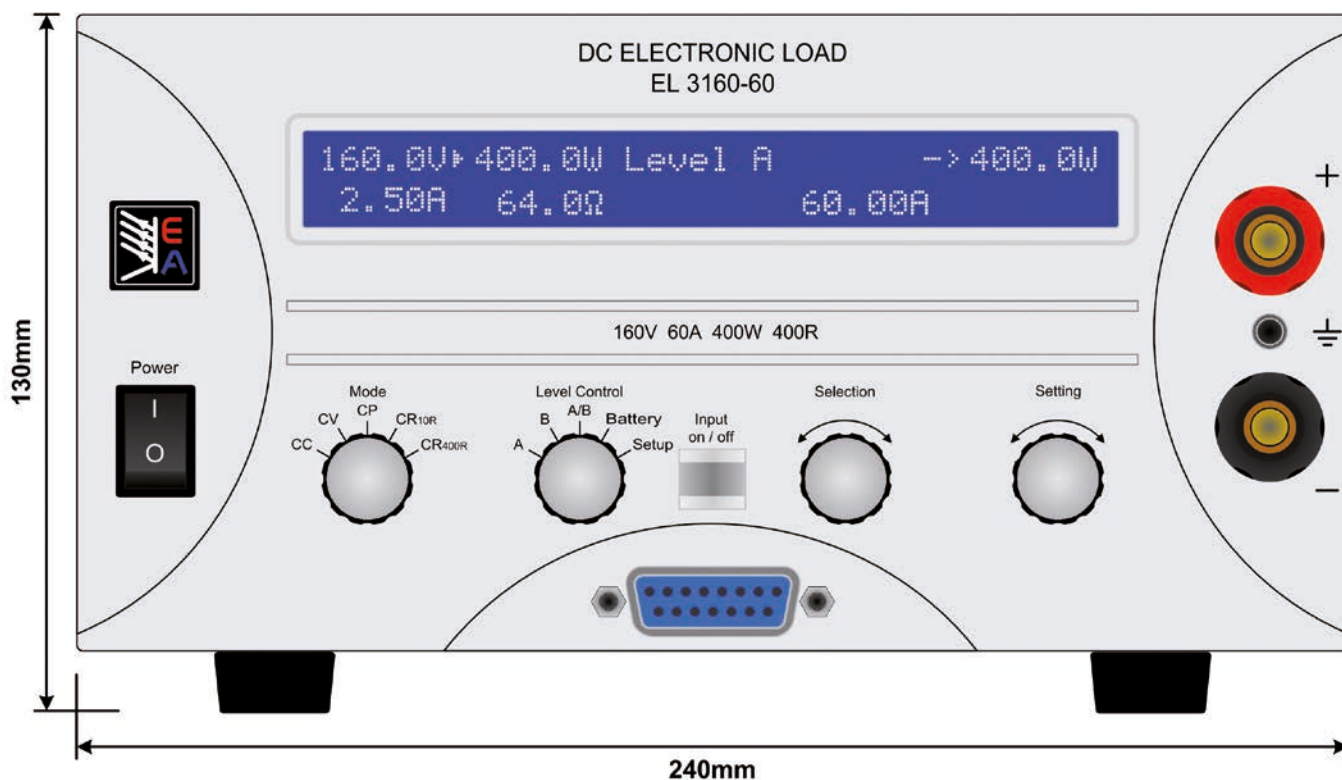


基本规格参数

General specifications

技术参数	Technical Data	Series EA-EL 3000 / 系列
电源输入电压	Power input voltage	115V/230V @ 50/60Hz
显示器	Display	Display 2x40个字符 / 2x40 characters
电池测试	Batterie testing	
- 关断电压	- Cut off voltage	自由调节 / Freely adjustable
- 显示器显示数值	- Read out at display	放电时间 / Duration of discharge 放电容量 / Capacity of discharge
模拟接口	Analog interface	
- U / I / P / R 设定输入脚	- Setting inputs U / I / P / R	0...10V
- U / I 监控输出脚	- Monitoring outputs U / I	0...10V
- 控制信号	- Control signals	Intern / Extern, 内/外, 输入开/关 / Input on/ off/关, R-模式 / R mode
- 状态信号	- Status signals	过压 / Overvoltage 过温 / Overtemperature
- 参考电压	- Reference voltage	10V
制冷方式	Cooling	温控风扇 / Temperature controlled fan
连接端子	Terminals	前板 / Front panel
- 负载输入	- Load input	安全插座 / Safety sockets
- 感测/触发输出	- Sense / Trigger output	4脚螺丝端子 / 4-pin screw terminal
- 模拟接口	- Analog interface	Sub-D连接器 / Sub-D connector 15 Pin

