

Switch Mode Power Supply S8JX (15/35/50/100/150/300/600-W Models)

**Many Output Voltage Variations,
Including New 300-W/600-W 5-V, 12-V, and 48-V Models.
A Complete Lineup from 15 W to 600 W**

- Easy Mounting:
Mounting Bracket provided as a standard feature.
(except for DIN Rail-mounting models)
Mounts to DIN Rail. (except 600-W model)
Screw-mount at the top. (except 300-/600-W models)
- Safety standards:
UL 508/60950-1
cUL CSA C22.2 No. 107.1
cUR CSA C22.2 No. 60950-1
EN 50178 (= VDE 0160) *
EN 60950-1 (= VDE 0805 Teil 1) *
* The 300-W/600-W, 5-V, 12-V, and 48-V models are scheduled to obtain certification in October 2011.
- EMC: Conforms to EN 61204-3.
(EMI:EN55011 ClassB)
- Input conditions:
The input voltage range of 15-W, 35-W, 50-W, 100-W, and 150-W models has been increased to 80 to 370 VDC (EC Directives and safety standards do not apply.).



Note: Refer to *Safety Precautions* on page 30.

Model Number Structure

Model Number Legend

- Note:** 1. Not all combinations are possible. Refer to *List of Models* in *Ordering Information* on page 2.
2. Estimates can be provided for coatings and other specifications that are not given in the datasheet. Ask your OMRON representative for details.

15-/35-/50-/100-/150-W Models

S8JX-G□□□□□□□□
1 2 3 4

1. Power Ratings

015: 15 W
035: 35 W
050: 50 W
100: 100 W
150: 150 W

2. Output Voltage

05: 5 V
12: 12 V
15: 15 V
24: 24 V
48: 48 V

3. Configuration (15/35/50/100/150 W model)

None: Open-frame
C: Covered

4. Configuration/mounting

None: Front-mounting
D: DIN Rail-mounting

300-/600-W Models

S8JX-G□□□□□□□□
1 2 3

1. Power Ratings

300: 300 W
600: 600 W

2. Output Voltage

5: 5 V
12: 12 V
24: 24 V
48: 48 V

3. Configuration/mounting (covered type)

C: Front-mounting
CD: DIN Rail-mounting

Note: Estimates can be provided for coatings and other specifications that are not given in the datasheet. Ask your OMRON representative for details.

S8JX

Ordering Information

List of Models

Note: For details on normal stock models, contact your nearest OMRON representative.

Configuration	Input voltage	Power ratings	Output voltage (VDC)	Output current	Model		
Open-frame Power Supplies	Front-mounting *1	15 W	5 V	3 A	S8JX-G01505		
			12 V	1.3 A	S8JX-G01512		
			15 V	1 A	S8JX-G01515		
			24 V	0.65 A	S8JX-G01524		
			48 V	0.35 A	S8JX-G01548		
		35 W	5 V	7 A	S8JX-G03505		
			12 V	3 A	S8JX-G03512		
			15 V	2.4 A	S8JX-G03515		
			24 V	1.5 A	S8JX-G03524		
			48 V	0.75 A	S8JX-G03548		
		50 W	5 V	10 A	S8JX-G05005		
			12 V	4.2 A	S8JX-G05012		
			24 V	2.1 A	S8JX-G05024		
			48 V	1.1 A	S8JX-G05048		
		100 W	5 V	20 A	S8JX-G10005		
			12 V	8.5 A	S8JX-G10012		
			24 V	4.5 A	S8JX-G10024		
		150 W	48 V	2.1 A	S8JX-G10048		
			5 V	30 A	S8JX-G15005		
			12 V	13 A	S8JX-G15012		
			24 V	6.5 A	S8JX-G15024		
		DIN Rail-mounting *2	15 W	15 W	5 V	3 A	S8JX-G01505D
					12 V	1.3 A	S8JX-G01512D
					15 V	1 A	S8JX-G01515D
	24 V				0.65 A	S8JX-G01524D	
	48 V				0.35 A	S8JX-G01548D	
	35 W			5 V	7 A	S8JX-G03505D	
				12 V	3 A	S8JX-G03512D	
				15 V	2.4 A	S8JX-G03515D	
				24 V	1.5 A	S8JX-G03524D	
	50 W			48 V	0.75 A	S8JX-G03548D	
				5 V	10 A	S8JX-G05005D	
				12 V	4.2 A	S8JX-G05012D	
			24 V	2.1 A	S8JX-G05024D		
	100 W		48 V	1.1 A	S8JX-G05048D		
			5 V	20 A	S8JX-G10005D		
			12 V	8.5 A	S8JX-G10012D		
			24 V	4.5 A	S8JX-G10024D		
	150 W		48 V	2.1 A	S8JX-G10048D		
			5 V	30 A	S8JX-G15005D		
			12 V	13 A	S8JX-G15012D		
			24 V	6.5 A	S8JX-G15024D		
					48 V	3.3 A	S8JX-G15048D

*1. The front-mounting bracket is included as standard with the product.

*2. A front-mounting bracket is not included with the product.

*3. The range for compliance with EC Directives and safety standards (UL, EN, etc.) is 100 to 240 VAC (85 to 264 VAC).

Configuration		Input voltage	Power ratings	Output voltage (VDC)	Output current	Model			
Covered Power Supplies	Front-mounting *1	100 to 240 VAC (free) (80 to 370 VDC *3) S8JX-G15005□□□: Switchable between 100 to 120 VAC and 200 to 240 VAC. (DC power cannot be input.)	15 W	5 V	3 A	S8JX-G01505C			
				12 V	1.3 A	S8JX-G01512C			
				15 V	1 A	S8JX-G01515C			
				24 V	0.65 A	S8JX-G01524C			
			35 W	48 V	0.35 A	S8JX-G01548C			
				5 V	7 A	S8JX-G03505C			
				12 V	3 A	S8JX-G03512C			
				15 V	2.4 A	S8JX-G03515C			
			50 W	24 V	1.5 A	S8JX-G03524C			
				48 V	0.75 A	S8JX-G03548C			
				5 V	10 A	S8JX-G05005C			
				12 V	4.2 A	S8JX-G05012C			
			100 W	24 V	2.1 A	S8JX-G05024C			
				48 V	1.1 A	S8JX-G05048C			
				5 V	20 A	S8JX-G10005C			
				12 V	8.5 A	S8JX-G10012C			
			150 W	24 V	4.5 A	S8JX-G10024C			
				48 V	2.1 A	S8JX-G10048C			
				5 V	30 A	S8JX-G15005C			
				12 V	13 A	S8JX-G15012C			
			DIN Rail-mounting *2			15 W	24 V	6.5 A	S8JX-G15024C
							48 V	3.3 A	S8JX-G15048C
							5 V	3 A	S8JX-G01505CD
							12 V	1.3 A	S8JX-G01512CD
	35 W	15 V				1 A	S8JX-G01515CD		
		24 V				0.65 A	S8JX-G01524CD		
		48 V				0.35 A	S8JX-G01548CD		
		5 V				7 A	S8JX-G03505CD		
	50 W	12 V				3 A	S8JX-G03512CD		
		15 V				2.4 A	S8JX-G03515CD		
		24 V				1.5 A	S8JX-G03524CD		
		48 V				0.75 A	S8JX-G03548CD		
	100 W	5 V				10 A	S8JX-G05005CD		
		12 V				4.2 A	S8JX-G05012CD		
		24 V				2.1 A	S8JX-G05024CD		
		48 V				1.1 A	S8JX-G05048CD		
	150 W	5 V				20 A	S8JX-G10005CD		
		12 V				8.5 A	S8JX-G10012CD		
		24 V				4.5 A	S8JX-G10024CD		
		48 V				2.1 A	S8JX-G10048CD		
	300 W	5 V				30 A	S8JX-G15005CD		
		12 V				13 A	S8JX-G15012CD		
		24 V				6.5 A	S8JX-G15024CD		
		48 V				3.3 A	S8JX-G15048CD		
	Front-mounting *1	100 to 120 VAC 200 to 240 VAC (Switchable)	300 W	5 V	60 A	S8JX-G30005C			
				12 V	27 A	S8JX-G30012C			
				24 V	14A	S8JX-G30024C			
				48 V	7A	S8JX-G30048C			
600 W			5 V	120A	S8JX-G60005C				
			12 V	53A	S8JX-G60012C				
			24 V	27A	S8JX-G60024C				
			48 V	13A	S8JX-G60048C				
DIN Rail-mounting *2				300 W	5 V	60 A	S8JX-G30005CD		
					12 V	27 A	S8JX-G30012CD		
					24 V	14A	S8JX-G30024CD		
					48 V	7A	S8JX-G30048CD		

*1. The front-mounting bracket is included as standard with the product.

*2. A front-mounting bracket is not included with the product.

*3. The range for compliance with EC Directives and safety standards (UL, EN, etc.) is 100 to 240 VAC (85 to 264 VAC).

Ratings, Characteristics, and Functions

Item		Input specification		100 to 240 V input		
		Power ratings *1		15 W	35 W	
Efficiency				68% min.	73% min.	
Input	Voltage *2		100 to 240 VAC (allowable range: 85 to 264 VAC)			
	Frequency *2		80 to 370 VDC *9 Note: This range is not applicable for the safety standards.			
	Current *3	100 V input	50/60 Hz (47 to 450 Hz)		0.4 A max.	1 A max.
		200 V input			0.25 A max.	0.6 A max.
	Power factor		---			
	Harmonic current emissions		---			
	Leakage current *3	100 V input	0.5 mA max.			
		200 V input	1 mA max.			
	Inrush current (for a cold start at 25°C) *3	100 V input	20 A max.			
		200 V input	40 A max.			
Noise filter		Yes				
Output *4	Voltage adjustment range *5		-10% to 15% (with V. ADJ) (48-V models: ±10%)			
	Ripple *3		2% (p-p) max.			
	Input variation influence		0.4% max. with AC input voltage			
	Load variation influence		0.8% max. (0 to 100% load, rated input voltage)			
	Temperature variation influence		0.05%/°C max. (at rated input and output)			
	Startup time		500 ms max. (up to 90% of output voltage at rated input and output)			
	Hold time *3		20 ms min.			
Additional functions	Overload protection *6		105% to 175% of rated load current, voltage drop, intermittent, automatic reset			
	Overvoltage protection *7		Yes			
	Overheat protection		No			
	Parallel operation		No			
	Series operation		Yes (For up to two Power Supplies; external diodes required.)			
Protective circuit operation indicator		No				
Other	Ambient operating temperature		Refer to the derating curve in <i>Engineering Data</i> on page 16 (with no icing or condensation).			
	Storage temperature		-25 to 65°C (with no icing or condensation)			
	Ambient operating humidity		25% to 85% (Storage humidity: 25% to 90%)			
	Dielectric strength		3.0 kVAC for 1 min. (between all inputs and outputs; detection current: 20 mA) 2.0 kVAC for 1 min. (between all inputs and PE terminals; detection current: 20 mA) 1.0 kVAC for 1 min. (between all outputs and PE terminals; detection current: 20 mA)			
	Insulation resistance		100 MΩ min. (between all outputs and all inputs/PE terminals) at 500 VDC			
	Vibration resistance		10 to 55 Hz, 0.375-mm single amplitude for 2 h each in X, Y, and Z directions			
	Shock resistance		150 m/s ² , 3 times each in ±X, ±Y, ±Z directions			
	Output indicator		Yes (Color: Green)			
	EMI	Conducted Emissions		Conforms to EN 55011 Group 1 Class A and based on FCC Class A		
		Radiated Emissions		Conforms to EN 55011 Group 1 Class A		
	EMS	Electrostatic Discharge		Confirms to EN61000-4-2		
		Radiated Electromagnetic Field		Confirms to EN61000-4-3		
		Electrical Fast Transient/Burst		Confirms to EN61000-4-4		
		Surge		Confirms to EN61000-4-5		
		Conducted Disturbance		Confirms to EN61000-4-6		
		Voltage Dips/Short Interruptions		Confirms to EN61000-4-11		
	Approved standards *9		UL Listed: UL 508 (Listing), UL UR: UL 60950-1 (Recognition) cUL Listed: CSA C22.2 No.107.1 cUR: CSA C22.2 No. 60950-1 EN/VDE: EN50178 (= VDE 0160), EN 60950-1 (= VDE 0805 Teil 1) (Terminal block: Based on DIN 50274 (VDE 0660-514))			
SEMI		SEMI F47-0200 (200-VAC input)				
Weight *8		250 g max.				

- *1. When a load is connected that has a built-in DC-DC converter, the overload protection may operate at startup and the Power Supply may not start. Refer to *Overload Protection* on page 19.
- *2. Do not use an Inverter output for the Power Supply. Inverters with an output frequency of 50/60 Hz are available, but the rise in the internal temperature of the Power Supply may result in ignition or burning.
- *3. Rated input voltage: 100 or 200 VAC at 100% load.
- *4. Output characteristics: Specified at power supply output terminals.
- *5. If the output voltage adjuster (V. ADJ) is turned, the voltage will increase by more than the allowable voltage range. When adjusting the output voltage, confirm the actual output voltage from the Power Supply and be sure that load is not damaged.
- *6. For details, refer to *Overload Protection* on page 19.
- *7. To reset the protection, turn OFF the input power for seven minutes or longer and then turn it back ON.
- *8. The weight indicated is a for Front-mounting, Open-frame Power Supply.
- *9. The range for compliance with EC Directives and safety standards (UL, EN, etc.) is 100 to 240 VAC (85 to 264 VAC).

Item	Input specification		100 to 240 V input	
	Power ratings *1		50 W	100 W
Efficiency			76% min.	
Input	Voltage *2	100 to 240 VAC (allowable range: 85 to 264 VAC)		
		80 to 370 VDC *9 Note: This range is not applicable for the safety standards.		
	Frequency *2	50/60 Hz (47 to 450 Hz)		
	Current *3	100 V input	1.4 A max.	2.5 A max.
		200 V input	0.8 A max.	1.5 A max.
	Power factor	---		
	Harmonic current emissions	---		
	Leakage current *3	100 V input	0.5 mA max.	
		200 V input	1 mA max.	
Inrush current (for a cold start at 25°C) *3	100 V input	20 A max.		
	200 V input	40 A max.		
Noise filter	Yes			
Output *4	Voltage adjustment range *5	-10% to 15% (with V. ADJ) (48-V models: ±10%)		
	Ripple *3	2% (p-p) max.		
	Input variation influence	0.4% max. (with AC input voltage)		
	Load variation influence	0.8% max. (0 to 100% load, rated input voltage)		
	Temperature variation influence	0.05%/°C max. (at rated input and output)		
	Startup time	500 ms max. (up to 90% of output voltage at rated input and output)		
	Hold time *3	20 ms min.		
Additional functions	Overload protection *6	105% to 175% of rated load current, voltage drop, intermittent, automatic reset		
	Overvoltage protection *7	Yes		
	Overheat protection	No		
	Parallel operation	No		
	Series operation	Yes (For up to two Power Supplies; external diodes required.)		
Protective circuit operation indicator	No			
Other	Ambient operating temperature	Refer to the derating curve in <i>Engineering Data</i> on page 16 (with no icing or condensation).		
	Storage temperature	-25 to 65°C (with no icing or condensation)		
	Ambient operating humidity	25% to 85% (Storage humidity: 25% to 90%)		
	Dielectric strength	3.0 kVAC for 1 min. (between all inputs and outputs; detection current: 20 mA)		
		2.0 kVAC for 1 min. (between all inputs and PE terminals; detection current: 20 mA)		
		1.0 kVAC for 1 min. (between all outputs and PE terminals; detection current: 20 mA)		
	Insulation resistance	100 MΩ min. (between all outputs and all inputs/PE terminals) at 500 VDC		
	Vibration resistance	10 to 55 Hz, 0.375-mm single amplitude for 2 h each in X, Y, and Z directions		
	Shock resistance	150 m/s ² , 3 times each in ±X, ±Y, ±Z directions		
	Output indicator	Yes (Color: Green)		
	EMI	Conducted Emissions	Conforms to EN 55011 Group 1 Class A and based on FCC Class A	
		Radiated Emissions	Conforms to EN 55011 Group 1 Class A	
	EMS	Electrostatic Discharge	Confirms to EN61000-4-2	
		Radiated Electromagnetic Field	Confirms to EN61000-4-3	
		Electrical Fast Transient/Burst	Confirms to EN61000-4-4	
		Surge	Confirms to EN61000-4-5	
		Conducted Disturbance	Confirms to EN61000-4-6	
Voltage Dips/Short Interruptions	Confirms to EN61000-4-11			
Approved standards *9	UL Listed: UL 508 (Listing), UL UR: UL 60950-1 (Recognition)			
	cUL Listed: CSA C22.2 No.107.1 cUR: CSA C22.2 No. 60950-1			
	EN/VDE: EN50178 (= VDE 0160), EN 60950-1 (= VDE 0805 Teil 1) (Terminal block: Based on DIN 50274 (VDE 0660-514))			
SEMI	SEMI F47-0200 (200-VAC input)			
Weight *8	300 g max.		550 g max.	

