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Power Supply Featuring OMRON's Unique, New Undervoltage Alarm Function with Compact Body Contributing to Machine Downsizing

- New undervoltage alarm function assists in determining causes of errors (S8VM-□□□24A□/P□ only).
- Power failure alarm function provides notification of output voltage errors (300-, 600-, and 1,500-W models only).
- Broad range of possibilities with 8 capacities and 29 models to choose from.
- RoHS-compliant
- New, attentive design prevents screws from falling out of terminal block (except for output terminals of 300-, 600-, and 1,500-W models).
- Finger protection prevents electric shock.
- DIN Rail mounting.
- Safety standards: UL508/60950-1, CSA C22.2 No. 14/No. 60950-1, EN50178, EN60950-1 (The 300-, 600-, and 1,500-W models will not conform to safety standards if the customer replaces the fan.)
- Conforms to SEMI F47-0200 (when 200-V input is used).
- Harmonic current emissions: Conforms to EN61000-3-2 (except for 15- and 30-W models).



For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

Refer to *Safety Precautions for All Power Supplies* and *Safety Precautions* on page 34.

Model Number Structure

Model Number Legend

Note: Not all combinations are possible. Refer to *List of Models* in *Ordering Information* on page 2.

S8VM- □ □ □ □ □ □ □ □
 1 2 3 4

1. Power Ratings

015: 15 W
 030: 30 W
 050: 50 W
 100: 100 W
 150: 150 W
 300: 300 W
 600: 600 W
 152: 1,500 W

2. Output Voltage

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

3. Configuration/Functions

None:	Open-frame type	Standard type
C:	Covered type	Standard type
A:	Covered type	Undervoltage alarm type (Sinking (emitter COM)) (See note 2.)
P:	Covered type	Undervoltage alarm type (Sourcing (collector COM)) (See note 2.)

4. Configuration

None:	Bottom mounting type (See note 3.)
D:	DIN Rail mounting bracket type

Note: 1. A forced-air cooling method with a fan is used with 300-, 600-, and 1,500-W models.

2. The housing and terminal of the connector for the undervoltage alarm output are provided with the S8VM-05024A□/P□, S8VM-10024A□/P□ and S8VM-15024A□/P□.

3. Bottom mounting models cannot be used for front mounting. For a front mounting configuration, use a DIN Rail Mounting Bracket model or Mounting Brackets (sold separately).

Ordering Information

List of Models

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

Covered type



Configuration	Power ratings	Output voltage	Output current	Model
DIN Rail mounting bracket	15 W	5 V	3 A	S8VM-01505CD
		12 V	1.3 A	S8VM-01512CD
		15 V	1 A	S8VM-01515CD
		24 V	0.65 A	S8VM-01524CD
	30 W	5 V	6 A	S8VM-03005CD
		12 V	2.5 A	S8VM-03012CD
		15 V	2 A	S8VM-03015CD
		24 V	1.3 A	S8VM-03024CD
	50 W	5 V	10 A	S8VM-05005CD
		12 V	4.3 A	S8VM-05012CD
		15 V	3.5 A	S8VM-05015CD
		24 V	2.2 A	S8VM-05024CD
	100 W	5 V	20 A	S8VM-10005CD
		12 V	8.5 A	S8VM-10012CD
		15 V	7 A	S8VM-10015CD
		24 V	4.5 A	S8VM-10024CD
	150 W	5 V	27 A	S8VM-15005CD (See note 1.)
		12 V	12.5 A	S8VM-15012CD
		15 V	10 A	S8VM-15015CD
		24 V	6.5 A	S8VM-15024CD
Bottom mounting (The 300-, 600-, and 1,500-W models use a forced cooling method with built-in fans.)	15 W	5 V	3 A	S8VM-01505C
		12 V	1.3 A	S8VM-01512C
		15 V	1 A	S8VM-01515C
		24 V	0.65 A	S8VM-01524C
	30 W	5 V	6 A	S8VM-03005C
		12 V	2.5 A	S8VM-03012C
		15 V	2 A	S8VM-03015C
		24 V	1.3 A	S8VM-03024C
	50 W	5 V	10 A	S8VM-05005C
		12 V	4.3 A	S8VM-05012C
		15 V	3.5 A	S8VM-05015C
		24 V	2.2 A	S8VM-05024C
	100 W	5 V	20 A	S8VM-10005C
		12 V	8.5 A	S8VM-10012C
		15 V	7 A	S8VM-10015C
		24 V	4.5 A	S8VM-10024C
	150 W	5 V	27 A	S8VM-15005C (See note 1.)
		12 V	12.5 A	S8VM-15012C
		15 V	10 A	S8VM-15015C
		24 V	6.5 A	S8VM-15024C
	300 W	5 V	60 A	S8VM-30005C
		12 V	27 A	S8VM-30012C
		15 V	22 A	S8VM-30015C
		24 V	14 A Peak current: 16.5 A (200 VAC)	S8VM-30024C
	600 W	5 V	120 A	S8VM-60005C
		12 V	53 A	S8VM-60012C
		15 V	43 A	S8VM-60015C
		24 V	27 A Peak current: 31 A (200 VAC)	S8VM-60024C
	1,500 W	24 V	65 A (100 VAC) 70 A (200 VAC) Peak current: 105 A (200 VAC)	S8VM-15224C (See note 2.)

Note: 1. The output capacity of the S8VM-15005□□ is 135 W.

2. M8 bolts and nuts for the output terminals are not included with the S8VM-15224C.

3. To perform front mounting using the bottom mounting models, use the Mounting Brackets (S82Y-VM□□F, sold separately).

4. The input voltage is 100 to 240 VAC for all models.

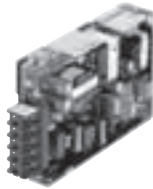
Undervoltage Alarm Function Model with Cover



Configuration	Power ratings	Output voltage	Output current	Undervoltage alarm model	Model
DIN Rail mounting bracket	15 W	24 V	0.65 A	---	S8VM-01524AD
	30 W		1.3 A	---	S8VM-03024AD
	50 W		2.2 A	Sinking	S8VM-05024AD
				Sourcing	S8VM-05024PD
	100 W		4.5 A	Sinking	S8VM-10024AD
				Sourcing	S8VM-10024PD
	150 W		6.5 A	Sinking	S8VM-15024AD
				Sourcing	S8VM-15024PD
Bottom mounting	15 W	24 V	0.65 A	---	S8VM-01524A
	30 W		1.3 A	---	S8VM-03024A
	50 W		2.2 A	Sinking	S8VM-05024A
				Sourcing	S8VM-05024P
	100 W		4.5 A	Sinking	S8VM-10024A
				Sourcing	S8VM-10024P
	150 W		6.5 A	Sinking	S8VM-15024A
				Sourcing	S8VM-15024P

- Note:**
1. To perform front mounting using the bottom mounting models, use the Mounting Brackets (S82Y-VM□□F, sold separately).
 2. The input voltage is 100 to 240 VAC for all models.

