

型 S8EX (50/100/150W) 开关电源

CHN 使用说明书

感谢您购买了S8EX产品。此说明书内记载了S8EX使用时的功能、性能以及使用方法。

- 请由具备电气知识的专业人员来操作S8EX。
- 请充分阅读并理解本使用说明书的内容之后，再正确使用本产品。

请妥善保管本使用说明书以便作参考。

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警告标识的含义

注意 若操作不当的话有可能发生轻度伤害或设备损坏的危险。

警告标识

注意	可能会引起触电、起火或产品损坏。严禁拆分、改造、修理本产品或触摸产品内部。	
注意	可能会引起轻度的烫伤。通电中以及电源刚切断后请不要马上接触电源本体。	
注意	可能会引起因触电所导致的轻伤。通电中严禁触摸端子。通电时，本体内部电压最大为370V。切断电源后30秒内会残留此电压。	
注意	可能引起轻度触电、燃烧、机器故障等危险。请不要使金属、导线或安装加工时产生的粉尘进入产品内部。	

CHN 安全注意

- 安装/存储环境**
 - 请在环境温度 $-25\sim+75^{\circ}\text{C}$ 、相对湿度为 $25\sim90\%$ 的条件下储藏本产品。
 - 可能会引起内部元件破损、恶化。请不要在超出该安装类型的运行温度范围的温度下使用本产品。
 - 可能会引起内部元件破损、恶化。请不要在超过使用温度范围的情况下使用本产品。
 - 请在相对湿度 $25\sim85\%$ 的场所内使用本产品。
 - 请不要在日光直射的环境下使用本产品。
 - 请不要在液体、异物以及腐蚀性气体可能进入产品内部的场所下使用本产品。
 - 避免冲击和振动。
- 设置/配线**
 - 请完全接地。确保接地端子处于安全使用状态。当接地不完全时，可能会引起触电和误动作。
 - 可能发生轻微的起火。请注意不要将输入输出端子误配线。
 - 为防止因尺寸不足的配线材料负载异常而引起过热和起火，通常请选择额定电流值1.6倍以上的线径。关于线材的选择请参考电线厂家的推荐允许电流和电压降等资料。
 - 每个输出端子的额定电流为5A。如果电流超过端子的额定值时，请确保同时使用多个端子。
 - 请使用 60°C 以上，或 $60/75^{\circ}\text{C}$ 的线材。
 - 请使用导体部分为铜线的线材。
 - 为使散热通畅，通电前请取下加工时覆盖在产品上的薄膜。
 - 输入/输出连接器厂家和型号

输入/输出连接器

输出侧		输入侧		厂家
S8EX-BP050 □ □ □ □	S8EX-P100 □ □ □ □	S8EX-P150 □ □ □ □	相同	JST
CN51	CN51	CN51 CN52	CN1	
连接器 B4P-VH(LF)(SN) B6P-VH(LF)(SN) B7P-VH(LF)(SN) B3PS-VH(LF)(SN)	端子 VHR-4N VHR-8N VHR-6N VHR-7N VHR-5N	SVH-21T-P1.1 or BVH-21T-P1.1		

兼容卷边器: YC-160R

- 输出电压调整**
 - 输出电压调节旋钮(V.ADJ)可能会被损坏。所以请勿施加不必要的力。
 - 请确保在输出电压调整后，不要超过额定输出功率和额定输出电流。

CHN 使用时的注意事项

在客户的应用中，欧姆龙不负责产品与任何客户端产品所涉及的规格、规范和标准保持一致性。请务必考虑本产品对于所应用的系统、机器和设备间的适用性。使用时请注意并遵守本产品的禁止事项。

在没有确认整个系统设计时所考虑到的风险，以及没有确认在设备和系统中该欧姆龙产品的额定使用条件和正确安装条件的情况下，禁止将本产品应用于对人身及财产存在严重危险的情况。详见产品规格书中保证及免责声明内容。

MODEL S8EX (50/100/150W) SWITCHING POWER SUPPLY

EN INSTRUCTION MANUAL

Thank you for purchasing the S8EX. This Instruction Manual describes the functions, performance, and application methods required to use the S8EX.

- Make sure that a specialist with electric knowledge operates the S8EX.
- Read and understand this Instruction Manual, and use the product with enough understanding.

Keep this Instruction Manual close at hand and use it for reference during operation.

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Key to Warning Symbols

CAUTION Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or in property damage.

Warning Symbols

	Minor electric shock, fire, or Product failure may occasionally occur. Do not disassemble, modify, or repair the Product or touch the interior of the Product.
	Minor burns may occasionally occur. Do not touch the Product while power is being supplied or immediately after power is turned OFF.
	Minor injury due to electric shock may occasionally occur. Do not touch the terminals while power is being supplied. Working voltage can be 370V max. This voltage can be also available 30s after the switch off.
	Minor electric shock, fire, or Product failure may occasionally occur. Do not allow any pieces of metal or conductors or any clippings or cuttings resulting from installation work to enter the Product.

