Channel ACTION ALERT!

OMRON AUTOMATION & SAFETY

NO: SD-073 **PRODUCT:** S8VE Power Supplies
DATE: April 2013 **TYPE:** Discontinuation Notice

S8VE Switch Mode Power Supplies will be Discontinued March 2014; Replace with S8VS or S8VK Series Models

Effective Date: Last orders due February 28, 2014

Affected Parts

Product discontinuation	Recommended replacement
S8VE-06024	S8VS-06024
	S8VK-C06024
	S8VK-G06024
S8VE-06024-F	S8VS-06024-F
S8VE-09024	S8VS-09024
	S8VK-G12024
S8VE-09024-F	S8VS-09024-F
S8VE-12024	S8VS-12024
	S8VK-C12024
	S8VK-G12024
S8VE-12024-F	S8VS-12024-F
S8VE-18024	S8VS-18024
	S8VK-G24024
S8VE-18024-F	S8VS-18024-F
S8VE-24024	S8VS-24024
	S8VK-C24024
	S8VK-G24024
S8VE-24024-F	S8VS-24024-F

Note: S8VK-C models will be released in July 2013.

Compare features and specifications on the following pages.

Reference Documentation

Description	Media	Publication number
S8VE Data Sheet	PDF	S8VE_DS_E_1
S8VS Data Sheet	PDF	T026-E1-08
S8VK-G Data Sheet	PDF	T056-E1-01

Appearance

Product discontinuation S8VE series	Recommended replacement S8VS series
S8VE-06024 	S8VS-06024 
S8VE-09024 S8VE-12024 	S8VS-09024 S8VS-12024 
S8VE-18024 (180 W) 	S8VS-18024 
S8VE-24024 (240 W) 	S8VS-24024 

Appearance continued

Product discontinuation S8VE series	Recommended replacement S8VS series
S8VE-06024-F 	S8VS-06024-F 
S8VE-09024-F S8VE-12024-F 	S8VS-09024-F S8VS-12024-F 
S8VE-18024-F 	S8VS-18024-F 
S8VE-24024-F 	S8VS-24024-F 

Appearance continued

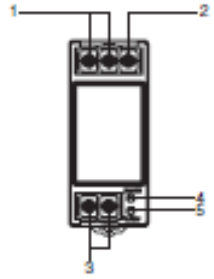
Product discontinuation S8VE series	Recommended replacement S8VS series
S8VE-06024-F 	S8VK-G06024 
S8VE-09024-F S8VE-12024-F 	S8VK-G12024 
S8VE-18024-F 	S8VK-G24024 
S8VE-24024-F 	S8VK-G24024 

Wiring Diagram

Product discontinuation
S8VE series

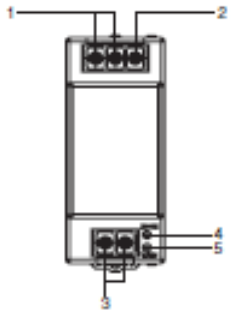
60-W Models

Standard Model
S8VE-06024



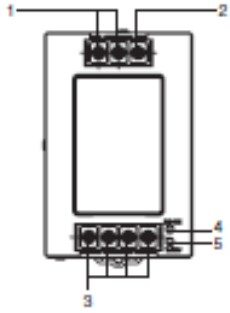
90-W/120-W Models

Standard Models
S8VE-09024/S8VE-12024



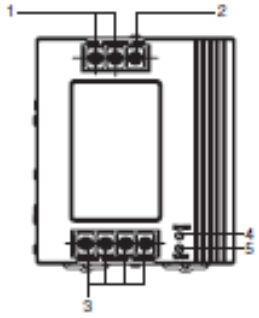
180-W Models

Standard Model
S8VE-18024



240-W Models

Standard Model
S8VE-24024



* The terminal arrangement is the same for models with screwless terminal blocks and standard models.

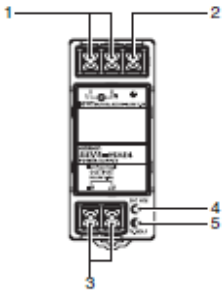
No.	Name	Function
1	AC Input terminals (L), (N)	Connect the input lines to these terminals. *1
2	Protective Earth terminal (PE)	Connect the ground line to this terminal. *2
3	DC Output terminals (–V), (+V)	Connect the load lines to these terminals.
4	Output indicator (DC ON: Green)	Lights while a direct current (DC) output is ON.
5	Output voltage adjuster (V.ADJ)	Use to adjust the voltage.

*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.

Recommended replacement
S8VS series

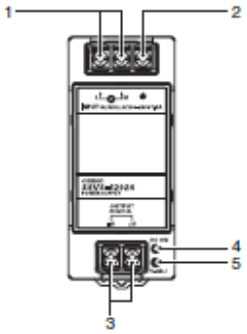
60-W Models

Standard Model
S8VS-06024



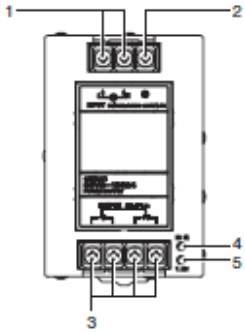
90-W/120-W Models

Standard Models
S8VS-09024/S8VS-0924S/
S8VS-12024



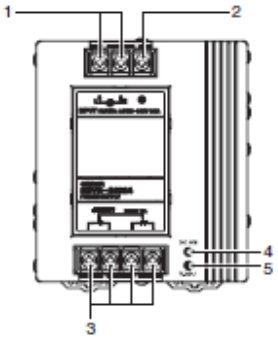
180-W Models

Standard Model
S8VS-18024



240-W Models

Standard Model
S8VS-24024



* The terminal arrangement is the same for models with screwless terminal blocks and standard models.

