

型 S8TS 开关电源

CHN 连接说明书

感谢您购买了S8TS。
此说明书内记载了S8TS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S8TS。
• 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。
连接使用时，请务必结合「使用说明书」阅读。

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CHN 安全注意

- 安装环境**
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。并且，请将连接器盖（型PPP-M）安装到本体的两端。
 - 配线**
为避免因负荷异常所引起的配线材料冒烟，着火，请使用下表的线材。
推荐使用线径：
- | 型号 | 推荐线径 |
|----------------------------|--|
| S8TS-06024
S8TS-03012 | 两台并联
AWG14 - 18 (横截面积0.823 ~ 2.081mm ²) |
| | 三台并联
AWG14 - 16 (横截面积1.309 ~ 2.081mm ²) |
| | 四台并联
AWG14 (横截面积2.081mm ²) |
| S8TS-06024F
S8TS-03012F | 两台并联
AWG12 - 18 (横截面积0.823 ~ 3.309mm ²) |
| | 三台并联
AWG12 - 16 (横截面积1.309 ~ 3.309mm ²) |
| | 四台并联
AWG12 - 14 (横截面积2.081 ~ 3.309mm ²) |
- 总线连接器的安装使用**
请不要让总线连接器受到诸如掉落等强烈的冲击。
 - 多台连接后，请不要调整输出电压。否则输出电压可能不稳定。**
 - 详细内容请参考商品目录。**

MODEL S8TS SWITCHING POWER SUPPLY

EN Notice in relation to the Multi-Connect

Thank you for purchasing the S8TS.
This Instruction Manual describes the functions, performance, and application methods required to use the S8TS.
• Make sure that a specialist with electric knowledge operates the S8TS.
• 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.
When using the multi-connecting type, read the "INSTRUCTION MANUAL" for single type together without fail.

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EN Precautions for Safe Use

- Installing Environment**
Avoid places subject to shock or vibration. Particularly, since a device such as a conductor may become the vibration source, set the Power Supply as far as possible from the vibration source. Besides, install the end plate (PPP-M model) to both ends of the power supply.
 - Wiring**
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 | Recommended Wire Type |
|----------------------------|---|
| S8TS-06024
S8TS-03012 | For two parallel-connected units
AWG14 to 18 (Cross-sectional Area 0.823 to 2.081mm ²) |
| | For three parallel-connected units
AWG14 to 16 (Cross-sectional Area 1.309 to 2.081mm ²) |
| | For four parallel-connected units
AWG14 (Cross-sectional Area 2.081mm ²) |
| S8TS-06024F
S8TS-03012F | For two parallel-connected units
AWG12 to 18 (Cross-sectional Area 0.823 to 3.309mm ²) |
| | For three parallel-connected units
AWG12 to 16 (Cross-sectional Area 1.309 to 3.309mm ²) |
| | For four parallel-connected units
AWG12 to 14 (Cross-sectional Area 2.081 to 3.309mm ²) |
- Handling of Bus Line Connector**
Do not give too strong shock to the Bus line connector such as dropping off.
 - Do not adjust the voltage after multi-connecting the unit. Failure to do so could cause the instability to the output voltage.**
 - See product catalogue for details.**

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

警告标识	含义
!	可能会引起触电、起火或产品损坏。当连接多台电源的时候，请将滑块和导轨固定锁紧上。
!	当连接多台电源时，只能在一台电源上进行输入配线。配线错误时，内部的输入会发生短路，本体发生破损。
⚠	通电状态时请勿连结、分解电源。有触电的危险。
⚠	有触电的危险。请不要拆除连接器端子盖，除非是使用总线连接器。

