

Switch Mode Power Supply

S8JC-Z (15/35/50/100/150/350-W Models)

Economical Power Supply

- Mount to DIN Rails for models with ratings of 15 to 350 W
- Protection against overcurrents and overvoltages.

Note: Refer to *Safety Precautions* on page 10.



Model Number Structure

Model Number Legend

Note: Not all combinations are possible. Refer to *List of Models* in *Ordering Information* on page 1.

S8JC-Z□□□□□□□□
 1 2 3 4

1. Power Ratings

015: 15 W
 035: 35 W
 050: 50 W
 100: 100 W
 150: 150 W
 350: 350 W

2. Output Voltage

05: 5 V
 12: 12 V
 24: 24 V

3. Configuration

(15/35/50/100/150/350 W model)

C: Covered

4. Configuration/mounting

None: Bottom-mounting

D: DIN Rail-mounting

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		
Covered Power Supplies	200 to 240 VAC	15 W	5 V	3.0 A	S8JC-Z01505C		
			12 V	1.3 A	S8JC-Z01512C		
			24 V	0.7 A	S8JC-Z01524C		
		35 W	5 V	7.0 A	S8JC-Z03505C		
			12 V	3.0 A	S8JC-Z03512C		
			24 V	1.5 A	S8JC-Z03524C		
		50 W	5 V	10.0 A	S8JC-Z05005C		
			12 V	4.2 A	S8JC-Z05012C		
			24 V	2.1 A	S8JC-Z05024C		
		100 W	5 V	20.0 A	S8JC-Z10005C		
			12 V	8.5 A	S8JC-Z10012C		
		150 W	24 V	4.5 A	S8JC-Z10024C		
			5 V	30.0 A	S8JC-Z15005C		
			12 V	12.5 A	S8JC-Z15012C		
		350 W	24 V	6.5 A	S8JC-Z15024C		
			24 V	14.6 A	S8JC-Z35024C		
		DIN Rail-mounting	200 to 240 VAC	15 W	5 V	3.0 A	S8JC-Z01505CD
					12 V	1.3 A	S8JC-Z01512CD
					24 V	0.7 A	S8JC-Z01524CD
				35 W	5 V	7.0 A	S8JC-Z03505CD
					12 V	3.0 A	S8JC-Z03512CD
					24 V	1.5 A	S8JC-Z03524CD
				50 W	5 V	10.0 A	S8JC-Z05005CD
					12 V	4.2 A	S8JC-Z05012CD
24 V	2.1 A				S8JC-Z05024CD		
100 W	5 V			20.0 A	S8JC-Z10005CD		
	12 V			8.5 A	S8JC-Z10012CD		
150 W	24 V			4.5 A	S8JC-Z10024CD		
	5 V			30.0 A	S8JC-Z15005CD		
	12 V			12.5 A	S8JC-Z15012CD		
350 W	24 V			6.5 A	S8JC-Z15024CD		
	24 V			14.6 A	S8JC-Z35024CD		

S8JC-Z

Ratings, Characteristics, and Functions

15-/35-/50-W Models

Item	Power ratings	15 W			35 W			50 W			
		5 V	12 V	24 V	5 V	12 V	24 V	5 V	12 V	24 V	
Output	Output voltage (VDC)	5 V	12 V	24 V	5 V	12 V	24 V	5 V	12 V	24 V	
	Output current	3.0 A	1.3 A	0.7 A	7.0 A	3.0 A	1.5 A	10.0 A	4.2 A	2.1 A	
	Voltage adjustment range (typical)	-10% to 10%									
	Ripple (typical)	100 mV			100 mV	150 mV		150 mV		100 mV	
	Startup time (typical)	300 ms									
	Hold time (typical)	50 ms				30 ms					
Efficiency (typical)		74%	80%		75%	82%	84%	76%	83%	84%	
Input	Voltage	200 to 240 VAC (185 to 264 VAC)									
	Frequency	50/60 Hz (47 to 63 Hz)									
	Current (typical)	0.22 A			0.5 A			0.65 A	0.6 A	0.6 A	
	Leakage current	1 mA max.									
	Inrush current (for a cold start at 25°C) (typical)	40 A									
Additional functions	Overload protection	105% of rated load current, voltage drop, intermittent, automatic reset									
	Overvoltage protection	Yes									
	Parallel operation	No									
	Series operation	No									
Other	Ambient operating temperature	Refer to the derating curve in <i>Engineering Data</i> on page 3 (with no icing or condensation)									
	Dielectric strength	1.5 kVAC for 1 min. (between all inputs and outputs; detection current: 20 mA) 1.5 kVAC for 1 min. (between all inputs and PE terminals; detection current: 20 mA) 0.5 kVAC for 1 min. (between all outputs and PE terminals; detection current: 20 mA)									
	Vibration resistance	10 to 55 Hz, 0.26-mm single amplitude for 2h each in X, Y, and Z directions									
	Output indicator	Yes (Color: Green)									
	Dimensions (W×H×D)	Bottom-mounting model	36×97×80 mm			38×98×129 mm					
		DIN Rail-mounting model (See note 3.)	46×97×106 mm			46×98×155 mm					
	Weight (typical)	Bottom-mounting model	190 g			280 g					
DIN Rail-mounting model		360 g			450 g						