No.	Name	Function
1	Input terminals (L), (N)	Connect the input lines to these terminals. *1
2	Protective Earth terminal (PE)	Connect the ground line to this terminal. *2
3	DC Output terminals (–V), (+V)	Connect the load lines to these terminals.
4	Output indicator (DC ON: Green)	Lights while a direct current (DC) output is ON.
5	Output voltage adjuster (V.ADJ)	Use to adjust the voltage. *3

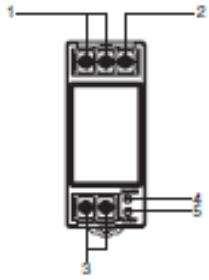
*1. The fuse is located on the (L) side. For a DC input, connect the positive voltage to the L terminal.
*2. This is the protective earth terminal specified in the safety standards. Always ground this terminal.
*3. The output voltage cannot be adjusted for the S8VS-09024□□□S.

Wiring Diagram continued

Product discontinuation
S8VE series

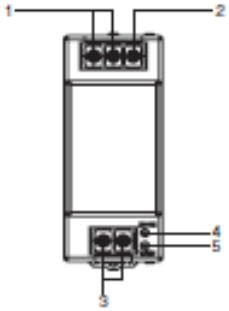
60-W Models

Standard Model
S8VE-06024



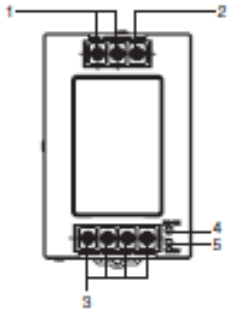
90-W/120-W Models

Standard Models
S8VE-09024/S8VE-12024



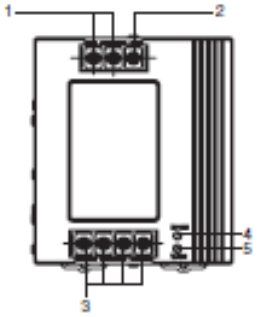
180-W Models

Standard Model
S8VE-18024



240-W Models

Standard Model
S8VE-24024



* The terminal arrangement is the same for models with screwless terminal blocks and standard models.

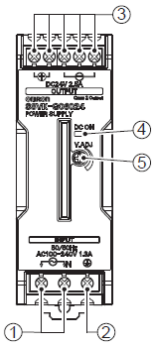
No.	Name	Function
1	AC Input terminals (L), (N)	Connect the input lines to these terminals. *1
2	Protective Earth terminal (PE)	Connect the ground line to this terminal. *2
3	DC Output terminals (–V), (+V)	Connect the load lines to these terminals.
4	Output indicator (DC ON: Green)	Lights while a direct current (DC) output is ON.
5	Output voltage adjuster (V.ADJ)	Use to adjust the voltage.

*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.

Recommended replacement
S8VK-G series

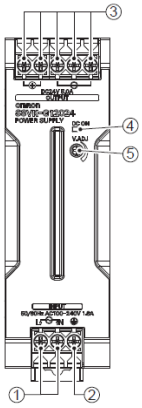
60-W Models

S8VK-G06024



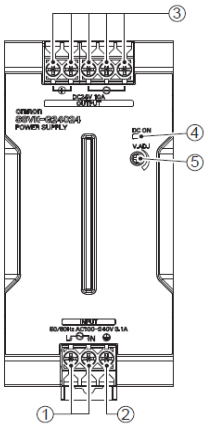
120-W Models

S8VK-G12024



240-W Models

S8VK-G24024



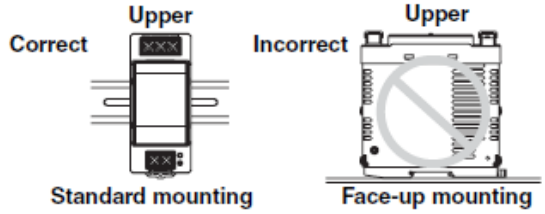
No.	Name	Function
1	Input terminals (L), (N)	Connect the input lines to these terminals. *1
2	Protective Earth terminal (PE)	Connect the ground line to this terminal. *2
3	DC Output terminals (V), (+V)	Connect the load lines to these terminals.
4	Output indicator (DC ON: Green)	Lights while a direct current (DC) output is ON.
5	Output voltage adjuster (V.ADJ)	Use to adjust the voltage

***1.** The fuse is located on the (L) side. It is not user-replaceable. For a DC input, connect the positive voltage to the L terminal.
***2.** This is the protective earth terminal specified in the safety standards. Always ground this terminal.

Mounting Dimensions

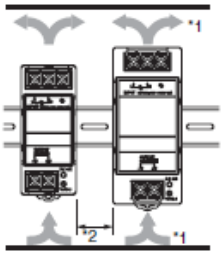
Product discontinuation
S8VE series

Mounting



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

- Take adequate measures to ensure proper heat dissipation to increase the long-term reliability of the Product. 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.
- When cutting out holes for mounting, make sure that cuttings do not enter the interior of the Products.



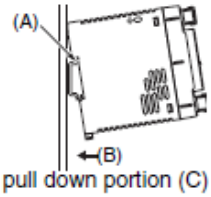
*1. Convection of air
*2. 20 mm min.