技术参数	Technical Data	EA-EL 3160-60	EA-EL 3400-25
20°C时恒定输入功率	Steady power input at 20°C	400W	400W
DC输入电压	Input voltage DC		
- 调节范围	- Adjustment range	0...160V	0...400V
- 显示器分辨率	- Resolution of display	100mV	100mV
- 精确度	- Accuracy	≤0.1% von U_{Nenn} / of U_{Nom}	≤0.1% von U_{Nenn} / of U_{Nom}
- 最大电流时的最小电压	- Min. voltage at max. current	约 / approx. 1.4V	约 / approx. 1.0V
输入电流	Input current		
- 调节范围	- Adjustment range	0...60A	0...25A
- 显示器分辨率	- Resolution of display	10mA	10mA
- 精确度	- Accuracy	≤ I_{Nenn} 的0.2% / of I_{Nom}	≤ I_{Nenn} 的0.2% / of I_{Nom}
输入功率	Input power		
- 调节范围	- Adjustment range	0...400W	0...400W
- 显示器分辨率	- Resolution of display	100mW	100mW
- 精确度	- Accuracy	≤ P_{Nenn} 的2% / of P_{Nom}	≤ P_{Nenn} 的2% / of P_{Nom}
内阻	Resistance		
- 调节范围 1	- Adjustment range 1	0...10Ω	0...40Ω
- 显示器分辨率	- Resolution of display	10mΩ	10mΩ
- 调节范围 2	- Adjustment range 2	0...400Ω	0...800Ω
- 显示器分辨率	- Resolution of display	100mΩ	1Ω
- 精确度	- Accuracy	≤ R_{Nenn} 的2% / of R_{Nom} + ≤ I_{Nenn} 的0.3% / of I_{Nom}	≤ R_{Nenn} 的2% / of R_{Nom} + ≤ I_{Nenn} 的0.3% / of I_{Nom}
动态函数	Dynamic function	2 Pegel / 2 levels	2 Pegel / 2 levels
- A / B 占空比级别	- Pulse width Level A / B	50μs...100s	50μs...100s
- 升/降时间	- Rise/fall time	30μs...200ms	30μs...200ms
尺寸 (WxHxD)	Dimensions (WxHxD)	240 x 120 x 300mm	240 x 120 x 300mm
重量	Weight	6kg	6kg
产品编号	Article number	35320200	35320201





EA-EL 9080-200

- 功率级别: 0...240W至0...7200W
- 按客户需求可提供更大功率的机柜式组合
- 输入电压: 0...80V, 0...160V, 0...400V, 0...750V
- 输入电流: 0...25A至0...600A
- 阻值: 0...1.2Ω至0...800Ω
- 过温保护(OT)
- 带可调节占空比与可调升/降时间的脉动操作
- 操作模式
 - 恒流 (CC)
 - 恒压 (CV)
 - 恒功率 (CP)
 - 恒阻 (CR)
- 远程感测, 触发输入
- 电池测试模式, 带时间和容量计算器
- 选购件, 数字接口
 - RS232, CAN, USB, GPIB (IEEE), Ethernet
- 可选水冷

- **Power ratings: 0...2400W up to 0...7200W**
- **Cabinets with higher power upon request**
- **Input voltages: 0...80V, 0...160V, 0...400V, 0...750V**
- **Input currents: 0...25A up to 0...600A**
- **Resistances: 0...1.2Ω up to 0...800Ω**
- **Overtemperature protection (OT)**
- **Pulsed operation with adjustable duty cycle and variable rise/fall time**
- **Operation modes**
 - **Constant current (CC)**
 - **Constant voltage (CV)**
 - **Constant power (CP)**
 - **Constant resistance (CR)**
- **Remote sense, trigger input**
- **Battery test mode with time and capacity counter**
- **Optional, digital interface cards**
 - **RS232, CAN, USB, GPIB (IEEE), Ethernet**
- **Optional water cooling**

概述

EA-EL 9000系列是一款由微处理器控制的电子负载, 它能满足现代化实验室和工业的各种需求。

操作模式

本负载提供下列几种典型的操作模式: 恒流 (CC), 恒功率(CP), 恒阻(CR)和恒压 (CV)。

用一开关可预选上述操作模式。其它设定则对保护测试设备有效。举例: 恒流模式下可设定一个最大功率, 而恒压、恒功率或恒阻模式则可设定一最大电流。

静态操作

在静态操作模式下, 可通过调节旋钮设定A、B两组数据。用户手动地在这两组数间转换。

经数字或模拟接口执行的远程控制下, 通过合适的机械操纵也能实现很复杂的曲线特性。

功率范围

本系列提供2400W、4800W或7200W的各个型号。(按需)可做机柜组合的大功率系统。

General

The microprocessor controlled electronic loads of the EA-EL 9000 series satisfy practically every need of modern laboratories and industry.

Operation modes

The loads provide the typical operation modes Constant Current (CC), Constant Power (CP), Constant Resistance (CR) and Constant Voltage (CV).

The mode is preselected by a switch. Other settings are additionally effective to protect the test equipment. For example, constant current can have a maximum power setting while constant voltage, power or resistance can have a maximum current setting.

Static operation

In static operation two values, A and B, can be set using an adjustment knob. The user can manually switch between these two values in order to achieve steps.

In remote control via digital or analog interface, even complex characteristics can be realised by using proper control mechanisms.

Power classes

The series provide models from 2400W, 4800W or 7200W, as well as cabinets with higher power (upon request).

动态操作

在动态操作模式下，产品可以在A和B两数值间转换。这两个数值能应用到U, I, P或R四组参数上。这两个值的脉宽能分别在50 μ s与100s之间调节，达到可变占空比。此外，可设置30 μ s至200ms的上跃和下降时间。模拟接口上还有一外部触发输入脚，用来给外部设备供电，从而从外部转换A和B数值。

电池测试模式

在电池测试模式下，电池以恒流、恒功率或恒阻放电，直至电池电压达到可调极限，然后测试自动终止。放电时间与消耗容量会被测量并显示出来。

功率降额

EL 9000系列产品具有热降额功能，通过限制功率来避免在最大功率范围内操作时过热。EL 9000 HP系列所有型号也有热降额功能，但是温度极限更高。

环境温度越低，制冷状况越好，负载可输出的功率越大。为避免该状况发生，我们还提供水冷式型号，即使在极端条件下，产品也能输出最大恒定功率。

Dynamic Operation

In dynamic operation, the device switches between two values A and B, which can be applied to all four physical units U, I, P or R. For both values, the pulse width can be adjusted separately between 50 μ s and 100s, achieving a variable duty cycle. In addition, rise and fall time can be adjusted between 30 μ s and 200ms. There is also an external trigger input on the analog interface to feed an external source in order to control the alternation from A to B externally.