EN Precautions for Safe Use

- Installing/Storage Environment**
 - Store the product with ambient temperature -25 to $+75^{\circ}\text{C}$, and relative humidity 25 to 90%.
 - The internal part deterioration or damage may occur on rare occasion. Do not use at a temperature that exceeds the operating temperature range for the mounting type.
 - The internal parts may occasionally be deteriorated or broken. Do not use the product in the condition over the operation ambient temperature range.
 - Use the product where the relative humidity is 25 to 85%.
 - Avoid places where the product is subjected to direct sunlight.
 - Avoid places where the product is subjected to penetration of liquid, foreign substance, or corrosive gas.
 - Avoid places subject to shock or vibration.
 - A device such as a contact breaker may be a vibration source. Set the Power Supply as far as possible from possible sources of shock or vibration.
 - If the Power Supply is used in an area with excessive electronic noise, be sure to separate the Power Supply as far as possible from the noise sources.
 - The internal parts may occasionally deteriorate and be broken due to adverse heat radiation. Do not loosen the screws on the Power Supply.
- Arrangement/Wiring**
 - Connect the ground completely. A protective earthing terminal stipulated in safety standards is used. Electric shock or malfunction may occur if the ground is not connected completely.
 - The light ignition may possibly be caused. Ensure that input and output terminals are wired correctly.
 - Over heating or fire can result from inadequately sized wiring materials when problems occur at the load. As a general rule, always select wire sizes suitable for at least 1.6 times the rated current. Refer to the wiring manufacturer's recommended allowable current and voltage drop specifications for information when selecting wiring materials.
 - The current rating for the output terminal is 5A per terminal. Make sure to use multiple terminals together if a current exceeding the terminal rating is used.
 - Use min 60°C or $60/75^{\circ}\text{C}$ wire.
 - Use copper conductors only.
 - Be sure to remove the sheet covering the product for machining before power-on.
 - Input/output connector manufacturer and model

Input/output connector

Connector	Output side		Input side		Manufacturer
	S8EX-BP050 □ □ □ □	S8EX-P100 □ □ □ □	S8EX-P150 □ □ □ □	Same	
Housing	B4P-VH(LF)(SN)	B6P-VH(LF)(SN)	B7P-VH(LF)(SN)	B3PS-VH(LF)(SN)	JST
Terminal	VHR-4N	VHR-8N	VHR-6N	VHR-7N	VHR-5N

Compatible crimper: YC-160R

(3) Output Voltage Adjustment

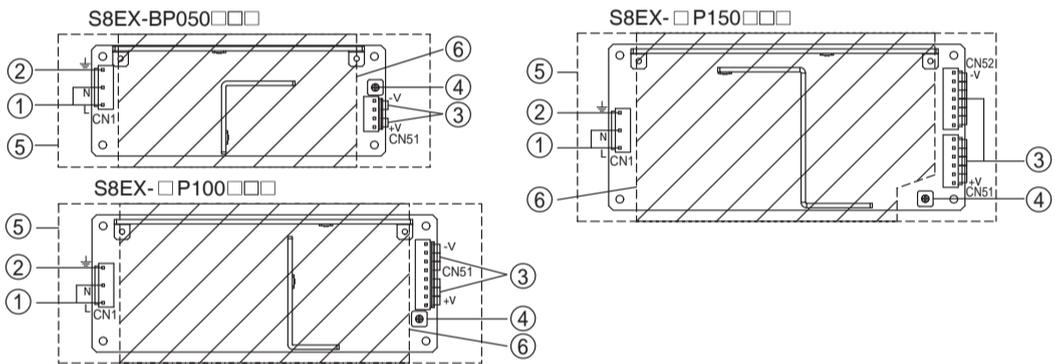
- The output voltage adjuster (V.ADJ) may possibly be damaged. Do not add unnecessary power.
- Do not exceed the rated output capacity and current after adjusting the output voltage.

EN Suitability for Use

Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY OR IN LARGE QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

Fig. 1 各部位名称/Nomenclature



CHN 各部位名称

- AC输入端子(L, (N)) (保险丝位于(L)侧。) DC输入时，(L)侧必须为(+). 注: DC输入不在安全标准认证范围之内。
- 接地保护端子(⚡) (使用安全规格所规定的接地保护端子，请确保妥善接地。)
- DC输出端子(-V), (+V)
- 输出电压调节旋钮
- 机壳
- 机盖

EN Nomenclature

- AC input terminal (L, (N)) (The fuse is located on the (L) side.) For DC input, (L) side must be (+). Note: DC input is out of the scope of safety standard certificate.
- Protective earthing terminal (⚡) (A protective earthing terminal stipulated in safety standards is used. Connect the ground completely.)
- DC output terminal (-V), (+V)
- Output voltage adjuster
- Chassis
- Cover

CHN 安全规格

- DC输出端子(3)与AC输入端子(1)是相互电气绝缘的。
- 过电压 category II.
- 这个设备为防护等级 I.
- 气候等级: 3K3 按照EN50178. 过电压category II. 根据UL60950-1 和 EN60950-1.

