

Authorised Distributors:-

ASH & ALAIN INDIA PVT LTD

S-100, F.I.E.E., Okhla Industrial Area, Phase-ii, New Delhi-110020(India)

Tel : 011-43797575 Fax : 011-43797574 E-mail : sales@ashalain.com

New Product

OMRON

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 7.



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 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	24 V	2.1 A	S8JC-Z05024C		
		100 W	24 V	4.5 A	S8JC-Z10024C		
		150 W	24 V	6.5 A	S8JC-Z15024C		
		350 W	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	24 V			2.1 A	S8JC-Z05024CD		
100 W	24 V			4.5 A	S8JC-Z10024CD		
150 W	24 V			6.5 A	S8JC-Z15024CD		
350 W	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	24 V	
Output	Output voltage (VDC)	5 V	12 V	24 V	5 V	12 V	24 V	24 V	
	Output current	3.0 A	1.3 A	0.7 A	7.0 A	3.0 A	1.5 A	2.1 A	
	Voltage adjustment range (typical)	-10% to 10%							
	Ripple (typical)	100 mV			100 mV	150 mV		100 mV	
	Startup time (typical)	300 ms							
	Hold time (typical)	50 ms				30 ms			
Efficiency (typical)		74%	80%		75%	82%	84%	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		0.6 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		
		24 V	24 V	24 V	24 V	24 V	24 V	
Output	Output voltage (VDC)	24 V	24 V	24 V	24 V	24 V	24 V	
	Output current	4.5 A		6.5 A		14.6 A		
	Voltage adjustment range (typical)	-10% to 10%						
	Ripple (typical)	100 mV		150 mV		200 mV		
	Startup time (typical)	300 ms						
	Hold time (typical)	50 ms					25 ms	
Efficiency (typical)		86%		88%		84%		
Input	Voltage	200 to 240 VAC (185 to 264 VAC)						
	Frequency	50/60 Hz (47 to 63 Hz)						
	Current (typical)	1.4 A		2.0 A		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	38×98×159 mm		50×98×159 mm		50×115×195 mm	
		DIN Rail-mounting model (See note 3.)	46×98×186 mm		52×98×186 mm		52×115×221 mm	
	Weight (typical)	Bottom-mounting model	350 g		450 g		750 g	
DIN Rail-mounting model		520 g		620 g		920 g		

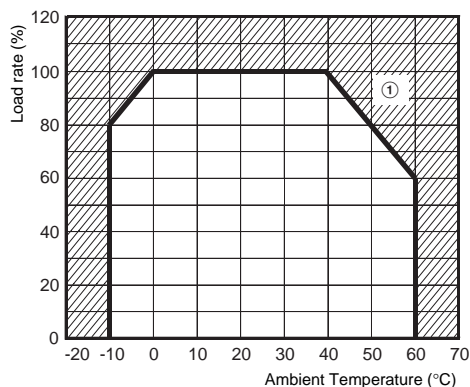
Note: 1. Unless otherwise specified, all parameters are measured with a 230-VAC input, at the rated load, and at an ambient temperature of 25°C.

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

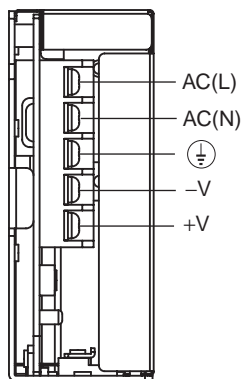
Derating Curves



- 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 ① in the above graph).
 2. If there is a derating problem, use forced air-cooling.

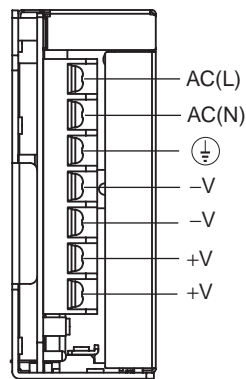
Terminal Arrangement

15-/35-/50-W Models



Note: The S8JC-Z05024C is shown above.

100-/150-/350-W Models



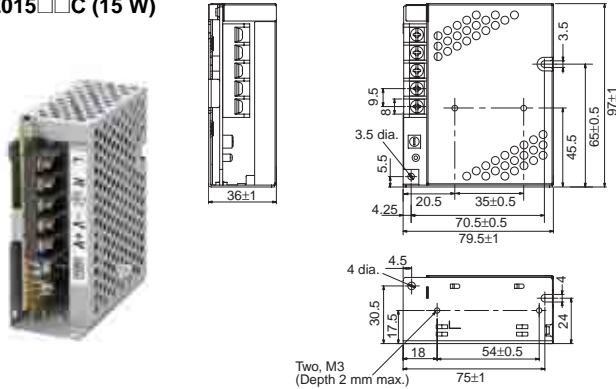
Note: The S8JC-Z10024C is shown above.