Battery test mode

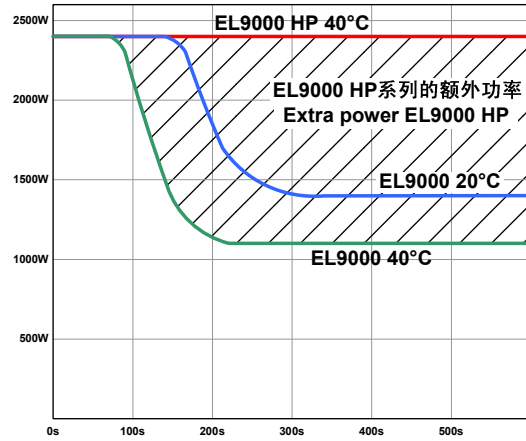
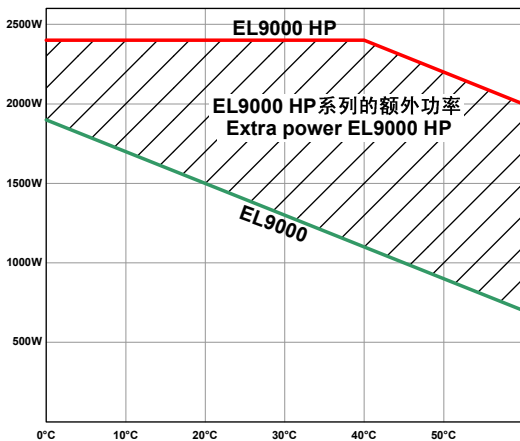
In the battery test mode, a battery can be discharged with a constant current, constant power or constant resistance until the battery voltage reaches an adjustable threshold, where the test automatically stops. The discharge time and consumed charge (Ah) are measured and displayed.

Power derating

Units of the EL 9000 series are equipped with thermal derating in order to limit power and avoid overheating when operating in the maximum power range. All models of EL 9000 HP also have a thermal derating, but the temperature limit is much higher there.

The lower the ambient temperature and the better the cooling, the higher the power that the load can take. To circumvent this situation, models with an optional water cooling can be delivered for permanent performance at maximum value and in extreme conditions.

EL 9000 / EL 9000 HP功率特性
Power characteristics EL 9000 / EL 9000 HP



显示器

所有重要信息都直接显示于屏幕上。因此关于U, I, P, R的实际输出值或预设值、实际调整模式(CV,CC,CP,CR)、错误信息与设置菜单的设定，在屏幕上都清晰可见。同样地，可选数字接口的设定也会显示出来。

模拟接口

此接口提供有电压、电流、功率和阻值设定值输入脚，电压和电流监控用输出脚，控制输入脚，信号输出脚和触发输入脚。

System Bus-系统总线

EA EL9000和EL 9000 HP系列后板的„System Bus“系统总线端子有多种功能，比如：远程感测输入脚，为PSI 8000（按需提供）或PS 8000（按需提供）电源创建两象限模式的共享总线输入脚，以及内部调整速度的转换。一个输入脚用于调节两象限操作的交叉电流。

Display

All important information is directly represented on the display. Thus, information about the actual output values or set values for U, I, P, R, the actual regulation mode (CV,CC,CP,CR), error messages and settings in the setup menu are clearly available. Similarly, settings of the optionally available digital interfaces will be shown.

Analog interface

Inputs for voltage, current, power and resistance set values, outputs for voltage and current monitoring, control inputs, signal outputs and a trigger input are available.

System Bus

The „System Bus“ at the rear of the EL 9000 and EL 9000 HP series has a number of functions, such as the remote sense input, the Share bus input to build a two quadrant operation system with laboratory power supplies of the PSI 8000 (upon request) or PS 8000 (upon request) series, and switching of the internal regulation speed. One input serves to adjust a cross current for two-quadrants operation.

水冷模块

本产品还可选择水冷来代替标准的风冷模块，其优势如下：

- 产品上无热风流通，无热量积聚
- 极低噪音
- 100%恒定功率输出
- 外壳尺寸一摸一样

数字接口

在产品后板有一个接口插槽，用户可在此装上一个接口卡或者替换原有的接口卡。产品会自动检测接口，无需或只需几步配置。

随接口卡附有一免费Windows软件，适合RS232，USB或Ethernet卡，该软件可用来控制与监控，数据记录与半自动序列也可见120与125页。

可选项

- 经RS232，CAN，USB和GPIB (IEEE)，Ethernet/LAN绝缘数字接口卡，可用个人电脑控制。
- 水冷模块

Water cooling

The optionally available water cooling replaces the standard fan cooling and has some advantages:

- No hot air exhaust on the device, no heat accumulation
- Significantly lower noise
- 100% permanent power
- Same enclosure size

Digital interfaces

There is an interface slot located on the rear panel, making it easy for the user to retrofit a 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 or Ethernet connection, which provides control and monitoring, data logging and semi-automatic sequences. Also see pages 120 and 125.