EN Safety standards

- DC output terminals (3) are galvanically isolated from the AC input terminals (1).
- Overvoltage category II.
- This equipment is for protection class 1.
- Climatic class: 3K3. According to EN50178. Overvoltage category II. According to UL60950-1 and EN60950-1.

CHN 使用注意

- 安装**

标准安装除(A)之外，还可以使用下列安装类型: (B)、(C)、(D)、(E)、(F)

 - 安装电源时为了能长期高效地使用电源，请注意合理有效地散热。
 - S8EX使用自然对流，所以安装时要使其周围的空气可以进行对流。
 - 安装时使用板上的安装孔和隔距块，至少离板8mm进行安装。
 - 为满足绝缘和耐电压标准，Fig.3, Fig.4所示的间距是必不可少的。
 - 交叉线表示安装金属元件的容许范围。
 - 强烈推荐使用金属板作为安装面板。

注:

 - 请勿向板上施加应力，如扭转、折弯或冲击。否则可能会导致损坏或恶化。
- 衰减曲线**

衰减曲线请参考S8EX产品目录。
- 输入电压选择**

额定参数:

100到240 VAC (允许范围: 85到264 VAC, 120到370 VDC)

注: EU指令和各种安全标准(UL、EN等)的适用范围为100到240 VAC (85到264 VAC)
- 并行操作**

请勿用于并行操作。过度发热可能会损坏内部元器件。
- 输出电压调整**

出厂时: 设定输出电压为额定电压。

可使用产品正面的“V.ADJ”④进行调整，调整范围从额定电压的-10%到+10%。顺时针旋转时增大输出电压，逆时针旋转时减小输出电压。

 1. 请确保在输出电压调整后，不要超过额定输出功率和额定输出电流。
 2. 通过“V.ADJ”④的调节，输出电压可能上升到电压可变范围之上。

所以调整输出电压时，请确认电源的输出电压并防止负载遭到破坏。
- 耐电压实验**

额定耐电压:

3000VAC于<所有输入端子①>和<所有输出端子③>之间持续1分钟。

实验时，耐电压测试装置的切断电流设置为10mA。

注:

 1. 突然加载3000VAC高压可能产生电压冲击而损坏电源。请缓慢增加/减小实验电压。
 2. 实验时，短接所有输出端子以避免端子受损。
 3. 在开启电源后，耐电压测试或绝缘阻抗测试时，不允许接触导线。剩余电压可能会导致损坏、恶化或触电。
- 绝缘电阻实验**

实验采用直流500VDC欧姆表。

注:

实验时，短接所有输出端子以避免端子受损。

- 过载保护**

过载保护功能可以自动保护负载和电源免受电流的损害。当输出电流恢复到额定范围时，过载保护自动取消。

注:

 1. 如果在电源短路或过电流状态下持续运行，电源内部元器件性能可能恶化或损坏。
 2. 请不要在过载或输出侧浪涌电流频繁发生的情况下使用该电源。电源内部元器件性能可能恶化或损坏。
- 过电压保护**

该电源能够自动保护自身及负载免受电压的损害。如果输出电压超过额定输出电压约120%以上时，过电压保护开始工作。如果要让电源复位，请先将电源输入切断并放置3分钟以上，然后再重新开启电源。注: 在重新开启之前，请确保引起过电压的原因已被排除。
- 如果没有输出电压**

没有输出电压可能是由于存在过载、过电压，或门锁保护设备可能正在运行。如果有较大的冲击电压，门锁保护将启动，例如打开电源的时候发生雷击冲击。如果没有输出电压，请先检查是否存在以下几种可能的原因，再联系欧姆龙代表。

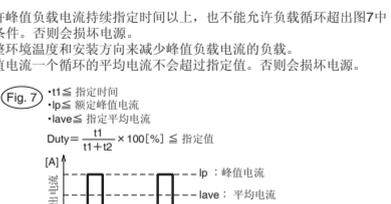
 - 检查过载保护状况。
 - 检查负载是否处于过载状态或短路状态。
 - 检查时请移除接在负载上的连线。
 - 尝试消除过电压或门锁保护功能。
 - 关闭电源，放置3分钟以上。然后再将其开启，看上述状态是否已被消除。
- 符合EU指令**

请参考商品目录和本使用说明书来获得符合EMC指令的使用条件。
- 峰值负载**

有关详情，请参见产品目录。

说明

 1. 不能允许峰值负载电流持续指定时间以上，也不能允许负载循环超出图7中显示的条件。否则会导致损坏。
 2. 通过调整环境温度 and 安装方向来减少峰值负载电流的负载。
 3. 确保峰值电流一个循环的平均电流不会超过指定值。否则会导致损坏电源。



EN Precautions for Correct Use

- Mounting**

Standard mounting In addition to (A), the following mounting types are possible: (B), (C), (D), (E), (F)

 - Install the Power Supply so that heat is effectively dissipated to improve and maintain the reliability of the Power Supply over a long period of time.
 - The S8EX uses natural convection. Mount so that convection of the air around the power unit can take place.
 - When mounting, use the mounting holes in the board and spacers to mount at least 8 mm off the board. The spaces shown in Fig. 3 and 4 are required to satisfy the insulation and withstand voltage standards.
 - The cross-hatching indicates the allowable range for the mounted metal part.
 - Metal plate is strongly recommended as the mounting panel.