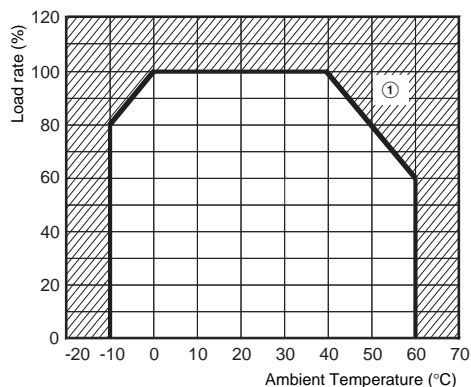
100-/150-/350-W Models

Item	Power ratings	100 W			150 W			350 W		
		5 V	12 V	24 V	5 V	12 V	24 V	24 V		
Output	Output voltage (VDC)	5 V	12 V	24 V	5 V	12 V	24 V	24 V		
	Output current	20.0 A	8.5 A	4.5 A	30.0 A	12.5 A	6.5 A	14.6 A		
	Voltage adjustment range (typical)	-10% to 10%								
	Ripple (typical)	130 mV	120 mV	100 mV	140 mV	180 mV	150 mV	200 mV		
	Startup time (typical)	300 ms					800 ms	300 ms		
	Hold time (typical)	50 ms						25 ms		
Efficiency (typical)		78%	85%	86%	79%	85%	88%	84%		
Input	Voltage	200 to 240 VAC (185 to 264 VAC)								
	Frequency	50/60 Hz (47 to 63 Hz)								
	Current (typical)	1.4A			2.0A			4.2 A		
	Leakage current	1 mA max.								
	Inrush current (for a cold start at 25°C) (typical)	40 A								
Additional functions	Overload protection	105% of rated load current, voltage drop, intermittent, automatic reset								
	Overvoltage protection	Yes								
	Parallel operation	No								
	Series operation	No								
Other	Ambient operating temperature	Refer to the derating curve in <i>Engineering Data</i> on page 3 (with no icing or condensation)								
	Dielectric strength	1.5 kVAC for 1 min. (between all inputs and outputs; detection current: 20 mA) 1.5 kVAC for 1 min. (between all inputs and PE terminals; detection current: 20 mA) 0.5 kVAC for 1 min. (between all outputs and PE terminals; detection current: 20 mA)								
	Vibration resistance	10 to 55 Hz, 0.26-mm single amplitude for 2h each in X, Y, and Z directions								
	Output indicator	Yes (Color: Green)								
	Dimensions (W×H×D)	Bottom-mounting model	50×98×159 mm	38×98×159 mm		43×98×199 mm	50×98×159 mm		50×115×195 mm	
		DIN Rail-mounting model (See note 3.)	52×98×186 mm	46×98×186 mm		46×98×226 mm	52×98×186 mm		52×115×221 mm	
	Weight (typical)	Bottom-mounting model	430 g	370 g	350 g	580 g	530 g	750 g	750 g	
DIN Rail-mounting model		600 g	540 g	520 g	750 g	700 g	920 g	920 g		

- Note:** 1. Unless otherwise specified, all parameters are measured with a 230-VAC input, at the rated load, and at an ambient temperature of 25°C.
 2. Ripple and noise are measured at a bandwidth of 20 MHz.
 3. Refer to the dimensional diagrams for details on DIN Rail-mounting Models (excluding terminal blocks and DIN Rail products).