*1. When a load is connected that has a built-in DC-DC converter, the overload protection may operate at startup and the Power Supply may not start. Refer to *Overload Protection* on page 19.

*2. Do not use an Inverter output for the Power Supply. Inverters with an output frequency of 50/60 Hz are available, but the rise in the internal temperature of the Power Supply may result in ignition or burning.

*3. Rated input voltage: 100 or 200 VAC at 100% load.

*4. Output characteristics: Specified at power supply output terminals.

*5. If the output voltage adjuster (V. ADJ) is turned, the voltage will increase by more than the allowable voltage range. When adjusting the output voltage, confirm the actual output voltage from the Power Supply and be sure that load is not damaged.

*6. For details, refer to *Overload Protection* on page 19.

*7. To reset the protection, turn OFF the input power for seven minutes or longer and then turn it back ON.

*8. The weight indicated is a for Front-mounting, Open-frame Power Supply.

*9. The range for compliance with EC Directives and safety standards (UL, EN, etc.) is 100 to 240 VAC (85 to 264 VAC).

Item	Input specification		100/200 V switchable	100 to 240 V input		
	Power ratings *1		150 W at 5 V	150 W at 12 V	150 W at 24 or 48 V	
Efficiency			78% min.	79% min.	85% min.	
Input	Voltage *2			Switchable between 100 to 120 VAC (allowable range: 85 to 132 VAC) and 200 to 240 VAC (allowable range: 170 to 264 VAC).		
				100 to 240 VAC (allowable range: 85 to 264 VAC)		
	Frequency *2			50/60 Hz (47 to 450 Hz)		
	Current *3	100 V input		3.5 A max.	3.6 A max.	3.5 A max.
		200 V input		2.1 A max.	2.2 A max.	2.1 A max.
	Power factor			---		
	Harmonic current emissions			---		
	Leakage current *3	100 V input		0.5 mA max.		
		200 V input		1 mA max.		
Inrush current (for a cold start at 25°C) *3	100 V input		20 A max.			
	200 V input		40 A max.			
Noise filter			Yes			
Output *4	Voltage adjustment range *5		-10% to 15% (with V. ADJ) (48-V models: ±10%)			
	Ripple *3		2% (p-p) max.			
	Input variation influence		0.4% max. (with AC input voltage)			
	Load variation influence		0.8% max. (0 to 100% load, rated input voltage)			
	Temperature variation influence		0.05%/°C max. (at rated input and output)			
	Startup time		500 ms max. (up to 90% of output voltage at rated input and output)			
	Hold time *3		20 ms min.			
Additional functions	Overload protection *6		105% to 175% of rated load current, voltage drop, automatic reset	105% to 175% of rated load current, voltage drop, intermittent, automatic reset		
	Overvoltage protection *7		Yes			
	Overheat protection		No			
	Parallel operation		No			
	Series operation		Yes (For up to two Power Supplies; external diodes required.)			
Protective circuit operation indicator		No				
Other	Ambient operating temperature		Refer to the derating curve in <i>Engineering Data</i> on page 16 (with no icing or condensation).			
	Storage temperature		-25 to 65°C (with no icing or condensation)			
	Ambient operating humidity		25% to 85% (Storage humidity: 25% to 90%)			
	Dielectric strength		3.0 kVAC for 1 min. (between all inputs and outputs; detection current: 20 mA) 2.0 kVAC for 1 min. (between all inputs and PE terminals; detection current: 20 mA) 1.0 kVAC for 1 min. (between all outputs and PE terminals; detection current: 20 mA)			
	Insulation resistance		100 MΩ min. (between all outputs and all inputs/PE terminals) at 500 VDC			
	Vibration resistance		10 to 55 Hz, 0.375-mm single amplitude for 2 h each in X, Y, and Z directions			
	Shock resistance		150 m/s ² , 3 times each in ±X, ±Y, ±Z directions			
	Output indicator		Yes (Color: Green)			
	EMI	Conducted Emissions		Conforms to EN 55011 Group 1 Class A and based on FCC Class A		
		Radiated Emissions		Conforms to EN 55011 Group 1 Class A		
	EMS	Electrostatic Discharge		Confirms to EN61000-4-2		
		Radiated Electromagnetic Field		Confirms to EN61000-4-3		
		Electrical Fast Transient/Burst		Confirms to EN61000-4-4		
		Surge		Confirms to EN61000-4-5		
Conducted Disturbance		Confirms to EN61000-4-6				
Voltage Dips/Short Interruptions		Confirms to EN61000-4-11				
Approved standards *9		UL Listed: UL 508 (Listing), UL UR: UL 60950-1 (Recognition) cUL Listed: CSA C22.2 No.107.1 cUR: CSA C22.2 No. 60950-1 EN/VDE: EN50178 (= VDE 0160), EN 60950-1 (= VDE 0805 Teil 1) (Terminal block: Based on DIN 50274 (VDE 0660-514))				
SEMI		---				
SEMI F47-0200 (200-VAC input)						
Weight *8		800 g max.	700 g max.	600 g max.		

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- *1. When a load is connected that has a built-in DC-DC converter, the overload protection may operate at startup and the Power Supply may not start. Refer to *Overload Protection* on page 19.
 - *2. Do not use an Inverter output for the Power Supply. Inverters with an output frequency of 50/60 Hz are available, but the rise in the internal temperature of the Power Supply may result in ignition or burning.
 - *3. Rated input voltage: 100 or 200 VAC at 100% load.
 - *4. Output characteristics: Specified at power supply output terminals.
 - *5. If the output voltage adjuster (V. ADJ) is turned, the voltage will increase by more than the allowable voltage range. When adjusting the output voltage, confirm the actual output voltage from the Power Supply and be sure that load is not damaged.
 - *6. For details, refer to *Overload Protection* on page 19.
 - *7. To reset the protection, turn OFF the input power for seven minutes or longer and then turn it back ON.
 - *8. The weight indicated is a for Front-mounting, Open-frame Power Supply.
 - *9. The range for compliance with EC Directives and safety standards (UL, EN, etc.) is 100 to 240 VAC (85 to 264 VAC).

Item		Input specification		100/200 V (Selected)	
		Power ratings *1		300 W	600 W
Efficiency	5V models		71% min.	72% min.	
	12V models		75% min.	78% min.	
	24V models		82% min.	80% min.	
	48V models		82% min.	80% min.	
Input	Voltage *2		100 to 120 VAC (allowable range: 85 to 132 VAC) 200 to 240 VAC (allowable range: 170 to 264 VAC) (Switchable)		
	Frequency *2		50/60 Hz (47 to 450 Hz)		
	Current *3	100 V input	8 A max.	16 A max.(5V, 12V, 48V) 14 A max.(24V)	
		200 V input	4.5 A max.	9 A max.(5V, 12V, 48V) 8 A max.(24V)	
	Power factor		---		
	Harmonic current emissions		---		
	Leakage current *3	100 V input	0.5 mA max.		
		200 V input	1 mA max.		
	Inrush current (for a cold start at 25°C) *3	100 V input	25 A max.	30 A max.	
		200 V input	50 A max.	60 A max.	
Noise filter		Yes			
Output *4	Voltage adjustment range *5		-10% to 15% (with V. ADJ) (48-V models: ±10%)		
	Ripple *3	2.8% (p-p) max.(5V) *6 2% (p-p) max.(12V, 24V, 48V)		3.8% (p-p) max.(5V) *6 2% (p-p) max.(12V) *6 2% (p-p) max.(24V, 48V)	
		Input variation influence		0.4% max.	
	Load variation influence		0.8% max. (0 to 100% load, rated input voltage)		
	Temperature variation influence		0.05%/°C max.		
	Startup time		650 ms max.	500 ms max.	
	Hold time *3		20 ms min.		
Additional functions	Overload protection *7		105% to 175% of rated load current, Inverted L voltage drop, the circuit will be shut OFF when the overload exceeds 5 s.(5V, 12V) *10 voltage drop, intermittent, automatic reset. (24V, 48V)	105% to 175% of rated load current, Inverted L voltage drop, the circuit will be shut OFF when the overload exceeds 5 s. *10	
	Overvoltage protection *8		Yes (5V, 12V) *10 Yes (24V, 48V) *10	Yes *10	
	Overheat protection		Yes (5V, 12V) *10 NO (24V, 48V) *10	Yes *10	
	Parallel operation		Yes (up to 5 units)		
	Series operation		Yes (For up to two Power Supplies; external diodes required.)		
	Protective circuit operation indicator		Yes (color: red) (5V, 12V) No (24V, 48V)	Yes (color: red)	
Other	Ambient operating temperature		Refer to the derating curve in <i>Engineering Data</i> on page 16 (with no icing or condensation).		
	Storage temperature		-25 to 65°C (with no icing or condensation)		
	Ambient operating humidity		25% to 85% (Storage humidity: 25% to 90%)		
	Dielectric strength		3.0 kVAC for 1 min. (between all inputs and outputs; detection current: 25 mA) 2.0 kVAC for 1 min. (between all inputs and PE terminals; detection current: 25 mA) 1.0 kVAC for 1 min. (between all outputs and PE terminals; detection current: 25 mA)		
	Insulation resistance		100 MΩ min. (between all outputs and all inputs/PE terminals) at 500 VDC		
	Vibration resistance		10 to 55 Hz, 0.375-mm single amplitude for 2 h each in X, Y, and Z directions		
	Shock resistance		150 m/s ² , 3 times each in ±X, ±Y, ±Z directions		
	Output indicator		Yes (Color: Green)		
	EMI	Conducted Emissions *3		Conforms to EN 55011 Group 1 Class A and based on FCC Class A *11	
		Radiated Emissions		Conforms to EN 55011 Group 1 Class A *11 *12	
	EMS	Electrostatic Discharge		Confirms to EN61000-4-2	
		Radiated Electromagnetic Field		Confirms to EN61000-4-3	
		Electrical Fast Transient/Burst		Confirms to EN61000-4-4	
		Surge		Confirms to EN61000-4-5	
		Conducted Disturbance		Confirms to EN61000-4-6	
		Voltage Dips/Short Interruptions		Confirms to EN61000-4-11	
	Approved standards *13		UL UR: UL 508 (Recognition), UL 60950-1 cUR: CSA C22.2 No.107.1, CSA C22.2 No. 60950-1 EN/VDE: EN50178 (= VDE 0160) *14, EN 60950-1 (= VDE 0805 Teil 1) *14 (Terminal block: Based on DIN 50274 (VDE 0660-514))		
	Weight *9		1,800 g max. (5V, 12V) 1,600 g max. (24V, 48V)	2,500 g max.	

-
- *1. When a load is connected that has a built-in DC-DC converter, the overload protection may operate at startup and the Power Supply may not start. Refer to *Overload Protection* on page 19.
 - *2. Do not use an Inverter output for the Power Supply. Inverters with an output frequency of 50/60 Hz are available, but the rise in the internal temperature of the Power Supply may result in ignition or burning.
 - *3. Rated input voltage: 100 or 200 VAC at 100% load.
 - *4. Output characteristics: Specified at power supply output terminals.
 - *5. If the output voltage adjuster (V. ADJ) is turned, the voltage will increase by more than the allowable voltage range. When adjusting the output voltage, confirm the actual output voltage from the Power Supply and be sure that load is not damaged.
 - *6. Measurement methods are based on JEITA standard RC-9131A. Refer to *Ripple Noise Voltage* on page 31.
 - *7. For details, refer to *Overload Protection* on page 19.
 - *8. To reset the protection, turn OFF the input power for three minutes or longer and then turn it back ON.
 - *9. The weight indicated is a for Front-mounting, Open-frame Power Supply.
 - *10. The protection-ON alarm indicator will light as soon as the output is interrupted. For resetting, turn OFF the input power, leave for more than three minutes, and then turn it back ON again.
 - *11. Noise values depend on the wiring methods and other factors. Insert noise filters and cores in the input and output lines.
 - 300 W, 5 V: Two E04SR401938 (manufactured by SEIWA) on the output line.
 - 300 W, 12 V: One E04SR401938 (manufactured by SEIWA) on the output line.
 - 600 W, 5 V or 12 V: One FN2450G-16-61 (manufactured by Schaffner) on the input line.
One E04RC613620 (manufactured by SEIWA) on the output line.
 - *12. For the 600-W, 5-V and 12-V models, class A compliance was met with a aluminum plate placed under the Power Supply.
 - *13. The range for compliance with EC Directives and safety standards (UL, EN, etc.) is 100 to 240 VAC (85 to 264 VAC).
 - *14. The 300-W/600-W, 5-V, 12-V, and 24-V models are scheduled to obtain certification in October 2011.