Notes:

 1. Do not subject the board to stress such as twisting, bending, or shock. This may cause failure or deterioration.
 2. During assembly, do not subject the lead feet or surface mounted parts to stress. This may cause failure or deterioration.
- Derating Curve**

For Derating Curve, refer to the S8EX Catalog.
- Selecting input Voltage**

Rating: 100 to 240 VAC (allowable range: 85 to 264 VAC, 120 to 370 VDC)

Note: The applicable range of EU directives and various safety standards (UL, EN, others) is 100 to 240 VAC (85 to 264 VAC).
- Parallel Operation**

Do not use for parallel operation. Risk of internal part damage due to excessive heat generation.
- Output Voltage Adjustment**

Default Setting: Set at the rated voltage. Adjustable Range: Adjustment is possible within $\pm 10\%$ of the rated voltage using "V.ADJ" ④ on the front of the unit. Turning clockwise increases the output voltage, and turning counterclockwise decreases the output voltage.

Notes:

 1. Do not exceed the rated output capacity and current after adjusting the output voltage.
 2. The output voltage may increase beyond the allowable voltage range when the operation is performed for "V.ADJ" ④. When adjusting the output voltage, check the output voltage of the power supply and be sure that the load is not destroyed.
- Dielectric Strength Test**

Rated dielectric strength: 3000VAC between <input terminals ① together> and <output terminals ③ together> for 1 minute. When testing, set the cutoff current for the withstand voltage test device to 10mA.

Notes:

 1. Sudden switching of 3000VAC may possibly cause a voltage surge, damaging the power supply. Increase/decrease test voltage gradually.
 2. When performing the test, be sure to short-circuit all the output terminals to protect them from damage.
 3. Do not allow contact with a conductor after power-on, withstand voltage testing, or insulation resistance testing. Residual voltage may cause failure, deterioration, or electrical shock.
- Insulation Resistance Test**

When testing the insulation resistance of the power supply, use a DC ohmmeter at 500VDC. Note: When performing the test, be sure to short-circuit all the output terminals to protect them from damage.

- Overload Protection**

The load and the power supply are automatically protected from overcurrent damage by the overload protection function. When the output current returns within the rated range, overload protection is automatically cleared.

Notes:

 1. If operation is continued when the Power Supply has been short-circuited or in an overcurrent status, internal parts in the Power Supply may occasionally deteriorate or be damaged.
 2. The internal parts may possibly be deteriorated or damaged. Do not use the product for applications where the load causes frequent inrush current and overload.
- Overvoltage Protection**

This power supply automatically protects itself and the load from overvoltage. Overvoltage protection is activated if the output voltage rises above approx. 120% of the rated output voltage. To reset the power supply, leave the power supply off for more than 3 minutes and then turn it on again.

Note: Be sure to clear the cause of the overvoltage, before turning on the power supply.
- In Case there is No Output Voltage**

The possible cause for no output voltage may be the presence of an overload or overvoltage condition, or may be due to the functioning of a latching protective device. The latching protection may operate if a large amount of surge voltage such as a lightning surge occurs while turning on the Power Supply.

In case there is no output voltage, please check the following points before contacting us: Check the Overload Protected Status. • Check whether the load is in overload status or is short-circuited. Remove wires to load when checking.

 - Attempt to clear the overvoltage or latching protection function: Turn the Power Supply off once, and leave it off for at least 3 minutes. Then turn it on again to see if this clears the condition.
- Conformance to EU Directives**

Refer to the catalogue and this instruction manual for details on the operating condition for EMC-compliance.
- Peak load**

See product catalogue for details.

Notes:

 1. Do not allow the peak load current to continue for more than specified time, and do not allow the duty cycle to exceed the conditions indicated in Fig. 7. This may damage the power supply.
 2. Lessen the load of the peak load current by adjusting the ambient temperature and the mounting orientation.
 3. Ensure that the average current of one cycle of the peak current does not exceed the specified value. This may damage the power supply.

