

OMRON

MODEL S8JX-P (300/600W)
SWITCHING POWER SUPPLY

- EN** INSTRUCTION MANUAL (2/2)
DE Bedienungsanleitung (2/2)
FR Manuel d'instructions (2/2)

Read the S8JX-P Instruction Manual (1/2) together with this manual without fail.

Bewahren Sie diese Anleitung griffbereit zum Nachschlagen auf, und beziehen Sie sich beim Betrieb darauf. Lesen Sie auf jeden Fall die "S8JX-P Bedienungsanleitung (1/2)" zusammen mit dieser Anleitung.

Lisez absolument le "Manuel d'instructions (1/2) S8JX-P" en plus de ce manuel.

Parallel Operation / Parallelbetrieb / Fonctionnement en parallèle

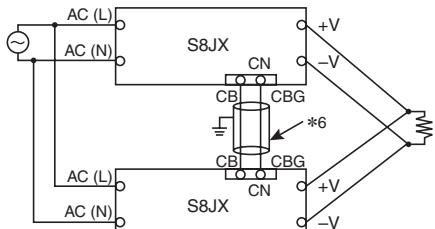


Fig.12

Remote sensing function / Extern Stromerkennung / Fonction de télédétection

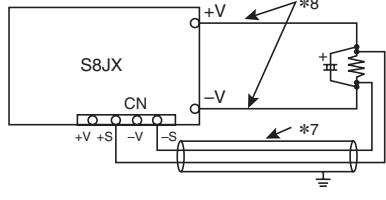


Fig.13

Remote Control Function / Freigabe Funktion / Fonction de télécommande

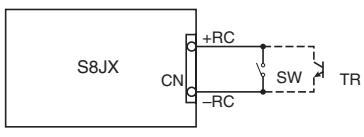


Fig.14

Alarm output function / Alarmausgangsfunktion / Fonction de sortie d'alarme

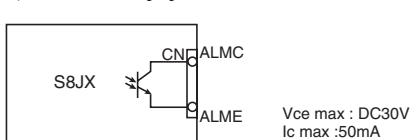


Fig.15

Crimping condition at wire insulation barrel / Crimpstellung an der Isolierhülse / Sertissage au niveau du fourreau de l'isolation du câble



Fig.17

Examples of improper crimping / Beispiele einer unsachgemäßen Crimpverbindung / Exemples de mauvais sertissage

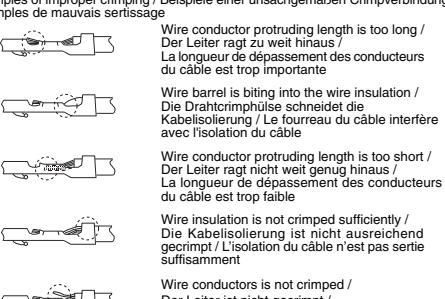


Fig.18

Insertion / Einsatz / Insertion

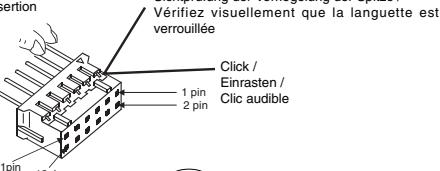


Fig.19

Front view / Vorderansicht / Vue de l'avant

No.	Configuration / Konfiguration / Configuration
1	+V
2	+S
3	-V
4	-S
5	CB
6	CBG
7	+RC
8	-RC
9	NC
10	NC
11	ALMC
12	ALME

CN 1/2

Fig.11

- DC output monitor pin (+V)
- Remote sensing pin (+S)
- DC output monitor pin (-V)
- Remote sensing pin (-S)
- Current balance pin (CB)
- Signal ground pin for Current balance (CBG)
- Remote control pin (+RC)
- Remote control pin (-RC)
- No connect
- Alarm output pin (ALMC) (collector)
- Alarm output pin (ALME) (emitter)

Signal I/O connector: Provided as a standard accessory.
Shorted: (1 – 2), (3 – 4) and (7 – 8)
Mounted to CN at shipment.

Note:
Do not connect a load to the DC output monitor pins
(+V or -V).