Open-frame type



Configuration	Power ratings	Output voltage	Output current	Model
DIN Rail mounting bracket	15 W	5 V	3 A	S8VM-01505D
		12 V	1.3 A	S8VM-01512D
		15 V	1 A	S8VM-01515D
		24 V	0.65 A	S8VM-01524D
	30 W	5 V	6 A	S8VM-03005D
		12 V	2.5 A	S8VM-03012D
		15 V	2 A	S8VM-03015D
		24 V	1.3 A	S8VM-03024D
	50 W	5 V	10 A	S8VM-05005D
		12 V	4.3 A	S8VM-05012D
		15 V	3.5 A	S8VM-05015D
		24 V	2.2 A	S8VM-05024D
	100 W	5 V	20 A	S8VM-10005D
		12 V	8.5 A	S8VM-10012D
		15 V	7 A	S8VM-10015D
		24 V	4.5 A	S8VM-10024D
	150 W	5 V	27 A	S8VM-15005D (See note 1.)
		12 V	12.5 A	S8VM-15012D
		15 V	10 A	S8VM-15015D
		24 V	6.5 A	S8VM-15024D
Bottom mounting	15 W	5 V	3 A	S8VM-01505
		12 V	1.3 A	S8VM-01512
		15 V	1 A	S8VM-01515
		24 V	0.65 A	S8VM-01524
	30 W	5 V	6 A	S8VM-03005
		12 V	2.5 A	S8VM-03012
		15 V	2 A	S8VM-03015
		24 V	1.3 A	S8VM-03024
	50 W	5 V	10 A	S8VM-05005
		12 V	4.3 A	S8VM-05012
		15 V	3.5 A	S8VM-05015
		24 V	2.2 A	S8VM-05024
	100 W	5 V	20 A	S8VM-10005
		12 V	8.5 A	S8VM-10012
		15 V	7 A	S8VM-10015
		24 V	4.5 A	S8VM-10024
	150 W	5 V	27 A	S8VM-15005 (See note 1.)
		12 V	12.5 A	S8VM-15012
		15 V	10 A	S8VM-15015
		24 V	6.5 A	S8VM-15024

- Note:**
1. The output capacity of the S8VM-15005□□ is 135 W.
 2. To perform front mounting using the bottom mounting models, use the Mounting Brackets (S82Y-VM□□F, sold separately).
 3. The input voltage is 100 to 240 VAC for all models.

Specifications

■ Ratings/Characteristics

Item	Power rating	15 W	30 W	50 W	100 W	150 W	
Efficiency	5-V models	75% min.	75% min.	80% min.	81% min.	81% min.	
	12-V models	78% min.	79% min.	79% min.	81% min.	81% min.	
	15-V models	78% min.	79% min.	79% min.	81% min.	81% min.	
	24-V models	80% min.	81% min.	80% min.	82% min.	83% min.	
Input	Voltage (See note 1.)	100 to 240 VAC (85 to 265 VAC)					
	Frequency (See note 1.)	50/60 Hz (47 to 63 Hz)					
	Current	100-V input	0.5 A max.	0.9 A max.	0.8 A max.	1.4 A max.	2.0 A max.
		200-V input	0.25 A max.	0.45 A max.	0.4 A max.	0.7 A max.	1.0 A max.
	Power factor	100-V input	---			0.98 min.	
		200-V input	---			0.94 min.	
	Harmonic current emissions	---			Conforms to EN 61000-3-2		
	Leakage current	100-V input	0.4 mA max. (at rated output)				
		200-V input	0.75 mA max. (at rated output)				
	Inrush current (See note 2.)	100-V input	17.5 A max. (for cold start at 25°C)				
200-V input		35 A max. (for cold start at 25°C)					
Output	Voltage adjustment range (See note 3.)	-20% to 20% (with V. ADJ) (S8VM-□□□24A□/P□: -10% to 20%)					
	Ripple	3.2% (p-p) max. (5 V), 1.5% (p-p) max. (12 V), 1.2% (p-p) max. (15 V), 1.0% (p-p) max. (24 V), (at rated input/output voltage)		3.2% (p-p) max. (5 V), 1.5% (p-p) max. (12 V), 1.2% (p-p) max. (15 V), 0.75% (p-p) max. (24 V), (at rated input/output voltage)			
	Input variation influence	0.4% max. (at 85 to 265 VAC input, 100%)					
	Load variation influence (rated input voltage)	0.8% max. (with rated input, 0 to 100% load)					
	Temperature variation influence	0.02%/°C max.					
	Startup time (See note 2.)	1,100 ms max. (at rated input/output voltage)		800 ms max. (at rated input/output voltage)			
	Hold time (See note 2.)	20 ms typ. (15 ms min.) (at rated input/output voltage)					
Additional functions	Overload protection (See note 2.)	105% to 160% of rated load current, voltage drop, intermittent, automatic reset		105% to 160% of rated load current, voltage drop (12 V, 15 V, and 24 V), voltage drop, intermittent (5 V), automatic reset			
	Overvoltage protection (See note 2.)	Yes (See note 4.)					
	Undervoltage alarm indication	Yes (color: Yellow (DC LOW1), red (DC LOW2)) (S8VM-□□□24A□/P□ only)					
	Undervoltage alarm output	No			Yes (S8VM-□□□24A□/P□ only) (Transistor output), 30 VDC max., 50 mA max. (See note 8.)		
	Series operation	Yes for up to 2 Power Supplies (with external diode)					
	Parallel operation	No (However, backup operation is possible. An external diode is required.)					
Remote sensing function	No				Yes		
Other	Ambient operating temperature	Refer to the derating curve in <i>Engineering Data (15-W, 30-W, 50-W, 100-W, 150-W Models)</i> . (with no icing or condensation) (See note 2.)					
	Storage temperature	-25 to 65°C					
	Ambient operating humidity	30% 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/FG terminals; detection current: 20 mA) 500 VAC for 1 min. (between all outputs and PE/FG terminals; detection current: 100 mA) 500 VAC for 1 min. (between all outputs (except the detection output terminals) and detection output terminals; detection current: 20 mA) (S8VM-□□□24A□/P□ only)					
	Insulation resistance	100 MΩ min. (between all outputs and all inputs, PE/FG terminals) at 500 VDC					
	Vibration resistance	10 to 55 Hz, 0.375-mm single amplitude for 2 hours 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 Emission	Conforms to EN55011 Group1 Class B and based on FCC Class B (See note 5.)				
		Radiated Emission	Conforms to EN55011 Group1 Class B (See note 6.)				
	EMS	Conforms to EN61204-3 High severity levels					
	Approved standards	UL cUL cUR EN/TÜV	UL508 (Listing), UL60950-1 CSA C22.2 No.14 CSA No. 60950-1 EN50178, EN60950-1 SELV (EN60950-1) According to VDE0160/P100				
		SEMI	SEMI F47-0200 (200 VAC input)				
	Weight (See note 7.)	180 g max.	220 g max.	290 g max.	460 g max.	530 g max.	