Options

- Isolated, digital interface cards for RS232, CAN, USB, GPIB (IEEE), Ethernet/LAN to control the device by PC
- Water cooling

基本规格

General specifications

技术参数	Technical Data	Series EA-EL 9000 & EA-EL 9000 HP / 系列
电源输入电压	Power input voltage	115V/230V @ 50/60Hz
显示器	Display	显示2x40个字符 / Display 2x40 Characters
电池测试	Batterie testing	
- 关断电压	- Cut off voltage	自由调节 / Freely adjustable
- 显示器显示数值	- Read out at display	放电时间 / Duration of discharge 放电容量 / Capacity of discharge
模拟接口	Analog interface	
- U / I / P / R 设定输入脚	- Setting inputs U / I / P / R	0...10V
- U / I 监控输出脚	- Monitoring outputs U / I	0...10V
- 控制信号	- Control signals	Intern / Extern, 内/外, 输入开/关 / Input on/off off/关, R-模式 / R mode
- 状态信号	- Status signals	过压 / Overvoltage 过温 / Overtemperature
- 参考电压	- Reference voltage	10V
制冷方式	Cooling	温控风扇 / Temperature controlled fan
连接端子	Terminals	后板 / Rear panel
- 负载输入	- Load input	M8螺丝端子 / Screw terminal M8
- 系统总线	- System Bus	7 Pin螺丝端子 / Screw terminal 7 Pin
- 模拟接口	- Analog interface	Sub-D 连接器 / Sub-D connector 15 Pin

EL 9000 2400W后视图 / Rear view EL 9000 2400W



EL 9000系列

EA-EL 9000 系列电子负载已历经多年的应用，证明了它作为电子负载应具有的所有功能。

Series EL 9000

The electronic loads in the EA-EL9000 series have proved themselves thousandfold and offer all the facilities that can be expected of an electronic load.

技术参数	Technical Data	EA-EL 9080-200	EA-EL 9080-400	EA-EL 9080-600
额定功率	Nominal power	2400W	4800W	7200W
25°C时恒定输入功率	Steady power input at 20°C	1500W	3000W	4500W
DC 输入电压	Input voltage DC			
- 调节范围	- Adjustment range	0...80V	0...80V	0...80V
- 显示器分辨率	- Resolution of display	100mV	100mV	100mV
- 精确度	- Accuracy	≤0.1%	≤0.1%	≤0.1%
- 最大电流时的最小电压	- Min. voltage for max. current	约 / approx. 1.0V	约 / approx. 1.0V	约 / approx. 1.0V
输入电流	Input current			
- 调节范围	- Adjustment range	0...200A	0...400A	0...600A
- 显示器分辨率	- Resolution of display	100mA	100mA	100mA
- 精确度	- Accuracy	≤0.2%	≤0.2%	≤0.2%
输入功率	Input power			
- 调节范围	- Adjustment range	0...2400W	0...4800W	0...7200W
- 显示器分辨率	- Resolution of display	1W	1W	1W
- 精确度	- Accuracy	≤2%	≤2%	≤2%
内阻	Resistance			
- 调节范围 1	- Adjustment range 1	0...5Ω	0...2.5Ω	0...1.2Ω
- 显示器分辨率	- Resolution of display	10mΩ	1mΩ	1mΩ
- 调节范围 2	- Adjustment range 2	0...100Ω	0...50Ω	0...25Ω
- 显示器分辨率	- Resolution of display	100mΩ	100mΩ	10mΩ
- 精确度	- Accuracy	≤2%	≤2%	≤2%
动态函数	Dynamic function	2个级别 / 2 levels	2个级别 / 2 levels	2个级别 / 2 levels
- A / B级别的脉宽	- Pulse width Level A / B	50µs...100s	50µs...100s	50µs...100s
- 升/降时间	- Rise/fall time	30µs...200ms	30µs...200ms	30µs...200ms
尺寸 (W H D)	Dimensions (W H D)	19" 2HE/U 460mm	19" 4HE/U 460mm	19" 6HE/U 460mm
重量	Weight	15.9kg	26 kg	36 kg
产品编号	Article number	33200230	33200231	33200232

技术参数	Technical Data	EA-EL 9160-100	EA-EL 9160-200	EA-EL 9160-300
额定功率	Nominal power	2400W	4800W	7200W
20°C时恒定输入功率	Steady power input at 20°C	1500W	3000W	4500W
DC 输入电压	Input voltage DC			
- 调节范围	- Adjustment range	0...160V	0...160V	0...160V
- 显示器分辨率	- Resolution of display	100mV	100mV	100mV
- 精确度	- Accuracy	≤0.1%	≤0.1%	≤0.1%
- 最大电流时的最小电压	- Min. voltage for max. current	约 / approx. 0.7V	约 / approx. 0.7V	约 / approx. 0.7V
输入电流	Input current			
- 调节范围	- Adjustment range	0...100A	0...200A	0...300A
- 显示器分辨率	- Resolution of display	100mA	100mA	100mA
- 精确度	- Accuracy	≤0.2%	≤0.2%	≤0.2%
输入功率	Input power			
- 调节范围	- Adjustment range	0...2400W	0...4800W	0...7200W
- 显示器分辨率	- Resolution of display	1W	1W	1W
- 精确度	- Accuracy	≤2%	≤2%	≤2%
内阻	Resistance			
- 调节范围 1	- Adjustment range 1	0...10Ω	0...5Ω	0...2.5Ω
- 显示器分辨率	- Resolution of display	10mΩ	10mΩ	1mΩ
- 调节范围 2	- Adjustment range 2	0...200Ω	0...100Ω	0...50Ω
- 显示器分辨率	- Resolution of display	100mΩ	100mΩ	100mΩ
- 精确度	- Accuracy	≤2%	≤2%	≤2%
动态函数	Dynamic function	2个级别 / 2 levels	2个级别 / 2 levels	2个级别 / 2 levels
- A / B级别的脉宽	- Pulse width Level A / B	50µs...100s	50µs...100s	50µs...100s
- 升/降时间	- Rise/fall time	30µs...200ms	30µs...200ms	30µs...200ms
尺寸 (W H D)	Dimensions (W H D)	19" 2HE/U 460mm	19" 4HE/U 460mm	19" 6HE/U 460mm
重量	Weight	15.9kg	26kg	36kg
产品编号	Article number	33200233	33200234	33200235