- DC-Ausgangs Überwachung (+V)
- Extern Stromerkennung (+S)
- DC-Ausgangs Überwachung (-V)
- Extern Stromerkennung (-S)
- Stromausgleich (CB)
- Signalerkennung Stromvergleich (CBG)
- Freigabe (+RC)
- Freigabe (-RC)
- Nicht benutzen
- Alarmausgangsanschluss (ALMC) (Kollektor)
- Alarmausgangsanschluss (ALME) (Emitter)

Signal-E/A-Stecker: Als Standardzubehör geliefert.
Kurzgeschlossen: (1 – 2), (3 – 4) und (7 – 8)
Bei Versand auf das CN-Gerät montiert.

Anmerkung:
Schließen Sie keine Last an die für die Überwachung des DC-Ausgangs Klemmen an (+V oder -V).

- Broche de sortie en c.c. du moniteur (+V)
- Broche de détection (+S)
- Broche de sortie en c.c. du moniteur (-V)
- Broche de détection (-S)
- Broche d'équilibrage de courant (CB)
- Broche de mise à la terre de la source pour équilibrage de courant (CBG)
- Broche de télécommande (+RC)
- Broche de télécommande (-RC)
- Non connecté
- Non connecté
- Broche de sortie d'alarme (ALMC) (collecteur)
- Broche de sortie d'alarme (ALME) (émetteur)

Connecteur E/S du signal : Fourni en tant qu'accèssoire standard.
Court-circuit : (1 – 2), (3 – 4) et (7 – 8)
Monté sur la CN lors de l'expédition.

Remarque:
Ne connectez pas de charge aux broches de sortie en c.c. du moniteur (+V ou -V).

EN Precautions for Correct Use

■ Parallel operation

When the CB pin (pin 5 on CN) and the CBG pin (pin 6 on CN) are connected, the current balance function operates and parallel operation is possible.
Up to 5 units can be connected.
Notes:

- Use 2-conductor shielded cable as connection wire (* 6).
- Adjust the output voltage of each power supply to the same value within 1% or 100 mV, whichever is smaller. During parallel operation, it is possible that the load current will flow excessively to either power supply and damage internal components.
- Parallel operation is used to increase static capacity. Output voltage may drop with sudden load fluctuations.
- There may be steps in the rising waveform of the output voltage during parallel operation.
- Remove the standard supplied connector and prepare a connector separately.
- When N units are connected, a rush current equal to xN the current of one unit will flow. Check the characteristics of the external fuse or breaker and select appropriately so that the fuse does not blow or the breaker does not trip due to the rush current.

■ Remote Sensing Function

This function is used to compensate for voltage drops on the load lines. Connect the +S pin (pin 2 on CN) to the positive load terminal and the -S pin (pin 4 on CN) to the negative load terminal to enable remote sensing.

When not using the remote sensing function, use the standard connector. The +S and +V pins (pin 1 on CN) and the -S and -V pins (pin 3 on CN) will be connected.

Notes:

- Use 2-conductor shielded cable as connection wire (* 7).
- Use as thick a wire as possible since high voltage drops on the load lines (* 8) may activate the overvoltage protection function.
- The total line voltage drop (+ side line and - side line) must be less than 0.3 V.
- If the sensing line is too long, it is necessary to put an electrolytic capacitor across the load terminals. Please take note that the electrolytic capacitor may generate heat due to the ripple current, depending on connected load. Therefore, the electrolytic capacitor must have a ripple current allowance higher than the output ripple current.
- The stability and accuracy of the output will deteriorate if the +S or -S pins are open. Always connect the +S and -S pins.
- Remove the standard supplied connector and prepare a connector separately.
- Make sure the remote sensing pins (+S, -S) are not open.

■ Remote Control Function

This function turns outputs ON and OFF using an external signal while input voltage is applied, using the +RC pin (pin 7 on CN) and the -RC pin (pin 8 on CN). Connect a switch or transistor to the +RC and -RC pins to use the remote control function.

When not using this function, the +RC and -RC pins are shorted by using the standard connector.

+RC Level for -RC Output Built-in Fan Motor

Short or L (0 to 0.8V) ON Rotate

Open or H (2.4 to 12V) OFF Stop

The Maximum input voltage: 12V max.