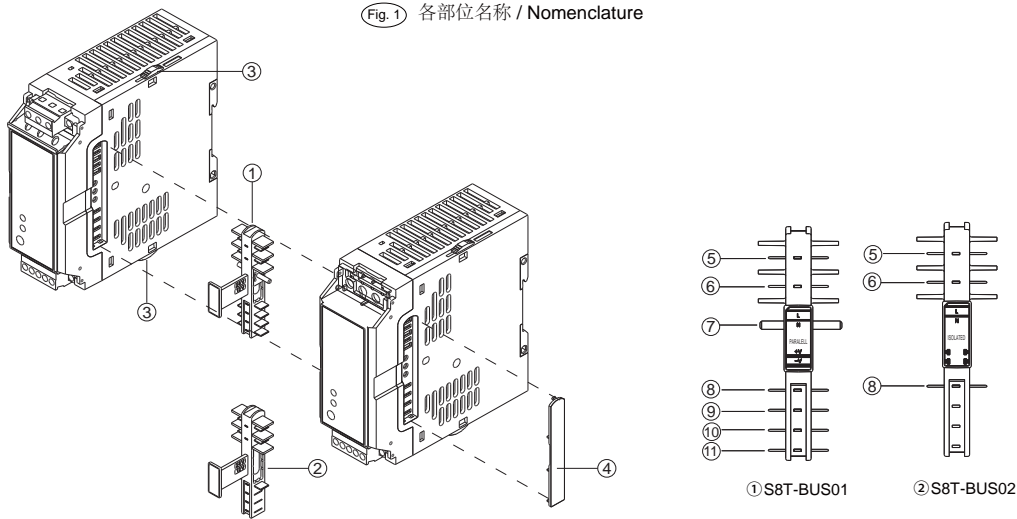
Key to Warning Symbols

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

Warning Symbols

警告标识	含义
!	Minor electric shock, fire, or Product failure may occasionally occur. When connecting multiple power supply units, lock the sliders and the rail stopper.
!	When connecting multiple power supply units, wire the input line for only one power supply unit. Mis-wiring the input line could cause the shortage of the input at the inside of the unit, and also could cause the breakage of the main unit.
⚠	Do not connect or separate the power supply unit during power-on. Electric shock may be caused.
⚠	Do not remove any connector cover unless using bus line connectors. Electric shock may be caused.

Fig. 1 各部位名称 / Nomenclature



CHN 各部位名称

- 总线连接器 (DC线连接型) (S8T-BUS01)
- 总线连接器 (DC线不连接型) (S8T-BUS02)
- 滑块
- 连接器盖
- AC输入 (L) 总线连接器端子
- AC输入 (N) 总线连接器端子
- 选择器
- 接地 (GND) 总线连接器端子
- 并行运行信号总线连接器端子
- DC输出 (+V) 总线连接器端子
- DC输出 (-V) 总线连接器端子

EN Nomenclature

- Bus Line Connector (DC Line Connecting type) (S8T-BUS01)
- Bus Line Connector (DC Line Non-connecting type) (S8T-BUS02)
- Slider
- Connector Cover
- AC Input(L) Bus Line Connector Terminal
- AC Input(N) Bus Line Connector Terminal
- Selector
- Ground(GND) Bus Line Connector Terminal
- Bus Line Connector Terminal for Parallel Operation Signal
- DC Output(+V) Bus Line Connector Terminal
- DC Output(-V) Bus Line Connector Terminal

CHN 安全规格

- DC输出端子与AC输入端子是相互电气绝缘的。
- 过电压 category III。
- 产品防护等级 I。
- 气候等级: 3K3
:按照EN62477-1。
针对UL508 Listing而言, 周围温度 (Surrounding Air Temperature) 是40°C。

EN Safety standards

- DC output terminals are galvanically separated from the AC input terminals.
- Overvoltage category III.
- This equipment is for protection class 1.
- Climatic class: 3K3
:According to EN62477-1.
Surrounding Air Temperature according to UL508 Listing : 40°C.

CHN 使用注意

- 连接台数**
扩大输出容量时

型号	最大连接台数	N+1冗余运行
S8TS-06024□	4台	注1 可以 注2
S8TS-03012□	4台	注1 可以 注2
S8TS-02505□	不可多台连接	不可

注:
1. N台多个连接时的额定输出电流是一个单位电流乘以N的额定输出 (4台多个连接时为10A)。N+1冗余运行时可以连接5台。但是, 即使连接5台也请在输出电流9A以下时使用。
2. N+1冗余运行时, 请在负荷率90%以下时使用。

- 多重输出时**
当连接不同输出电压规格的电源时, 最大连接台数是4台。
- 总线连接器**
• 拆下总线连接器时, 请将一字螺丝刀插入总线连接器的两端来拆除。
• 总线连接器的选择
并联运行时: S8T-BUS01
(DC线连接型) (Fig. 2)
为了防止不同输出电压规格的电源发生错误连接 (对S8T-BUS01而言), 请准备选择器。将选择器滑动到输出电压并联运行状态的位置。
非并联运行时: S8T-BUS02
(DC线不连接型) (Fig. 3)
- 耐压试验**
请将台连接时的关断电流设定为“20mA×N”。
其它详细内容请参考说明书。
- 漏电流**
每台电源的漏电流为0.35 / 0.70mA (100 / 240VAC) 以下。当N台连接时, 漏电流是单台时候的N倍。
- 并联运行输出电压调整**
出货时会调整到额定输出电压, 当调整输出电压时, 在连接电源之前, 请通过调节每台电源的输出电压调节器 (V. ADJ.) 来调节输出电压。请将各个输出电压的偏差控制在下列表格的数值之内。