Dimensions

(Unit: mm)

Bottom-mounting Models

S8JC-Z015□□C (15 W)

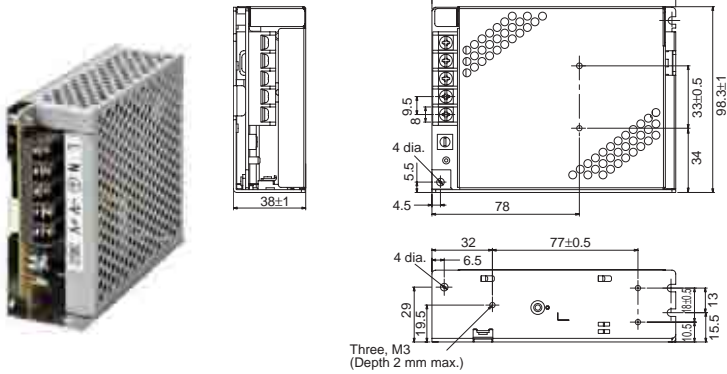


Panel mounting holes dimensions

Surface screw mounting	
Side Mounting	Two, M3 59.5±0.5 70.5±0.5
	Two, M3 6.5±0.5 70.5±0.5

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.

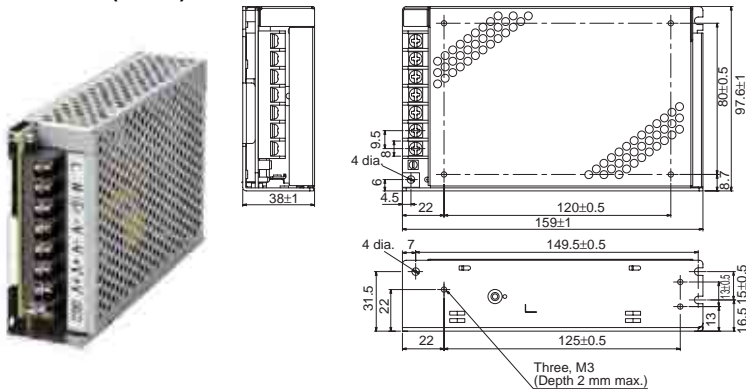
S8JC-Z035□□C (35 W)
S8JC-Z05024C (50 W)



Panel mounting holes dimensions

Surface screw mounting	
Side Mounting	Two, M3 85.5±0.5 122.5±0.5
	Three, M3 13±0.5 120±0.5

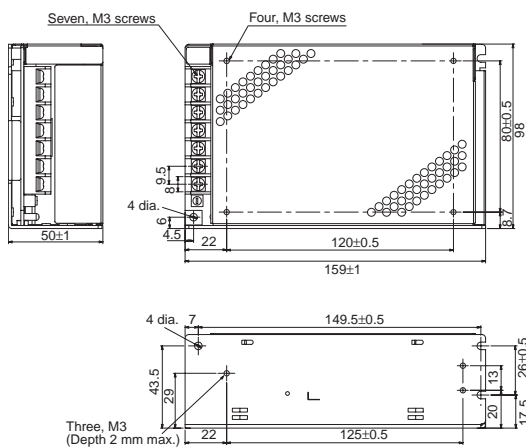
S8JC-Z10024C (100 W)



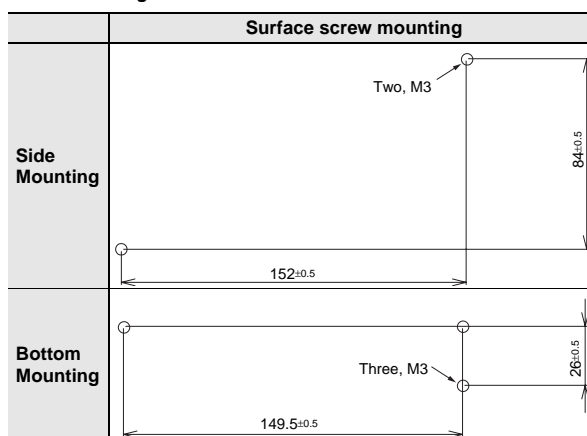
Panel mounting holes dimensions

Surface screw mounting	
Side Mounting	Two, M3 84±0.5 152±0.5
	Three, M3 15±0.5 149.5±0.5

