1651889-6B

OMRON

型 S8JX 开关电源

CHN 使用说明书

感谢您购买了S8JX产品。
此说明书内记载了S8JX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S8JX。
•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。

OMRON Corporation

警告标识的含义

⚠注意	若操作不当的话有可能发生轻中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电源本体。	
• 可能会引起燃烧。请在规定扭矩(1.13N•m)下紧固端子螺丝。	
• 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。	
• 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本产品内。	
• 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。	

CHN 安全注意

(1) 安装/存储环境
1. 请在环境温度为–25～+65℃，相对湿度为25～90%的条件下储藏本产品。
2. 由于安装状态不同出现的散热不良会导致内部元器件性能恶化或损坏。请不要在非标准安装状态下使用本产品。 Fig.2
3. 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。
4. 请在相对湿度25～85%的场所内使用本产品。
5. 请不要在日光直射的环境下使用本产品。
6. 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。
7. 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。
8. 如果本产品在具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。
9. 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) 设置/配线
1. 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。

型号	推荐使用线径	扭矩
S8JX-□30024□□	AWG12 to 14(横截面积 2.081 to 3.309mm²)	10 in.lb.(1.13N•m)
S8JX-□60024□		

•每个输出端子的额定电流为20A。如果电流超过端子的额定值时，请确保同时使用两个端子。
•请使用60 ℃以上, 或60/75 ℃的线材。
•请使用导体部分为铜线的线材。
4. 紧固端子时，请不要用75N以上的力去按压端子台。
5. 为使散热通畅，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. 输出电压调节旋钮(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。

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场合。
详见产品规格书中保证及免责事项内容。

OMRON

MODEL S8JX SWITCHING POWER SUPPLY

EN INSTRUCTION MANUAL

Thank you for purchasing the S8JX.
This Instruction Manual describes the functions, performance, and application methods required to use the S8JX.
• Make sure that a specialist with electric knowledge operates the S8JX.
• 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

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 a torque of 10 in. lb. (1.13 N•m) so that they do not become loose.	
• 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
1. Store the product with ambient temperature –25 to +65°C, and relative humidity 25 to 90%.
2. The internal parts may occasionally deteriorate and be broken due to adverse heat radiation depending on the mounting status. Fig.2
Do not use the product in any way other than the standard mounting.
3. The internal parts may occasionally be deteriorated or broken. Do not use the product in the condition over the operation ambient temperature range.
4. Use the product where the relative humidity is 25 to 85%.
5. Avoid places where the product is subjected to direct sunlight.
6. Avoid places where the product is subjected to penetration of liquid, foreign substance, or corrosive gas.
7. 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.
8. 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.
9. The internal parts may occasionally deteriorate and be broken due to adverse heat radiation.Do not loosen the screws on the Power Supply.

(2) Arrangement/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 meterial to prevent smoking or ignition of wiring material caused by abnormal loads.
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.

Model	Recommended Wire Type	Torque
S8JX-□30024□□	AWG12 to 14(Cross section 2.081 to 3.309mm²)	10 in.lb.(1.13N•m)
S8JX-□60024□		

• The current rating for the output terminal is 20A per terminal. Make sure to use two terminals together if a current exceeding the terminal rating is used.
• Use min.60°C or 60/75°C wire.
• Use copper conductors only.

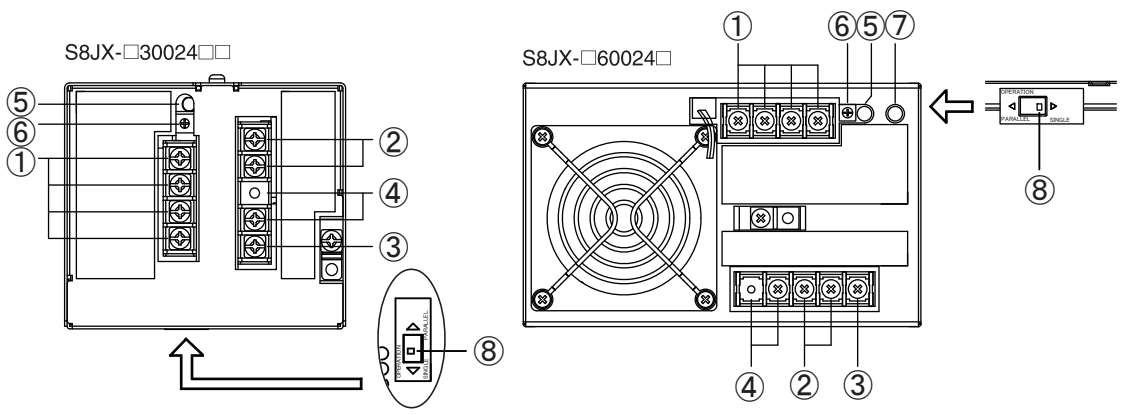
4. Do not apply more than 75 N force to the terminal block when tightening it.
5. Be sure to remove the sheet covering the product for machining before power-on.