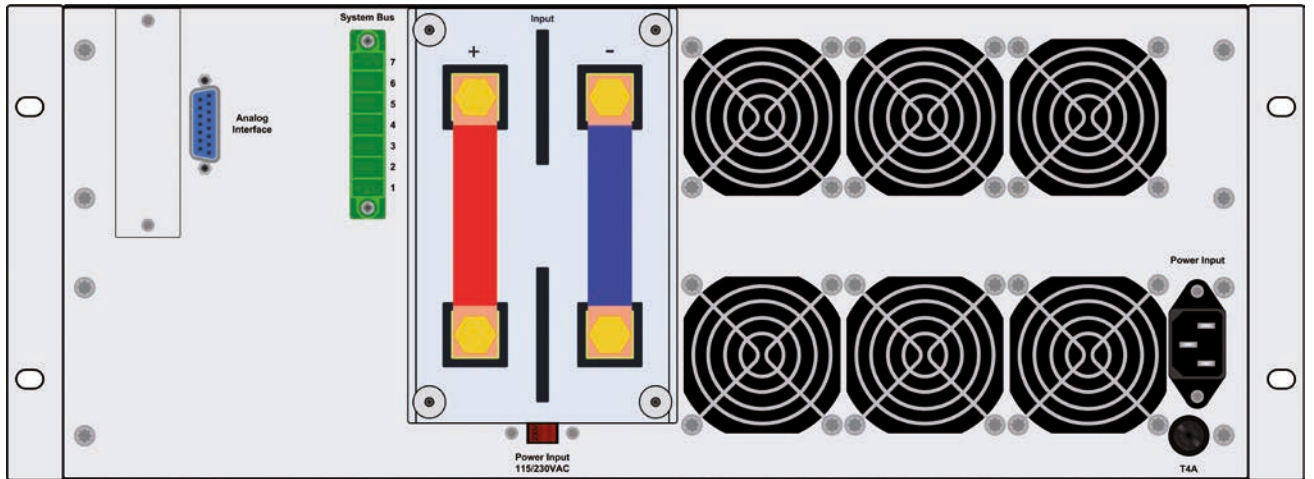
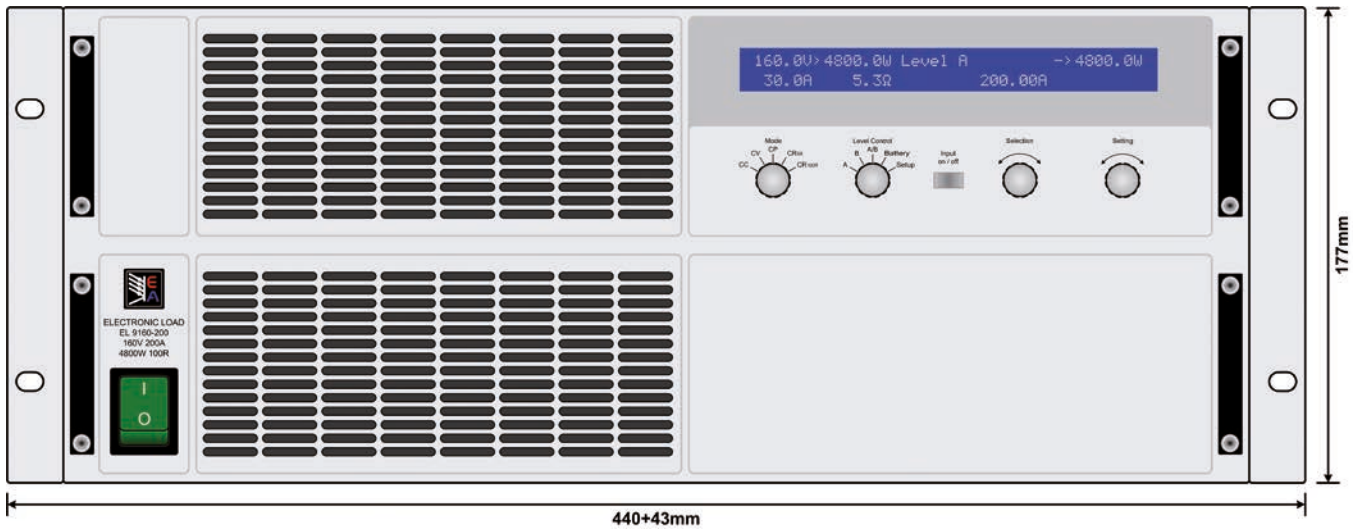
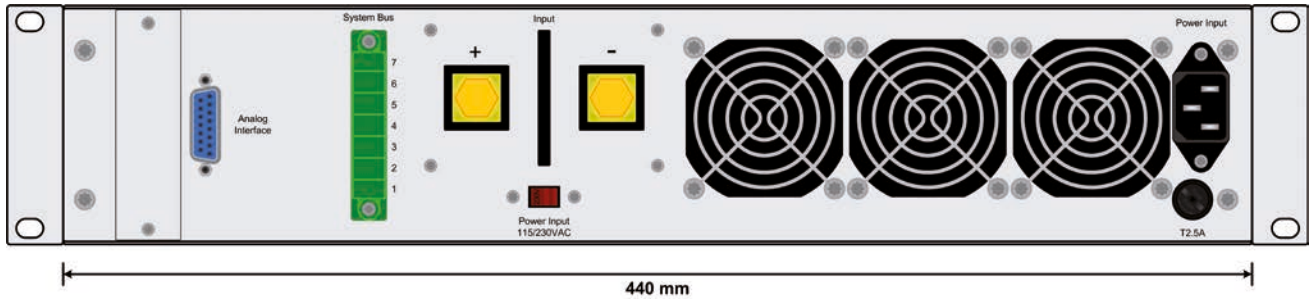
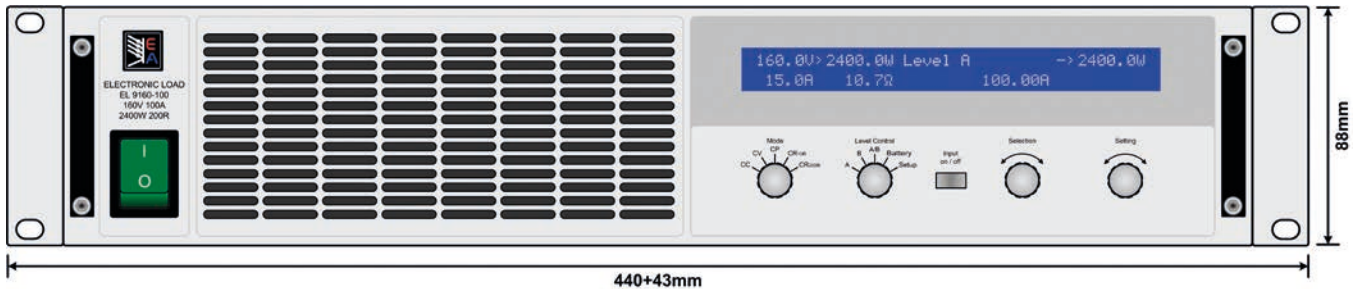