60-W, 90-W, 120-W, 180-W, and 240-W Models

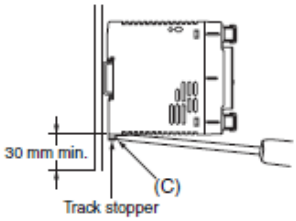
- Improper mounting will interfere with heat dissipation and may occasionally result in deterioration or damage of internal parts. Use the standard mounting method only.
- The internal parts may occasionally deteriorate and be broken due to adverse heat radiation. Do not loosen the screw on the side face of the main body.

DIN Rail Mounting

To mount the Block on a DIN Rail, hook portion (A) of the Block onto the rail and press the Block in direction (B).



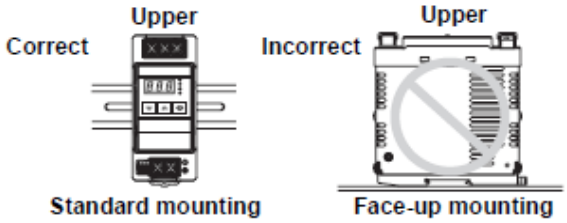
To dismount the Block, pull down portion (C) with a flat-blade screwdriver and pull out the Block.



Recommended replacement
S8VS series

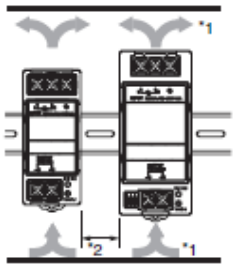
Mounting

60, 90, 120, 180, 240, and 480 W



Note: Improper mounting will interfere with heat dissipation and may occasionally result in deterioration or damage of internal parts. It may also result in failure of the maintenance forecast monitor function. Use the standard mounting method only.

- Take adequate measures to ensure proper heat dissipation to increase the long-term reliability of the Product. 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.
- When cutting out holes for mounting, make sure that cuttings do not enter the interior of the Products.



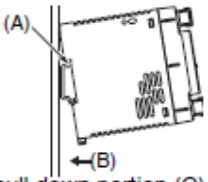
*1. Convection of air
*2. 20 mm min.

60-W, 90-W, 120-W, 180-W, 240-W, and 480-W Models

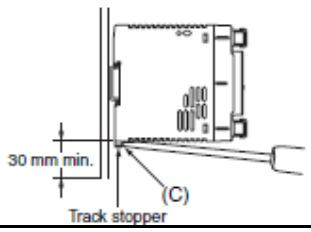
- Improper mounting will interfere with heat dissipation and may occasionally result in deterioration or damage of internal parts. Use the standard mounting method only.
- The internal parts may occasionally deteriorate and be broken due to adverse heat radiation. Do not loosen the screw on the side face of the main body.

DIN Rail Mounting

To mount the Block on a DIN Rail, hook portion (A) of the Block onto the rail and press the Block in direction (B).



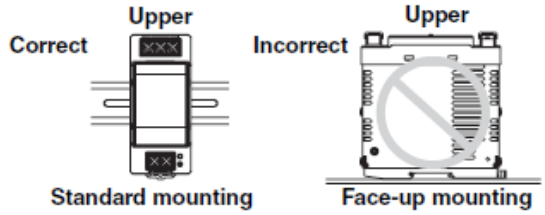
To dismount the Block, pull down portion (C) with a flat-blade screwdriver and pull out the Block.



Mounting Dimensions continued

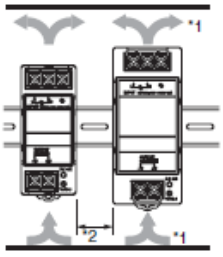
Product discontinuation S8VE series	Recommended replacement S8VK-G series

Mounting



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

- Take adequate measures to ensure proper heat dissipation to increase the long-term reliability of the Product. 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.
- When cutting out holes for mounting, make sure that cuttings do not enter the interior of the Products.



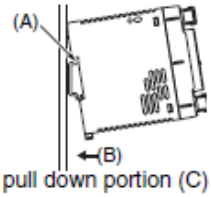
*1. Convection of air
*2. 20 mm min.

60-W, 90-W, 120-W, 180-W, and 240-W Models

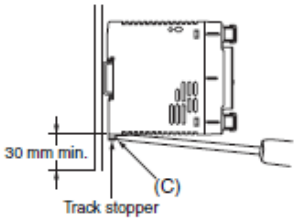
- Improper mounting will interfere with heat dissipation and may occasionally result in deterioration or damage of internal parts. Use the standard mounting method only.
- The internal parts may occasionally deteriorate and be broken due to adverse heat radiation. Do not loosen the screw on the side face of the main body.

DIN Rail Mounting

To mount the Block on a DIN Rail, hook portion (A) of the Block onto the rail and press the Block in direction (B).

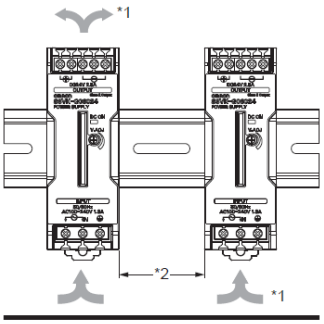


To dismount the Block, pull down portion (C) with a flat-blade screwdriver and pull out the Block.



Mounting

- Take adequate measures to ensure proper heat dissipation to increase the long-term reliability of the Product. 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.
- When cutting out holes for mounting, make sure that cuttings do not enter the interior of the Products.

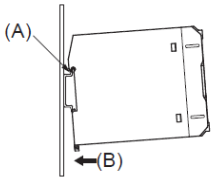


*1. Convection of air
*2. 20 mm min.