- Note:**
- 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.
 - Refer to *Engineering Data (15-W, 30-W, 50-W, 100-W, 150-W Models)* on page 11 to 13 for details.
 - If the output voltage adjuster (V. ADJ) is turned, the voltage will increase by more than +20% of the voltage adjustment range. If the adjuster is turned too far, it may activate the overvoltage protection function and interrupt the output.
When adjusting the output voltage, confirm the actual output voltage from the Power Supply and be sure that the load is not damaged.
To reset the protection, turn OFF the input power for three minutes or longer and then turn it back ON.
 - Conducted emissions: The noise value is affected by factors such as the wiring method. The Power Supply conforms to Class B when the aluminum plate is laid under the Power Supply. For 15-W models, insert a clamp filter (ZCAT2436-1330 by TDK: 50 Ω min. [50 to 500 MHz], or the equivalent) in the output wire to reduce noise.
 - Radiated emissions: The noise value is affected by factors such as the wiring method. The Power Supply conforms to Class B when the aluminum plate is laid under the Power Supply. For 150-W models, insert a clamp filter (ZCAT2017-0930 by TDK: 35 Ω min. [50 to 500 MHz], or the equivalent) in the input wire to reduce noise.
 - The weight indicated is for bottom mounting, open-frame models.
 - : Sinking type (NPN)
□: Sourcing type (PNP)

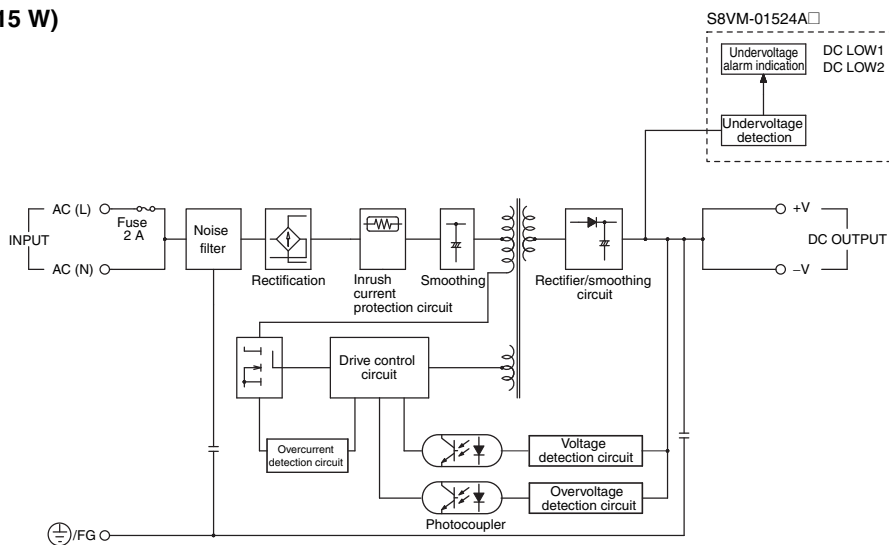
Item	Power rating	300 W	600 W	1,500 W	
Efficiency	5-V models	77% min.	77% min.	---	
	12-V models	78% min.	79% min.	---	
	15-V models	79% min.	80% min.	---	
	24-V models	81% min.	81% min.	82% min.	
Input	Voltage (See note 1.)	100 to 240 VAC (85 to 265 VAC)		100 to 240 VAC (85 to 265 VAC)	
	Frequency (See note 1.)	50/60 Hz (47 to 63 Hz)			
	Current	100-V input	4.0 A max. (5 V) 4.3 A max. (12 V, 15 V, and 24 V)	8.0 A max. (5 V) 8.3 A max. (12 V, 15 V, and 24 V)	20.0 A max.
		200-V input	2.0 A max. (5 V) 2.2 A max. (12 V, 15 V, and 24 V)	4.0 A max. (5 V) 4.2 A max. (12 V, 15 V, and 24 V)	11.0 A max.
	Power factor	100-V input	0.98 min.		0.97 min.
		200-V input	0.94 min.		0.93 min.
	Harmonic current emissions		Conforms to EN61000-3-2		
	Leakage current	100-V input	0.4 mA max.		1.5 mA max.
		200-V input	0.75 mA max.		1.5 mA max.
	Inrush current (See note 2.)	100-V input	20 A max. (for cold start at 25°C)		
200-V input		40 A max. (for cold start at 25°C)			
Output	Voltage adjustment range (See note 3.)	-20% to 20% (with V. ADJ)			
	Ripple	3.8% (p-p) max. (5 V), 2.0% (p-p) max. (12 V), 2.0% (p-p) max. (15 V), 1.25% (p-p) max. (24 V), (at rated input/output voltage)		1.25% (p-p) max. (See note 7.), (at rated input/output voltage)	
	Input variation influence	0.4% max. (at 85 to 265 VAC input, 100%)			
	Load variation influence (rated input voltage)	0.6% max. (with rated input, 0 to 100% load)			
	Temperature variation influence	0.02%/°C max.			
	Startup time (See note 2.)	1,000 ms max. (at rated input/output voltage)			
	Hold time (See note 2.)	20 ms typ. (15 ms min.) (at rated input/output voltage)			
	Additional functions	Overload protection (See note 2.)	105% to 160% of rated load current (5 V, 12 V, and 15 V), 120% to 160% of rated load current (S8VM-30024C), 115% to 160% of rated load current (S8VM-60024C), voltage drop (12 V, 15 V, and 24 V), voltage drop, intermittent (5 V), automatic reset		105% to 160% of rated load current (100 VAC), 155% to 200% of rated load current (200 VAC), voltage drop, automatic reset (Turns OFF when continuous for 5 s min.) (See note 4.)
Overvoltage protection (See note 2.)		Yes (See note 4.)			
Overheat protection (See note 2.)		Yes (See note 4.)			
Undervoltage alarm indication		No			
Undervoltage alarm output		No			
Power failure alarm indication		Yes (color: Red)			
Power failure alarm output		Yes (Transistor output), 30 VDC max., 50 mA max.			
Series operation		Yes for up to 2 Power Supplies (with external diode)			
Parallel operation		Yes (up to 2 units)			
Remote sensing function		Yes			
Remote control function		Yes			
Other	Ambient operating temperature	Refer to the derating curve in <i>Engineering Data (300-W, 600-W, 1,500-W Models)</i> . (with no icing or condensation) (See note 2.)			
	Storage temperature	-25 to 65°C			
	Ambient operating humidity	30% to 85% (Storage humidity: 25% to 90%)			
	Dielectric strength	3.0 kVAC for 1 min. (between all inputs and outputs; detection current: 20 mA)		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)		2.0 kVAC for 1 min. (between all inputs and FG terminals; detection current: 20 mA)	
		500 VAC for 1 min. (between all outputs and PE terminals; detection current: 100 mA)		500 VAC for 1 min. (between all outputs and FG terminals; detection current: 300 mA)	
		100 VAC for 1 min. (between all outputs and RC terminals; detection current: 100 mA)		100 VAC for 1 min. (between all outputs and RC terminals; detection current: 100 mA)	
		500 VAC for 1 min. (between all outputs and PF terminals; detection current: 20 mA)		500 VAC for 1 min. (between all outputs and PF terminals; detection current: 20 mA)	
	Insulation resistance	100 MΩ min. (between all outputs and all inputs, PE terminals) at 500 VDC		100 MΩ min. (between all outputs and all inputs, FG terminals) at 500 VDC	
	Vibration resistance	10 to 55 Hz, 0.375-mm single amplitude for 2 hours each in X, Y, and Z directions		10 to 55 Hz, 0.15-mm single amplitude for 2 hours 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 Emission	Conforms to EN55011 Group1 Class B and based on FCC Class B (See note 5.)		Conforms to EN55011 Group1 Class A and based on FCC Class A (See note 6.)
		Radiated Emission	Conforms to EN55011 Group1 Class B (See note 5.)		Conforms to EN55011 Group1 Class A (See note 6.)
	EMS	Conforms to EN61204-3 High severity levels			
Approved standards (See note 8.)	UL cUR cUR EN/TÜV	UL508 (Recognition) (5 V, 12 V, and 15 V) UL508 (Listing) (24 V), UL60950-1 CSA C22.2 No.14 (24 V) CSA No. 60950-1 EN50178, EN60950-1 SELVE (EN60950-1)		UL508, UL60950-1 CSA C22.2 No.14, CSA No. 60950-1 EN50178, EN60950-1 SELVE (EN60950-1)	
	SEMI	SEMI F47-0200 (200-VAC input)			
Weight	1,100 g max.		1,700 g max.	3,800 g max.	

