

OMRON

## 型 S8FS-G 开关电源

## CHN 使用说明书

感谢您购买了S8FS-G的产品。  
此说明书内记载了S8FS-G使用时的功能、性能及使用方法。  
• 请由具备电气知识的人员来操作S8FS-G。  
• 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。

## 检验合格

检验员: 01

OMRON Corporation

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Fig. 1 各部位名称



S8FS-G150□□□

此图表示S8FS-G150□□□

## CHN 各部位名称

- ①和② 输入端子(L、N)  
(保险丝位于(L)侧。)  
③ 接地保护端子(Ⓧ)  
(此为安全规格所规定的接地保护端子。)  
④、⑤、⑥和⑦  
DC输出端子(-V、+V)  
⑧ 输出指示灯 (DC ON; 绿色)  
⑨ 输出电压调节按钮

Fig. 1

## CHN 安全规格

- ① 过电压 category II,  
符合GB4943-2011标准。  
② 在2级污染环境中使用。  
符合GB4943-2011标准。  
③ 符合GB4943-2011标准规定的环境气温。  
35°C (S8FS-G150□□□)  
④ S8FS-G150□□□系列电源可用于信息类产品。  
符合GB4943-2011标准。  
⑤ 仅适用于海拔2000米以下地区安全使用。  
符合GB4943-2011标准。



## 警告标识的含义



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。	
• 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产品本体。	
• 可能会引起燃烧。紧固端子螺丝至规定扭矩 (M3.5 螺丝: 6.55至10.00 lb-in (0.74至1.13 N·m), M4 螺丝: 9.56至11.68 lb-in (1.08至1.32 N·m))。	
• 可能会引起因触电所导致的轻伤。通电中严禁触摸端子, 配线后需关闭端子盖。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。	
• 可能会引起触电、起火或产品损坏。请不要使金属, 导线或安装加工时产生的粉尘进入本产品内。	

## CHN 安全注意

## (1) 安装和存储环境

- 请在环境温度为-25至75°C、湿度为90%或以下的条件下储藏本产品。  
为了提高产品的长期可靠性, 请采取足够措施以确保良好的散热。  
S8FS-G150□□□通过自然对流冷却。  
安装时要使其周围的空气利于对流。  
3. 内部零件可能偶尔会出现劣化或损坏。请勿在超过降额曲线范围的情况下使用本产品。  
4. 请参考产品目录, 了解各安装方向的衰减曲线。  
5. 请在湿度为90%或以下的条件下使用本产品。  
6. 请不要在日光直射的环境下使用本产品。  
7. 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。  
8. 避免冲击和振动。  
触电断路器装置可能会产生振动, 本产品应置于尽可能远离噪音源的地方以避免冲击或振动。  
9. 如果本产品在有较多电子噪音的环境下工作时, 请尽可能把本产品放置在远离噪音源的地方。  
10. 如果散热不利, 本产品内部元器件性能可能恶化或损坏, 所以请不要擅自拧松电源本体上的螺丝。

## (2) 安装和配线

- 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。  
2. 可能发生轻微的起火。请注意不要将输入输出端子误配线。  
3. 为防止因负载异常所引起的配线材料的冒烟、起火, 请使用下列配线材料。

端子	型号	推荐线材类型	扭矩
输入	S8FS-G150□□□	AWG12至16	6.55至10.00lb-in (0.74至1.13N·m)
输出	S8FS-G150□□□	AWG12至16	6.55至10.00lb-in (0.74至1.13N·m)
接地保护端子	S8FS-G150□□□	AWG12至14	6.55至10.00lb-in (0.74至1.13N·m)