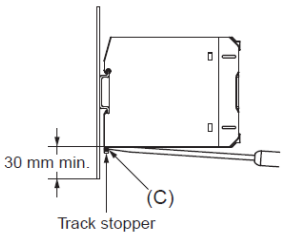
- Improper mounting will interfere with heat dissipation and may occasionally result in deterioration or damage of internal parts. Use the Product within the derating curvefor the mounting direction that is used.
- Use a mounting bracket when the Product is mounted facing horizontally.
- Heat dissipation will be adversely affected. When the Product is mounted facing horizontally, always place the side with the label facing upward.
- Operate the Power Supply within a range that is 5°C less than the values in the derating curve in *Engineering Data* on page 9 if the Power Supply is used with an installation spacing of 10 mm min. (20 mm max.) on the left and right.

DIN Rail Mounting

To mount the Block on a DIN Rail, hook portion (A) of the Block onto the rail and press the Block in direction (B).



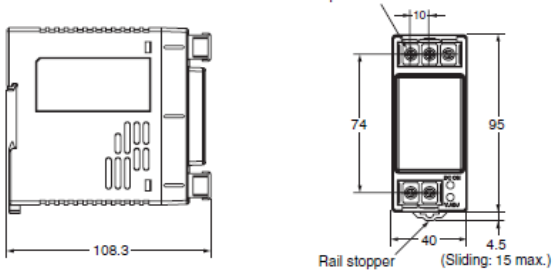
To dismount the Block, pull down portion (C) with a flat-blade screwdriver and pull out the Block.



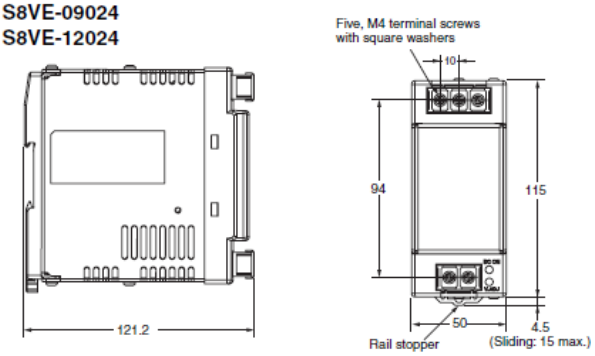
Dimensions

Product discontinuation
S8VE series

S8VE-06024

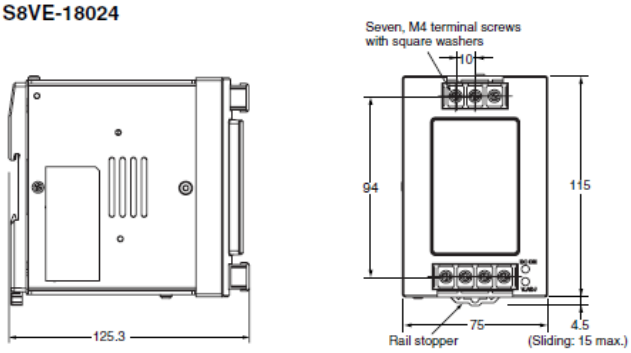


S8VE-09024
S8VE-12024

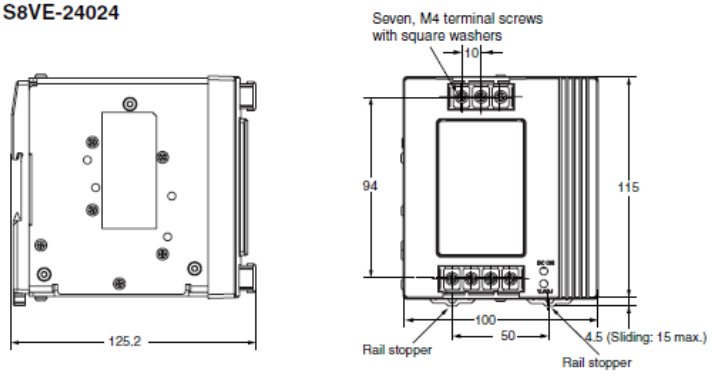


Note: The illustration shows the S8VE-12024 model.