S8JX

Connections

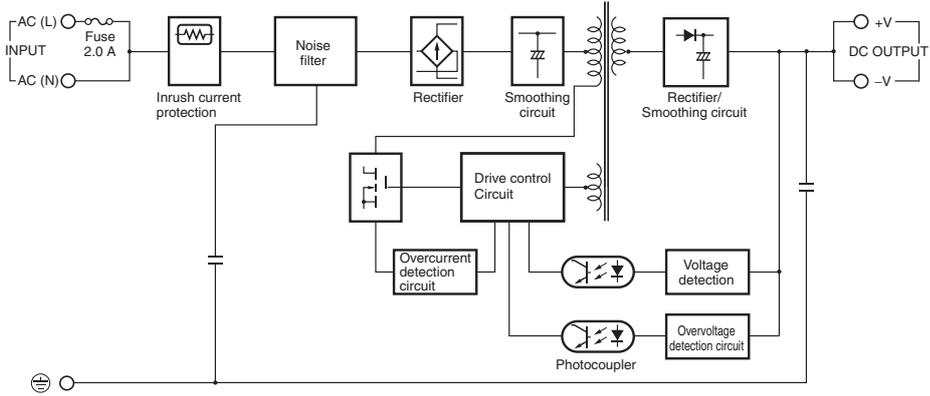
Block Diagrams

S8JX-G01505 (15 W)

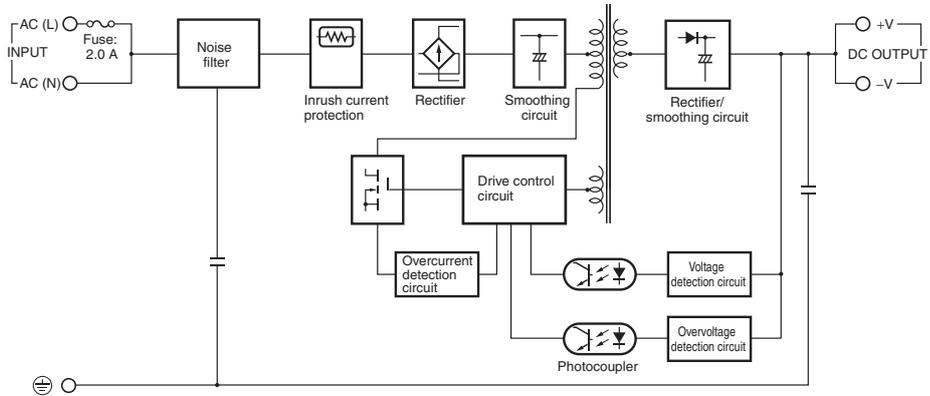
S8JX-G01512 (15 W)

S8JX-G01515 (15 W)

S8JX-G01524 (15 W)



S8JX-G01548 (15 W)

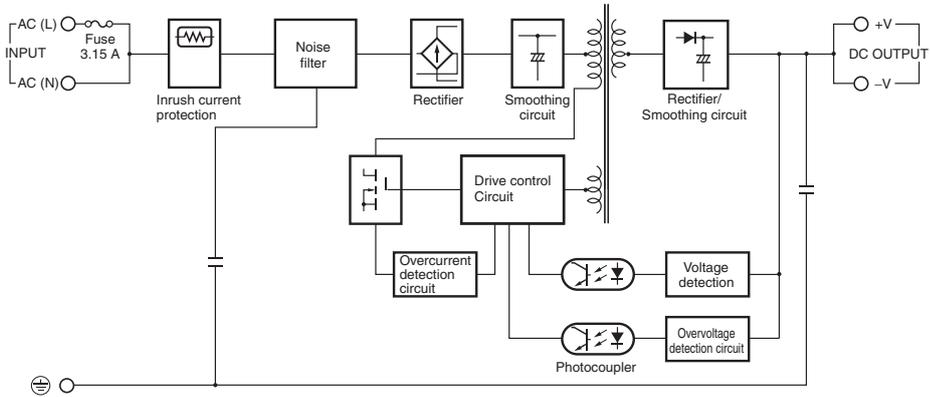


S8JX-G03505 (35 W)

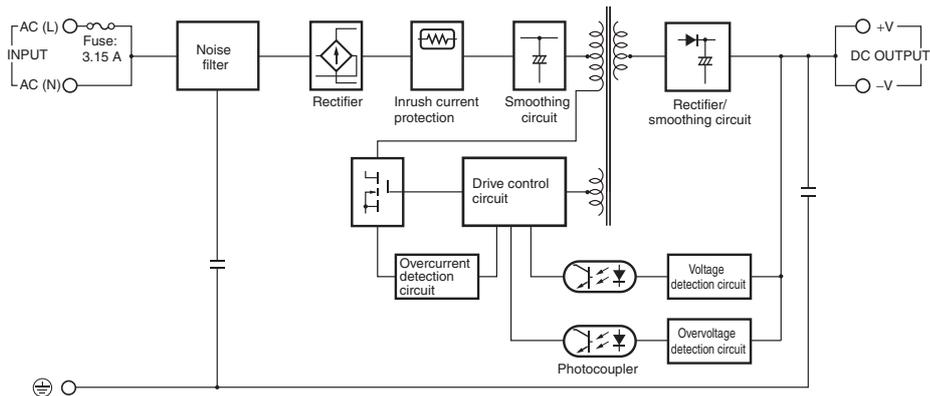
S8JX-G03512 (35 W)

S8JX-G03515 (35 W)

S8JX-G03524 (35 W)



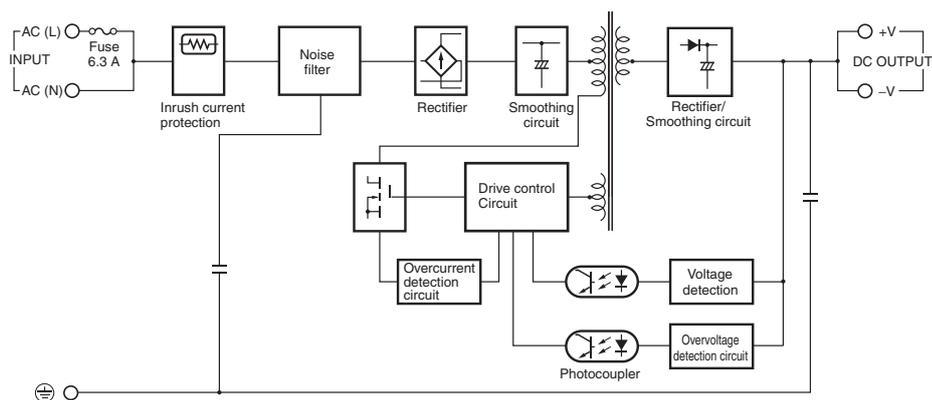
S8JX-G03548 (35 W)



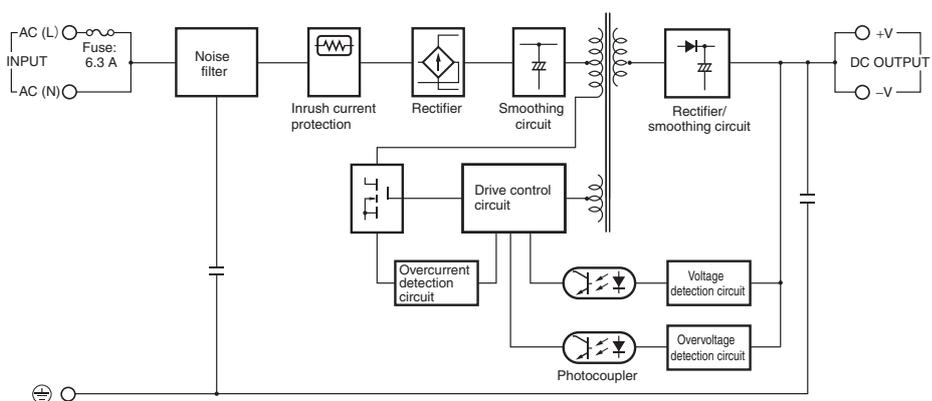
S8JX-G05005□□ (50 W)

S8JX-G05012□□ (50 W)

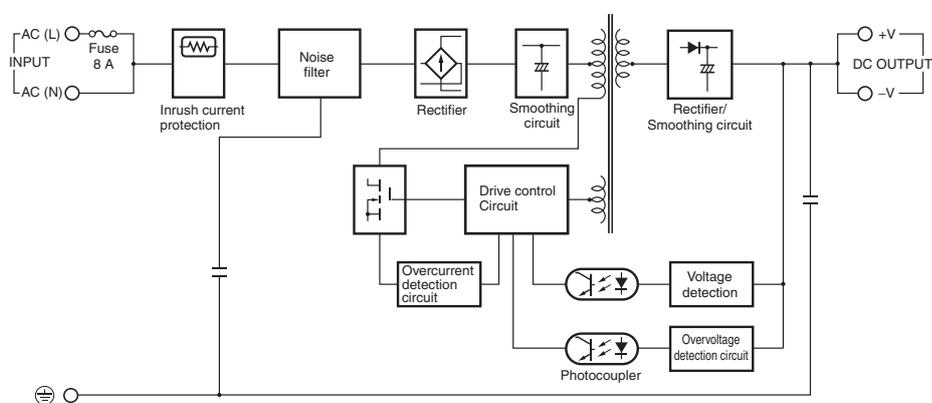
S8JX-G05024□□ (50 W)



S8JX-G05048□□ (50 W)

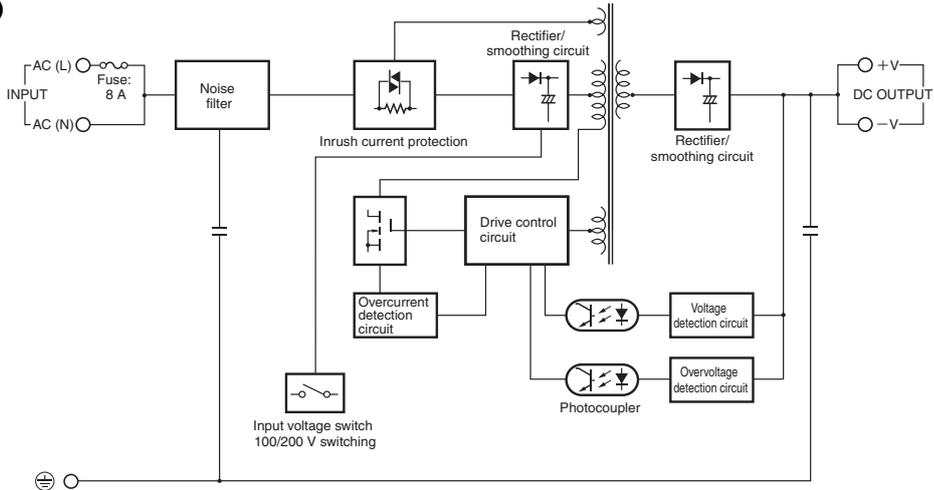


S8JX-G100□□□□ (100 W)



S8JX

S8JX-G15005□□ (150 W)

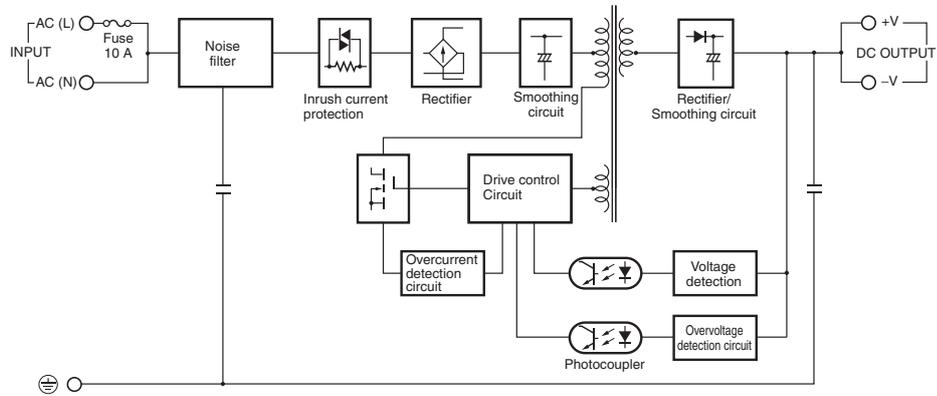


Note: Set the input voltage switch to "115V" for 100 to 120 VAC and to "230V" for 200 to 240 VAC.

S8JX-G15012□□ (150 W)

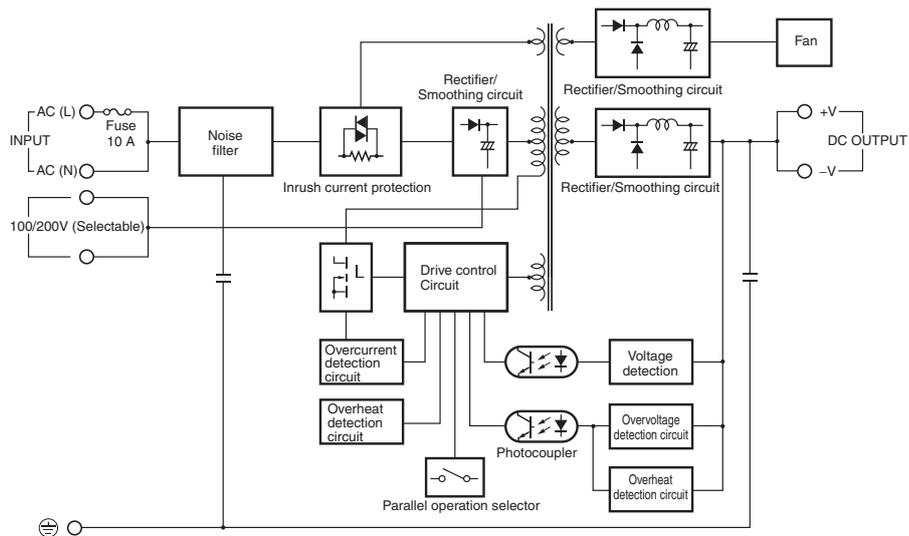
S8JX-G15024□□ (150 W)

S8JX-G15048□□ (150 W)



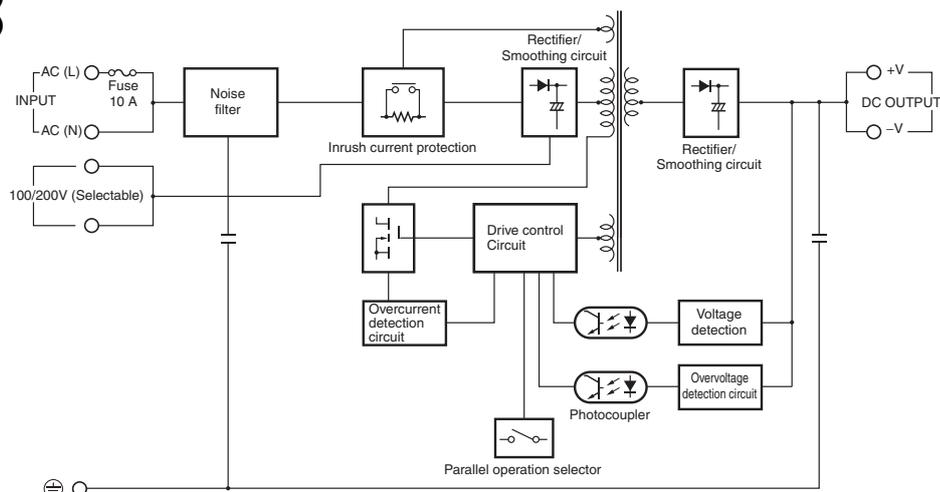
S8JX-G30005□□ (300W)

S8JX-G30012□□ (300W)



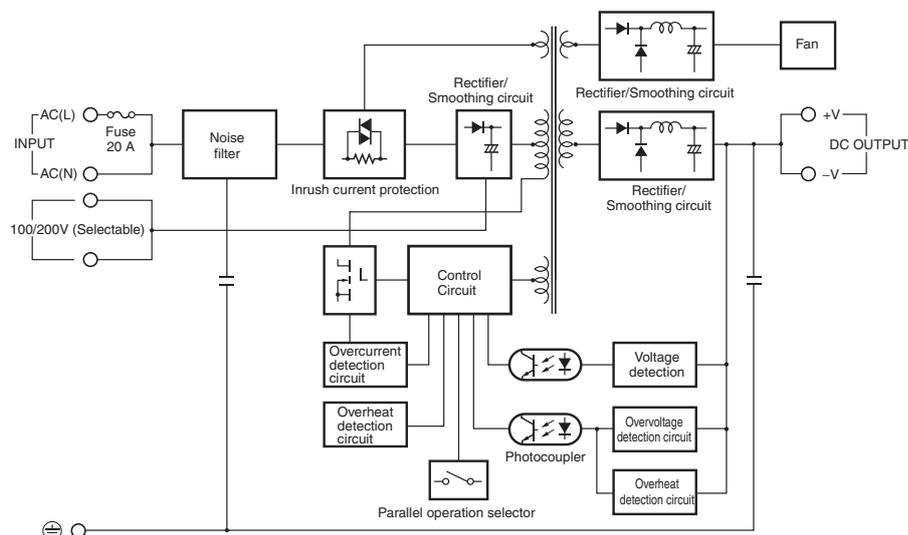
Note: Short-circuit the input voltage selector terminals if the input is 100 to 120 VAC. Keep the terminals open if the input is 200 to 240 VAC.