EA-EL9000 2400W - 7200W

直流电子负载 / ELECTRONIC DC LOADS

技术参数	Technical Data	EA-EL 9400-50	EA-EL 9400-100	EA-EL 9400-150
额定功率	Nominal power	2400W	4800W	7200W
25°C时恒定输入功率	Steady power input at 20°C	1500W	3000W	4500W
DC 输入电压	Input voltage DC			
- 调节范围	- Adjustment range	0...400V	0...400V	0...400V
- 显示器分辨率	- Resolution of display	100mV	100mV	100mV
- 精确度	- Accuracy	≤0.1%	≤0.1%	≤0.1%
- 最大电流时的最小电压	- Min. voltage for max. current	约 / approx. 0.5V	约 / approx. 0.5V	约 / approx. 0.5V
输入电流	Input current			
- 调节范围	- Adjustment range	0...50A	0...100A	0...150A
- 显示器分辨率	- Resolution of display	10mA	100mA	100mA
- 精确度	- Accuracy	≤0.2%	≤0.2%	≤0.2%
输入功率	Input power			
- 调节范围	- Adjustment range	0...2400W	0...4800W	0...7200W
- 显示器分辨率	- Resolution of display	1W	1W	1W
- 精确度	- Accuracy	≤2%	≤2%	≤2%
内阻	Resistance			
- 调节范围 1	- Adjustment range 1	0...10Ω	0...5Ω	0...5Ω
- 显示器分辨率	- Resolution of display	10mΩ	10mΩ	10mΩ
- 调节范围 2	- Adjustment range 2	0...400Ω	0...200Ω	0...100Ω
- 显示器分辨率	- Resolution of display	100mΩ	100mΩ	100mΩ
- 精确度	- Accuracy	≤2%	≤2%	≤2%
动态函数	Dynamic function	2个级别 / 2 levels	2个级别 / 2 levels	2个级别 / 2 levels
- A / B级别的脉宽	- Pulse width Level A / B	50μs...100s	50μs...100s	50μs...100s
- 升/降时间	- Rise/fall time	30μs...200ms	30μs...200ms	30μs...200ms
尺寸 (W H D)	Dimensions (W H D)	19" 2HE/U 460mm	19" 4HE/U 460mm	19" 6HE/U 460mm
重量	Weight	15.9kg	26kg	36kg
产品编号	Article number	33200236	33200237	33200238

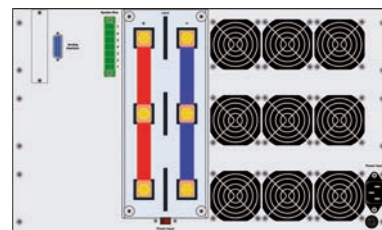
技术参数	Technical Data	EA-EL 9750-25	EA-EL 9750-50	EA-EL 9750-75
额定功率	Nominal power	2400W	4800W	7200W
25°C时恒定输入功率	Steady power input at 20°C	1500W	3000W	4500W
DC 输入电压	Input voltage DC			
- 调节范围	- Adjustment range	0...750V	0...750V	0...750V
- 显示器分辨率	- Resolution of display	100mV	100mV	100mV
- 精确度	- Accuracy	≤0.1%	≤0.1%	≤0.1%
- 最大电流时的最小电压	- Min. voltage for max. current	约 / approx. 0.5V	约 / approx. 0.5V	约 / approx. 0.5V
输入电流	Input current			
- 调节范围	- Adjustment range	0...25A	0...50A	0...75A
- 显示器分辨率	- Resolution of display	10mA	10mA	10mA
- 精确度	- Accuracy	≤0.2%	≤0.2%	≤0.2%
输入功率	Input power			
- 调节范围	- Adjustment range	0...2400W	0...4800W	0...7200W
- 显示器分辨率	- Resolution of display	1W	1W	1W
- 精确度	- Accuracy	≤2%	≤2%	≤2%
内阻	Resistance			
- 调节范围 1	- Adjustment range 1	0...40Ω	0...20Ω	0...15Ω
- 显示器分辨率	- Resolution of display	10mΩ	10mΩ	10mΩ
- 调节范围 2	- Adjustment range 2	0...800Ω	0...400Ω	0...300Ω
- 显示器分辨率	- Resolution of display	100mΩ	100mΩ	100mΩ
- 精确度	- Accuracy	≤2%	≤2%	≤2%
动态函数	Dynamic function	2个级别 / 2 levels	2个级别 / 2 levels	2个级别 / 2 levels
- A / B级别的脉宽	- Pulse width Level A / B	50μs...100s	50μs...100s	50μs...100s
- 升/降时间	- Rise/fall time	30μs...200ms	30μs...200ms	30μs...200ms
尺寸 (W H D)	Dimensions (W H D)	19" 2HE/U 460mm	19" 4HE/U 460mm	19" 6HE/U 460mm
重量	Weight	15.9kg	26kg	36kg
产品编号	Article number	33200252	33200253	33200254