- Note:**
- 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.
 - Refer to *Engineering Data (300-W, 600-W, 1,500-W Models)* on page 17 to 19 for details.
 - If the output voltage adjuster (V. ADJ) is turned, the voltage will increase by more than +20% of the voltage adjustment range. If the adjuster is turned too far, it may activate the overvoltage protection function and interrupt the output. When adjusting the output voltage, confirm the actual output voltage from the Power Supply and be sure that the load is not damaged.
 - To reset the protection, turn OFF the input power for three minutes or longer and then turn it back ON. Alternatively, turn OFF the remote control signal and then turn it back ON again.
 - Conducted emissions: The noise value is affected by factors such as the wiring method. The Power Supply conforms to Class B when the aluminum plate is laid under the Power Supply. For 600-W models, insert a clamp filter (ZCAT3035-1330 by TDK: 100 Ω min. [50 to 500 MHz], or the equivalent) in the input wire, and ring core (HF60T38X14X22 by TDK: 16 Ω typ. [1 MHz], 46 Ω typ. [10 MHz], or the equivalent) in the output wire to reduce noise
 - Radiated emissions: The noise value is affected by factors such as the wiring method. The Power Supply conforms to Class A when the aluminum plate is laid under the Power Supply (1,500-W models).
 - The measuring method conforms to JEITA standard RC-9131A. Refer to *Ripple* under *Safety Precautions* on page 34.
 - The Power Supply will not conform to safety standards if the customer replaces the fan.

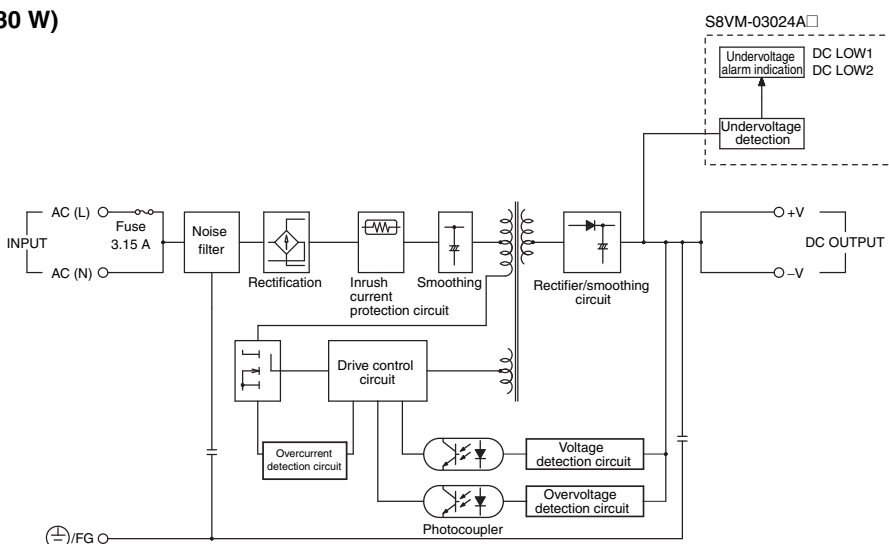
Connections

■ Block Diagrams

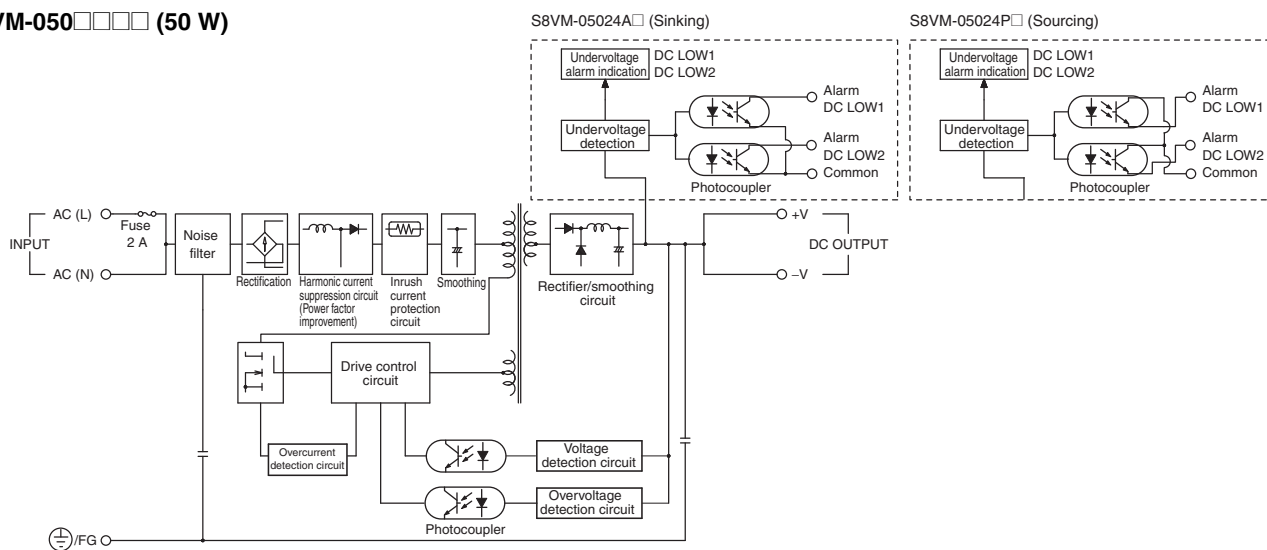
S8VM-015□□□□ (15 W)



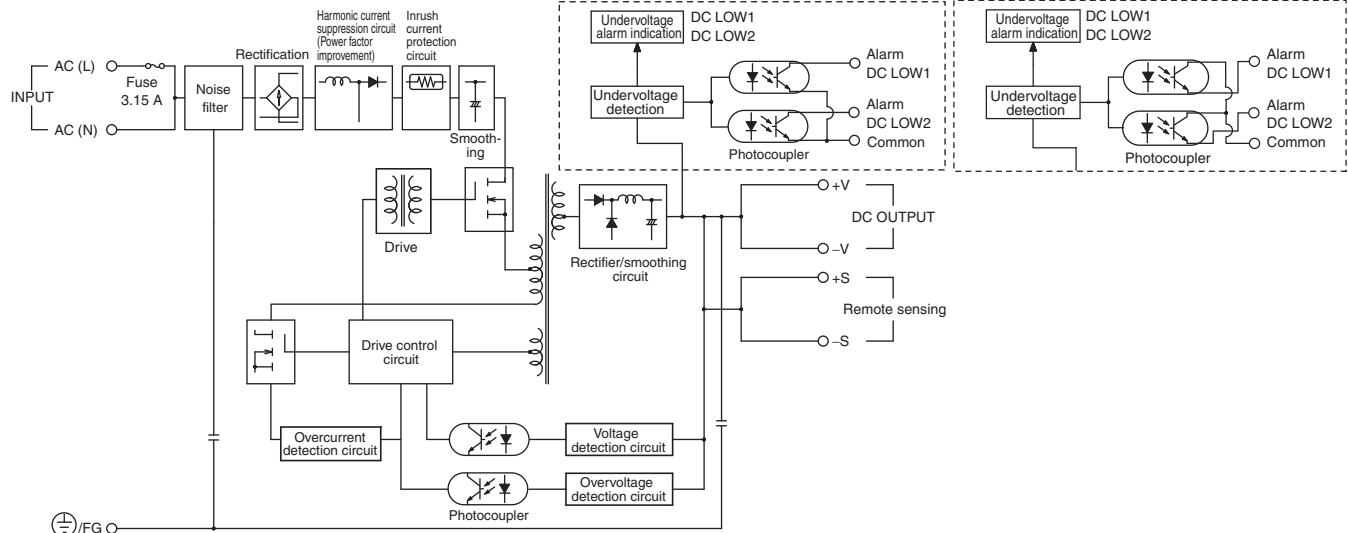
S8VM-030□□□□ (30 W)