The Maximum allowable reverse voltage: -1V max. Sink Current: 3.5mA

Notes:

- Use 2-conductor shielded cable or twisted-pair cable as connection wire.
- The remote control circuit is isolated from the input and output circuits of the power supply.
- Remove the standard supplied connector and prepare a connector separately.
- If a reverse voltage is applied to the remote control pin, output voltage ON/OFF will not be possible. Exercise caution when wiring.

■ Alarm output function

The Power failure alarm indicator will light red to indicate an output voltage error if overload, overvoltage, or overheat protection is activated, if a drop in the input voltage causes the output voltage to drop, if the built-in fan motor stops, and during remote control standby. The alarm is also output externally by a transistor.

Transistor output: 30 VDC max., 50 mA max. Residual voltage when ON: 2 V max. leakage current when OFF: 0.1 mA max.

Alarm detection voltage: Approx. 80% of output voltage setting

The transistor output is turned OFF if an alarm is detected (no power to pins 11 and 12 on CN), and the LED indicator is lit (⑥: red).

Notes:

- This function monitors the voltage at the power supply output terminals. To check actual voltage, measure the voltage on the load side.
- Remove the standard supplied connector and prepare a connector separately.

■ Peak Output Current (S8JX-P30024□□□/S8JX-P60024□□□)

See product catalogue for details.

Notes

- Do not allow the peak load current to continue for more than 10 seconds, and do not allow the duty cycle to exceed the conditions indicated in Fig. 16. This may damage the power supply.
- Lessen the load of the peak load current by adjusting the ambient temperature and the mounting orientation.
- Ensure that the average current of one cycle of the peak current does not exceed the rating. This may damage the power supply.

■ Signal I/O Connector Harness Manufacture Method

This product is using PHD connector made from JAPAN SOLDERLESS TERMINAL MFG CO LTD. Regarding to manufacture of a connector, it becomes the regulation as following.

1. Applicable Wire and Crimping tool

Applicable wire per barrel size is UL1007 (standard wire) and its equivalent standard wire can be used. Regarding the AWG#22, use UL1061 or its equivalent standard wire, because wire insulation outer diameter of UL1061 is small. Wire size is AWG#26 to AWG#22 and insulation outer dia is Ø1.0 to Ø1.5 mm. Crimping tool is as below.

2. Crimping

The reference value of wire strip is 2.3mm. According to wire to be used, adjust dial of applicator to a proper crimp height.

Table of crimp height

Wire size	Insulation O.D. (mm)	Crimp height (mm)	
		Conductor part	Insulation part (Ref.value)
UL1007 AWG26	1.3	0.60 to 0.70	1.7
UL1007 AWG24	1.5	0.65 to 0.75	1.8
UL1061 AWG22	1.4	0.70 to 0.80	1.8

Notes:

1. Crimp height at wire barrel should be set to pre-determined dimensions.
2. Adjust crimp height at wire insulation barrel to the extent that wire insulation is slightly pressed, and set so that crimp is not excessively.
3. Crimping condition at wire insulation barrel is as below (Fig.17).
- Check the tensile strength at crimped part when operation finishes.

Table of tensile strength at crimped part

Wire size	Requirement Min.	Reference value N
UL1007 AWG26	20	39.2 to 45.1
UL1007 AWG24	30	68.6 to 74.5
UL1061 AWG22	40	92.1 to 96.0

Check of crimping appearance visually for correct crimping as referring to (Fig.17)(Fig.18)

1. Hold contact with its lance part upland align contact lance guide at housing with contact lance, and then insert contact parallel to insertion axis.
2. Insert contact into housing without stopping to innermost. When contact is fully inserted into housing, housing lance clicks and there is feeling of response.
3. Check after inserting crimped contact into housing.

Check secure locking per each insertion by pulling wire softly with a force of approx. 1N

FRONT VIEW OF CRIMPING APPEARANCE

Check the locking condition of the lance visually / Sichtprüfung der Verriegelung der Spitze / Vérifiez visuellement que la languette est verrouillée

Click / Einrasten / Clic audible

1 pin 2 pin

11pin 12pin

Fig.19

EN Contact address

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