Engineering Data

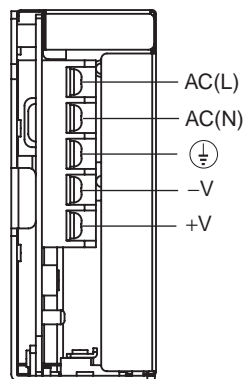
Derating Curves



- 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 A in the above graph).
- 2.** If there is a derating problem, use forced air-cooling.

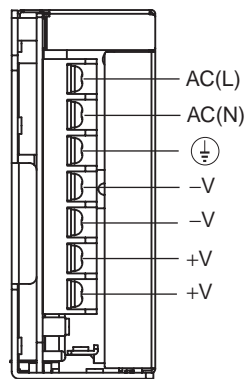
Terminal Arrangement

15-/35-/50-W Models



Note: The S8JC-Z05024C is shown above.

100-/150-/350-W Models



- Note: 1.** The S8JC-Z10024C is shown above.
- 2.** The rated current for output terminals is 25 A per terminal. Be sure to use multiple terminals simultaneously for current that exceeds the terminal rating. When applying a current of 25 A or more, use at least two terminals each for the positive and negative wires.

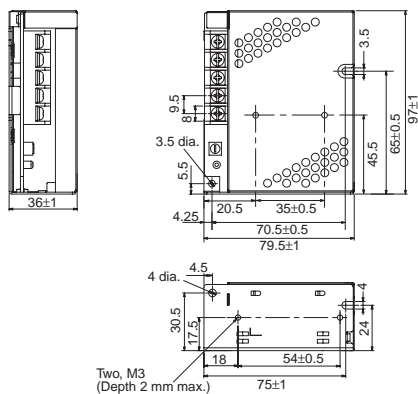
S8JC-Z

Dimensions

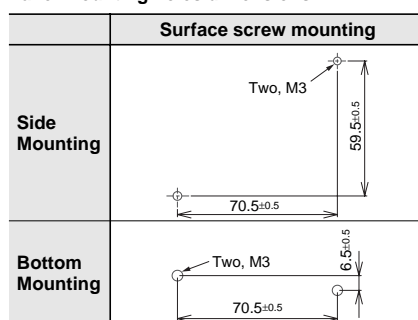
(Unit: mm)

Bottom-mounting Models

S8JC-Z015□□C (15 W)

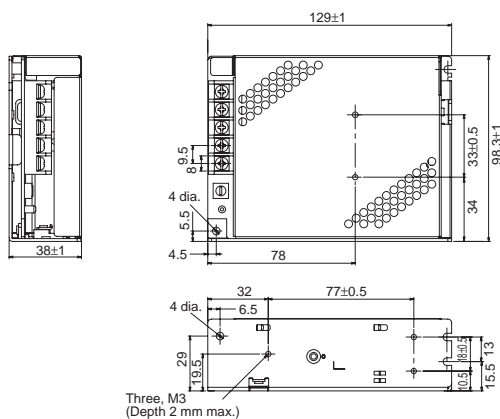


Panel mounting holes dimensions

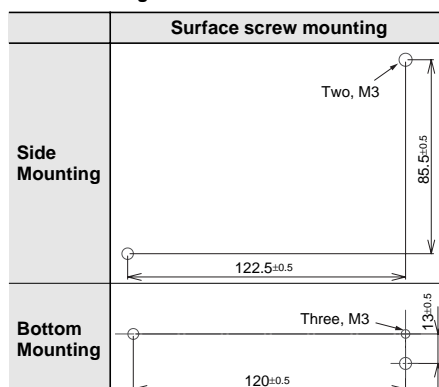


Note: The screws must not protrude more than 2 mm inside the Power Supply when screw holes provided on the chassis are used. If the dimensions are not correct, the Power Supply may be damaged.