输入电压>80V的产品在其DC-直流输入端配有一个树脂玻璃盖。 /
 Models with input voltage >80V will have a plexi glass cover on the DC input



7200W 6U Model / 型号



EA-EL 9000 HP

EA-EL 9000 HP 电子负载系列是EA-EL 9000 系列的升级版，它增加了一个高性能冷却器和风箱。

当环境温度为40°C，输入功率最大时，负载热降额功能会启动。在此高温下，EA-EL 9000 HP系列的性能比EA-EL 9000系列的高出约60%。

Series EL 9000 HP

The electronic loads in the EA-EL 9000 HP series offer an upgrade of the EA-EL 9000 series by incorporating a high performance cooler and blower.

At maximum input power, the thermal derating of the load commences at an ambient temperature of 40°C. At such a temperature the performance of the EA-EL 9000 HP series is approximately 60% higher than that of the EA-EL 9000 series.

技术参数	Technical Data	EA-EL 9080-200 HP	EA-EL 9080-400 HP	EA-EL 9080-600 HP
额定功率	Nominal power	2400W	4800W	7200W
25°C时恒定输入功率	Steady power input at 40°C	2400W	4800W	7200W
DC 输入电压	Input voltage DC			
- 调节范围	- Adjustment range	0...80V	0...80V	0...80V
- 显示器分辨率	- Resolution of display	100mV	100mV	100mV
- 精确度	- Accuracy	≤0.1%	≤0.1%	≤0.1%
- 最大电流时的最小电压	- Min. voltage for max. current	约 / approx. 1.0V	约 / approx. 1.0V	约 / approx. 1.0V
输入电流	Input current			
- 调节范围	- Adjustment range	0...200A	0...400A	0...600A
- 显示器分辨率	- Resolution of display	100mA	100mA	100mA
- 精确度	- Accuracy	≤0.2%	≤0.2%	≤0.2%
输入功率	Input power			
- 调节范围	- Adjustment range	0...2400W	0...4800W	0...7200W
- 显示器分辨率	- Resolution of display	1W	1W	1W
- 精确度	- Accuracy	≤2%	≤2%	≤2%
内阻	Resistance			
- 调节范围 1	- Adjustment range 1	0...5Ω	0...2.5Ω	0...1.2Ω
- 显示器分辨率	- Resolution of display	10mΩ	1mΩ	1mΩ
- 调节范围 2	- Adjustment range 2	0...100Ω	0...50Ω	0...25Ω
- 显示器分辨率	- Resolution of display	100mΩ	100mΩ	10mΩ
- 精确度	- Accuracy	≤2%	≤2%	≤2%
动态函数	Dynamic function	2个级别 / 2 levels	2个级别 / 2 levels	2个级别 / 2 levels
- A / B级别的脉宽	- Pulse width Level A / B	50μs...100s	50μs...100s	50μs...100s
- 升/降时间	- Rise/fall time	30μs...200ms	30μs...200ms	30μs...200ms
尺寸 (W H D)	Dimensions (W H D)	19" 3HE/U 460mm	19" 6HE/U 460mm	19" 9HE/U 460mm
重量	Weight	17.5kg	35kg	53kg
产品编号	Article number	33200240	33200241	33200246

技术参数	Technical Data	EA-EL 9160-100 HP	EA-EL 9160-200 HP	EA-EL 9160-300 HP
额定功率	Nominal power	2400W	4800W	7200W
25°C时恒定输入功率	Steady power input at 40°C	2400W	4800W	7200W
DC 输入电压	Input voltage DC			
- 调节范围	- Adjustment range	0...160V	0...160V	0...160V
- 显示器分辨率	- Resolution of display	100mV	100mV	100mV
- 精确度	- Accuracy	≤0.1%	≤0.1%	≤0.1%
- 最大电流时的最小电压	- Min. voltage for max. current	约 / approx. 0.7V	约 / approx. 0.7V	约 / approx. 0.7V
输入电流	Input current			
- 调节范围	- Adjustment range	0...100A	0...200A	0...300A
- 显示器分辨率	- Resolution of display	100mA	100mA	100mA
- 精确度	- Accuracy	≤0.2%	≤0.2%	≤0.2%
输入功率	Input power			
- 调节范围	- Adjustment range	0...2400W	0...4800W	0...7200W
- 显示器分辨率	- Resolution of display	1W	1W	1W
- 精确度	- Accuracy	≤2%	≤2%	≤2%
内阻	Resistance			
- 调节范围 1	- Adjustment range 1	0...10Ω	0...5Ω	0...2.5Ω
- 显示器分辨率	- Resolution of display	10mΩ	10mΩ	1mΩ
- 调节范围 2	- Adjustment range 2	0...200Ω	0...100Ω	0...50Ω
- 显示器分辨率	- Resolution of display	100mΩ	100mΩ	100mΩ
- 精确度	- Accuracy	≤2%	≤2%	≤2%
动态函数	Dynamic function	2个级别 / 2 levels	2个级别 / 2 levels	2个级别 / 2 levels
- A / B级别的脉宽	- Pulse width Level A / B	50μs...100s	50μs...100s	50μs...100s
- 升/降时间	- Rise/fall time	30μs...200ms	30μs...200ms	30μs...200ms
尺寸 (W H D)	Dimensions (W H D)	19" 3HE/U 460mm	19" 6HE/U 460mm	19" 9HE/U 460mm
重量	Weight	17.5kg	35kg	53kg
产品编号	Article number	33200242	33200243	33200247