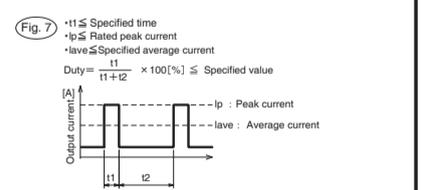


Fig. 2 标准安装/Standard mounting

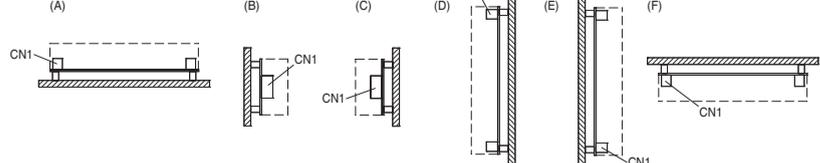


Fig. 3 为满足绝缘距离的安装间隔



Fig. 5 安装孔位置/Mounting hole position

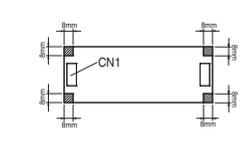
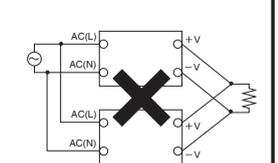


Fig. 6 并行操作/Parallel Operation



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电话: (86) 21-5037-2222

技术咨询热线: 400-820-4535
网址: http://www.fa.omron.com.cn

型 S8EX (15/30W) 开关电源

CHN 使用说明书

感谢您购买了S8EX产品。
此说明书内记载了S8EX使用时的功能、性能以及使用方法。
• 请由具备电气知识的专业人员来操作S8EX。
• 请充分阅读并理解本使用说明书的内容之后，再正确使用本产品。
请妥善保管本使用说明书以便作参考。

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警告标识的含义

注意 若操作不当的话有可能发生轻度伤害或设备损坏的危险。

警告标识

注意	可能会引起触电、起火或产品损坏。严禁拆分、改造、修理本产品或触摸产品内部。	
注意	可能会引起轻度的烫伤。通电中以及电源刚切断后请不要马上接触电源本体。	
注意	可能会引起因触电所导致的轻伤。通电中严禁触摸端子。通电时，本体内部电压最大为370V。切断电源后30秒内会残留此电压。	
注意	可能引起轻度触电、燃烧、机器故障等危险。请不要使金属、导线或安装加工时产生的粉尘进入产品内部。	

CHN 安全注意

- 安装/存储环境**
 - 请在环境温度 $-25\sim+75^{\circ}\text{C}$ 、相对湿度为 $25\sim90\%$ 的条件下储藏本产品。
 - 可能会引起内部元件破损、恶化。请不要在超出该安装类型的运行温度范围的温度下使用本产品。
 - 可能会引起内部元件破损、恶化。请不要在超过使用温度范围的情况下使用本产品。
 - 请在相对湿度 $25\sim85\%$ 的场所内使用本产品。
 - 请不要在日光直射的环境下使用本产品。
 - 请不要在液体、异物以及腐蚀性气体可能进入产品内部的场所下使用本产品。
 - 避免冲击和振动。
- 设置/配线**
 - 请完全接地。确保接地端子处于安全使用状态。当接地不完全时，可能会引起触电和误动作。
 - 可能发生轻微的起火。请注意不要将输入输出端子误配线。
 - 为防止因尺寸不足的配线材料负载异常而引起过热的起火，通常请选择额定电流值1.6倍以上的线径。关于线材的选择请参考电线厂家的推荐允许许电流和电压降等资料。
 - S8EX-N015□□□□和S8EX-N030□□□□各输出端子的额定电流为5A。(S8EX-N015□□□□-CN1每个输出端子的额定电流为2A。)如果电流超过端子的额定值时，请确保同时使用多个端子。
 - 请使用 60°C 以上、或 $60/75^{\circ}\text{C}$ 的线材。
 - 请使用导体部分为铜线的线材。
- 为使散热通畅，通电前请取下加工时覆盖在产品上的薄膜。
- 输入/输出连接器厂家和型号

输入侧	输出侧		厂家	
	相同	S8EX-N015□□□□-CN1		
连接器	B3PS-VH VHR-SN	B4P-VH VHR-IN	B4B-XH XHP-4	JST
托盘	Reel:SVH-21T-P1.1 散板:BVH-21T-P1.1	Reel:SVH-21T-P1.1 散板:BVH-21T-P1.1	Reel:SKH-001T-P0.6 散板:SKH-001T-P0.6	
端子				
卷边工具	YC-160R	YC-111R		

- 输出电压调整**
 - 输出电压调节旋钮(V.ADJ)可能会损坏。所以请勿施加不必要的外力。
 - 请确保在输出电压调整后，不要超过额定输出功率和额定输出电流。

CHN 使用时的注意事项

在客户的应用中，欧姆龙不负责产品与任何客户端产品所涉及的规格、规范和标准保持一致性。请务必考虑本产品对于所应用的系统、机器和设备间的适用性。使用时请注意并遵守本产品的禁止事项。
在没有确认整个系统设计时所考虑到的风险，以及没有确认在设备和系统中该欧姆龙产品的额定使用条件和正确安装条件的情况下，禁止将本产品应用于对人身及财产存在严重危险的情况。详见产品规格书中保证及免责事项内容。

MODEL S8EX (15/30W) SWITCHING POWER SUPPLY

EN INSTRUCTION MANUAL

Thank you for purchasing the S8EX.
This Instruction Manual describes the functions, performance, and application methods required to use the S8EX.
• Make sure that a specialist with electric knowledge operates the S8EX.
• Read and understand this Instruction Manual, and use the product with enough understanding.
Keep this Instruction Manual close at hand and use it for reference during operation.