S8JX-G30024 (300 W)
S8JX-G30048 (300 W)



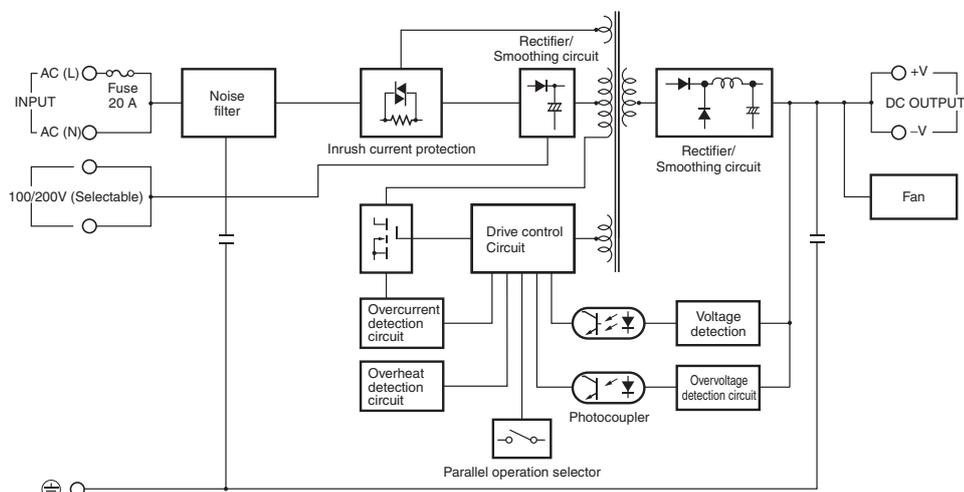
Note: Short-circuit the input voltage selector terminals if the input is 100 to 120 VAC.
Keep the terminals open if the input is 200 to 240 VAC.

S8JX-G60005 (600 W)
S8JX-G60012 (600 W)
S8JX-G60048 (600 W)



Note: Short-circuit the input voltage selector terminals if the input is 100 to 120 VAC.
Keep the terminals open if the input is 200 to 240 VAC.

S8JX-G60024 (600 W)



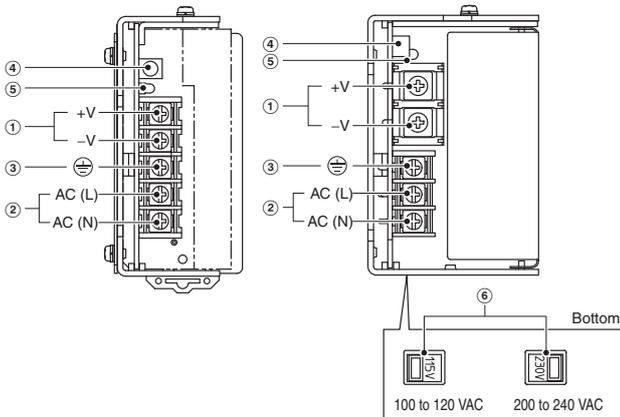
Note: Short-circuit the input voltage selector terminals if the input is 100 to 120 VAC.
Keep the terminals open if the input is 200 to 240 VAC.

S8JX

Construction and Nomenclature

Nomenclature

15-/35-/50-/100-/150-W Models



Note: The S8JX-G05024CD is shown above.

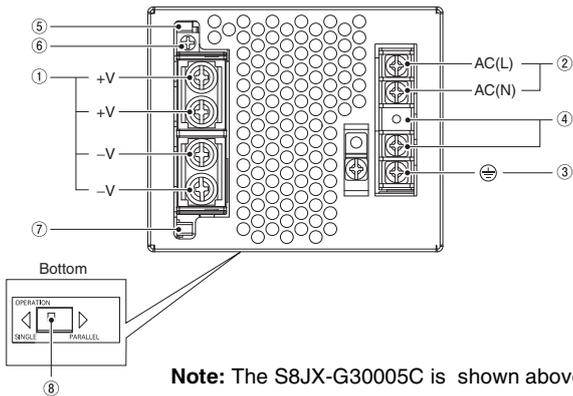
Note: The S8JX-G15005C is shown above.

No.	Name	Function
1	DC Output Terminals (-V), (+V)	Connect the load lines to these terminals.
2	AC Input Terminals (L), (N)	Connect the input lines to these terminals. *1
3	Protective Earth Terminal (PE) (⊕)	Connect the ground line to these terminals. *2
4	Output Voltage Adjuster (V. ADJ)	Use to adjust the voltage.
5	Output Indicator (DC ON: Green)	Lights green while a direct current (DC) output is ON.
6	Input voltage switch	Switches the internal circuits according to the input voltage. "115V": 100 to 120 VAC "230V": 200 to 240 VAC

*1. The fuse is located on the (L) side. It is NOT user-replaceable. For a DC power input, connect the low side to the positive (+) terminal.

*2. This is the protective earth terminal specified in the safety standards. Always ground this terminal.

300-W 5V, 12V Model



Note: The S8JX-G30005C is shown above.

300-W Model

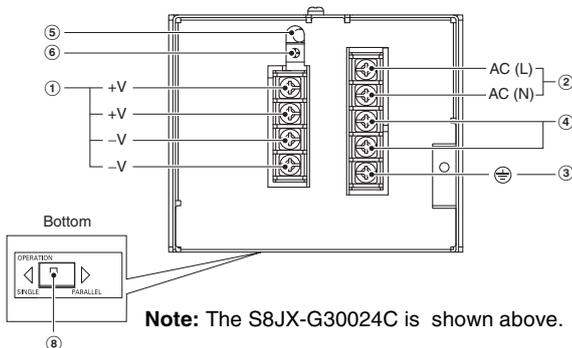
No.	Name	Function
1	DC Output Terminals (+V), (-V)	Connect the load lines to these terminals.
2	AC Input Terminals (L), (N)	Connect the input lines to these terminals. *1
3	Protective Earth Terminal (PE) (⊕)	Connect the ground line to these terminals. *2
4	Input Voltage Selector Terminals	Short-circuit the terminals if the input is 100 to 120 VAC and open the terminals if the input is 200 to 240 VAC.
5	Output Indicator (DC ON: Green)	Lights while a Direct Current (DC) output is ON.
6	Output Voltage Adjuster (V. ADJ)	It is possible to increase or decrease the output voltage.
7	Protection-ON Alarm Indicator (ALM: Red)	The red indicator will be lit if the overvoltage or overheat protection circuit is triggered. This indicator will also be lit when overload is detected. *3
8	Selector of Parallel Operation	Set the selector to PARALLEL if the Units are in parallel operation.

*1. The fuse is located on the (L) side. It is NOT user-replaceable.

*2. This is the protective earth terminal specified in the safety standards. Always ground this terminal.

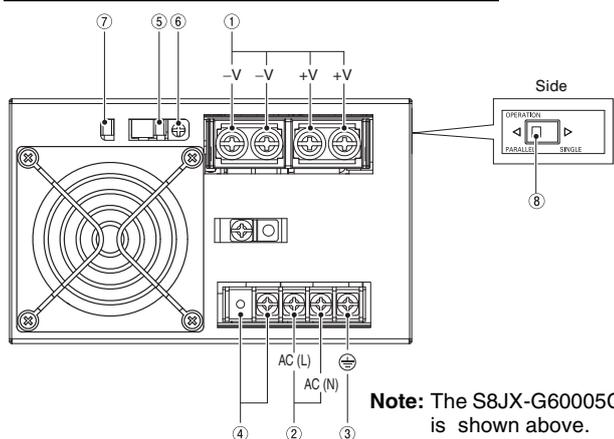
*3. This is not applicable to 24-V and 48-V models.

300-W 24V, 48V Model



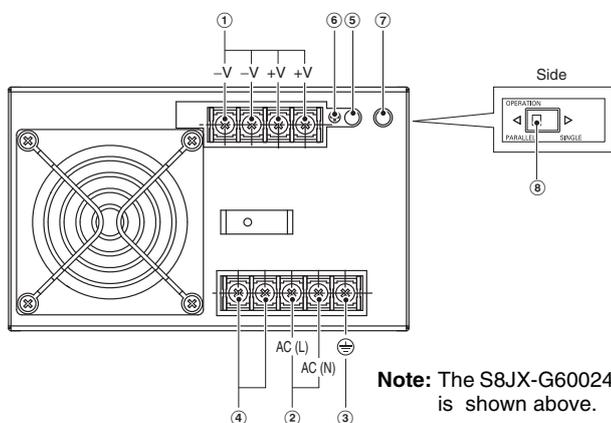
Note: The S8JX-G30024C is shown above.

600-W 5V, 12V Model



Note: The S8JX-G60005C is shown above.

600-W Model 24V, 48V Model



Note: The S8JX-G60024C is shown above.

600-W Model

No.	Name	Function
1	DC Output Terminals (+V), (-V)	Connect the load lines to these terminals.
2	AC Input Terminals (L), (N)	Connect the input lines to these terminals. *1
3	Protective Earth Terminal (PE) (⊕)	Connect the ground line to these terminals. *2
4	Input Voltage Selector Terminals	Short-circuit the terminals if the input is 100 to 120 VAC and open the terminals if the input is 200 to 240 VAC.
5	Output Indicator (DC ON: Green)	Lights while a Direct Current (DC) output is ON.
6	Output Voltage Adjuster (V. ADJ)	It is possible to increase or decrease the output voltage.
7	Protection-ON Alarm Indicator (ALM: Red)	The red indicator will be lit if the overvoltage or overheat protection circuit is triggered. This indicator will also be lit when overload is detected.
8	Selector of Parallel Operation	Set the selector to PARALLEL if the Units are in parallel operation.

*1. The fuse is located on the (L) side. It is NOT user-replaceable.

*2. This is the protective earth terminal specified in the safety standards. Always ground this terminal.

Reference Values

Reliability (MTBF)	S8JX-G15012□□ and S8JX-G15005□□	S8JX-G30005□□ and S8JX-G300012□□	S8JX-G6000□□□	Other models
	240,000 hrs	200,000 hrs	170,000 hrs	250,000 hrs
Definition	MTBF stands for Mean Time Between Failures, which is calculated according to the probability of accidental device failures, and indicates reliability of devices. Therefore, it does not necessarily represent a life of the product.			
Life expectancy	10 yrs. min.			
Definition	The life expectancy indicates average operating hours under the ambient temperature of 40°C and a load rate of 50%. Normally this is determined by the life expectancy of the built-in aluminum electrolytic capacitor.			

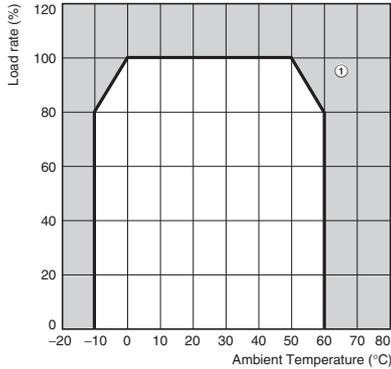
S8JX

Engineering Data

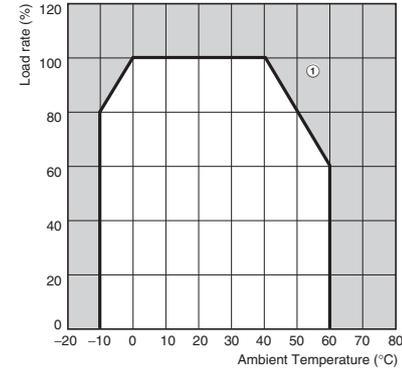
Derating Curves (Standard Mounting)

15-/35-/50-/100-/150-W Models

Open-frame Power Supplies



Covered Power Supplies



Note: 1. Internal parts may occasionally deteriorate or be damaged. Do not use the Power Supply in areas outside the derating curve (i.e., the area shown by shading ① in the above graph).

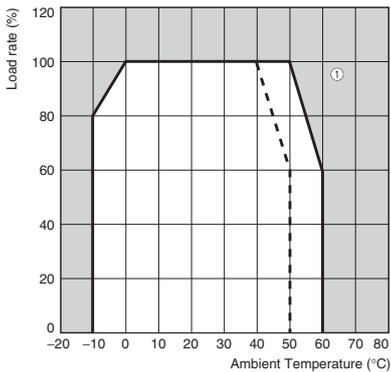
- If there is a derating problem, use forced air-cooling.
- For Customers Using a DC Input

When using an input voltage of less than 100 VDC, reduce the load calculated with the above derating curve by at least the following coefficients.

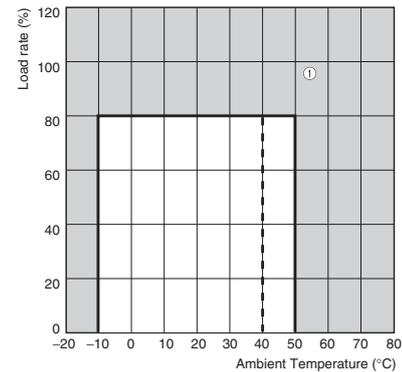
35-W and 100-W (5-V or 12-V output) models:	0.8
50-W/150-W models:	0.85 (DC power cannot be input only to the S8JX-G15005□□.)
15-W and 100-W (24-V or 48-V output):	0.9

300-/600-W 24V, 48V Models

Single Unit Operation



Parallel Operation



— Solid line Front-mounting,
Bottom-mounting,
DIN Rail mounting,
Side mounting
(300W 5V, 12V/
600W 24V, 48V Models)

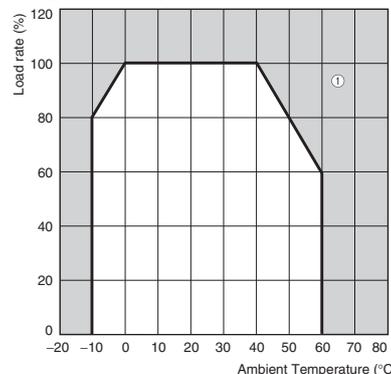
- - - Dotted line Side mounting
(300W 24V, 48V Models)

Note: 1. Internal parts may occasionally deteriorate or be damaged. Do not use the Power Supply in areas outside the derating curve (i.e., the area shown by shading ① in the above graph).

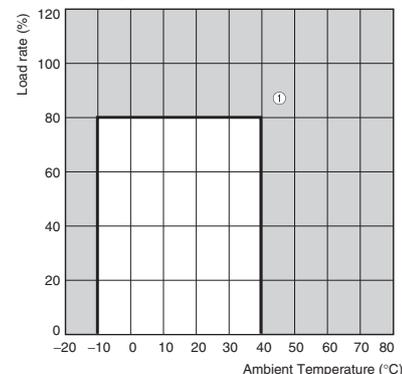
- If there is a derating problem, use forced air-cooling.

600-W 5V, 12V Models

Single Unit Operation



Parallel Operation



Note: 1. Internal parts may occasionally deteriorate or be damaged. Do not use the Power Supply in areas outside the derating curve (i.e., the area shown by shading ① in the above graph).

Mounting

15-/35-/50-/100-/150-W Models

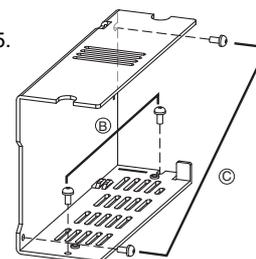
The following three mounting methods are possible.