(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.

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.

Fig. 1 各部位名称/Nomenclature



CHN 各部位名称

① DC输出端子(–V)，(+V) Fig.1
② AC输入端子
(保险丝位于(L)侧。)
③ 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。)
④ 电压选择端子
短路：100 - 120VAC
开路：200 - 240VAC
⑤ 输出指示灯(DC ON ：绿色)
⑥ 输出电压调节旋钮
⑦ 保护回路动作指示灯(红色)
⑧ 并联运行开关

EN Nomenclature

①DC output terminal (–V), (+V) Fig.1
②AC input terminal
(The fuse is located on the (L) side.)
③Protective earthing terminal (⏚)
(A protective earthing terminal stipulated in safety standards is used. Connect the ground completely.)
④Voltage select terminals
Short-circuit : 100 - 120VAC
Open-circuit : 200 - 240VAC
⑤Output indicator (DC ON: green)
⑥Output voltage adjuster
⑦Protect function On indicator(Red)
⑧Switch for parallel operation

CHN 安全规格

1. DC输出端子(①)与AC输入端子(②)是相互电气绝缘的。 Fig.1
2. 过电压 category III。
3. 这个设备为防护等级1。
4. 气候等级： 3K3
按照EN50178(=VDE0160) 。
过电压category II。
根据UL60950-1 和 EN60950-1。
CSA Level 5。
针对UL508而言，周围温度(Surrounding Air Temperature)是40℃。

EN Safety standards

1.DC output terminals (①) are galvanically isolated from the AC input terminals (②). Fig.1
2.Overvoltage category III.
3.This equipment is for protection class 1.
4.Climatic class: 3K3
:According to EN50178(=VDE0160).
Overvoltage category II.
: According to UL60950-1 and EN60950-1.
CSA Level 5
Surrounding Air Temperature according to UL508:40 °C

CHN 使用注意

■ 安装
标准安装 Fig.2
侧面安装（侧面） Fig.3
•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。
• S8JX-□30024□□采用空气自然对流散热方式，安装时请使电源周围的空气利于对流。
• S8JX-□60024□采用强制风冷的散热方式。为了能得到足够的风冷效果，请不要堵住通风口（风扇的装配面和反面）。
• 当安装机壳上的螺丝时，螺丝在电源内侧突出不允许超过8mm。
安装螺丝的扭矩（推荐值）：0.54 N•m。
•强烈推荐金属板作为安装面板。
•背面安装可以使用提供的安装支架。

■ 衰减曲线
衰减曲线请参考S8JX产品目录。

■ 输入电压选择 Fig.4
出厂设置为200~240VAC。可以通过使用短路片短接输入电压选择端子，来选择100~120VAC电压。
短路：100~120VAC (85～132VAC)
开路：200~240VAC (170～264VAC)

■ 并联运行 Fig.1 Fig.5
在额定负载的80%以下能进行并联运行。
注：
1.要进行并联运行时，请将开关⑧拨到“PARALLEL”侧。
2.连接负载的每根导线的长度和粗细必须相同，这样在每台电源的输出端子与负载间就不会有不同的电压降。
3.尽可能将每台电源的电压调节旋钮"V.ADJ" ⑥设定为相同的值。

■ 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" ⑥ 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：
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" ⑥ 的调节，输出电压可能上升到电压可变范围(额定电压的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。

■ 耐电压实验
额定耐电压：
3000VAC于<所有输入端子(②)和<所有输出端子 (①)>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25mA。
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。

■ 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
该功能可以自动保护负载和电源免受过电流的损害。如果负载超过额定值的105%，过载保护开始工作。当过载状态解除时，过载保护自动取消。
对S8JX-□60024□，当过载状态持续5秒以上时，电源输出切断，同时保护回路动作指示灯会亮起。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，然后重新开启电源。
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产品。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过电压的损害。
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，同时保护回路动作指示灯会亮起。（仅S8JX-□60024□有指示灯）
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。

■ 过热保护（仅S8JX-□60024□）
由于风扇停止或其他原因使电源内部温度上升时，过热保护回路能自动保护电源内部元器件免受损害。同时保护回路动作指示灯会亮起。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，然后重新开启电源。

■ 如果没有输出电压
导致无输出电压的原因可能是处于过载或过电压保护状态，或是闩锁保护功能状态。当在输入上施加诸如雷击等很大的浪涌电压时，闩锁保护功能可能投入工作
如果电源没有输出，请在与敝公司联系之前先检查以下2点：
• 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，看上述状态是否已被消除。
• 为了消除过电压或闩锁保护功能：
关闭电源，放置3分钟以上，然后再开启电源，看上述状态是否已被消除。