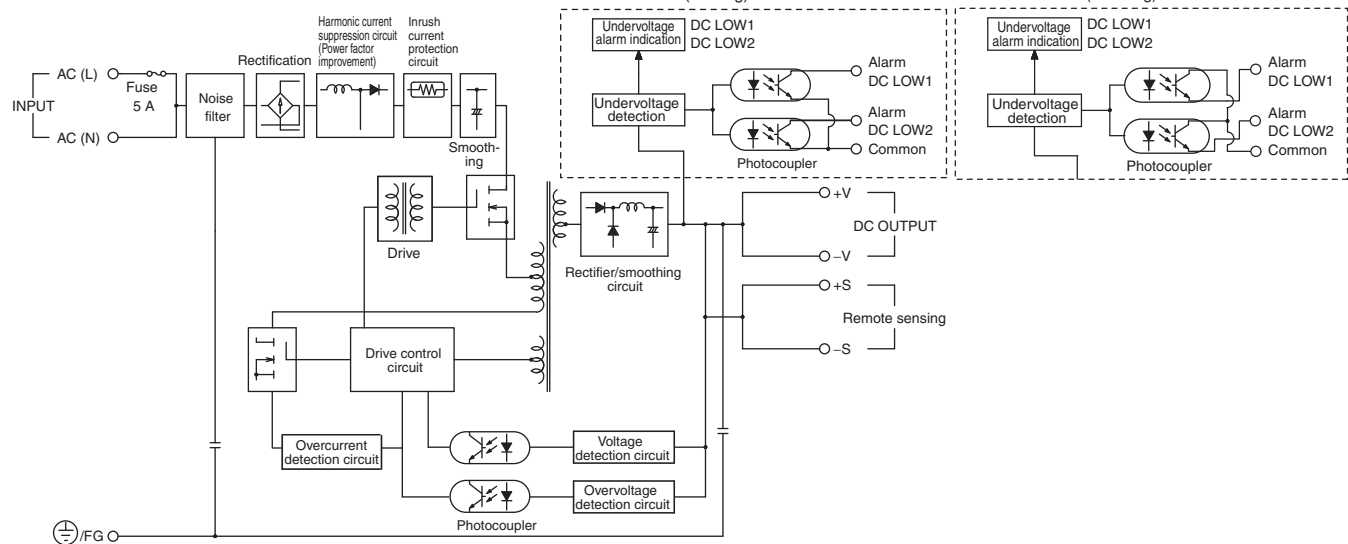
S8VM-050□□□□ (50 W)



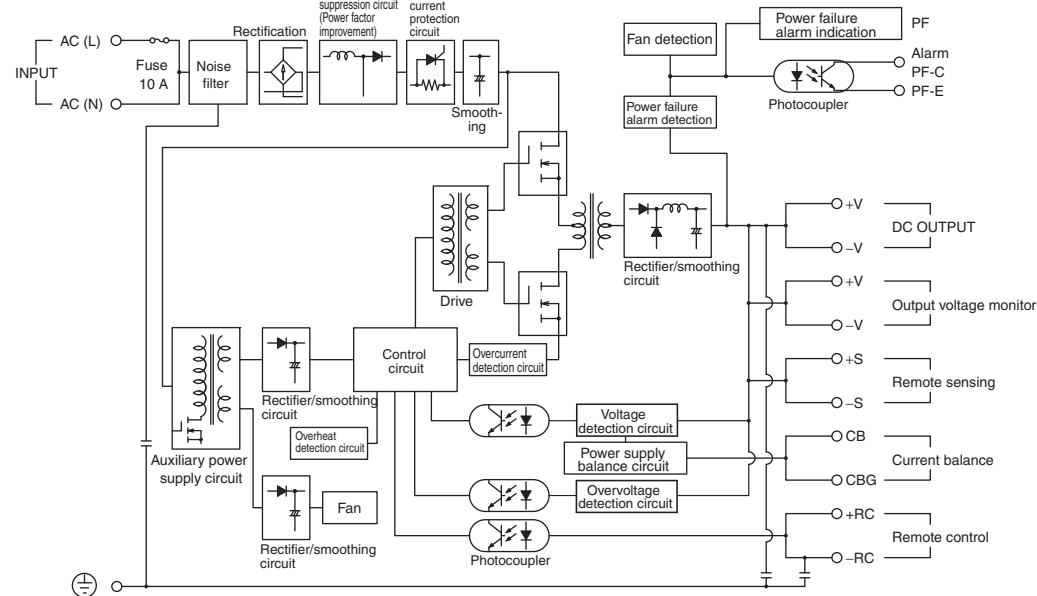
S8VM-100 (100 W)



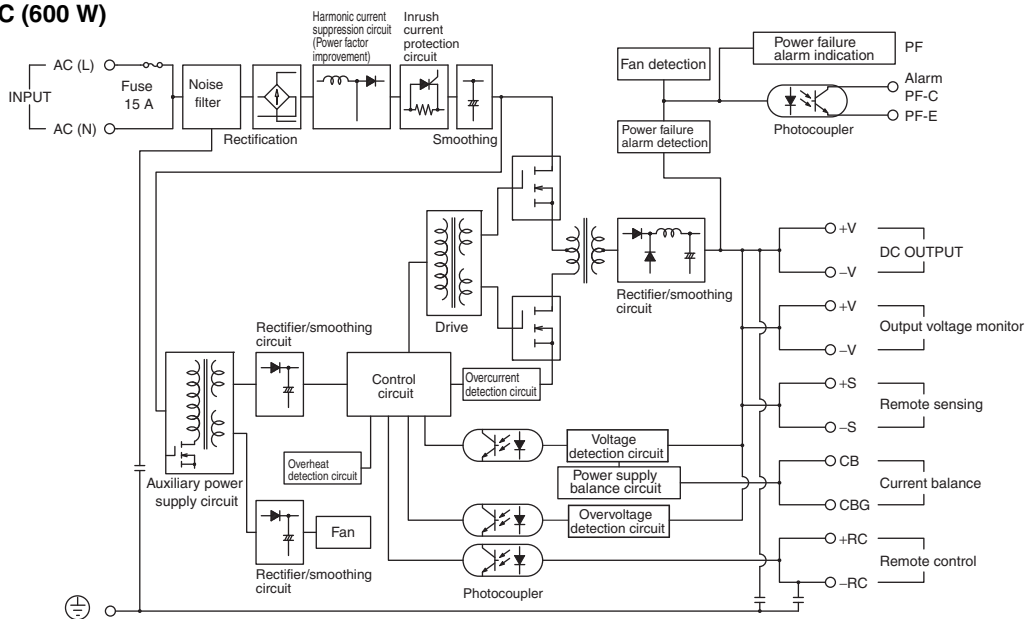
S8VM-150 (150 W)