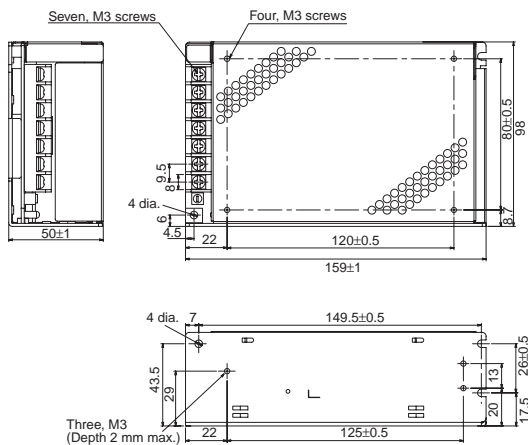
S8JC-Z035□□C (35 W)
S8JC-Z050□□C (50 W)



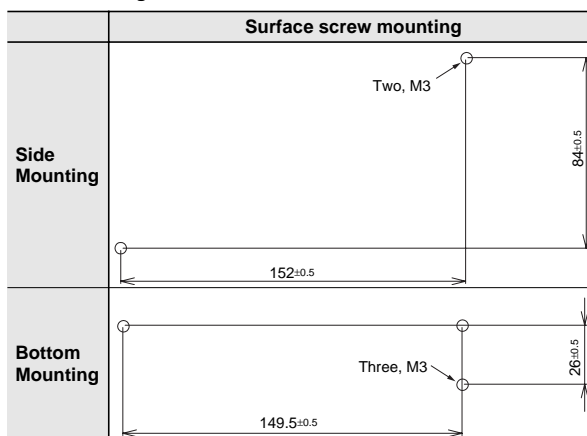
Panel mounting holes dimensions



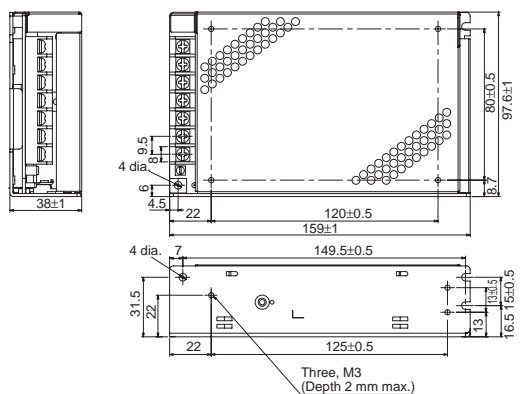
S8JC-Z10005C (100 W)



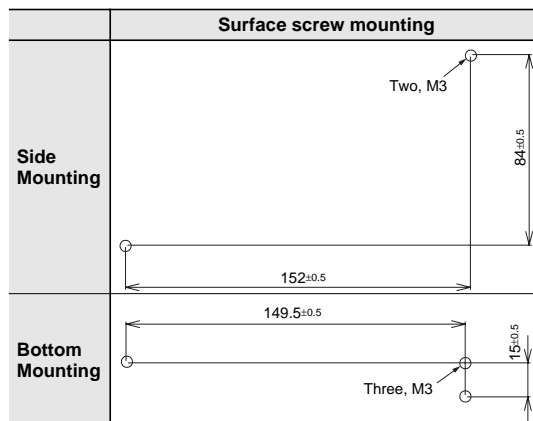
Panel mounting holes dimensions



S8JC-Z10012C (100 W)
S8JC-Z10024C (100 W)

