

**OMRON**

型号 **S8VS(15/30W)**

开关电源  
使用说明书

欢迎您购买S8VS-015□□/030□□  
该使用说明书描述了使用S8VS-015□□/030□□时所需要的功能、性能、使用  
方法等内容。  
使用S8VS-015□□/030□□时,请遵守以下要求。  
• 请向S8VS-015□□/030□□的操作者具备一定电气知识的技术员。  
• 请仔细阅读该使用说明书,在充分理解的基础上正确使用。  
请妥善保管该使用说明书,以备随时参阅。

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**Fig.1** 各部分名称 / Nomenclature

S8VS-030 □□  
S8VS-015 □□

**Fig.2** 标准安装状态 / Standard mounting

**Fig.3** 向上安装状态 / Horizontal Mounting(face up)

**Fig.4** 水平安装状态 / Mounting facing horizontally

**Fig.5** 安装方法 / Mounting

S82Y-VS30P

标签的一侧 / Side with label

### 正确使用的要点

**■ 安装**

**■ 安装方向**

标准安装	(Fig.2)	有效
向上安装	(Fig.3)	有效
水平安装	(Fig.4)	有效
其他安装		无效

注意:

- 当产品水平安装时使用安装支架 (S82Y-VS30P; 另售)。
- 散热将受反向影响。当水平安装产品时,总是将标签的一侧朝上。

**■ 安装环境**

为提高产品的长期可靠性,安装时请特别注意散热。  
该产品为自然对流散热,安装时需确保电源单元周围对流良好。

- \* 1 空气对流
- \* 2 75 (mm) 以上
- \* 3 75 (mm) 以上
- \* 4 20 (mm) 以上

**■ 安装孔加工尺寸**  
(使用安装支架时)

**■ 选择输入电压**

额定电压:  
100~240 VAC (允许范围: 85-264 VAC, 80~370 VDC)

注意:  
EU 指令和各种安全标准 (UL、EN、其它) 的适用范围为 100~240 VAC (85-264 VAC)。

仅限于UL508, 额定电压为100-240VAC。

**■ 并联运行**

产品设计不适用于并联工作。如通过热耦合,内部零件有可能会损坏。

**■ 输出电压调整**

出厂设置: 设置为额定电压。  
调整范围: 利用前面的“V.ADJ”Ⓜ,在额定电压的 10%到 +15% 的范围内可以调整。  
右转输出电压上升,左转输出电压下降。

注意:

- 输出电压设为低于-10%时,欠电压报警功能可能运作。
- 通过[V.ADJ]Ⓜ,输出电压可能会超过电压可变范围(额定电压的+15%)。调整输出电压时需注意电源的输出电压,防止负载损坏。

**■ 电介质耐压实验**

耐压试验  
产品设计为电源单元的(全体输入①)和(全体输出③)间能承受3000VAC、1分钟。试验时将耐压试验机的检测电流设为20mA。

注意:

- 若通过试验机的开关直接施加或切断3000V,产生的脉冲电压可能损坏电源单元。应通过试验机缓慢施加电压。
- 为防止试验时输出端子损坏,务必将所有端子短路。

**■ 绝缘电阻试验**

使用DC绝缘电阻表(DCS500V)实施绝缘电阻试验。

注意:  
为防止试验时输出端子受损,务必将所有端子短路。

组装示意图 / Mounting Bracket Hole Dimensions

109.4±0.2

2-M3

**Fig.6**

并联操作 / Parallel Operation

**Fig.7**

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### 警告显示的含义

**△ 注意** 错误使用时,有发生轻伤,中等程度伤害或物质损害的危险。

**警告显示**

- 请勿分解、更改、修理产品或触摸产品内部。否则可能发生较小的电击、火灾或产品故障。
- 电源接通时或电源关闭时切勿触摸产品。否则可能发生轻度烫伤。
- 用指定扭矩(0.8~1.0 N·m)紧固端子螺丝。否则可能发生火灾。
- 电源接通时切勿触摸端子。接线后盖上端子盖。否则可能发生电击而造成轻度伤害。
- 切勿使金属片、导线或安装加工中的碎屑进入产品中。否则可能发生较小的电击、火灾或产品故障。
- 通电时,产品内部电压最大可达到370V。该电压在电源OFF后的30秒内残留。