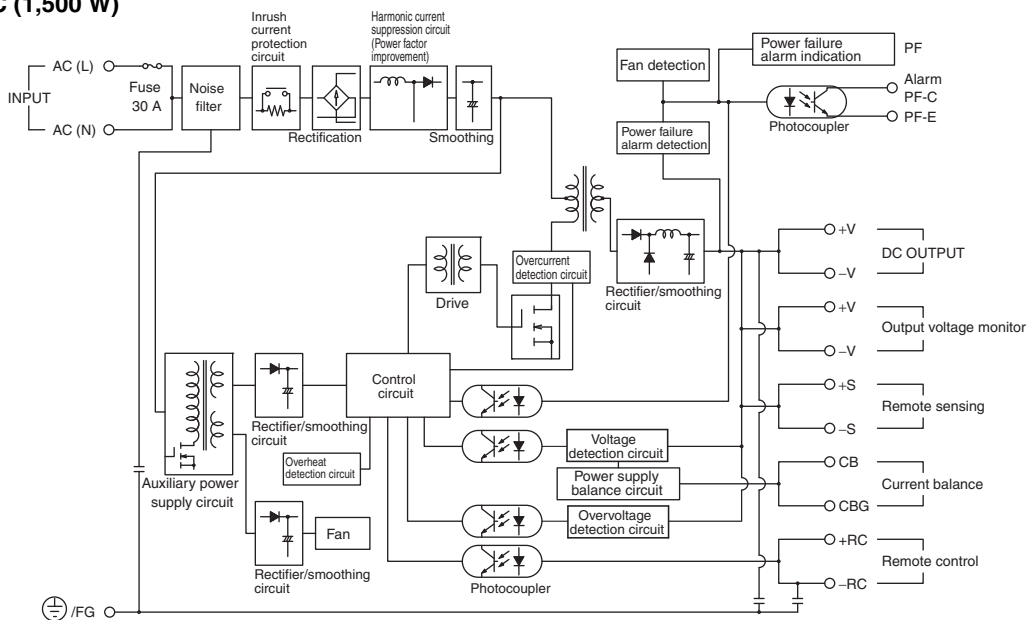
S8VM-300C (300 W)



S8VM-600□□C (600 W)



S8VM-15224C (1,500 W)



Construction and Nomenclature (15-W, 30-W, 50-W, 100-W, 150-W Models)

■ Nomenclature

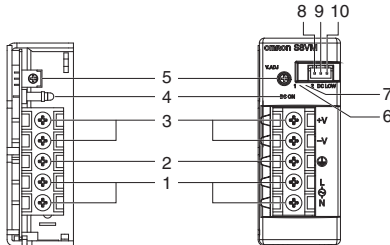
15-W, 30-W, 50-W Models

Open-frame Models

S8VM-015□□/S8VM-015□□D
S8VM-030□□/S8VM-030□□D
S8VM-050□□/S8VM-050□□D

Covered Models

S8VM-015□□C□/S8VM-01524A□
S8VM-030□□C□/S8VM-03024A□
S8VM-050□□C□/S8VM-05024A□/P□



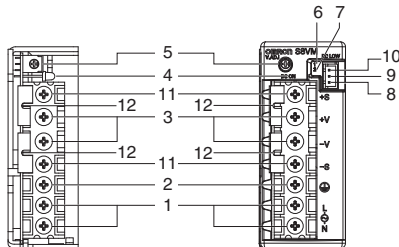
100-W Models

Open-frame Models

S8VM-100□□/S8VM-100□□D

Covered Models

S8VM-100□□C□/S8VM-10024A□/P□



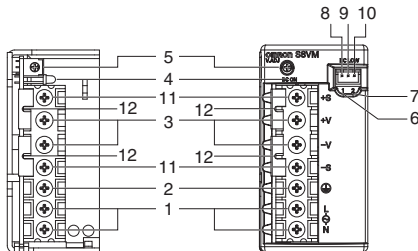
150-W Models

Open-frame Models

S8VM-150□□/S8VM-150□□D

Covered Models

S8VM-150□□C□/S8VM-15024A□/P□



300-W, 600-W, 1,500-W Models

Note: Refer to page 16.

■ Output Color Label

This color label identifies the output voltage by color.



Color label identifying output voltage

Green: 5 V
Blue: 12 V
Yellow: 15 V
White: 24 V

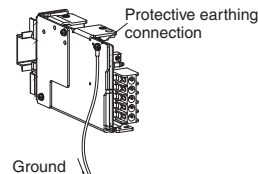
No.	Name	Function
1	AC input terminals (L), (N)	Connect the input lines to these terminals. (See note 1.)
2	PE terminal: Protective earthing terminal (S8VM-□□□□C□/S8VM-□□□□A□/ S8VM-□□□□P□) FG terminal: Frame ground terminal (S8VM-□□□□□/ S8VM-□□□□□D)	Connect the ground line to this terminal. (See note 2.)
3	DC output terminals (-V), (+V)	Connect the load lines to these terminals.
4	Output indicator (DC ON: Green)	Lights (green) while a direct current (DC) output is ON.
5	Output voltage adjuster (V. ADJ)	Use to adjust the voltage.
6	Undervoltage alarm indicator 1 (DC LOW1: Yellow) (See note 3.)	Lights only when a momentary drop in output voltage is detected. This status is maintained.
7	Undervoltage alarm indicator 2 (DC LOW2: Red) (See note 3.)	Lights only when the output voltage drops to approximately 20 V or lower.
8	Undervoltage alarm output terminal 1: (DC LOW1) (See note 4.)	Outputs only when a momentary drop in output voltage is detected. This status is maintained. (The transistor turns OFF when a voltage drop occurs.)
9	Undervoltage alarm output terminal 2: (DC LOW2) (See note 4.)	Outputs only when the output voltage drops to approximately 20 V or lower. (The transistor turns OFF when a voltage drop occurs.)
10	Common terminal for undervoltage alarm output (See note 4.)	Common terminal (See note 6.) for terminals 8 and 9
11	Remote sensing terminals (See note 5.)	Correct the voltage drop in the load lines.
12	Short bars (See note 5.)	---

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

2. If mounting is performed using a DIN Rail, the protective earthing connection is the panel mounting hole shown in the figure below.

(A protective earthing connection stipulated in safety standards is used. Connect the ground completely (S8VM-□□□□D only)).

Ground terminal: M3 (Depth: 8 mm max.)/Ground wire: AWG 18



3. S8VM-□□□24A□/P□ only

4. S8VM-05024A□/P□, S8VM-10024A□/P□, S8VM-15024A□/P□ only. Housing and terminals of the connector for undervoltage detection output are also provided. For details, refer to *Undervoltage Alarm Output Connector Harness Manufacture Method* on page 35 under *Safety Precautions*.