OMRON Corporation
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Key to Warning Symbols

CAUTION Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or in property damage.

Warning Symbols

注意	Minor electric shock, fire, or Product failure may occasionally occur. Do not disassemble, modify, or repair the Product or touch the interior of the Product.	
注意	Minor burns may occasionally occur. Do not touch the Product while power is being supplied or immediately after power is turned OFF.	
注意	Minor injury due to electric shock may occasionally occur. Do not touch the terminals while power is being supplied. Working voltage can be 370V max. inside. This voltage can be also available 30s after the switch off.	
注意	Minor electric shock, fire, or Product failure may occasionally occur. Do not allow any pieces of metal or conductors or any clippings or cuttings resulting from installation work to enter the Product.	

EN Precautions for Safe Use

- Installing/Storage Environment**
 - Store the product with ambient temperature -25 to $+75^{\circ}\text{C}$, and relative humidity 25 to 90%.
 - The internal part deterioration or damage may occur on rare occasion. Do not use at a temperature that exceeds the operating temperature range for the mounting type.
 - The internal parts may occasionally be deteriorated or broken. Do not use the product in the condition over the operation ambient temperature range.
 - Use the product where the relative humidity is 25 to 85%.
 - Avoid places where the product is subjected to direct sunlight.
 - Avoid places where the product is subjected to penetration of liquid, foreign substance, or corrosive gas.
 - Avoid places subject to shock or vibration.
A device such as a contact breaker may be a vibration source. Set the Power Supply as far as possible from possible sources of shock or vibration.
 - If the Power Supply is used in an area with excessive electronic noise, be sure to separate the Power Supply as far as possible from the noise sources.
 - The internal parts may occasionally deteriorate and be broken due to adverse heat radiation. Do not loosen the screws on the Power Supply.
- Arrangement/Wiring**
 - Connect the ground completely. A protective earthing terminal stipulated in safety standards is used. Electric shock or malfunction may occur if the ground is not connected completely.
 - The light ignition may possibly be caused. Ensure that input and output terminals are wired correctly.
 - Over heating or fire can result from inadequately sized wiring materials when problems occur at the load. As a general rule, always select wire sizes suitable for at least 1.6 times the rated current. Refer to the wiring manufacturer's recommended allowable current and voltage drop specifications for information when selecting wiring materials.
• The current rating of the output terminals of the S8EX-N015□□□□ and S8EX-N030□□□□ is 5 A per terminal. (The current rating of the output terminals of the S8EX-N015□□□□-CN1 is 2 A per terminal.) Make sure to use multiple terminals together if a current exceeding the terminal rating is used.
• Use min. 60°C or $60/75^{\circ}\text{C}$ wire.
• Use copper conductors only.
 - Be sure to remove the sheet covering the product for machining before power-on.
- Input/output connector manufacturer and model**
Input/output connector

Input side	Output side		Manufacturer	
	Same	S8EX-N015□□□□-CN1 S8EX-N030□□□□		
Connector	B3PS-VH VHR-SN	B4P-VH VHR-IN	B4B-XH XHP-4	JST
Housing	Reel:SVH-21T-P1.1 Bulk:BVH-21T-P1.1	Reel:SVH-21T-P1.1 Bulk:BVH-21T-P1.1	Reel:SKH-001T-P0.6 Bulk:SKH-001T-P0.6	
Terminal				
Crimping tool	YC-160R	YC-111R		

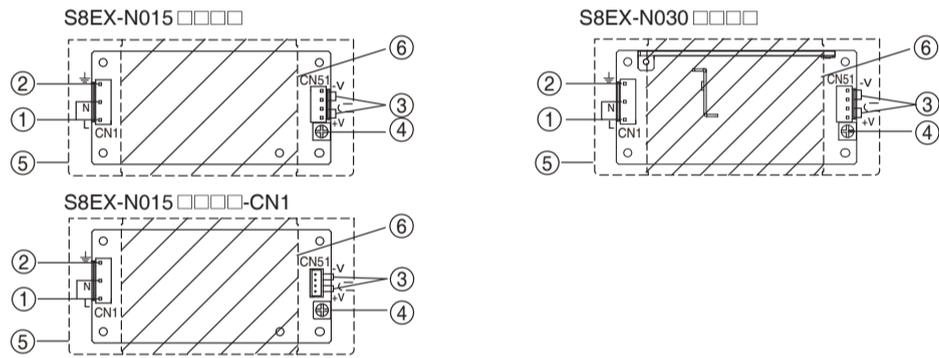
Compatible crimper: YC-160R

- Output Voltage Adjustment**
 - The output voltage adjuster (V.ADJ) may possibly be damaged. Do not add unnecessary power.
 - Do not exceed the rated output capacity and current after adjusting the output voltage.