S8VE-18024

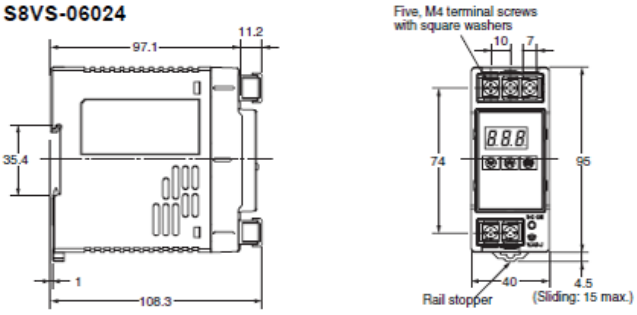


S8VE-24024



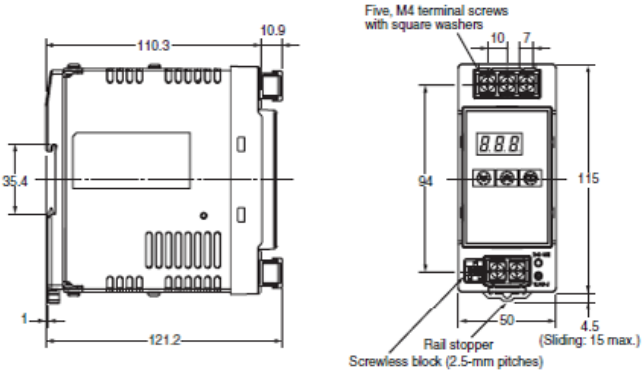
Recommended replacement
S8VS series

S8VS-06024



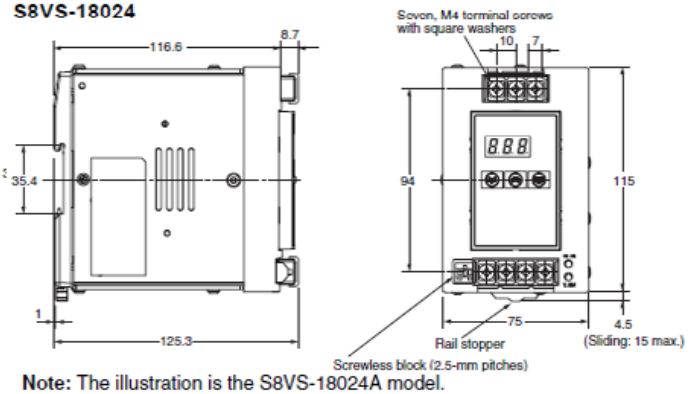
Note: The illustration is the S8VS-06024A model.

S8VS-09024
S8VS-12024



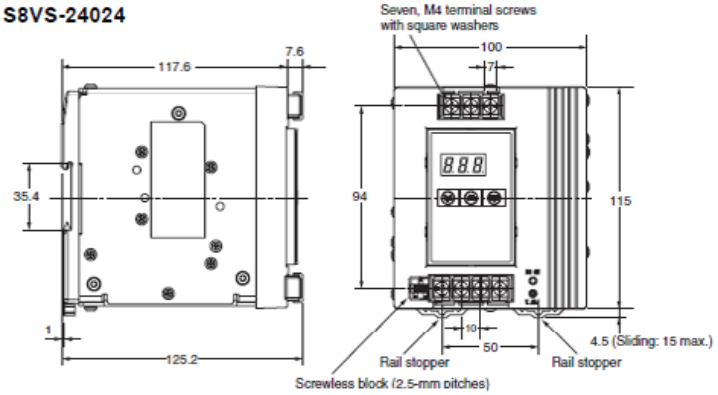
Note: The illustration is the S8VS-12024A model.

S8VS-18024



Note: The illustration is the S8VS-18024A model.

S8VS-24024

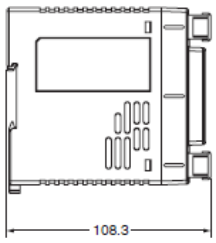


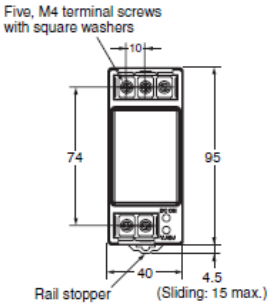
Note: The illustration shows the S8VS-24024A model.

Dimensions continued

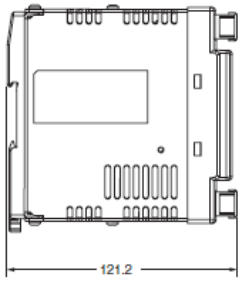
Product discontinuation S8VE series	Recommended replacement S8VK-G series

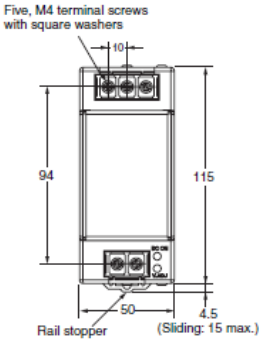
S8VE-06024





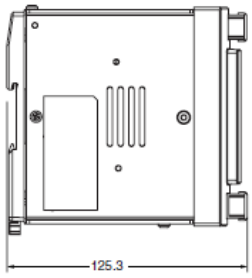
S8VE-09024
S8VE-12024

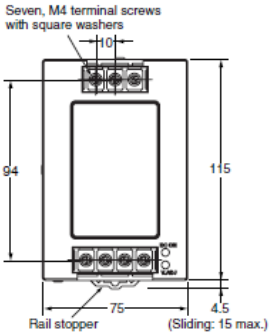




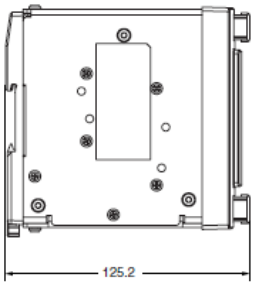
Note: The illustration shows the S8VE-12024 model.