5. When not using the remote sensing function, leave the short bar in the same state as when shipped.

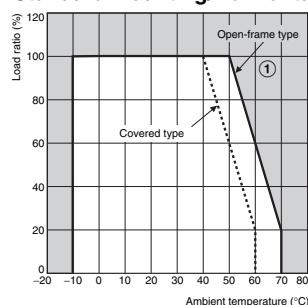
6. A□ models: Common terminal (emitter)
P□ models: Common terminal (collector)

Engineering Data (15-W, 30-W, 50-W, 100-W, 150-W Models)

Derating Curve

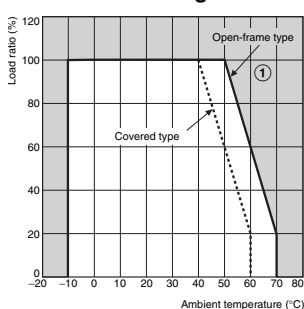
15W/30W

Standard Mounting/Horizontal Mounting/Face-up Mounting

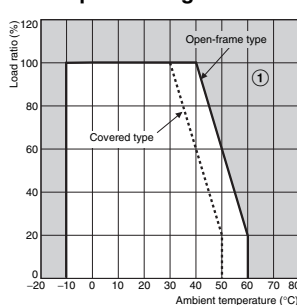


50W

Standard Mounting/Horizontal Mounting

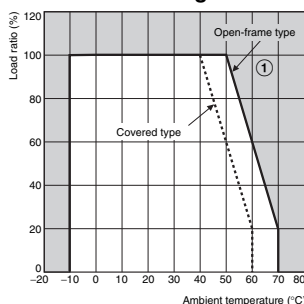


Face-up Mounting

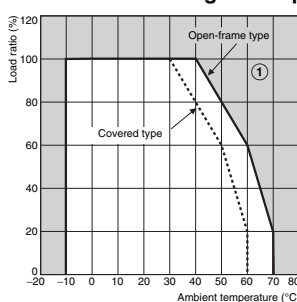


100W

Standard Mounting

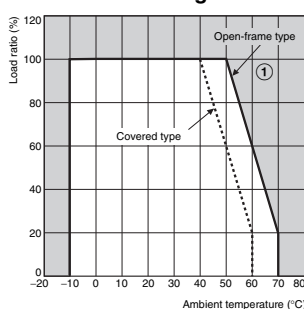


Horizontal Mounting/Face-up Mounting

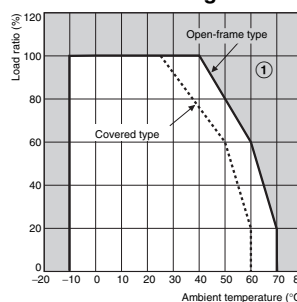


150W

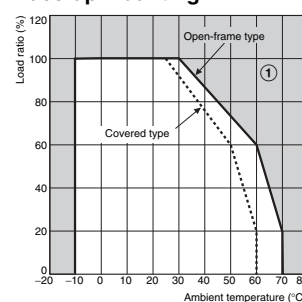
Standard Mounting



Horizontal Mounting



Face-up Mounting



300W/600W/1,500W

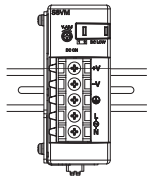
Note: Refer to page 17.

- Note:**
- Internal parts may occasionally be deteriorated or damaged. Do not use the Power Supply in areas outside the derating curves (i.e., the area shown by shading ① in the above graphs).
 - If there is a derating problem, use forced air-cooling.
 - When mounting two or more Power Supplies side-by-side, allow at least 20 mm spacing between them. Multiple 100- and 150-W models cannot be used side by side. Be sure to install the Power Supplies as far away from heat-generating sources as possible. As a reference value, allow at least 50 mm spacing on the right and left sides. If only 20 mm spacing is allowed, use the Power Supply at a load ratio of 80% or less.
 - When using 150-W models for a long period of time at an input voltage of 90 VAC or lower, reduce the load to 80% or less of the above derating curves.

■ Mounting

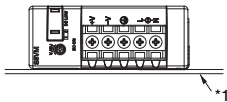
Standard Mounting
(DIN Rail Mounting Bracket Models)

Correct



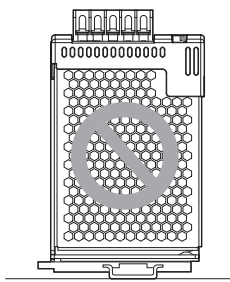
Horizontal Mounting

Correct



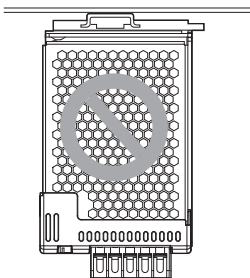
Face-up Mounting
(DIN Rail Mounting Bracket Models)

Incorrect



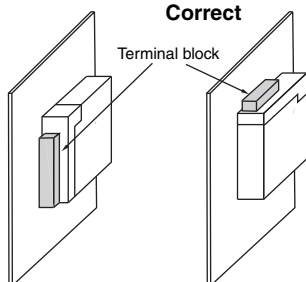
Face-down Mounting
(DIN Rail Mounting Bracket Models)

Incorrect



Surface Mounting for
Standard Mounting Direction

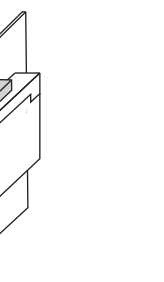
Correct



The terminals are in front.

Surface Mounting for Face-up
Mounting

Correct



The terminals are on the top.

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

Use the Power Supply within the derating curve for the mounting direction that is used.

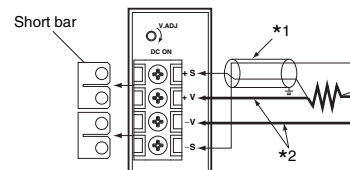
2. Use the metal plate as the mounting panel (*1).
3. Install the Power Supply so that the air flow circulates around the Power Supply, as the Power Supply is designed to radiate heat by means of natural air flow.
4. Mounting screw tightening torque (recommended value: M3 (0.49 N·m))

■ Remote Sensing Function

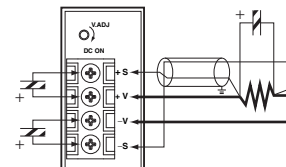
(S8VM-100□□□□/150□□□□ only)

This function compensates a voltage drop on the load lines.

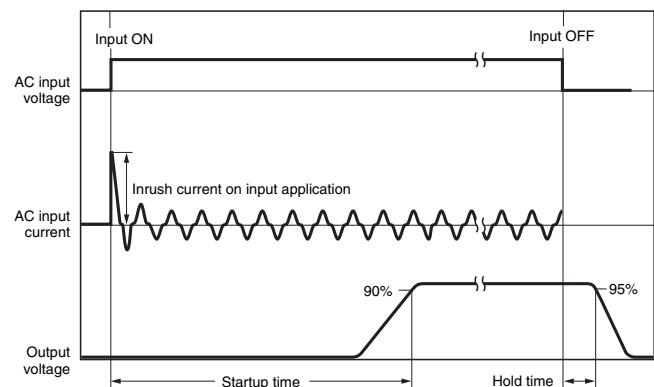
To use this function, connect after removing the two short bars of the remote sensing terminal.