EN Suitability for Use

Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases.
NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY OR IN LARGE QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

Fig. 1 各部位名称/Nomenclature



CHN 各部位名称

- AC输入端子(L, (N) (保险丝位于(L)侧。))
DC输入时，(L)侧必须为(+)
注：
DC输入不在安全标准认证范围之内。
- 接地保护端子(⚡)
(使用安全规格所规定的接地保护端子，请确保妥善接地。)
- DC输出端子(-V), (+V)
- 输出电压调节旋钮
- 机壳
- 机盖

EN Nomenclature

- AC input terminal (L, (N) (The fuse is located on the (L) side.)
For DC input, (L) side must be (+).
Note:
DC input is out of the scope of safety standard certificate.
- Protective earthing terminal (⚡)
(A protective earthing terminal stipulated in safety standards is used. Connect the ground completely.)
- DC output terminal (-V), (+V)
- Output voltage adjuster
- Chassis
- Cover

CHN 安全规格

- DC输出端子(3)与AC输入端子(1)是相互电气绝缘的。
- 过电压 category II.
- 这个设备为防护等级 I.
- 气候等级: 3K3
按照EN50178.
过电压category II.
根据UL60950-1 和 EN60950-1.

EN Safety standards

- DC output terminals (3) are galvanically isolated from the AC input terminals (1).
- Overvoltage category II.
- This equipment is for protection class 1.
- Climatic class: 3K3
According to EN50178.
Overvoltage category II.
According to UL60950-1 and EN60950-1.

CHN 使用注意

- 安装**
标准安装
除(A)之外，还可以使用下列安装类型：
(Fig.2) (A)、(B)、(C)、(D)、(E)、(F)
• 安装电源时为了能长期高效地使用电源，请注意合理地散热。
• S8EX使用自然对流，所以安装时要使其周围的空气可以进行对流。
• 安装时使用板上的安装孔和隔距块，至少离板8mm进行安装。
为满足绝缘和耐电压标准，Fig.3、Fig.4所示的间距是必不可缺少的。
• 交叉线表示安装金属元件的容许范围。
• 强烈推荐使用金属板作为安装面板。
注：
1. 请勿向板上施加应力，如扭转、折弯或冲击。否则可能会导致损坏或恶化。
2. 装配时，请勿引脚或表面安装元件施加应力。
3. 请将总线连接器的插拔次数控制在20次以内。可能会发生因接触不良导致电气性能恶化。
- 衰减曲线**
衰减曲线请参考S8EX产品目录。
- 输入电压选择**
额定参数：
100到240 VAC (允许范围：85到264 VAC, 120到370 VDC)
注：
EU指令和各种安全标准(UL、EN等)的适用范围为100到240 VAC (85到264 VAC)。
- 并行操作**
请勿用于并行操作。过度发热可能会损坏内部元件。
(Fig.5)
- 输出电压调整**
出厂时：设定输出电压为额定电压。
可使用产品正面的“V.ADJ”(4)进行调整，调整范围从额定电压的-10%到+10%。
顺时针旋转时增大输出电压，逆时针旋转时减小输出电压。
注：
1. 请确保在输出电压调整后，不要超过额定输出功率和额定输出电流。
2. 通过“V.ADJ”(4)的调节，输出电压可能上升到电压可变范围之上。
所以调整输出电压时，请确认电源的输出电压并防止负载遭到破坏。
- 耐电压实验**
额定耐电压：
3000VAC于<所有输入端子(1)>和<所有输出端子(3)>之间持续1分钟。
实验时，耐电压测试装置的切断电流设置为10mA。
注：
1. 突然加载3000VAC高压可能产生电压冲击而损坏电源。请缓慢增加/减小实验电压。
2. 实验时，短接所有输出端子以避免端子受损。
3. 在开启电源后、耐电压测试或绝缘电阻测试时，不允许接触导线。剩余电压可能会导致损坏、恶化或触电。
- 绝缘电阻实验**
实验采用直流500VDC欧姆表。
注：
实验时，短接所有输出端子以避免端子受损。