A. Front-mounting: Refer to *Mounting Bracket Provided with Front-mounting Power Supplies a* on page 25.

B. Bottom-mounting

C. Side-mounting

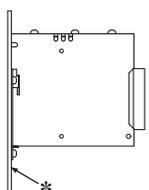
Note: Additional mounting methods are also available using DIN Rail-mounting models.



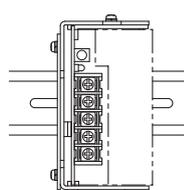
Standard Mounting

15-/35-/50-/100-/150-W Models

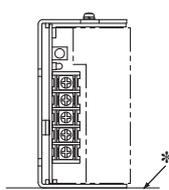
Front-mounting



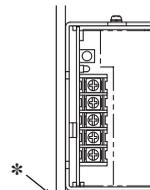
DIN Rail-mounting



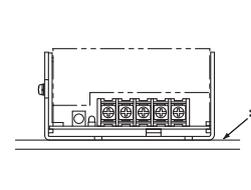
Bottom-mounting



Vertical Side-mounting



Horizontal Side-mounting



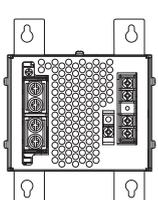
Note: 1. Improper mounting will interfere with heat dissipation and may occasionally result in deterioration or damage of internal parts. Use the standard mounting method only.

2. When mounting the Power Supply, mounting it to a metal plate (*) is recommended.

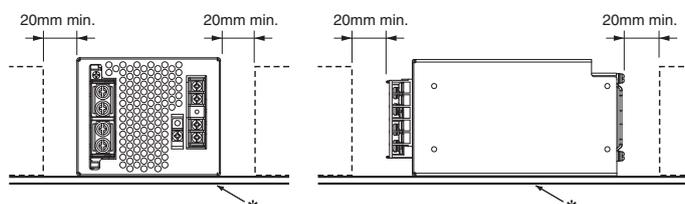
3. Install the Power Supply so that the air flow circulates around the Power Supply, as the Power Supply is designed to radiate heat by means of natural air flow.

300-W 5V, 12V Model

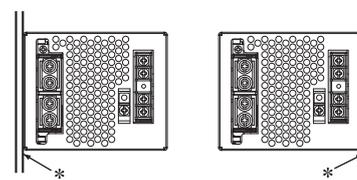
Front-mounting



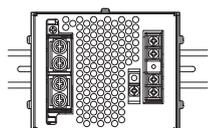
Bottom-mounting



Side-mounting



DIN Rail mounting



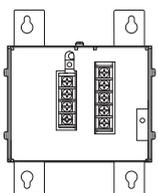
Note: 1. Improper mounting will interfere with heat dissipation and may occasionally result in deterioration or damage of internal parts. Use the standard mounting method only.

2. When mounting the Power Supply, mounting it to a metal plate (*) is recommended.

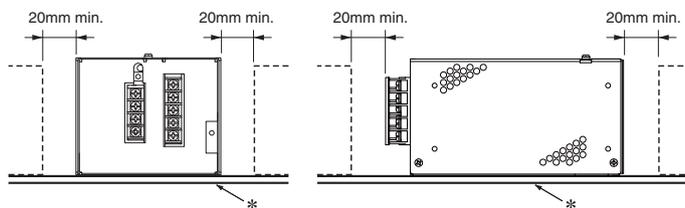
3. Do not cover the air holes (provided at fan mounted side and the opposite side) to have enough air-cooling.

300-W 24V, 48V Model

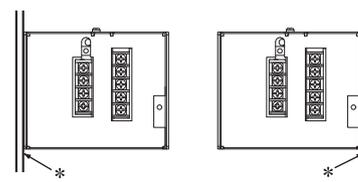
Front-mounting



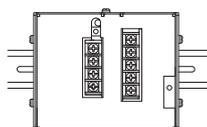
Bottom-mounting



Side-mounting



DIN Rail mounting



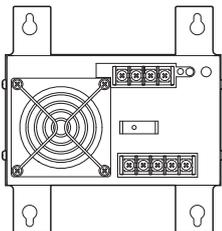
Note: 1. Improper mounting will interfere with heat dissipation and may occasionally result in deterioration or damage of internal parts. Use the standard mounting method only.

2. When mounting the Power Supply, mounting it to a metal plate (*) is recommended.

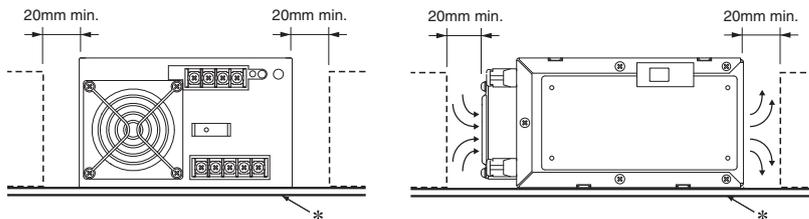
3. Install the Power Supply so that the air flow circulates around the Power Supply, as the Power Supply is designed to radiate heat by means of natural air flow.

600-W Model

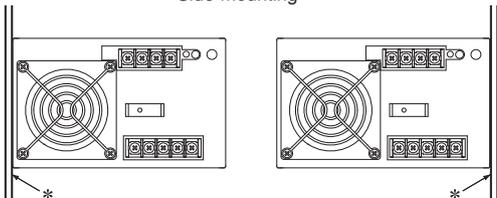
Front-mounting



Bottom-mounting



Side-mounting



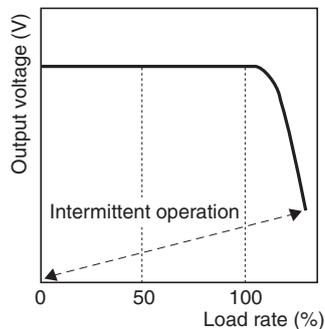
- Note: 1.** Improper mounting will interfere with heat dissipation and may occasionally result in deterioration or damage of internal parts. Use the standard mounting method only.
- 2.** When mounting the Power Supply, mounting it to a metal plate (*) is recommended.
- 3.** Do not cover the air holes (provided at fan mounted side and the opposite side) to have enough air-cooling.

Overload Protection

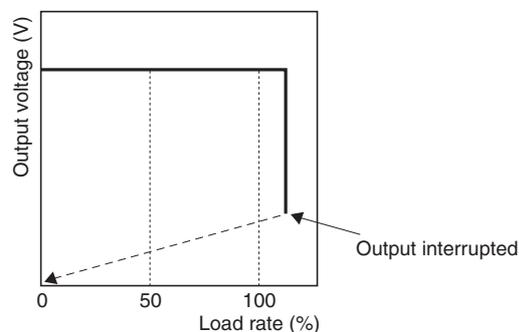
The Power Supply is provided with an overload protection function that protects the power supply from possible damage by overcurrent. When the output current rises above 105% to 175% min. of the rated current, the protection function is triggered, decreasing the output voltage. When the output current falls within the rated range, the overload protection function is automatically cleared.

(Reference value)

15-/35-/50-/100-/150-W (12-/24-/48-V) Models

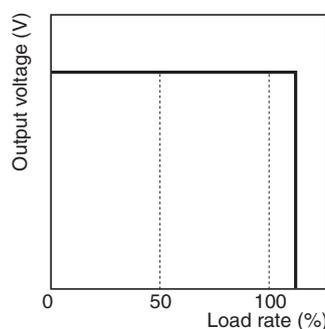


300-W 5V, 12V/600-W Model



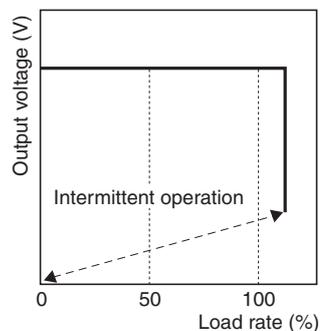
If an excessive current flows for 5 s or more, the output will be turned OFF and simultaneously the protection-ON alarm indicator will be lit. To reset the S8JX, turn OFF the power, leave the S8JX for at least three minutes, and then turn it ON again.

150-W, 5-V Models



- Note:**
1. When a load is connected that has a built-in DC-DC converter, the overload protection may operate at startup and the power supply may not start.
 2. Internal parts may occasionally deteriorate or be damaged if a short-circuited or overcurrent state continues during operation.
 3. Internal parts may possibly deteriorate or be damaged if the Power Supply is used for applications with frequent inrush current or overloading at the load end. Do not use the Power Supply for such applications.

300-W 24V, 48V Model



Overvoltage Protection

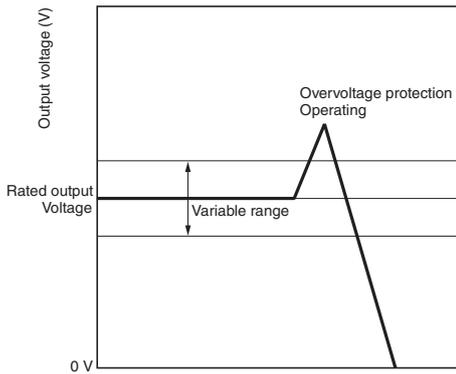
15-/35-/50-/100-/150-W Models

Consider the possibility of an overvoltage and design the system so that the load will not be subjected to an excessive voltage even if the feedback circuit in the power supply fails. When an excessive voltage that is approximately 130% of the rated voltage or more is output, the output voltage is shut OFF, preventing damage to the load due to overvoltage. Reset the input power by turning it OFF for at least seven minutes and then turning it back ON again.

300-/600-W Models

Consider the possibility of an overvoltage and design the system so that the load will not be subjected to an excessive voltage even if the feedback circuit in the Power Supply fails. When an excessive voltage that is approximately 120% of the rated voltage or more is output, the output voltage is shut OFF, preventing damage to the load due to overvoltage (Except 300-W 24V, 48V models). Reset the input power by turning it OFF for at least three minute and then turning it back ON again.

(Reference value)



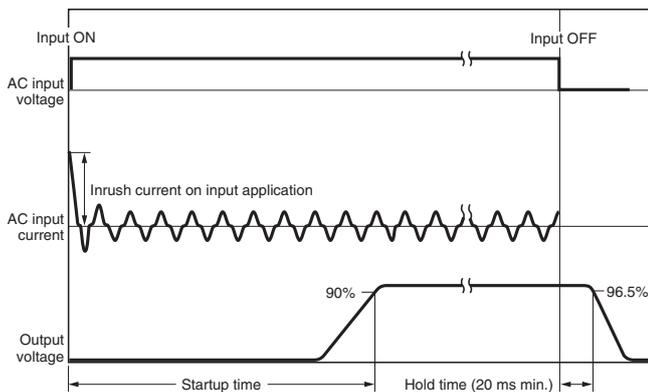
Note: Do not turn ON the power again until the cause of the overvoltage has been removed.

Overheat Protection

300-W 5V, 12V/600-W Model

If the internal temperature rises excessively as a result of fan failure or any other reason, the overheat protection circuit will be triggered to shut OFF the output voltage and simultaneously the protection-ON alarm indicator will be lit. Reset the input power by turning it OFF for at least three minutes and then turning it back ON again.

Inrush Current, Startup Time, Output Hold Time

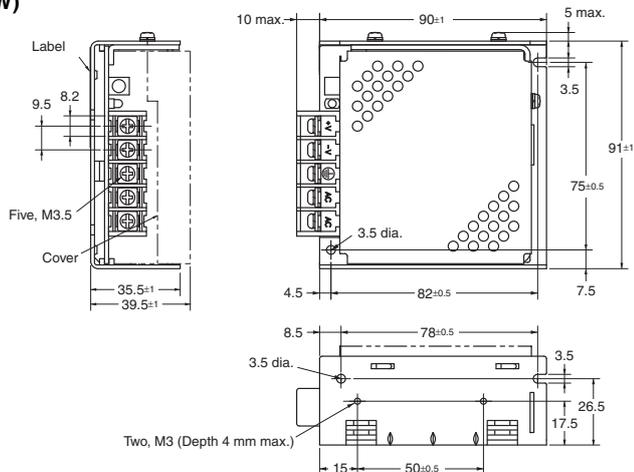


Note: A maximum startup time of 500 ms is required (650 ms for 300 W). Construct a system configuration that considers the startup time of other devices.

Dimensions

Front-mounting Models

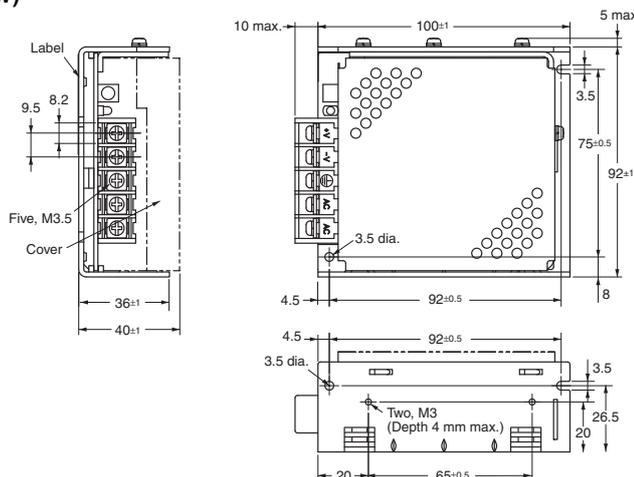
- S8JX-G015□□ (15 W)
- S8JX-G015□□C (15 W)
- S8JX-G035□□ (35 W)
- S8JX-G035□□C (35 W)



Panel mounting holes dimensions

	Surface screw mounting
Side Mounting	
Bottom Mounting	

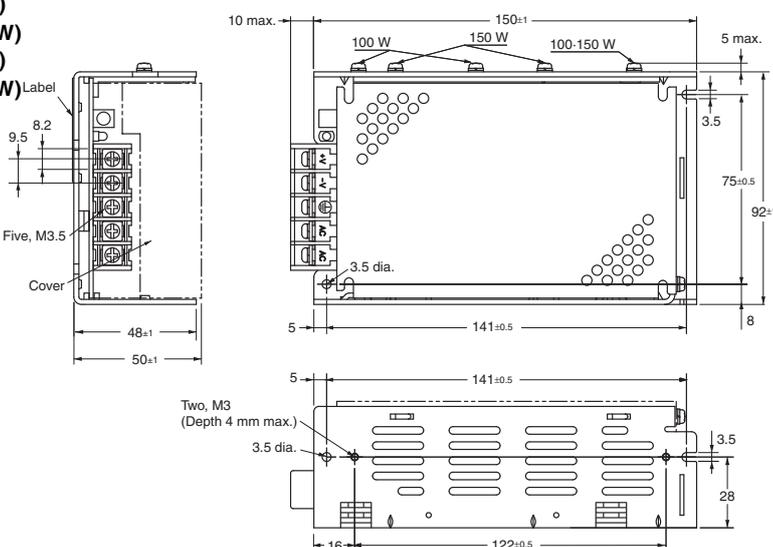
- S8JX-G050□□ (50 W)
- S8JX-G050□□C (50 W)



Panel mounting holes dimensions

	Surface screw mounting
Side Mounting	
Bottom Mounting	

- S8JX-G100□□ (100 W)
- S8JX-G100□□C (100 W)
- S8JX-G15024 (150 W)
- S8JX-G15024C (150 W)
- S8JX-G15048 (150 W)
- S8JX-G15048C (150 W)