### 安全要点

(1) 设置·储藏环境

- 储藏温度-25~+65°C、相对湿度25~90%的环境中。
- 内部零件可能会劣化或损坏。任何安装方向下,都请勿在超过工作温度范围的状态下使用本产品。
- 请在相对湿度为25~85%的场所使用。
- 使用时请避免阳光直射。
- 不要在液体、杂质或腐蚀性气体可能进入产品内部的场所内使用。
- 不要在振动、冲击剧烈的场所内使用。特别是在尽可能远离电流接触器或其他可能成为振动源的设备处安装开关电源。另外,请在产品两端安装端盖(PPF-M)。
- 请在远离任何高强度、高频噪音和浪涌处安装电源。

(2) 设置·配线

- 完全接地。使用了安全标准中规定的PE(保护接地),若未完全接地地可能发生电击或故障。
- 确保输入和输出端子正确连接,否则可能发生小型火灾。
- 为防止负荷异常引起配线材料冒烟·着火,请使用以下材料。  
推荐使用线径:

型号	多股线	实心线
S8VS-03005	AWG18 to 14 (0.9 to 2.0mm <sup>2</sup> )	AWG18 to 16 (0.9 to 1.1mm <sup>2</sup> )
其他型号	AWG20 to 14 (0.5 to 2.0mm <sup>2</sup> )	AWG20 to 16 (0.5 to 1.1mm <sup>2</sup> )

- 紧固端子时请不要施加100N以上的力。
- 通电前请务必拆除加工时盖在产品上的垫板,以确保散热良好。

(3) 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外力。
- 请确保在调整输出电压后,输出功率和输出电流不会超过额定值。

(4) 有关详情,请参阅产品目录。

### 使用时的承诺事项

用于以下用途时,在咨询本公司营业人员并确认规格书的同时,需采用以下安全对策。即在额定值·性能上留有余量或采用即使发生故障,也能将危险控制在最小的安全电路等

- 使用于户外、存在潜在化学污染或遭受电气干扰的环境中,及产品目录、使用说明书中没有说明的其他环境、条件下的使用
- 用于核能控制设备、焚烧设备、铁道、航空、车辆设备、医用机械、娱乐机械、安全装置、及需要满足行政机构、特殊行业规定的设备
- 可能对人身财产产生危险的系统·机械·装置
- 水、电、气供给系统、24小时连续运转系统等需要较高可靠性的设备
- 其他如a)-d)需要高度安全性的用途

\*以上为适用条件的一部分。使用前请仔细阅读本公司的综合目录·手册等最新版的目录。

**OMRON**

MODEL **S8VS(15/30W)**

SWITCHING POWER SUPPLY

EN INSTRUCTION MANUAL

Thank you for purchasing the S8VS-015□□/030□□. This Instruction Manual describes the functions, performance, and application methods required to use the S8VS-015□□/030□□.

- Make sure that a specialist with electric knowledge operates the S8VS-030□□/015□□.
- 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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### CAUTION

CAUTION: FOR USE IN A CONTROLLED ENVIRONMENT. REFER TO MANUAL FOR ENVIRONMENTAL CONDITIONS.

ATTENTION: POUR UTILISATION EN ATMOSPHERE CONTRÔLÉE. CONSULTER LA NOTICE TECHNIQUE.

### EN Precautions for Correct Use

**■ Mounting**

**■ Mounting Direction**

Standard Mounting (Fig.2)	Valid
Horizontal Mounting (Fig.3)	Valid
Mounting facing horizontally (Fig.4)	Valid
Others mounting	Invalid

Notes:

- Use a mounting bracket (S82Y-VS30P, sold separately) when the Product is mounted facing horizontally.
- Heat dissipation will be adversely affected. When the Product is mounted facing horizontally, always place the side with the label facing upward.

**■ Mounting Space**

Install the power supply so that the air flow circulates around the power supply, as the power supply is designed to radiate heat by means of natural air flow.

- \* 1 Direction of air circulation
- \* 2 75 (mm) or more
- \* 3 75 (mm) or more
- \* 4 20 (mm) or more

**■ Panel Mounting Holes**  
(When Using a Mounting Bracket)

**■ Selecting Input Voltage**  
Rating: 100 to 240 VAC (allowable range: 85 to 264 VAC, 80 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).  
For UL508 only, the rating is 100-240VAC.