EN Precautions for Correct Use

- Mounting**
Standard mounting
In addition to (A), the following mounting types are possible:
(Fig.2) (A), (B), (C), (D), (E), (F)
• Install the Power Supply so that heat is effectively dissipated to improve and maintain the reliability of the Power Supply over a long period of time.
• The S8EX uses natural convection. Mount so that convection of the air around the power unit can take place.
• When mounting, use the mounting holes in the board and spacers to mount at least 8 mm off the board. The spacers shown in Fig. 3 and 4 are required to satisfy the insulation and withstand voltage standards.
• The crosshatching indicates the allowable range for the mounted metal part.
• Metal plate is strongly recommended as the mounting panel.
Notes:
1. Do not subject the board to stress such as twisting, bending, or shock. This may cause failure or deterioration.
2. During assembly, do not subject the lead feet or surface mounted parts to stress. This may cause failure or deterioration.
3. The frequency of the connector insertion and extraction of the connector is under 20 times. Insufficient contact could cause the deterioration of the electrical performance.
- Derating Curve**
For Derating Curve, refer to the S8EX Catalog.
- Selecting input Voltage**
Rating:
100 to 240 VAC (allowable range: 85 to 264 VAC, 120 to 370 VDC)
Note:
The applicable range of EU directives and various safety standards (UL, EN, others) is 100 to 240 VAC (85 to 264 VAC).
- Parallel Operation**
Do not use for parallel operation. Risk of internal part damage due to excessive heat generation.
(Fig.5)
- Output Voltage Adjustment**
Default Setting: Set at the rated voltage.
Adjustable Range: Adjustment is possible within $\pm 10\%$ of the rated voltage using "V.ADJ" (4) on the front of the unit.
Turning clockwise increases the output voltage, and turning counterclockwise decreases the output voltage.
Notes:
1. Do not exceed the rated output capacity and current after adjusting the output voltage.
2. The output voltage may increase beyond the allowable voltage range when the operation is performed for "V.ADJ" (4). When adjusting the output voltage, check the output voltage of the power supply and be sure that the load is not destroyed.
- Dielectric Strength Test**
Rated dielectric strength:
3000VAC between <input terminals (1) together> and <output terminals (3) together> for 1 minute. When testing, set the cutoff current for the withstand voltage test device to 10mA.
Notes:
1. Sudden switching of 3000VAC may possibly cause a voltage surge, damaging the power supply. Increase/decrease test voltage gradually.
2. When performing the test, be sure to short-circuit all the output terminals to protect them from damage.
3. Do not allow contact with a conductor after power-on, withstand voltage testing, or insulation resistance testing. Residual voltage may cause failure, deterioration, or electrical shock.
- Insulation Resistance Test**
When testing the insulation resistance of the power supply, use a DC ohmmeter at 500VDC.
Note:
When performing the test, be sure to short-circuit all the output terminals to protect them from damage.

- Overload Protection**
The load and the power supply are automatically protected from overcurrent damage by the overload protection function.
When the output current returns within the rated range, overload protection is automatically cleared.
Notes:
1. If operation is continued when the Power Supply has been short-circuited or in an overcurrent status, internal parts in the Power Supply may occasionally deteriorate or be damaged.
2. The internal parts may possibly be deteriorated or damaged. Do not use the product for applications where the load causes frequent inrush current and overload.
• This power supply automatically protects itself and the load from overvoltage. Overvoltage protection is activated if the output voltage rises above approx. 120% of the rated output voltage.
To reset the power supply, leave the power supply off for more than 3 minutes and then turn it on again.
Note:
Be sure to clear the cause of the overvoltage, before turning on the power supply.
- In Case there is No Output Voltage**
The possible cause for no output voltage may be the presence of an overload or overvoltage condition, or may be due to the functioning of a latching protective device. The latching protection may operate if a large amount of surge voltage such as a lightning surge occurs while turning on the Power Supply.
In case there is no output voltage, please check the following points before contacting us:
• Check whether the load is in overload status or is short-circuited.
Remove wires to load when checking.
• Attempt to clear the overvoltage or latching protection function:
Turn the Power Supply off once, and leave it off for at least 3 minutes. Then turn it on again to see if this clears the condition.
- Conformance to EU Directives**
Refer to the catalogue and this instruction manual for details on the operating condition for EMC-compliance.

Fig. 2 标准安装/Standard mounting

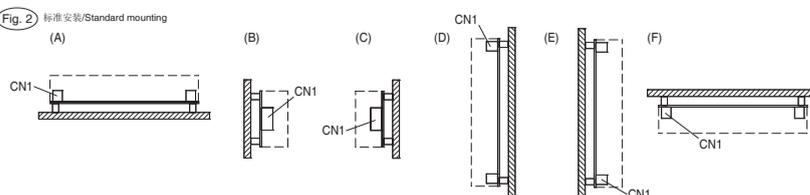


Fig. 3 为满足绝缘距离的安装间隔
/Mounting intervals required for satisfying the insulation distance

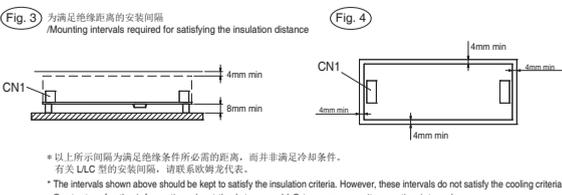


Fig. 5 安装孔位置 /Mounting hole position

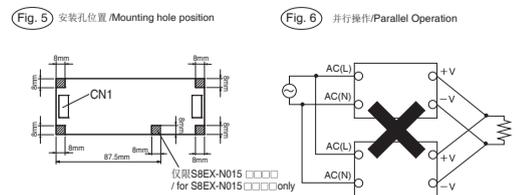
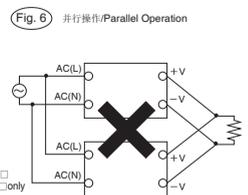


Fig. 6 并行操作/Parallel Operation



• 以上所示间隔为满足绝缘条件所必需的距离，而非满足冷却条件。
有关L-LC型的安装间隔，请联系欧姆龙代表。
• The intervals shown above should be kept to satisfy the insulation criteria. However, these intervals do not satisfy the cooling criteria.
Contact us for the information about the L-type and LC-type power unit mounting intervals.

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