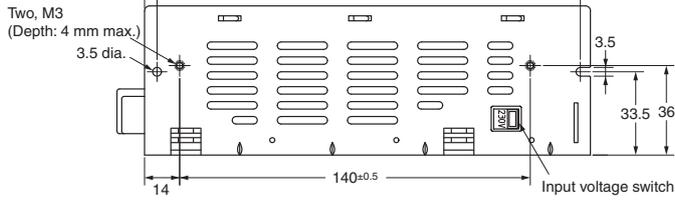
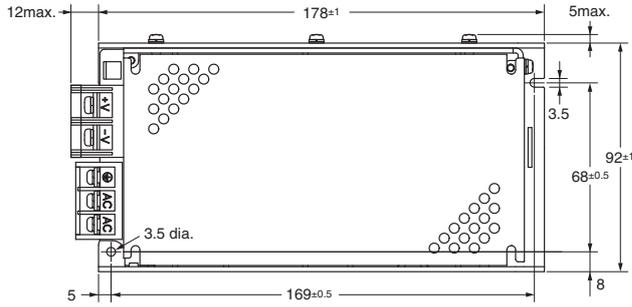
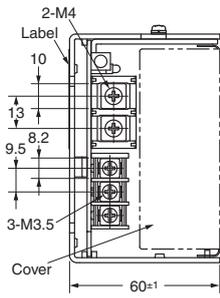


Panel mounting holes dimensions

	Surface screw mounting
Side Mounting	
Bottom Mounting	

S8JX

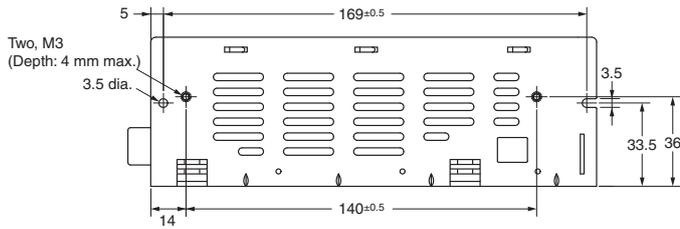
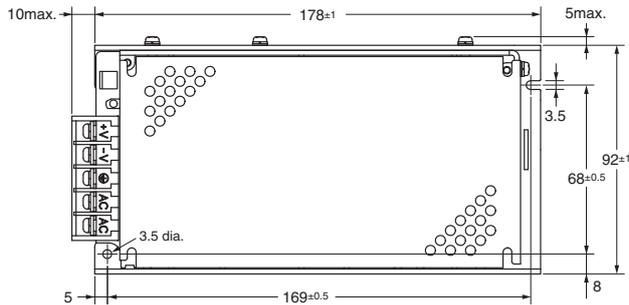
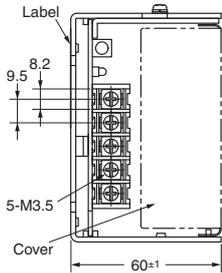
S8JX-G15005 (150 W) S8JX-G15005C (150 W)



Panel mounting holes dimensions

Surface screw mounting	
Side Mounting	Two, M3 68±0.5 169±0.5
Bottom Mounting	Two, M3 169±0.5

S8JX-G15012 (150 W) S8JX-G15012C (150 W)

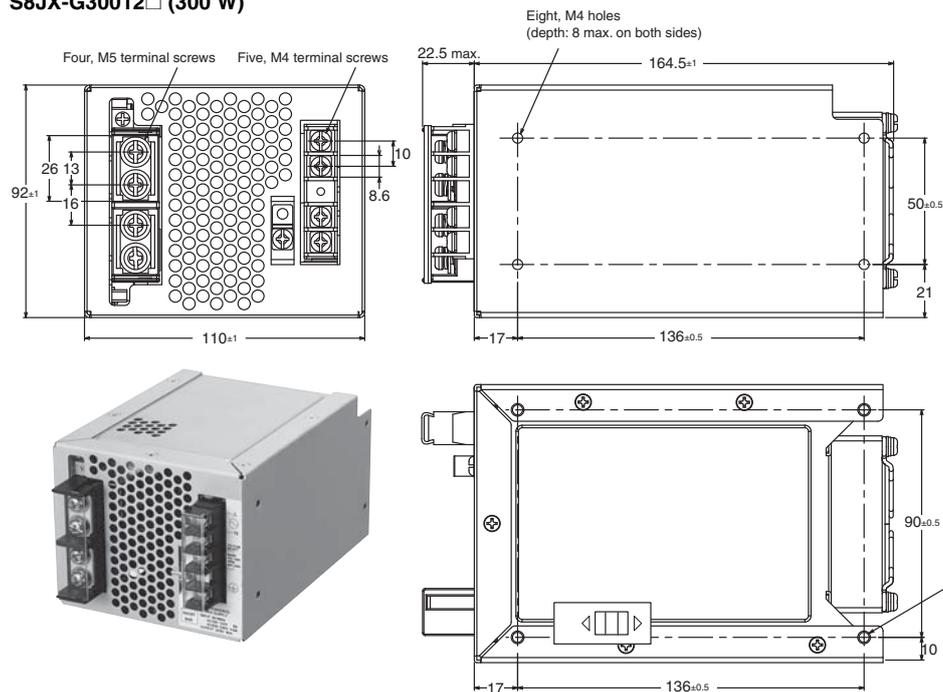


Panel mounting holes dimensions

Surface screw mounting	
Side Mounting	Two, M3 68±0.5 169±0.5
Bottom Mounting	Two, M3 169±0.5

S8JX-G30005 (300 W)

S8JX-G30012 (300 W)

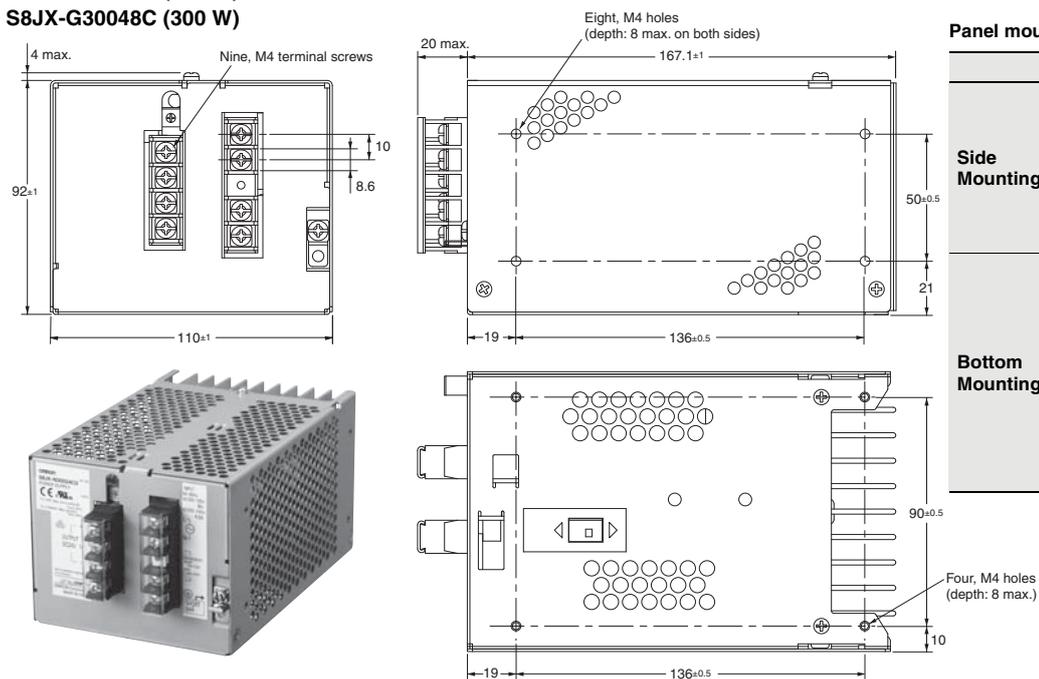


Panel mounting holes dimensions

Surface screw mounting	
Side Mounting	Four, 4.5 dia. 50±0.5 136±0.5
	Four, 4.5 dia. 90±0.5 136±0.5

S8JX-G30024C (300 W)

S8JX-G30048C (300 W)



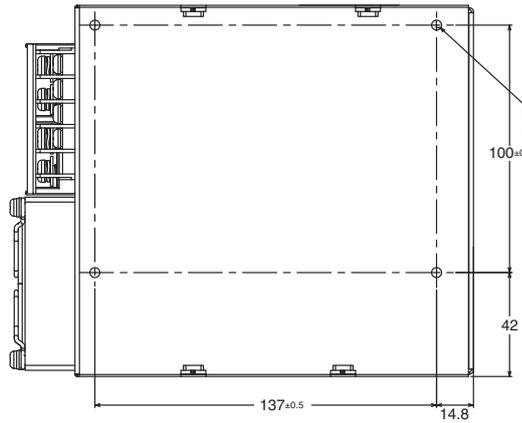
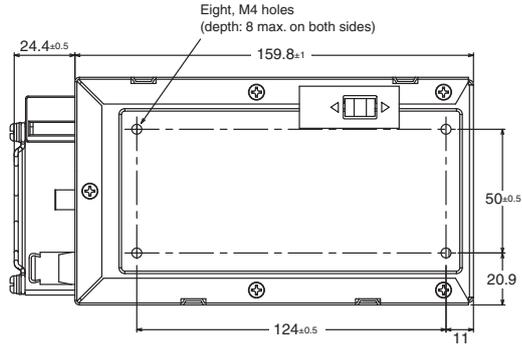
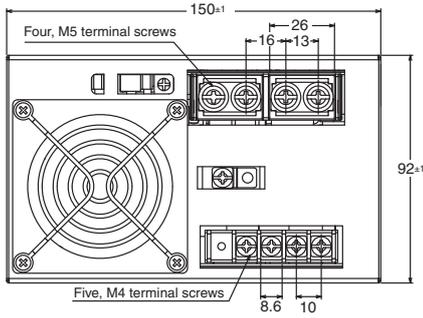
Panel mounting holes dimensions

Surface screw mounting	
Side Mounting	Four, 4.5 dia. 50±0.5 136±0.5
	Four, 4.5 dia. 90±0.5 136±0.5

S8JX

S8JX-G60005 (600 W)

S8JX-G60012 (600 W)

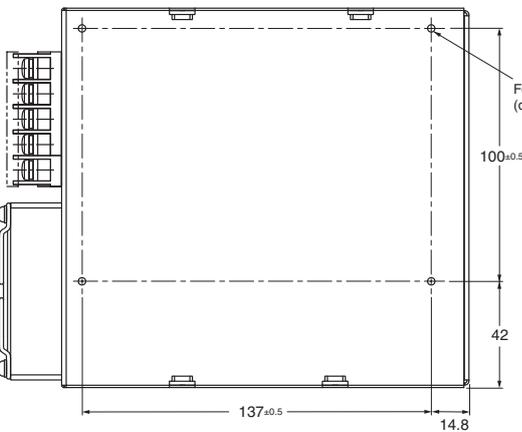
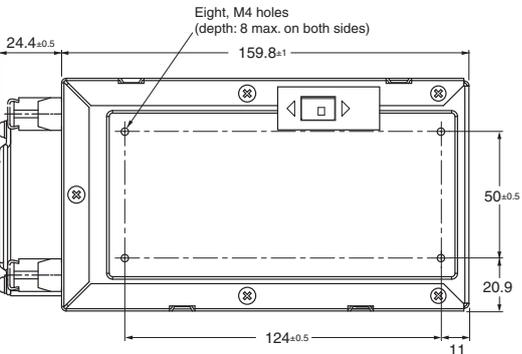
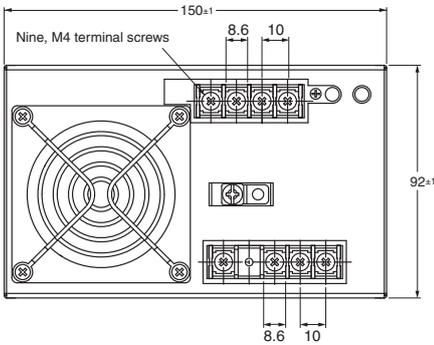


Panel mounting holes dimensions

Surface screw mounting	
Side Mounting	Four, 4.5 dia.
	Dimensions: 124±0.5 (width), 50±0.5 (height)
Bottom Mounting	Four, 4.5 dia.
	Dimensions: 137±0.5 (width), 100±0.5 (height)

S8JX-G60024C (600 W)

S8JX-G60048C (600 W)



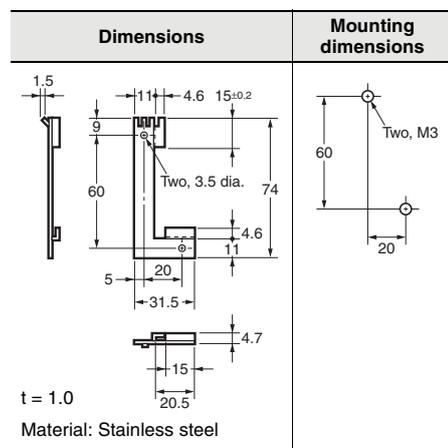
Panel mounting holes dimensions

Surface screw mounting	
Side Mounting	Four, 4.5 dia.
	Dimensions: 124±0.5 (width), 50±0.5 (height)
Bottom Mounting	Four, 4.5 dia.
	Dimensions: 137±0.5 (width), 100±0.5 (height)

Mounting Bracket Provided with Front-mounting Power Supplies a

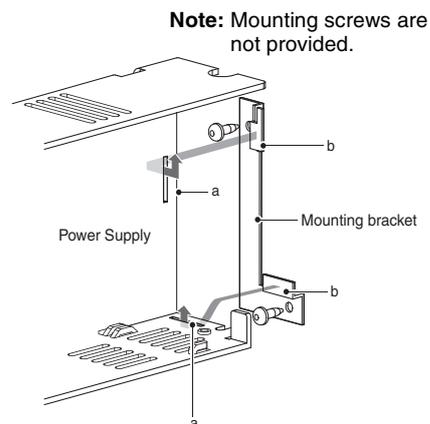
15-/35-/50-/100-/150-W Models

S82Y-J00F Front-mounting Bracket



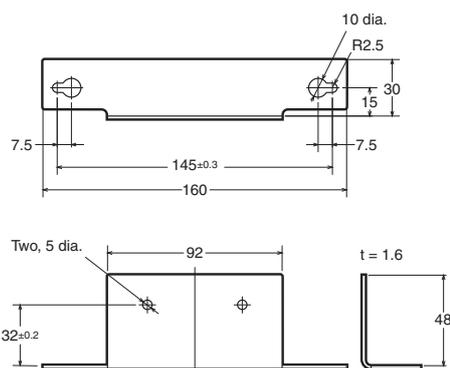
Front-mounting Method

Temporarily attach the enclosed mounting bracket as shown in the illustration on the right, hook the holes (parts a) in the Power Supply on hooks on the mounting bracket (parts b), and secure the Power Supply with two mounting screws.



300-/600-W Models

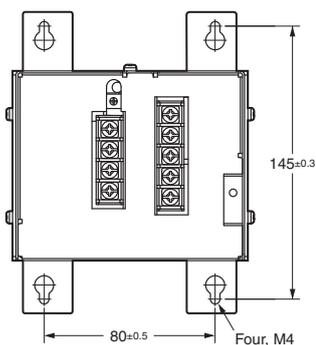
Front-mounting Bracket (S82Y-J30F)



Note: Mounting Brackets are provided in a set, one for the right side and one for the left side.