■ 符合EC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。
警告：本产品等级为Class A。在居住，商业或轻工业环境下可能发生无线干扰。因为本产品并没有设计为在居住以及商业，轻工业环境下与商用电源连接，所以请使用者采取足够措施来降低干扰。

EN Precautions for Correct Use

■ Mounting
Standard mounting Fig.2
Side mounting(Side) Fig.3
• 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.
• Install the S8JX-□30024□□so that the air-flow circulates around it, as it is designed to radiate heat by means of natural air-flow.
• The S8JX□60024□is designed to radiate heat by means of forced air-flow designed to radiate heat by means of natural air-flow. Do not cover the air holes (provided at fan mounted side and the opposite side) to have enough air-cooling.
• The screws must not protrude more than 8mm inside the Power Supply when screw holes provided on the chassis are used. Mounting screw tightening torque screw holes (recommended value):0.54 N•m
• Metal plate is strongly recommended as the mounting panel.
• Rear mounting is possible using provided mounting bracket.

■ Derating Curve
For Derating Curve, refer to the S8JX Catalog.

■ Selecting Input Voltage Fig.4
The factory-set is 200 VAC.Short the input voltage selector terminals with a short bar to select 100 VAC.
Short-circuit : 100~120 VAC (85 to 132 VAC)
Open-circuit : 200~240 VAC (170 to 264 VAC)

■ Parallel Operation Fig.1 Fig.5
Parallel operation is possible under 80% of the rated value.
Notes
1.To operate in parallel, set the switch ⑧ to the “PARALLEL” side.
2.The length and thickness of each wire connected to the load must be the same so that there is no difference in voltage drop value between the load and the output terminals of each Power Supply.
3. It is desirable to set the same value on the voltage adjuster of each Power Supply.

■ Output Voltage Adjustment
Default Setting: Set at the rated voltage.
Adjustable Range: Adjustable with "V.ADJ" ⑥ 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:
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"⑥ . 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 ② together > and <output terminals ① together> for 1 minute. When testing, set the cutoff current for the withstand voltage test device to 25mA.
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.

■ 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 this 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.
For the S8JX-□60024□ , output is shut off when overload condition is continued for 5 seconds or more, and simultaneously protect function ON indictor lights. If this occurs, to reset the Power Supply, turn it off for 3 minutes min., and then turn it on again.
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. Simultaneously, protect function ON indicator lights.(Only for S8JX-□60024□)
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.

■ Overheat Protection (S8JX-□60024□ only)
Overheat protection circuit is activated to protect the internal elements from possible damage when the temperature inside the Power Supply rises due to the stopped fan or other factors. Simultaneously, protect function ON indicator lights. To reset the Power Supply, turn it off for 3 minutes min., and then turn it on again.

■ 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 lightening 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 EC Directives
Refer to the catalogue and this instruction manual for details on the operating condition for EMC-compliance.
Warning: This is a class A product. In a residential, commercial or light industrial environment it may cause radio interference.This product is not intended to be installed in a residential environment; in a commercial and light industrial environment with connection to the public mains supply,the user may be required to take adequate measures to reduce interference.

标准安装/Standard Mounting

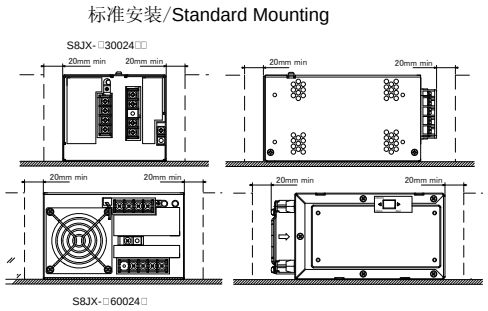


Fig. 2

标准安装(侧面)/Standard Mounting (Side)

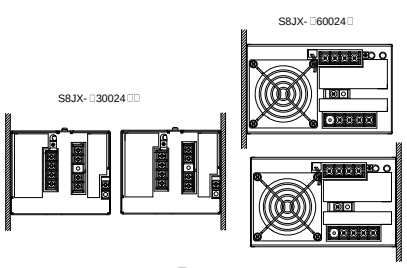


Fig. 3

输入电压选择/Selecting Input Voltage

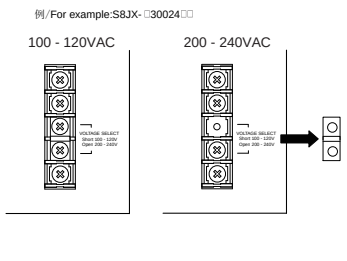


Fig. 4

并联运行/Parallel Operation

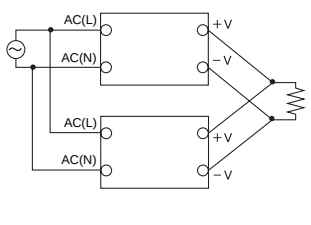


Fig. 5

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