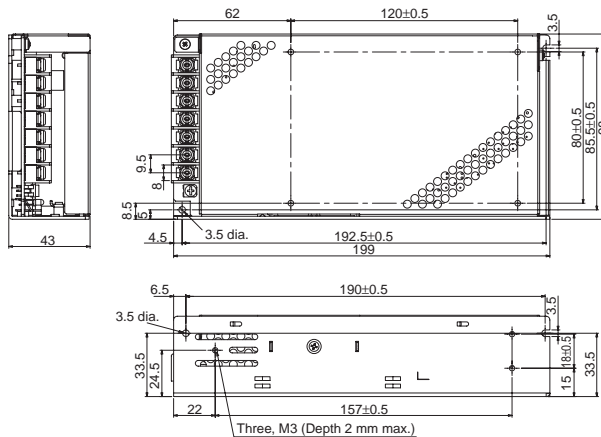


Panel mounting holes dimensions



S8JC-Z

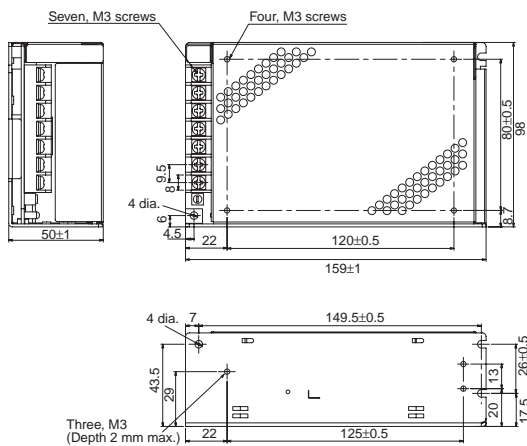
S8JC-Z15005C (150 W)



Panel mounting holes dimensions

	Surface screw mounting
Side Mounting	
Bottom Mounting	

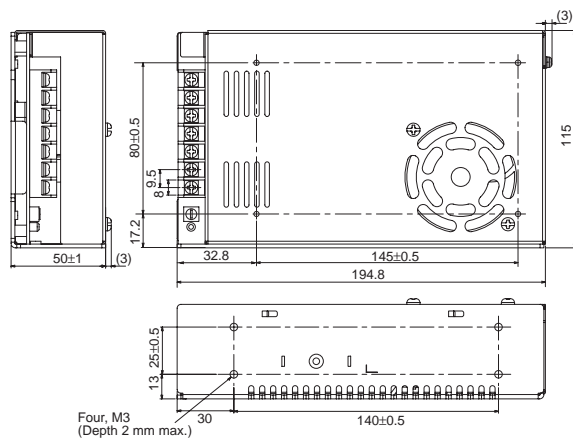
S8JC-Z15012C (150 W) S8JC-Z15024C (150 W)



Panel mounting holes dimensions

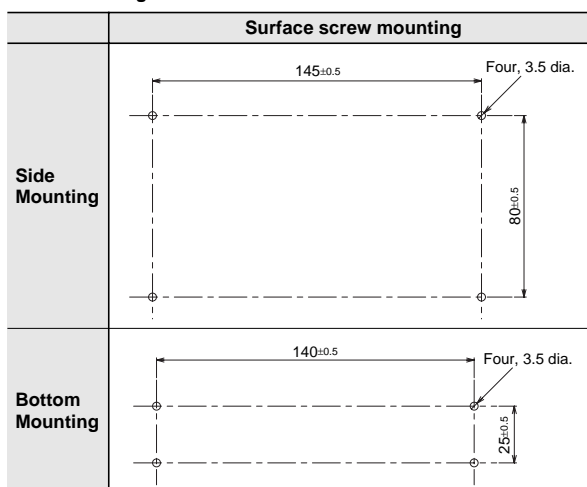
	Surface screw mounting
Side Mounting	
Bottom Mounting	

S8JC-Z35024C (350 W)



Four, M3
(Depth 2 mm max.)