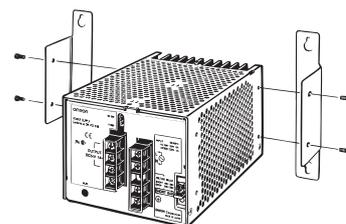
Dimensions with Mounting Brackets

300-W Model



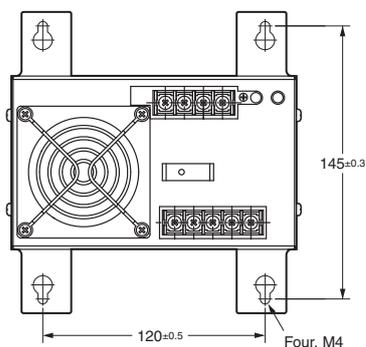
Attaching the Mounting Brackets

300-W Model

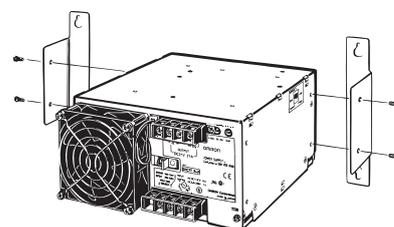


Note: To provide ventilation space, the body will shift forward by 21.6 mm from the mounting surface.

600-W Model



600-W Model

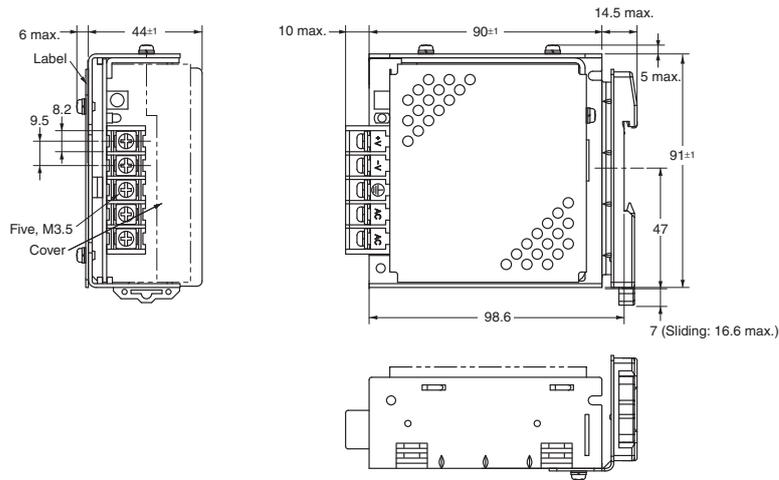


Note: To provide ventilation space, the body will shift forward by 23.6 mm from the mounting surface.

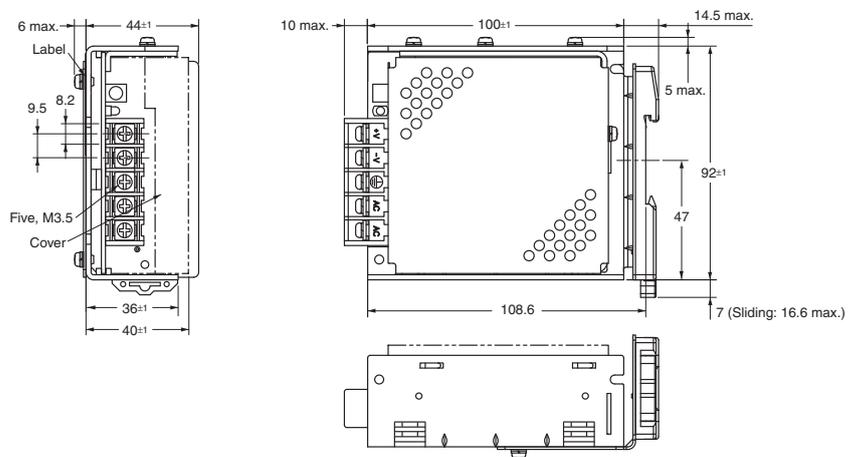
S8JX

DIN Rail-mounting Models

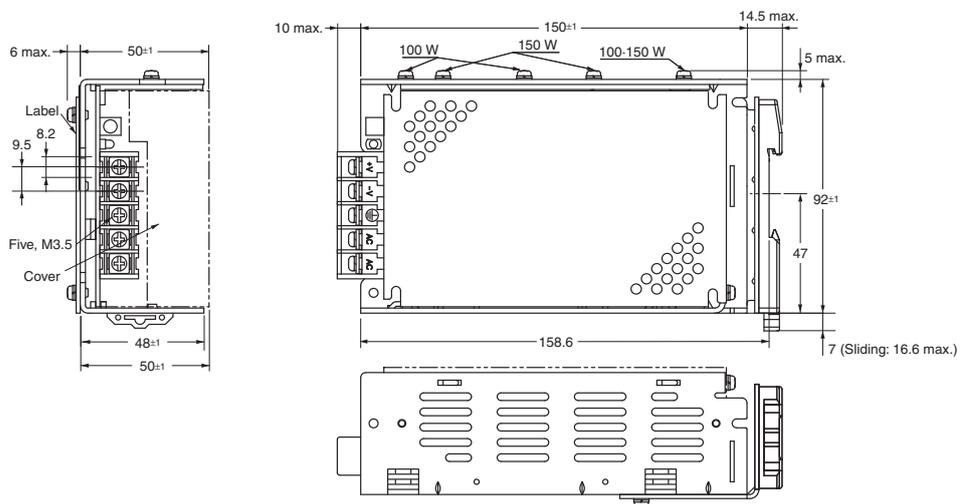
- S8JX-G015□□D (15 W)
- S8JX-G015□□CD (15 W)
- S8JX-G035□□D (35 W)
- S8JX-G035□□CD (35 W)



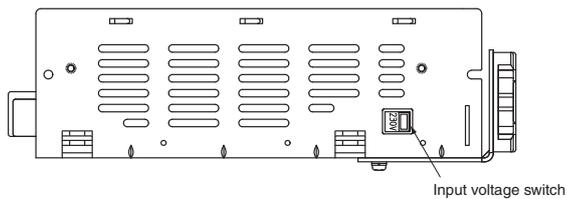
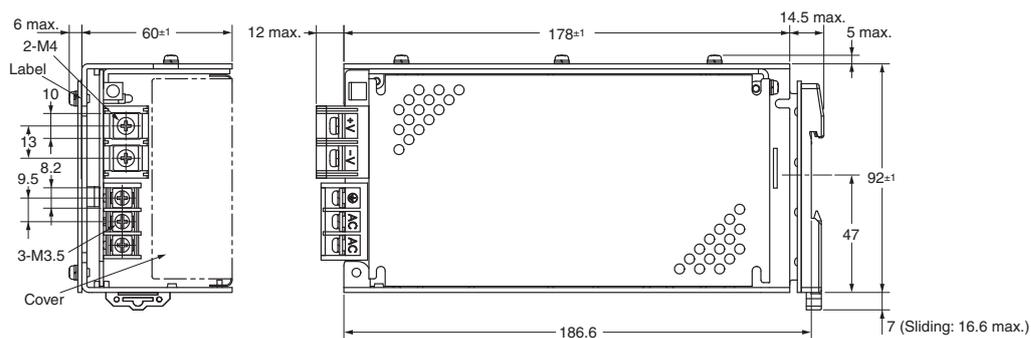
- S8JX-G050□□D (50 W)
- S8JX-G050□□CD (50 W)



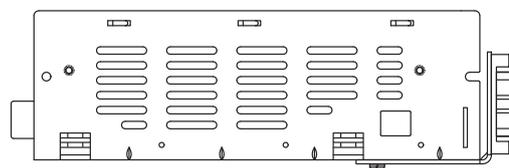
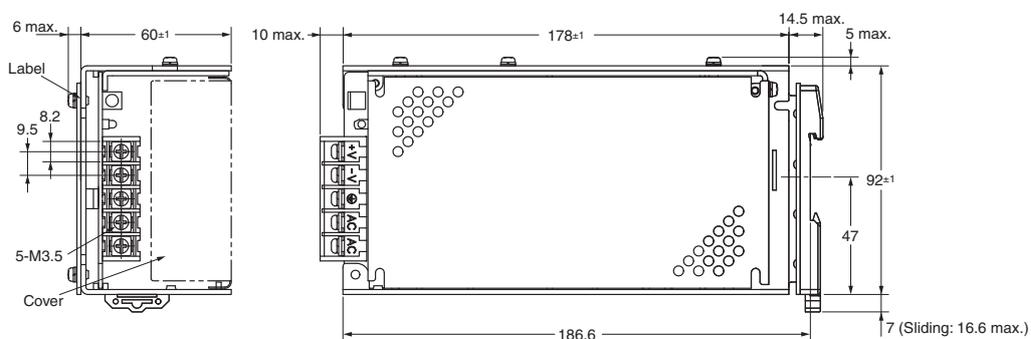
- S8JX-G100□□D (100 W)
- S8JX-G100□□CD (100 W)
- S8JX-G15024D (150 W)
- S8JX-G15024CD (150 W)
- S8JX-G15048D (150 W)
- S8JX-G15048CD (150 W)



S8JX-G15005D (150 W)
S8JX-G15005CD (15 W)

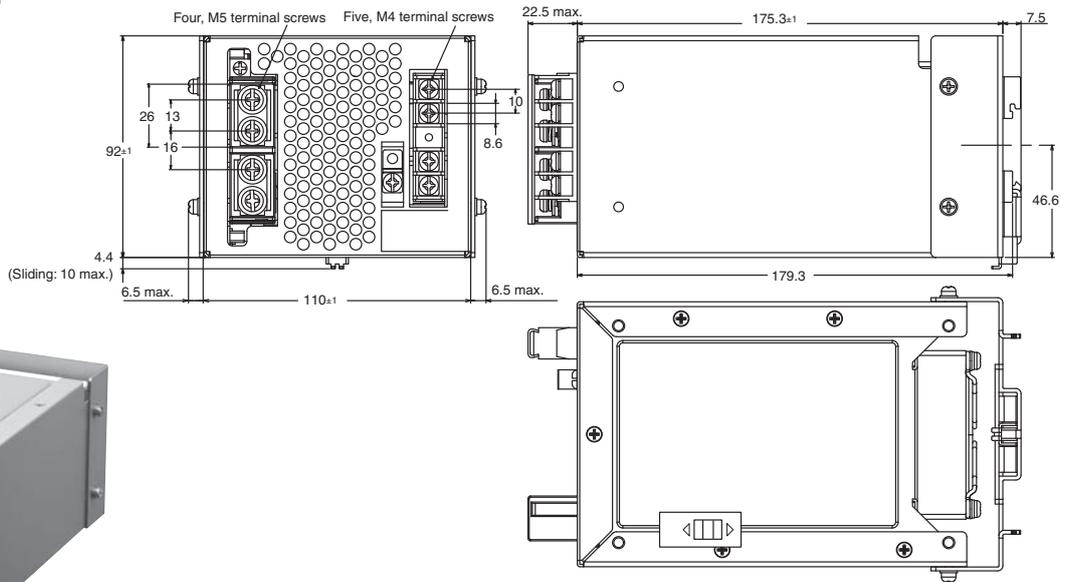


S8JX-G15012D (150 W)
S8JX-G15012CD (150 W)



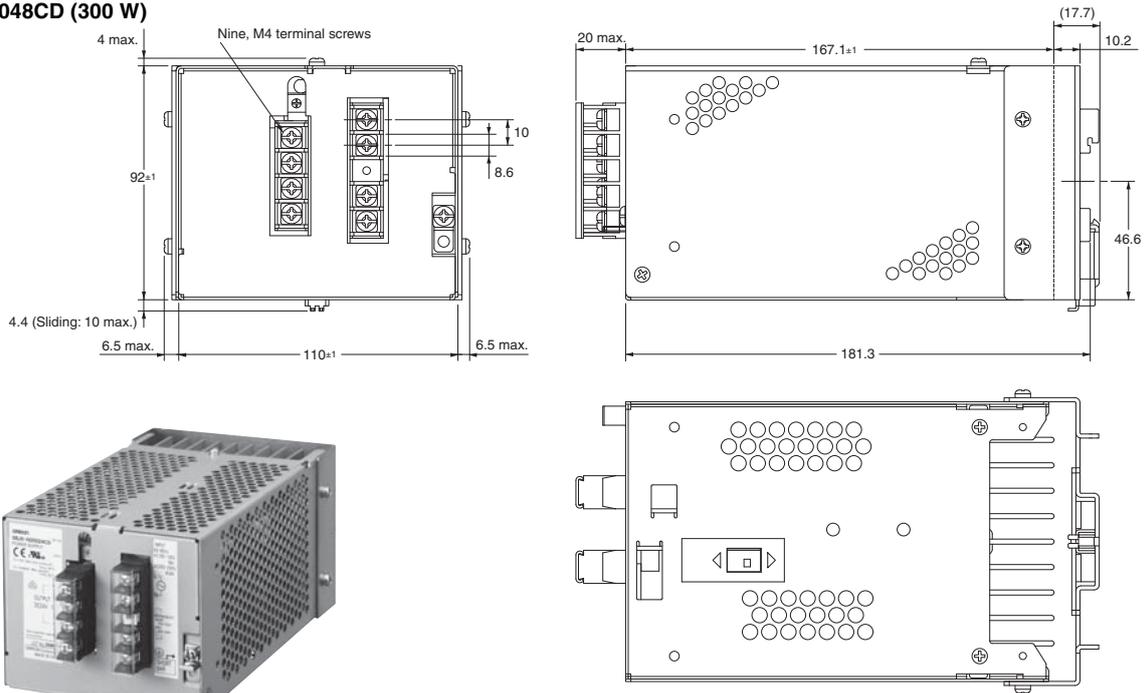
S8JX

S8JX-G30005CD (300W)
S8JX-G30012CD (300W)



Note: Use a metal DIN Rail when mounting a 300-W model to a DIN Rail.

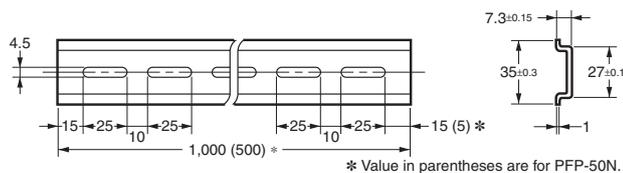
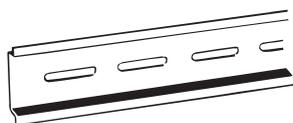
S8JX-G30024CD (300 W)
S8JX-G30048CD (300 W)



Note: Use a metal DIN Rail when mounting a 300-W model to a DIN Rail.

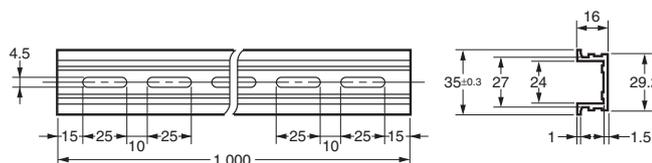
DIN Rail (Order Separately)

Mounting Rail (Material: Aluminum)



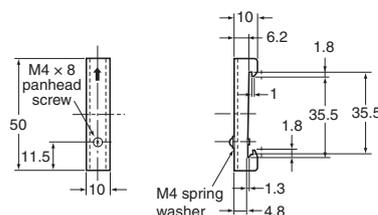
Model
PFP-100N
PFP-50N

Mounting Rail (Material: Aluminum)



Model
PFP-100N2

End Plate



Model
PFP-M

- Note:**
1. If there is a possibility that the Unit will be subject to vibration or shock, use a steel DIN Rail. Otherwise, metallic filings may result from aluminum abrasion.
 2. If the Unit may be subjected to sliding to either side, attach an End Plate (model PFP-M) on each side of the Unit.