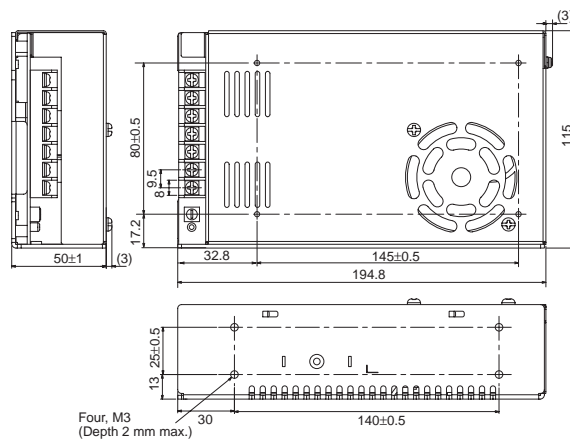
S8JC-Z15024C (150 W)



Panel mounting holes dimensions



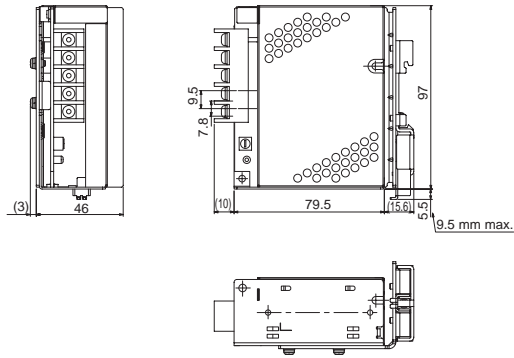
S8JC-Z35024C (350 W)



S8JC-Z

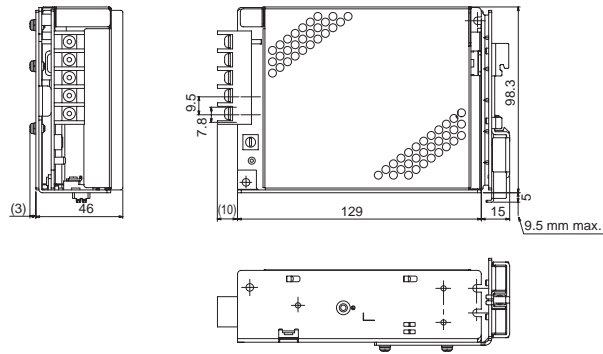
DIN Rail-mounting Models

S8JC-Z015□□CD (15 W)

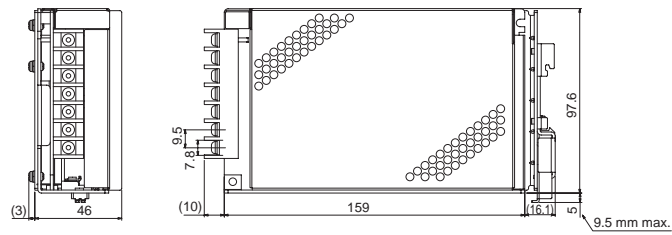


S8JC-Z035□□CD (35 W)

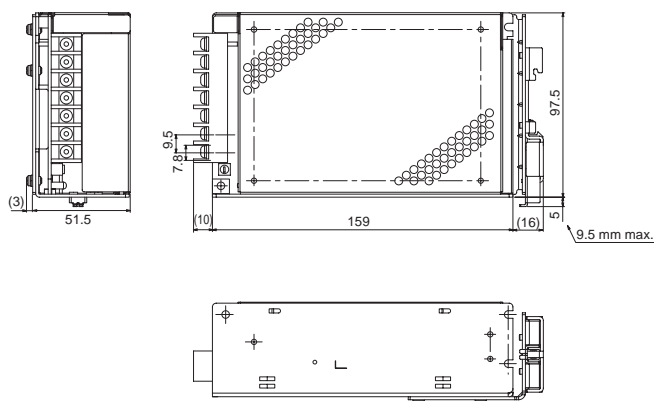
S8JC-Z05024CD (50 W)



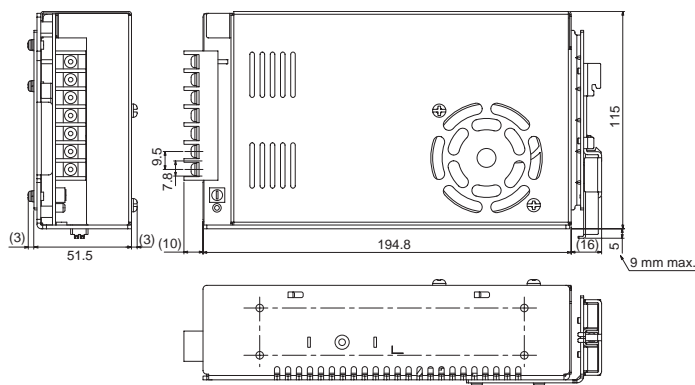
S8JC-Z10024CD (100 W)



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 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).

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.

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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.



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