- 注:  
1. 输出端子的各端额定电流如下所示。如果电流超过了端子的额定值, 请务必同时使用两个端子。  
S8FS-G150□□□: 20A  
2. 配线完成后, 端子的配线导线间及金属外壳部分, 请确保以下的空间距离和爬电距离。  
L、N、FG (Ⓧ) 端子中的2根配线导线间, L、N端子间及金属外壳部分: 6.4mm以上  
+V、-V、FG (Ⓧ) 端子中的2根配线导线间, +V、-V端子间及金属外壳部分: 3.2mm以上  
4. 紧固端子时, 请不要用150N以上的力去按压端子台, 避免端子台损坏。  
5. 为使散热顺畅, 通电前请取下加工时覆盖在产品上的薄膜。  
(3) 输出电压调整  
1. 输出电压调节按钮(V.ADJ)可能会被损坏。所以请勿施加不必要的外力。  
2. 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。  
(4) 请参考另附的使用说明书 (3114994-5) 以获取选配型号 (S8FS-G□□□□□□□E、S8FS-G□□□□□□□R和S8FS-G□□□□□□□W) 的详细说明。  
(5) 请参考产品目录以获取详细说明。

## 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场合。**  
详见产品规格书中保证及免责事项内容。

## CHN 使用注意

## ■ 安装

## 标准安装

## DIN导轨上的标准安装

S8FS-G□□□□□□□□□□

- 当安装机壳上的螺丝时, 螺丝在电源内侧突出不允许超过3mm。若您必须使用长于以上规定的螺丝, 请参考产品数据表。  
紧固安装螺丝时以下扭矩:  
M3螺丝: 0.48至0.59 N·m  
M4螺丝: 1.08至1.32 N·m  
• 强烈推荐使用金属板作为安装面板。

## ■ 输入电压公差

- 额定值: 100至240 VAC
- AC输入的主电源公差: -10至+10% (90至264 VAC)

## ■ 并联运行

此电源不能用于并联运行。  
若您尝试并联运行, 过热可能损坏内部元器件。  
并联运行适用于其他型号(S8FS-G60024□□-W)。

## ■ 输出电压调整

出厂时: 设定输出电压为额定电压。  
调整范围: 调节产品正面的“V.ADJ”⑨旋钮, 调节范围从额定输出电压的-10%到+15%。  
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:  
通过“V.ADJ”⑨的调节, 输出电压可能上升到电压可变范围+15%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。

## ■ 耐压电压实验

- 额定耐压电压:  
3,000VAC <所有输入端子①②>和<所有输出端子③④⑤⑥⑦>之间持续1分钟。  
实验时, 短接所有输出端子以避免电压受损。

注:  
1. 如果使用测试开关突然应用或者切断3,000 V的电压, 产生的冲击电压可能会损坏产品。  
2. 实验时, 短接所有输出端子以避免电压受损。

## ■ 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电压受损。

## ■ 过载保护

过载保护功能可以自动保护负载和产品免受电流的损害。当电流回到额定范围之内时, 产品将会自动回归到正常运行。  
注:  
1. 请不要在运行期间持续短路、过载或者提高负载状态, 内部元器件可能恶化或损坏。  
2. 请不要在浪涌电流或负载端过载频繁发生的情况下使用该产品, 内部元器件可能恶化或损坏。请不要在这种情况下使用本产品。

## ■ 过电压保护

本产品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的120%以上, 过电压保护开始工作。若要让产品复位, 请关闭产品并等待至少3分钟, 然后再打开产品。  
注:  
在重新开启之前, 请确保引起过电压的原因已被排除。

## ■ 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。  
若在80%或以上的额定负载上使用S8FS-G150□□□□□□□□□□, 则不满足谐波标准。  
在80%或以上的额定负载下运行产品时, 请不要将产品与公共电源连接。

S8FS-G150□□□

Fig. 2 标准安装

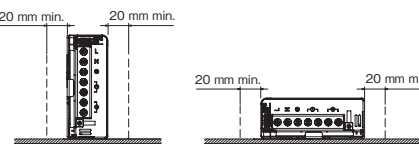
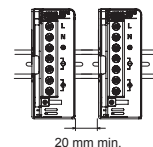


Fig. 3 标准安装 (DIN导轨)