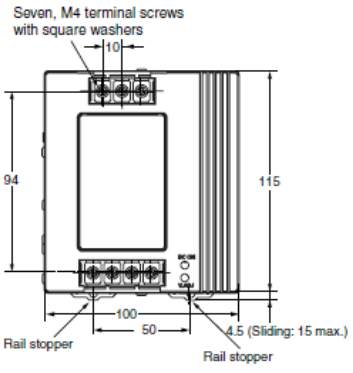
S8VE-18024



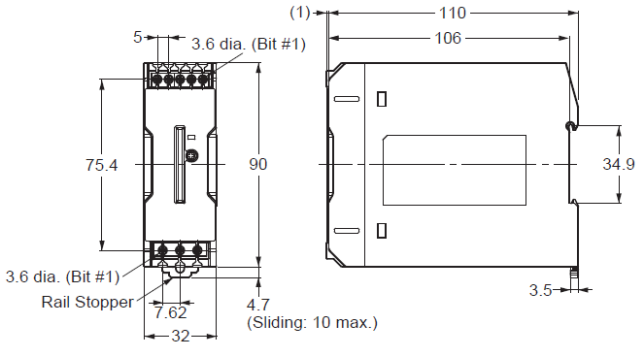


S8VE-24024

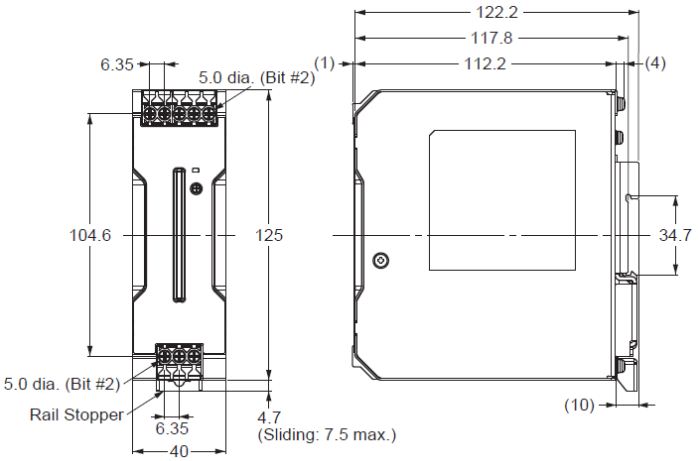




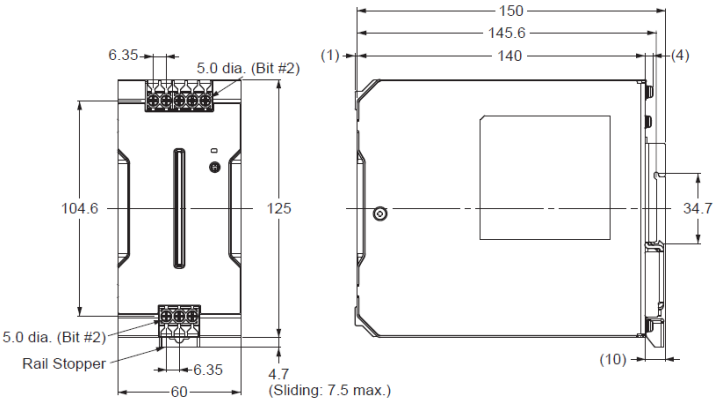
S8VK-G06024 (60 W)



S8VK-G12024 (120 W)



S8VK-G24024 (240 W)



Specifications

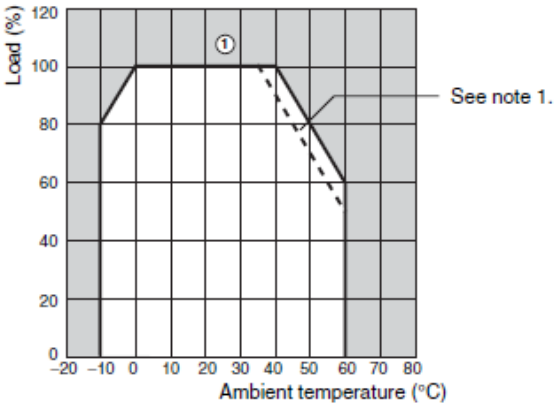
Item	Product discontinuation	Recommended replacement		
Model	**Model S8VE series**	**Model S8VS series**	**Model S8VK-G series**	**Model S8VK-C series**
Input voltage	100 to 240 VAC (allowable range: 85 to 264 VAC)	100 to 240 VAC (allowable range: 85 to 264 VAC), 80 to 370 VDC	100 to 240 VAC, 90 to 350 VDC, 2-phase input from 3-phase source <240 VAC	
Inrush current	25 A max. (100 VAC input) 50 A max. (200 VAC input) * for a cold start at 25°C	17.5 A max., 14 A typical (for 100 VAC input) 35 A max., 28 A typical (for 200 VAC input) * for a cold start at 25°C	16 A (for 115 VAC input), 32 A (for 230 VAC input) for cold start at 25°C	40 A max (for 230 VAC input)
Start-up time	1000 ms max. (at rated input/output voltage)	60 W 620 ms typical (for 100 VAC input) 400 ms typical (for 200 VAC input) 90 W 460 ms typical (for 100 VAC input) 300 ms typical (for 200 VAC input) 120 W 550 ms typical (for 100 VAC input) 400 ms typical (for 200 VAC input)	15 W 520 to 580 ms (for 115 VAC) 400 ms (for 230 VAC), 30W 550 to 600 ms (for 115 VAC) 430 to 490 ms (for 230 VAC), 60 W 570 to 650 ms (115 VAC) 430 to 500 ms (230 VAC), 120 W 790 ms (for 115 VAC) 750 ms (for 230 VAC)	N/A
		180 W 570 ms typical (for 100 VAC input) 470 ms typical (for 200 VAC input) 240 W 540 ms typical (for 100 VAC input) 230 ms typical (for 200 VAC input)	240 W 250 to 290 ms (for 115/230 VAC input); 480 W 290 ms (for 115 VAC input) 260 ms (for 230 VAC input)	N/A
Output hold time	20 ms min. (at rated input/output voltage)	60 W 34 ms typical (for 100 VAC input) 158 ms typical (for 200 VAC input) 90 W 28 ms typical (for 100 VAC input) 132 ms typical (for 200 VAC input) 120 W 52 ms typical (for 100 VAC input) 54 ms typical (for 200 VAC input)	15 W 28 to 32 ms (for 115 VAC) 34 to 138 ms (for 230 VAC), 30 W 23 to 36 ms (for 115 VAC) 154 to 177 ms (230 VAC, 60 W 25 to 26 ms (115 VAC) 129 to 139 ms (230 VAC), 120 W 42 ms (115/230 VAC)	N/A
		180 W 58 ms typical (for 100 VAC input) 62 ms typical (for 200 VAC input) 240 W 64 ms typical (for 100 VAC input) 64 ms typical (for 200 VAC input)	240 W 44 ms (for 115/230 VAC) 480 W 40 ms (115 VAC) 50 ms (230 VAC)	N/A
Overload protection	105% to 160% of rated load current, Voltage drop, automatic reset.	105% to 160% of rated load current, Inverted L voltage drop, Automatic reset.	121% to 160% of rated load current (130% typical value)	Yes
Parallel operation	No	No (However, backup operation is possible. An external diode is required.)	Yes	N/A
Operating ambient temperature	-10°C to +60°C	-10°C to +60°C	-40°C to +70°C	-25°C to 60°C
EMI (Conducted Emissions)	Conforms to EN6120-3 EN55011 Class A and based on FCC Class A	Conforms to EN6120-3 EN55011 Class B and based on FCC Class A	Conforms to EN61204-3 EN55011 Class B and based on FCC Class A	Conforms to EN61204-3, EN55011 Class A