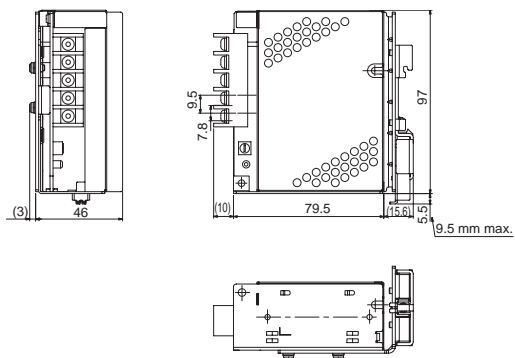
Panel mounting holes dimensions



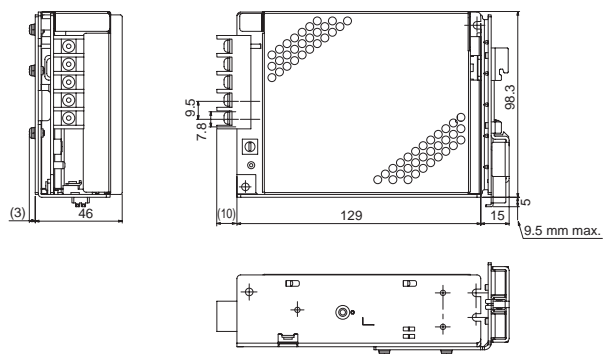
S8JC-Z

DIN Rail-mounting Models

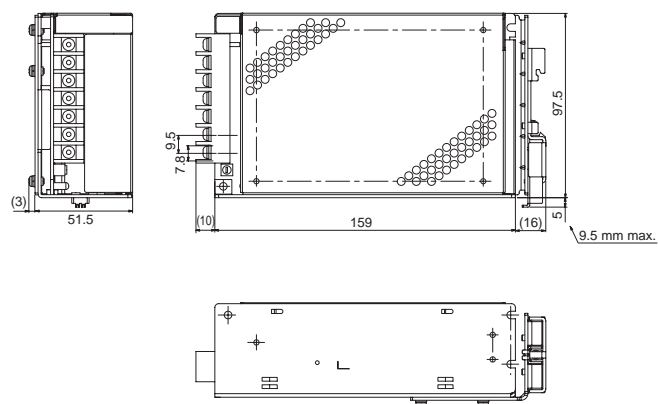
S8JC-Z015□□CD (15 W)



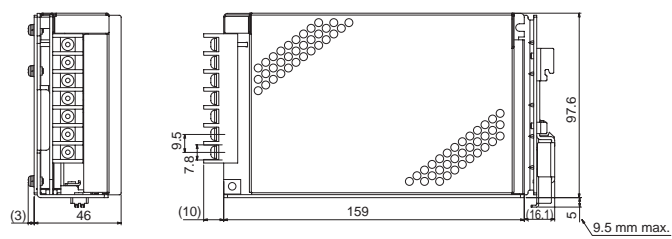
S8JC-Z035□□CD (35 W)
S8JC-Z050□□CD (50 W)



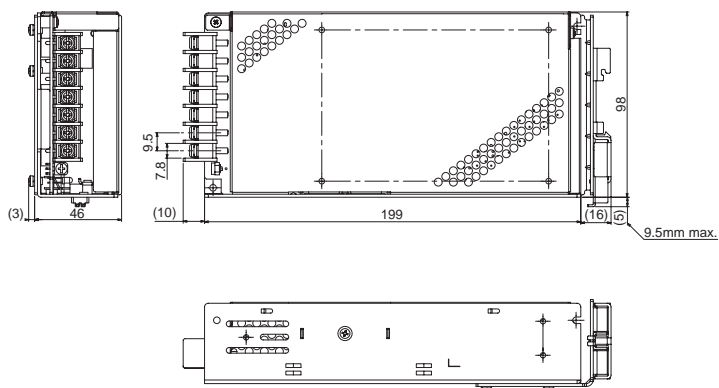
S8JC-Z10005CD (100 W)



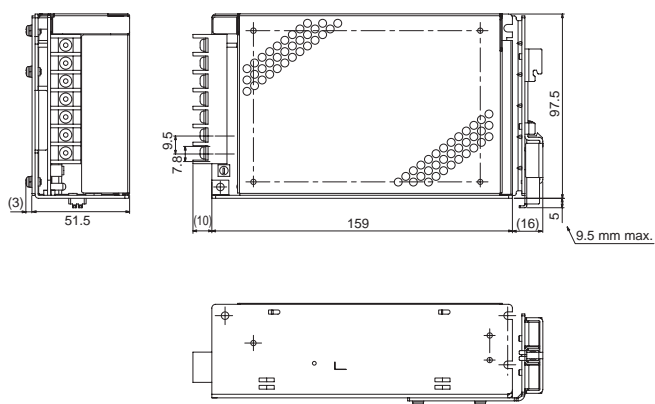
S8JC-Z10012CD (100 W)
S8JC-Z10024CD (100 W)



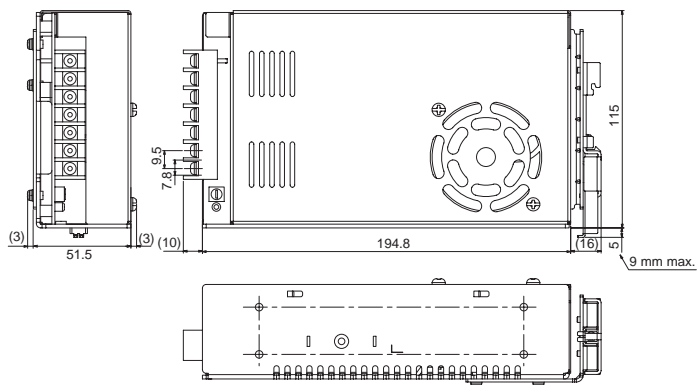
S8JC-Z15005CD (150 W)