Terminal Cover (Order Separately)

Terminal Cover model	Applicable Power Supply and applicable location
S82Y-JX-C4P	S8JX-300W, 24-V or 48-V output
	S8JX-600W, 24-V or 48-V output
S82Y-JX-C5P	S8JX-300W, input
	S8JX-600W, input
S82Y-JTC1	S8JX-15W
	S8JX-30W
	S8JX-50W
	S8JX-100W
	S8JX-150W

Replacement Fan (sold separately)

Model
S82Y-JXFAN

S8JX

Safety Precautions

Refer to *Safety Precautions for All Power Supplies*.

CAUTION

Minor electric shock, fire, or Product failure may occasionally occur. Do not disassemble, modify, or repair the Product to 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.

M3.5, M4:1.13 N·m.

(The DC output terminal of S8JX-G150050□□:1.56 N·m.)

M5:2.25 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.



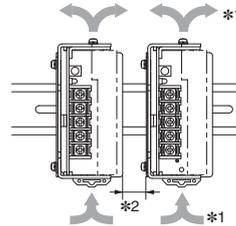
Precautions for Safe Use

Mounting

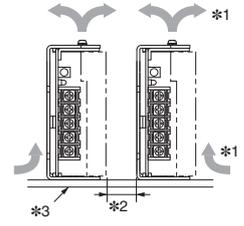
- Take adequate measures to ensure proper heat dissipation to increase the long-term reliability of the Product.
- The 300W 24V, 48V models is Be sure to allow convection in the atmosphere around devices when mounting. Do not use in locations where the ambient temperature exceeds the range of the derating curve.
- The 300W 5V, 12V, 600W models is designed to radiate heat by means of forced 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 beyond the following values inside the Power Supply when screw holes provided on the chassis are used.
15 W, 35 W, 50 W, 100 W, or 150 W: 4 mm min.
300 W or 600 W: 8 mm min.
Mounting screw tightening torque (recommended value) : 0.54 N·m.
- Rear mounting is possible using provided mounting bracket.
- When cutting out holes for mounting, make sure that cuttings do not enter the interior of the Products.
- Improper mounting will interfere with heat dissipation and may occasionally result in deterioration or damage of internal parts. Use the standard mounting method only.
- The internal parts may occasionally deteriorate and be broken due to adverse heat radiation. Do not loosen the screw on the side face of the main body.
- When mounting two or more Power Supplies side-by-side, allow at least 20 mm spacing between them.
- Provide a space of at least 20 mm back and forth when mounting 300-W and 600-W models as well.
- Use the metal plate as the mounting panel.
- Minor fire may occasionally occur. Set the input voltage switch to the input voltage that is to be used (150-W, 5-V models only).

15-/35-/50-/100-/150-W Models

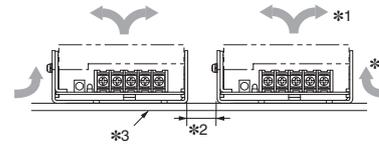
Standard Mounting
(Front-mounting and DIN Rail-mounting)



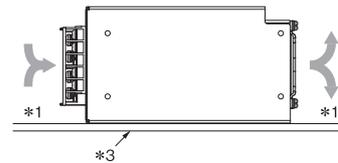
Standard Mounting
(Bottom-mounting)



Standard Mounting
(Horizontal Mounting)

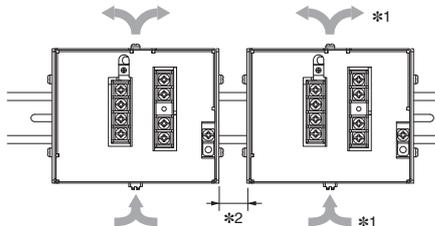


300-W 5V, 12V Model

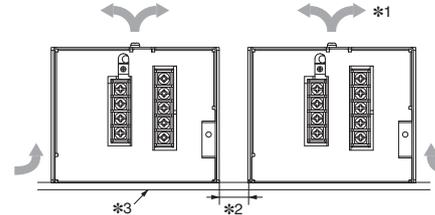


300-W 24V, 48V Model

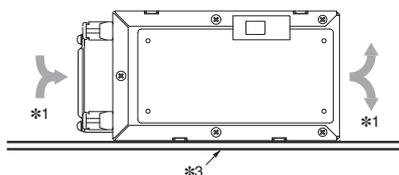
Standard Mounting
(Front-mounting and DIN Rail-mounting)



Standard Mounting
(Bottom-mounting)



600-W Model



*1. Convection of air

*2. 20 mm max.

*3. Use a metal plate as the mounting surface.

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.
- Minor fire may possibly occur. Ensure that input and output terminals are wired correctly.
- Do not apply more than 75 N force to the terminal block when tightening it.
- Be sure to remove the sheet covering the Product for machining before power-ON so that it does not interfere with heat dissipation.
- Use the following material for the wires to be connected to the S8JX to prevent smoking or ignition caused by abnormal loads.

Recommended Wire Type

15 W, 35 W	AWG12 to AWG20 (a cross section of 0.517 to 3.309 mm ²) UL-certified temperature of at least 75°C
50W, 100W, 150 W (except for 5 V)	AWG12 to AWG16 (a cross section of 1.309 to 3.309 mm ²) UL-certified temperature of at least 60°C or 60/75°C
150 W at 5 V	Input side AWG12 to AWG16 (a cross-section of 1.309 to 3.309 mm ²) UL-certified temperature of at least 60°C or 60/75°C
	Output side AWG8 to AWG14 (a cross-section of 2.081 to 8.368 mm ²) UL-certified temperature of at least 60°C or 60/75°C
300W 5V, 12V 600W 5V, 12V	Input side AWG12 to AWG20 (a cross section of 0.517 to 3.309 mm ²) UL-certified temperature of at least 60°C or 60/75°C
	Output side AWG6 to AWG20 (a cross section of 0.517 to 13.30 mm ²) UL-certified temperature of at least 60°C or 60/75°C
300 W 24V, 48V, 600 W 24V, 48V	AWG12 to AWG20 (a cross section of 0.517 to 3.309 mm ²) UL-certified temperature of at least 60°C or 60/75°C

* The rated current for the output terminals on the S8JX-G30005□□, S8JX-G30012□□, S8JX-G60005□, and S8JX-G60012□ is 60A for each terminal. The rated current for the output terminals on the S8JX-G30024□□, S8JX-G30048□□, S8JX-G60024□, and S8JX-G60048□ is 20 A for each terminal. Use two terminals together if the current flow is higher than the rated terminal current.

Installation Environment

- Do not use the Power Supply in locations subject to shocks or vibrations. In particular, install the Power Supply as far away as possible from contactors or other devices that are a vibration source.
- Install the Power Supply well away from any sources of strong, high-frequency noise and surge.

Ambient Operating and Storage Environments

- Store the Power Supply at a temperature of -25 to 65°C and a humidity of 25% to 90%.
- The Internal parts may occasionally deteriorate or be damaged. Do not use the Power Supply outside the derating range (i.e., the area shown by shading ① in the derating curve diagram on page 16.)
- Use the Power Supply at a humidity of 25% to 85%.
- Do not use the Power Supply in locations subject to direct sunlight.
- Do not use locations where liquids, foreign matter, or corrosive gases may enter the interior of the Product.

Overload Protection

- Internal parts may possibly deteriorate or be damaged if a short-circuited or overload state continues during operation.
- Internal parts may possibly deteriorate or be damaged if the Power Supply is used for applications with frequent inrush current or

overloading at the load end. Do not use the Power Supply for such applications.

Charging a Battery

When connecting a battery at the load, connect an overcurrent limiting circuit and overvoltage protection circuit.

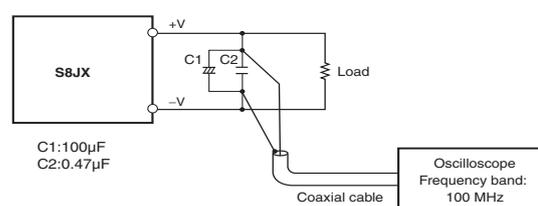
Output Voltage Adjuster (V.ADJ)

- The output voltage adjuster (V.ADJ) may possibly be damaged if it is turned with unnecessary force. Do not turn the adjuster with excessive force.
- After completing output voltage adjustment, be sure that the output capacity or output current does not exceed the rated output capacity or rated output current.

Ripple Noise Voltage

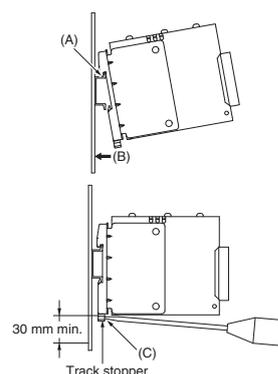
(300-W, 5-V and 600-W, 5-V or 12-V Models)

The specified standard for the ripple voltage noise was measured with a measurement circuit that is based on JEITA standard RC-9131A.



DIN Rail-mounting

To mount the Power Supply to a DIN Rail, pull down the rail stopper until you hear it clicks open, hook portion (A) of the Power Supply onto the DIN Rail, press the Power Supply in direction (B), and then push up the rail stopper to lock the Power Supply in place.

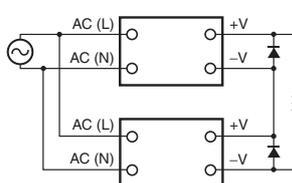


To dismount the Power Supply, pull down portion (C) with a flat-blade screwdriver and pull out the Power Supply.

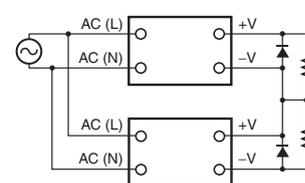
Series Operation

Two power supplies can be connected in series. The (±) voltage output can be accomplished with two Power Supplies.

Series Operation Correct



Output Voltage (±) Correct



Note: 1. If the load is short-circuited, a reverse voltage will be generated inside the Power Supply. If this occurs the Power Supply may possibly deteriorate or be damaged. Always connect a diode as shown in the figure. Select a diode having the following ratings.

Type	Schottky Barrier diode
Dielectric strength (V _{RRM})	Twice the rated output voltage or above
Forward current (I _F)	Twice the rated output current or above

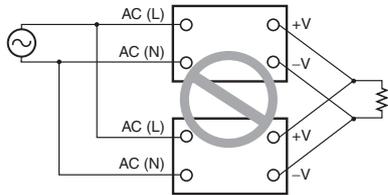
2. Although Products having different specifications can be connected in series, the current flowing through the load must not exceed the smaller rated output current.

Parallel Operation

15-/35-/50-/100-/150-W Models

The Product is not designed for parallel operation.

Parallel Operation Incorrect

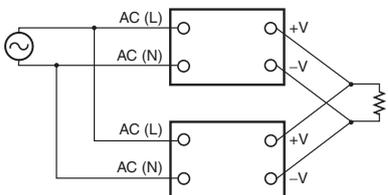


300-/600-W Models

Parallel operation is possible under 80% of the rated value.

- To operate in parallel, set the switch to the "PARALLEL" side.
- 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.
- It is desirable to set the same value on the voltage adjuster of each Power Supply.

Parallel Operation Correct



In Case There Is No Output Voltage

The possible cause for no output voltage may be that the overcurrent or overvoltage protection has operated. The internal protection may operate if a large amount of surge voltage such as a lightning surge occurs while turning ON the Power Supply.

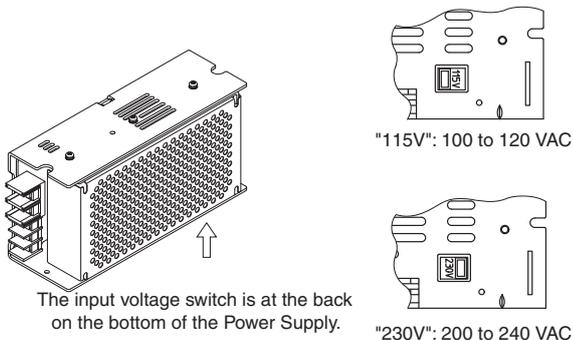
In case there is no output voltage, please check the following points before contacting us:

- Checking overcurrent protected status:
Check whether the load is in overcurrent status or is short-circuited. Remove wires to load when checking.
- Checking overvoltage or internal protection:
Turn the power supply OFF once, and leave it OFF for at least 7 minutes. Then turn it ON again to see if this clears the condition.

Switching the AC Input Voltage between 100 and 200 VAC

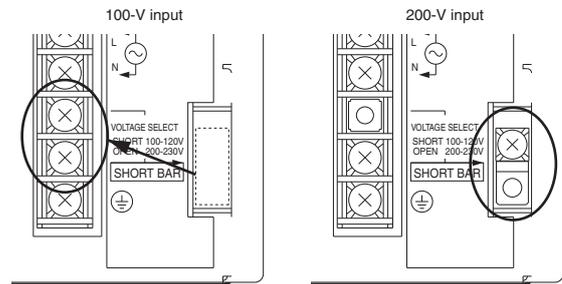
150-W, 5-V Models

The input voltage can be switched between 100 V and 200 V by using the input voltage switch. Make the setting shown in the following figure for the voltage that will be used. (The input voltage is factory-set to 200 V.)



300-/600-W Models

The input voltage can be switched between 100 and 200 V by shorting or opening the input voltage selection terminals. Set the required voltage as shown below. (The voltage is factory-set to 200 V.)



Short with the short bar.

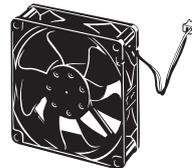
Remove the short bar and leave the terminals open.

Note: A 300-W model is shown above.

Fan Replacement

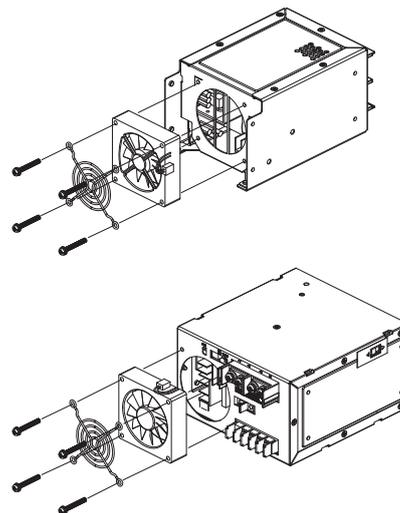
300-W 5V, 12V/600-W Model

The service life of the fan is approximately 50,000 hours (at 25°C). The service life varies, however, depending on the ambient temperature or other surrounding environmental conditions such as dust. As a preventive maintenance measure, replace the fan within approx. two years if it is used at an ambient temperature of 40°C. Purchase the S82Y-JX FAN Replacement Fan (sold separately) to replace the fan.



Fan Set:
Fan (above), instruction sheet

Replace the fan as shown in the following illustration.



ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

Read and Understand this Catalog

Please read and understand this catalog before purchasing the product. Please consult your OMRON representative if you have any questions or comments.

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Application Considerations

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OMRON shall not be responsible for conformity with any standards, codes, or regulations that apply to the combination of products in the customer's application or use of the products.

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 PRODUCTS ARE PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

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Product specifications and accessories may be changed at any time based on improvements and other reasons.

It is our practice to change model numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the products may be changed without any notice. When in doubt, special model numbers may be assigned to fix or establish key specifications for your application on your request. Please consult with your OMRON representative at any time to confirm actual specifications of purchased products.

DIMENSIONS AND WEIGHTS

Dimensions and weights are nominal and are not to be used for manufacturing purposes, even when tolerances are shown.

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CSM_10_1_0911
Cat. No. T041-E1-05

Printed in Japan
0911