## CHN 联系方式

## ■ 制造单位

欧姆龙(上海)有限公司  
地址: 中国 (上海) 自由贸易试验区金吉路 789 号  
邮编: 201206

## ■ 联系方式

台湾欧姆龙股份有限公司 (台北)  
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台湾欧姆龙股份有限公司桃园营业所  
电 话: 886-3-3554463  
台湾欧姆龙股份有限公司台中营业所  
电 话: 886-4-23250834

欧姆龙亚洲有限公司 (香港)  
电 话: 852-23753827  
台湾欧姆龙股份有限公司  
台南营业所  
电 话: 886-6-2903797

## ■ 技术咨询

800免费技术咨询电话: 800-820-4535 (仅限于中国大陆)  
网 址: <http://www.fa.omron.com.cn>

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OMRON Electronics Korea Co., Ltd.  
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**OMRON**

# MODEL S8FS-G SWITCHING POWER SUPPLY

## EN INSTRUCTION MANUAL

Thank you for purchasing the S8FS-G. This Instruction Manual describes the functions, performance, and application methods required to use the S8FS-G.

- Make sure that a specialist with electric knowledge operates the S8FS-G.
- 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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## EN 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

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.	
• Minor fires may occasionally occur. Tighten terminal screws to the specified torque (M3.5 screws: 6.55 to 10.00 lb-in (0.74 to 1.13 N·m), M4 screws: 9.56 to 11.68 lb-in (1.08 to 1.32 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. Working voltage can be 370 V max. inside. 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

- (1) Installation and Storage Environment
1. Store the Product at a temperature of -25 to 75°C and a humidity of 90% or less.
  2. Take adequate measures to ensure proper heat dissipation to increase the long-term reliability of the Product.
    - The S8FS-G150□□□ are cooled by natural convection. Mount them so that air convection will occur around them.
  3. The internal parts may occasionally deteriorate or be damaged. Do not use the Product beyond the derating curve range.
  4. Refer to the Product catalog for the derating curve for each mounting direction.
  5. Use the Product at a humidity of 90% or less.
  6. Avoid places where the Product is subjected to direct sunlight.
  7. Avoid places where the Product is subjected to penetration of liquid, foreign substance, or corrosive gas.
  8. Avoid places subject to shock or vibration.
    - A device such as a contact breaker may be vibration source. Set the Power Supply as far as possible from possible sources of shock or vibration.
  9. 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.
  10. The internal parts may occasionally deteriorate and be broken due to adverse heat radiation. Do not loosen the screws on the Power Supply.
- (2) Installation and Wiring
1. 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.
  2. The light ignition may possibly be caused. Ensure that input and output terminals are wired correctly.
  3. Use the following wiring material to prevent smoking or ignition of wiring material caused by abnormal loads.

Terminal	Model	Recommended wire type	Torque
Input	S8FS-G150□□□	AWG12 to 16	6.55 to 10.00 lb-in (0.74 to 1.13 N·m)
Output	S8FS-G150□□□	AWG12 to 16	6.55 to 10.00 lb-in (0.74 to 1.13 N·m)
Protective earthing terminal	S8FS-G150□□□	AWG12 to 14	6.55 to 10.00 lb-in (0.74 to 1.13 N·m)

- Notes:
1. The current rating per terminal of the output terminals is shown below. If the current exceeds the rating on a terminal, always use two terminals simultaneously.
    - S8FS-G150□□□: 20 A
  2. After completing the wiring, create the following clearance and creepage distance between the terminal wires and metal case.
    - Between any two of wires connected to the L, N and FG (⊕) terminals and between wires connected to L, N terminals and the metal case: 6.4mm min.
    - Between any two of wires connected to the +V, -V and FG (⊕) terminals and between wires connected to +V, -V terminals and the metal case: 3.2mm min.
  4. Do not apply more than 150 N force to the terminal block when tightening it to avoid the terminal block damaged.
  5. Be sure to remove the sheet covering the product for machining before power-on.
- (3) Output Voltage Adjustment
1. The output voltage adjuster (V.ADJ) may possibly be damaged. Do not add unnecessary power.
  2. Do not exceed the rated output capacity and current after adjusting the output voltage.
- (4) Refer to the other Instructions Manual (3114994-5) for details on the optional models (S8FS-G□□□□□E, S8FS-G□□□□□R, and S8FS-G□□□□□W).
- (5) Refer to the product datasheet for details.