S8JC-Z15012CD (150 W)
S8JC-Z15024CD (150 W)



S8JC-Z35024CD (350 W)



Safety Precautions

Refer to *Safety Precautions for All Power Supplies.*

Precautions for Safe Use

- Minor burns may occasionally occur. Do not touch the Product while power is being supplied or immediately after power is turned OFF.
- Minor injury due to electric shock may occasionally occur. Do not touch the terminals while power is being supplied.
- Take adequate measures to ensure proper heat dissipation to increase the long-term reliability of the Product.
- Connect the ground completely. Electric shock or malfunction may occur if the ground is not connected completely.
- The service life of the fan is approximately 35,000 hours (at 25°C). The service life varies, however, depending on the ambient temperature or other surrounding environmental conditions such as dust. As a guide, replace the product within two years if it is used at an ambient temperature of 40°C. (For 350-W Models only.)
- The screws must not protrude more than 2 mm inside the Power Supply when screw holes provided on the chassis are used.
- Avoid places where the product is subjected to penetration of liquid, foreign substance, or corrosive gas (in particular, sulfide gas or ammonia gas).
- The rated current for output terminals is 25 A per terminal. Be sure to use multiple terminals simultaneously for current that exceeds the terminal rating. When applying a current of 25 A or more, use at least two terminals each for the positive and negative wires.

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.

Warranty and Limitations of Liability

WARRANTY

OMRON's exclusive warranty is that the products are free from defects in materials and workmanship for a period of one year (or other period if specified) from date of sale by OMRON.

OMRON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, REGARDING NON-INFRINGEMENT, MERCHANTABILITY, OR FITNESS FOR PARTICULAR PURPOSE OF THE PRODUCTS. ANY BUYER OR USER ACKNOWLEDGES THAT THE BUYER OR USER ALONE HAS DETERMINED THAT THE PRODUCTS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE. OMRON DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED.

LIMITATIONS OF LIABILITY

OMRON SHALL NOT BE RESPONSIBLE FOR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS, OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED ON CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY.

In no event shall the responsibility of OMRON for any act exceed the individual price of the product on which liability is asserted.

IN NO EVENT SHALL OMRON BE RESPONSIBLE FOR WARRANTY, REPAIR, OR OTHER CLAIMS REGARDING THE PRODUCTS UNLESS OMRON'S ANALYSIS CONFIRMS THAT THE PRODUCTS WERE PROPERLY HANDLED, STORED, INSTALLED, AND MAINTAINED AND NOT SUBJECT TO CONTAMINATION, ABUSE, MISUSE, OR INAPPROPRIATE MODIFICATION OR REPAIR.

Application Considerations

SUITABILITY FOR USE

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.

PROGRAMMABLE PRODUCTS

OMRON shall not be responsible for the user's programming of a programmable product, or any consequence thereof.

Disclaimers

CHANGE IN SPECIFICATIONS

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.

PERFORMANCE DATA

Performance data given in this catalog is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of OMRON's test conditions, and the users must correlate it to actual application requirements. Actual performance is subject to the OMRON Warranty and Limitations of Liability.

OMRON ASIA PACIFIC PTE. LTD.

No. 438A Alexandra Road # 05-05/08 (Lobby 2),
Alexandra Technopark, Singapore 119967
Tel: (65) 6835-3011/Fax: (65) 6835-2711

OMRON (CHINA) CO., LTD.

Room 2211, Bank of China Tower,
200 Yin Cheng Zhong Road,
PuDong New Area, Shanghai, 200120, China
Tel: (86) 21-5037-2222/Fax: (86) 21-5037-2200

Authorized Distributor:

© OMRON Corporation 2009 All Rights Reserved.
In the interest of product improvement,
specifications are subject to change without notice.

CSM_1_3_0910
Cat. No. T044-E1-03

Printed in Japan
0310