**■ Parallel Operation**

The product is not designed for parallel operation. The internal parts may occasionally be broken due to excessive heat.

**■ Output Voltage Adjustment**  
Default Setting: Set at the rated voltage  
Adjustable Range: Adjustable with "V.ADJ"Ⓜ on the front surface of the product from -10% to +15% of the rated output voltage.  
Turning clockwise increases the output voltage, and turning counterclockwise decreases the output voltage.

Notes:

- If the output voltage is adjusted to less than -10% of the rated value by the V.ADJ adjuster, the undervoltage alarm indicator may operate.
- The output voltage may increase beyond the allowable voltage range when the operation is performed for "V.ADJ"Ⓜ. 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 20mA.

Notes:

- Sudden switching of 3000VAC may possibly cause a voltage surge, damaging the power supply. Increase/decrease test voltage gradually.
- When performing the test, be sure to short-circuit all the output terminals to protect them from damage.

**■ 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 power supply is automatically protected from short-circuit or overcurrent damage by the overload protection function. Overload protection is activated if the output current rises above 105% of the rated current. When the output current returns within the rated range, overload protection is automatically cleared.

Notes:

- If the power supply has been short-circuited or supplied with an overcurrent longer than 20 seconds, the internal parts of the power supply may occasionally be deteriorated or damaged.
- 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.

### 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. 若未能正確使用產品,危險時恐會造成輕度,中等程度或物質上的損害。

**Warning Symbols**

**△ CAUTION**

- 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.
- Fire may occasionally occur. Tighten terminal screws to the specified torque 7.1-8.8 in-lb (0.8-1.0 N·m).
- Minor injury due to electric shock may occasionally occur. Do not touch the terminals while power is being supplied. Always close the terminal cover after wiring.
- 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.
- Working voltage can be 370V max. inside. This voltage can be also available 30s after the switch off.

### EN Precautions for Safe Use

(1) Installing/Storage Environment

- Store the product with ambient temperature -25 to +65°C, and relative humidity 25 to 90%.
- The internal parts may occasionally be deteriorated or broken. Do not use in a state that exceeds the operating temperature range in each mounting orientation.
- Use the product where the relative humidity is 25 to 85%.
- Avoid places where the product is subjected to direct sun light.
- 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. Additionally, install a PPF-M End Plate on each end of the Product.
- 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.

(2) 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.
- Use the following material to the wire to be applied to the product for preventing from the occurrence of the smoking or ignition caused by the abnormal load.

Recommended Wire Type:

Model	Stranded wire	Solid wire
S8VS-03005	AWG18 to 14 (0.9 to 2.0mm <sup>2</sup> )	AWG18 to 16 (0.9 to 1.1mm <sup>2</sup> )
Other models	AWG20 to 14 (0.5 to 2.0mm <sup>2</sup> )	AWG20 to 16 (0.5 to 1.1mm <sup>2</sup> )

- Do not apply more than 100N force to the terminal block when tightening it.
- Be sure to remove the sheet covering the product for machining before power-on.

(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.
- See product catalogue for details.

### EN Suitability for Use

OMRON shall not be responsible for conformity with any standards, codes, or regulations that apply to the combination of the products in the customer's application or use of the product. Take all necessary steps to determine the suitability of the product for the systems, machines, and equipment with which it will be used. Know and observe all prohibitions of use applicable to this product. NEVER USE THE PRODUCTS FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM. See also Product catalog for Warranty and Limitation of Liability.

### EN Nomenclature

**Fig.1**

- Input terminal (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 terminal completely.)
- DC output terminal (-V), (+V)
- Output indicator (DC ON: green)
- Undervoltage Alarm Indicator (DC LOW: Red)
- Output voltage adjuster (V.ADJ)

### EN Safety standards

**Fig.1**

- DC output terminals (③) are galvanically isolated from the AC input terminals (①).
- Overvoltage category III.  
Climatic class: 3K3  
According to EN50178.  
This equipment is for protection class I.
- Overvoltage category II.  
According to UL62368-1 and EN62368-1.
- Surrounding Air Temperature according to UL508: 40°C  
Use in pollution degree2 environment.