技术参数	Technical Data	EA-EL 9400-50 HP	EA-EL 9400-100 HP	EA-EL 9400-150 HP
额定功率	Nominal power	2400W	4800W	7200W
25°C时恒定输入功率	Steady power input at 40°C	2400W	4800W	7200W
DC 输入电压	Input voltage DC			
- 调节范围	- Adjustment range	0...400V	0...400V	0...400V
- 显示器分辨率	- Resolution of display	100mV	100mV	100mV
- 精确度	- Accuracy	≤0.1%	≤0.1%	≤0.1%
- 最大电流时的最小电压	- Min. voltage for max. current	约 / approx. 0.5V	约 / approx. 0.5V	约 / approx. 0.5V
输入电流	Input current			
- 调节范围	- Adjustment range	0...50A	0...100A	0...150A
- 显示器分辨率	- Resolution of display	100mA	100mA	100mA
- 精确度	- Accuracy	≤0.2%	≤0.2%	≤0.2%
输入功率	Input power			
- 调节范围	- Adjustment range	0...2400W	0...4800W	0...7200W
- 显示器分辨率	- Resolution of display	1W	1W	1W
- 精确度	- Accuracy	≤2%	≤2%	≤2%
内阻	Resistance			
- 调节范围 1	- Adjustment range 1	0...10Ω	0...5Ω	0...5Ω
- 显示器分辨率	- Resolution of display	10mΩ	10mΩ	10mΩ
- 调节范围 2	- Adjustment range 2	0...400Ω	0...200Ω	0...100Ω
- 显示器分辨率	- Resolution of display	100mΩ	100mΩ	100mΩ
- 精确度	- Accuracy	≤2%	≤2%	≤2%
动态函数	Dynamic function	2个级别 / 2 levels	2个级别 / 2 levels	2个级别 / 2 levels
- A / B级别的脉宽	- Pulse width Level A / B	50μs...100s	50μs...100s	50μs...100s
- 升/降时间	- Rise/fall time	30μs...200ms	30μs...200ms	30μs...200ms
尺寸 (W H D)	Dimensions (W H D)	19" 3HE/U 460mm	19" 6HE/U 460mm	19" 9HE/U 460mm
重量	Weight	17.5kg	35kg	53kg
产品编号	Article number	33200244	33200245	33200248

技术参数	Technical Data	EA-EL 9750-25 HP	EA-EL 9750-50 HP	EA-EL 9750-75 HP
额定功率	Nominal power	2400W	4800W	7200W
25°C时恒定输入功率	Steady power input at 40°C	2400W	4800W	7200W
DC 输入电压	Input voltage DC			
- 调节范围	- Adjustment range	0...750V	0...750V	0...750V
- 显示器分辨率	- Resolution of display	100mV	100mV	100mV
- 精确度	- Accuracy	≤0.1%	≤0.1%	≤0.1%
- 最大电流时的最小电压	- Min. voltage for max. current	约 / approx. 0.5V	约 / approx. 0.5V	约 / approx. 0.5V
输入电流	Input current			
- 调节范围	- Adjustment range	0...25A	0...50A	0...75A
- 显示器分辨率	- Resolution of display	10mA	10mA	10mA
- 精确度	- Accuracy	≤0.2%	≤0.2%	≤0.2%
输入功率	Input power			
- 调节范围	- Adjustment range	0...2400W	0...4800W	0...7200W
- 显示器分辨率	- Resolution of display	1W	1W	1W
- 精确度	- Accuracy	≤2%	≤2%	≤2%
内阻	Resistance			
- 调节范围 1	- Adjustment range 1	0...40Ω	0...20Ω	0...15Ω
- 显示器分辨率	- Resolution of display	10mΩ	10mΩ	10mΩ
- 调节范围 2	- Adjustment range 2	0...800Ω	0...400Ω	0...300Ω
- 显示器分辨率	- Resolution of display	100mΩ	100mΩ	100mΩ
- 精确度	- Accuracy	≤2%	≤2%	≤2%
动态函数	Dynamic function	2个级别 / 2 levels	2个级别 / 2 levels	2个级别 / 2 levels
- A / B级别的脉宽	- Pulse width Level A / B	50μs...100s	50μs...100s	50μs...100s
- 升/降时间	- Rise/fall time	30μs...200ms	30μs...200ms	30μs...200ms
尺寸 (W H D)	Dimensions (W H D)	19" 3HE/U 460mm	19" 6HE/U 460mm	19" 9HE/U 460mm
重量	Weight	17.5kg	35kg	53kg
产品编号	Article number	33200249	33200250	33200251