Item	Product discontinuation	Recommended replacement		
Model	**Model S8VE series**	**Model S8VS series**	**Model S8VK-G series**	**Model S8VK-C series**
EMI (Radiated Emissions)	Conforms to EN61204-3 EN55011 Class A	Conforms to EN61204-3 EN55011 Class B	Conforms to EN61204-3 EN55011 Class B	Conforms to EN61204-3, EN55011 Class A
Approved standards	UL: UL508 (Listing), UL60950-1 cUL: CSA C22.2 No.107.1 cUR: CSA No.60950-1 EN/VDE: EN60950-1 According to VDE 0106/P100, IP20 (except terminal block)	UL Listed: UL508 (Listing, Class 2 Output: Per 1310) UL UR: UL60950-1 (Recognition) cUL: CSA C22.2 No.107.1 (Class 2 Output: Per CSA C22.2 No.223) cUR: CSA C22.2 No.60950-1 EN/VDE: EN50178 (=VDE0160), EN60950-1 (=VDE0805 Teil1)	UL Listed: UL508 (Listing) UL UR: UL60950-1 (Recognition) cUL: CSA C22.2 No.107.1 cUR: CSA C22.2 No.60950-1 EN/VDE: EN50178 (=VDE0160), EN60950-1 (=VDE0805) Lloyd's standards	UL: UL508 (Listing), UL60950-1, cUL: CSA C22.2 No.107.1 and No.60950-1, EN/VDE: EN50178 (=VDE0160), EN60950-1 (=VDE0805)

Operation Ratings

Product discontinuation S8VE series	Recommended replacement S8VS series

Derating Curve

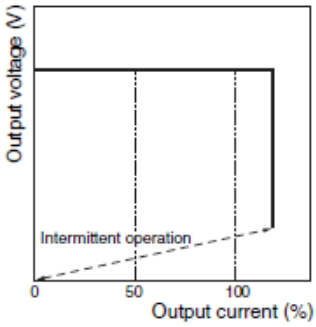


Note: 1. Using side mounting bracket for right-side mounting (excluding 240-W models).
2. Internal parts may occasionally deteriorate or be damaged. Do not use the Power Supply in areas outside the derating curve (i.e., the area shown by shading ① in the above graph).
3. If there is a derating problem, use forced air-cooling.

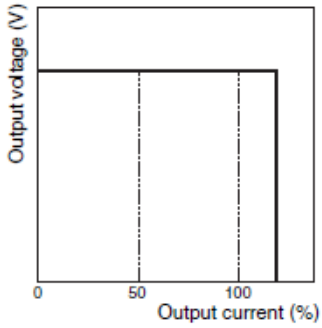
Overload Protection

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% 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.

60-W/90-W Models



120-W/180-W/240-W Models

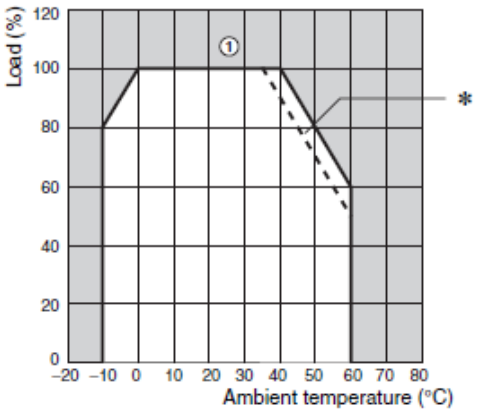


The values shown in the above diagrams are for reference only.

Note: 1. Internal parts may occasionally deteriorate or be damaged if a short-circuited or overcurrent state continues during operation.
2. 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.

Derating Curve

60, 90, 120, 180, 240, and 480 W



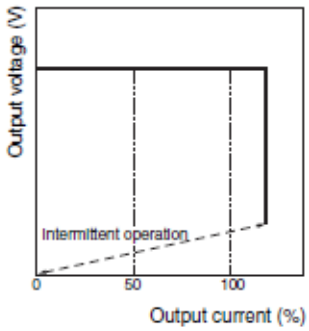
* Using side mounting bracket for right-side mounting (excluding 240-W models). UL certification conditions do not apply if the side mounting bracket is used.

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.
3. When using a 480-W model at an input voltage of 95 VAC or less, derate the load by at least 80%.
4. DC Inputs
If the input voltage is less than 100 VDC, reduce the load given in the above derating curve by at least the following factor.
60-W models: 0.9 max.
90-W models: 0.85 max.
120-W/180-W/240-W models: 0.8 max.