型号	输出电压偏差
S8TS-06024□	最大0.24V
S8TS-03012□	最大0.12V

- Class2电源**
当在并联运行状态时, 因为不满足Class2的要求, 所以要注意。
- 符合IE指令**
为符合EMC指令的使用条件, 请参考商品目录和本说明书。
- 安装**
请将各连接模块之间的距离保持在10mm以上。
* 1 空气的对流方向
* 2 75 (mm) 以上
* 3 75 (mm) 以上
* 4 10 (mm) 以上
- 配线**
请将各连接模块之间的距离保持在10mm以上。
• 与接地端子 (GND) 的配线
当电源连接起来使用时, 只需要1台电源实施接地配线, 不要把全部的电源都接地。
• 当在7.5A以上的输出电流下使用连接器端子型 (S8TS-□□□□□□□□) 时, 请使用所有的四个DC输出端子进行DC输出配线。
• 请不要在各模块之间或模块对其他机器之间交叉配线。

EN Precautions for Correct Use

- Number of Multiple connecting Power Supply Units**
In the case of raising the output capacity

Model	Max. Multi-connectable Units	N+1 Redundant Operation
S8TS-06024□	4units	Note 1 Valid Note 2
S8TS-03012□	4units	Note 1 Valid Note 2
S8TS-02505□	Invalid/multiple connect	Invalid

Notes:
1. The rated output current when N units are multiple-connected is the rated output current of one unit multiplied by N (10 A when 4 units are multiple-connected). Up to 5 units are possible to be multiple connected for N+1 redundant operation. Note that the output current should not exceed 9A even when 5 units are multiple connected.
2. During N+1 redundancy operation, use at a load rate of 90% or less.
In the case of applying multi-output
Up to 4 units are possible to be multi-connected for the units when using the product connecting the power supply units with different output voltage is connected the different output voltage.
- Bus Line Connector**
- Removing Bus Line Connector (Fig. 3)
Insert the flat screw driver to both ends of the bus line connector alternately, and remove the bus line connector.
- Selecting Bus Line Connector
For Parallel Operation: S8T-BUS01 (DC Line Connecting Type) (Fig. 2)
Prepare the selector for preventing the mis-connection of the power supply unit with different output voltage (for S8T-BUS01). Slide the selector to the position of the output voltage to be performed the parallel operation. (Fig. 6)
For Other Operation (Except Parallel Operation): S8T-BUS02 (DC Line Non-connecting Type) (Fig. 3)
- Notes:**
Use the product keeping the following two notes. Insufficient contact could cause the deterioration of the electrical performance.
1. The frequency of the connector insertion and extraction of the bus line connector is under 20 times.
2. Do not touch the terminal of the bus line connector.
- Mounting**
Leave a space of 10 mm or more between connecting blocks.
* 1 Direction of air circulation
* 2 75 (mm) or more
* 3 75 (mm) or more
* 4 10 (mm) or more
- Wiring**
- Wiring to the ground terminal (GND)
When power supply units are connected, install the earth cable to only one power supply unit. It is not required to wire to all the power supply units.
- Output Current**
The inrush current for one power supply unit is under 17.5/35A (100/200VAC). If multi-connected N times units, the inrush current is N times the inrush current supplied for one unit. Especially, check the pre-arcing time-current characteristics for the fuse and operating time-current characteristics for the breaker sufficiently for not generating the pre-arcing time-current of the external fuse or tripping of the breaker caused by the inrush current.
- Dielectric Strength Test**
Set the cutoff current for the product multi-connecting with N times units at "20mA × N". Refer to the operation manual for the detail of the other pattern.
- Leakage Current**
The allowable leakage current per one power supply unit is under 0.35/0.70mA (100/240VAC). If multi-connected N times units, the allowable leakage current is N times the leakage current allowed for one unit.
- Output Voltage Adjustment for Parallel Operation**
The output voltage is adjusted to the rated one before shipment. To adjust the output voltage, connect power supply units after adjusting the output voltage using each output voltage adjusting trimmer (V. ADJ.). Make the fluctuation of each output voltage below values in the following table.

Model	Fluctuation of the output voltage
S8TS-06024□	Max. 0.24V
S8TS-03012□	Max. 0.12V

- Class2 Power Supply**
Be sure that the Class2 requirements cannot be satisfied during the parallel operation.
- Conformance to EU Directives**
Refer to the catalogue and this instruction manual for details on the operating condition for EMC-compliance.