## EN Suitability for Use

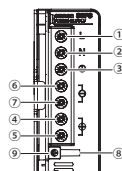
Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron will provide applicable third party certification documents identifying ratings and 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.

## EN Precautions for Correct Use

- Mounting
  - Standard mounting Standard Mounting on DIN Rail
- When the screw holes provided on the chassis are used, the screws must not protrude more than 3 mm inside the Power Supply. If you must use screws that are longer than given above, refer to the product datasheet.
  - Tighten the mounting screws to the following torque:
    - M3 screws: 0.48 to 0.59 N·m
    - M4 screws: 1.08 to 1.32 N·m
  - Metal plate is strongly recommended as the mounting panel.
- Input Voltage Tolerance
  - Rating: 100 to 240 VAC
  - Mains supply tolerance for AC input: -10 to +10% (90 to 264 VAC)
- Parallel Operation
  - This Power Supply is not designed for parallel operation. If you attempt parallel operation, overheating may damage internal parts.
  - Parallel operation is possible with the optional models (S8FS-G6002□-W).
- 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.
- Note:
  - The output voltage may increase beyond the voltage adjustment range +15% or more when the V.ADJ adjuster is used. 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: 3,000 VAC between < input terminals ① ② together > and < output terminals ④ ⑤ ⑥ ⑦ together > for 1 minute. When testing, set the cutoff current for the withstand voltage test device to 20 mA.
- Notes:
  1. If a tester switch is used to apply or cut off 3,000 V suddenly, the resulting impulse voltage may occasionally damage the Product.
  2. 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 500 VDC.
- 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 Product are automatically protected from overcurrent damage by the overload protection function. When the current returns to within the rated range, the Product will automatically return to normal operation.
- Notes:
  1. Internal parts may possibly deteriorate or be damaged if a short-circuited, overload, or boost load state continues during operation.
  2. Internal parts may possibly deteriorate or be damaged if the Product is used for applications with frequent inrush current or overloading at the load end. Do not use the Product for such applications.
- Overvoltage Protection
  - This Product 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 Product, leave the Product 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 Product.
- Conformance to EU Directives
  - Refer to the catalogue and this instruction manual for details on the operating condition for EMC-compliance.
  - If you use the S8FS-G150□□□ at 80% or more of the rated load, the harmonics standard will not be met. Do not connect the Product to a public power source when you operate it at 80% or more of the rated load.

Fig. 1 Nomenclature



S8FS-G150□□□

This diagram show the S8FS-G150□□□

## EN Nomenclature

- ① and ② Input terminals (L, N)  
(The fuse is located on the (L) side.)
- ③ Protective earthing terminal (⊕)  
(This is the protective earthing terminal specified in the safety standards. Always ground this terminal.)
- ④, ⑤, ⑥ and ⑦ DC output terminals (-V), (+V)
- ⑧ Output indicator (DC ON: green)
- ⑨ Output voltage adjuster

Fig. 1

## EN Safety standards

- ① Overvoltage category II.  
: Complies with GB4943-2011.
- ② Use in pollution degree2 environment.  
: Complies with GB4943-2011.
- ③ Conformance to GB4943.1-2011 standards for ambient temperature.  
35°C (S8FS-G150□□□)
- ④ (S8FS-G150□□□) series power supply could be used in information technology products.  
: Complies with GB4943-2011.
- ⑤ Only for safe use below 2000 meters altitude.  
: Complies with GB4943-2011.



S8FS-G150□□□

Fig. 2 Standard mounting

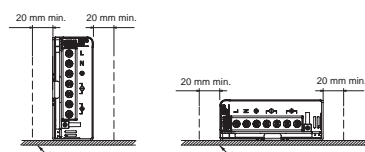
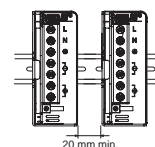


Fig. 3 Standard mounting (DIN rail)



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