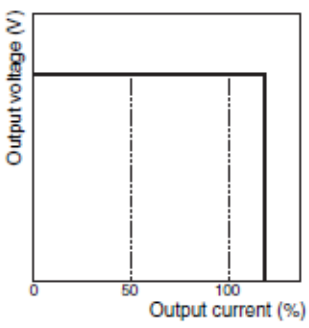
Overload Protection

The load and the power supply are automatically protected from overcurrent damage by this function.
Overload protection is activated if the output current rises above 105% of the rated current.
When the output current returns within the rated range overload protection is automatically cleared.

60-W/90-W Models



120-W/180-W/240-W/480-W Models

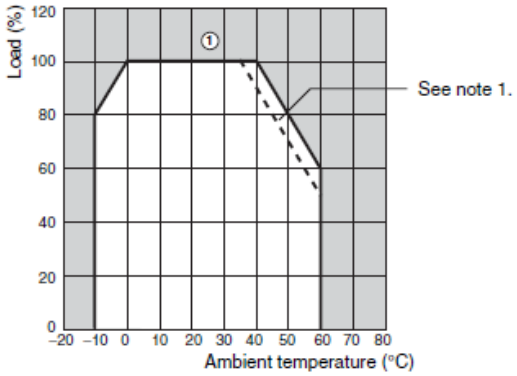


Note: 1. Internal parts may occasionally deteriorate or be damaged if a short-circuited or overcurrent state continues during operation.
2. Internal parts may possibly deteriorate or be damaged if the Power Supply is used for applications with frequent inrush current or overloading at the load end. Do not use the Power Supply for such applications.

Operation Ratings continued

Product discontinuation S8VE series	Recommended replacement S8VK-GS series

Derating Curve

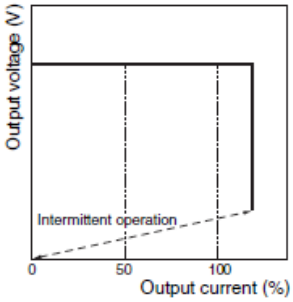


Note: 1. Using side mounting bracket for right-side mounting (excluding 240-W models).
2. Internal parts may occasionally deteriorate or be damaged. Do not use the Power Supply in areas outside the derating curve (i.e., the area shown by shading ① in the above graph).
3. If there is a derating problem, use forced air-cooling.

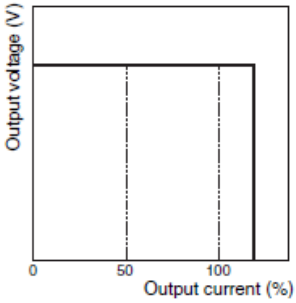
Overload Protection

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% 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.

60-W/90-W Models



120-W/180-W/240-W Models

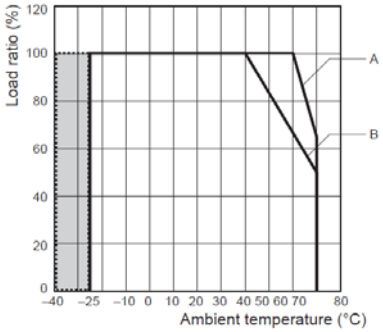


The values shown in the above diagrams are for reference only.

Note: 1. Internal parts may occasionally deteriorate or be damaged if a short-circuited or overcurrent state continues during operation.
2. 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.

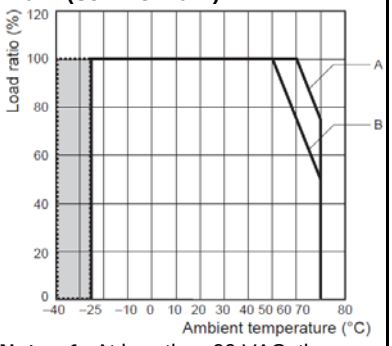
Derating Curve

120 W (S8VK-G12024)



Note: 1. At less than 90 VAC, the derating is 2.5%/V
2. For a DC power input, reduce the load given in the above derating curve by multiplying the following coefficients.
S8VK-G12024: 0.9
3. Gray shaded area: See "–40°C Operation Guarantee Condition"
A. Standard mounting
60°C and over: the derating is 3.5%/°C
B. Face-up mounting
40°C and over: the derating is 1.67%/°C

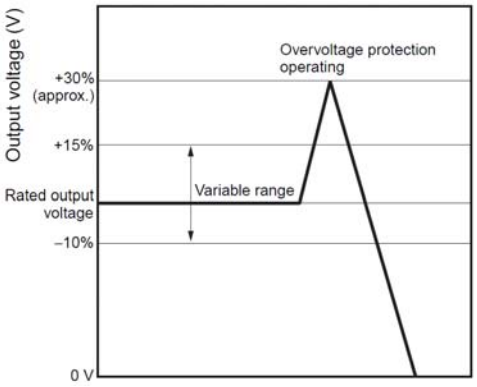
240 W (S8VK-G24024)



Note: 1. At less than 90 VAC, the derating is 2.5%/V
2. For a DC power input, reduce the load given in the above derating curve by multiplying the following coefficients.
S8VK-G240□□: 0.8
3. Gray shaded area: See "–40°C Operation Guarantee Condition"
A. Standard mounting
60°C and over: the derating is 2.5%/°C
B. Face-up mounting
50°C and over: the derating is 2.5%/°C

Overvoltage Protection

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. If an excessive voltage that is approximately 130% of the rated voltage or more is output, the output voltage is shut OFF. Reset the input power by turning it OFF for at least three minutes and then turning it back ON again.



The values shown in the above diagram is for reference only.

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