- Note:**
1. Use a 2-conductor shielded cable as a connection wire (*1).
 2. Use as thick a wire as possible since high voltage drops on the load lines (*2) may activate the overvoltage protection function.
 3. Use when the voltage drop is 0.3 V or lower.
 4. When the +S and -S terminals are opened with the short bar removed, the overvoltage protection function is activated and the output voltage will be cut off.
 5. If the load line is too long, use an electrolytic capacitor in the following 3 locations:
 - 1) Across the load terminals
 - 2) Between the +S terminal and + terminal
 - 3) Between the -S terminal and - terminal
 Select the capacity of the connected capacitor from between several tens to several hundreds of μF as a guide, and then determine the capacity when actually connecting the capacitor between terminals as shown below.



■ Inrush Current, Startup Time, Output Hold Time



■ Reference Values

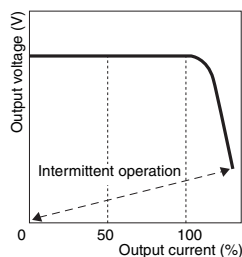
Item	Value	Definition
Reliability (MTBF)	135,000 hrs min.	MTBF stands for Mean Time Between Failures, which is calculated according to the probability of accidental device failures, and indicates the reliability of a device. Therefore, it does not necessarily represent the life of the Power Supply.
Life expectancy	10 yrs. min.	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.

Overload Protection

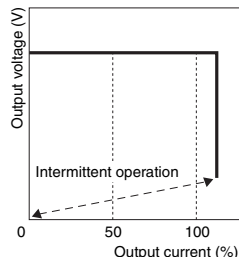
The Power Supply is provided with an overload protection function that protects the Power Supply from possible damage by short-circuit and overcurrent.

When the output current rises above 105% min. of the rated current, the protection function is triggered, automatically decreasing the output voltage. When the output current falls within the rated range, the overload protection function is automatically cleared.

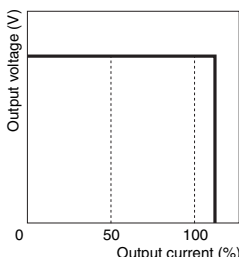
15W/30W



50W/100W/150W (5 V)



50W/100W/150W (12 V, 15 V, 24 V)



300W/600W/1,500W

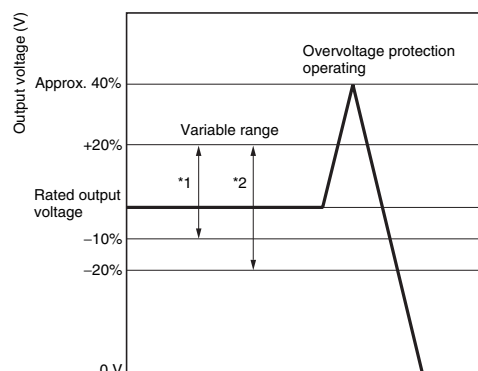
Note: Refer to page 19.

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

- Note:**
- Internal parts may occasionally deteriorate or be damaged if a short-circuited or other overcurrent state continues during operation. Do not continue an overload state for longer than 30 seconds. Eliminate the overcurrent state as soon as possible.
 - Internal parts may possibly be deteriorated or 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.

Overshoot Protection

Consider the possibility of an overshoot 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 140% of the rated voltage or more is output, the output voltage is shut OFF, preventing damage to the load due to overshoot. 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 are for reference only.

*1 S8VM-□□□24A□/P□

*2 Except for S8VM-□□□24A□/P□

- Note:**
- Do not turn ON the input power again until the cause of the overshoot has been removed.
 - The overshoot protection function may be activated when the output voltage adjuster (V.ADJ) is set to a value that exceeds +20% of the rated output voltage.
 - When the +S and -S terminals are opened with the short-bar removed, the overshoot protection function is activated and the output voltage will be cut off.

Undervoltage Alarm Function (Indication and Output)

(Only S8VM-□□□24A□/P□)

If an output voltage drop is detected with an S8VM-□□□24A□/P□ with undervoltage alarm function, the DC LOW indicator will light to notify of an output error. The transistor also sends an output externally to notify of the error (except for the S8VM-01524A□ and S8VM-03024A□).

Transistor Output: Sinking type: (NPN) (S8VM-□□□24A□)

Sourcing type: (PNP) (S8VM-□□□24P□)

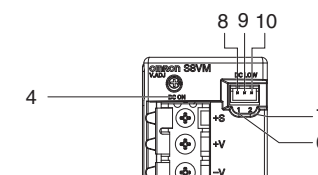
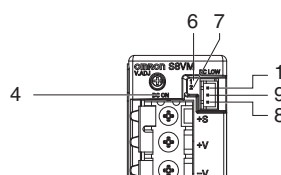
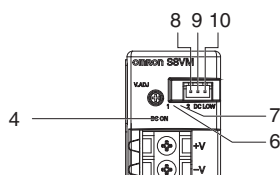
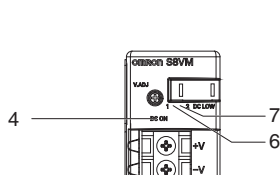
30 VDC max., 50 mA max., Residual voltage when ON: 2 V or less, Leakage current when OFF: 0.1 mA or less

S8VM-01524A□
S8VM-03024A□

S8VM-05024A□/P□

S8VM-10024A□/P□

S8VM-15024A□/P□



Undervoltage Alarm Function 1 (DC LOW1)

Only a momentary voltage drop is detected. Detection voltage is automatically adjusted internally by detecting the output voltage (approx. 2.7 V lower than the voltage output at an output voltage of 24.0 V).

During detection, the transistor is OFF (with no continuity across 8 and 10) and the LED (6: Yellow) lights. (The Undervoltage Alarm Function 1 is used as a latch holding function.)

Undervoltage Alarm Function 2 (DC LOW2)

Detection voltage is set to approx. 20.0 V (from 18.0 to 21.6 V).

During detection, the transistor is OFF (with no continuity across 9 and 10) and the LED (7: Red) lights.

Note: 1. This function monitors the voltage at the Power Supply output terminals.

To check actual voltage, measure voltage on the load side.

- Gradual voltage drop is not detected by the Undervoltage Alarm Function 1 (DC LOW1).
- Once a voltage drop in the output voltage is detected by Undervoltage Alarm Function 1 (DC LOW1), the transistor turns OFF and status of the LED (6: Yellow) light is maintained. To reset the function, turn OFF the input power for 60 seconds or longer, and then turn it ON again.
- If the output voltage remains at 15 V or lower for several seconds when using Undervoltage Alarm Function 1 (DC LOW 1), the output hold status for detection may be reset.

Probable Causes of Power Supply Errors and Troubleshooting Using Undervoltage Alarm Function

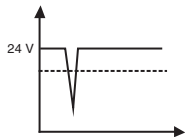
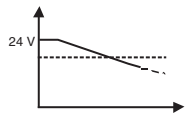
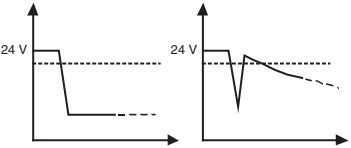
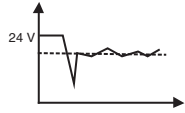
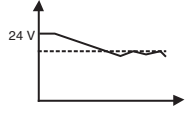
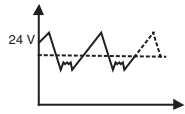
Check the following information if the Undervoltage Alarm Function operates.

Contact your OMRON representative if the Power Supply does not function normally after checking.

The symbols in the table are as follows:

●: Lit, ○: Not lit, ⊗: Flashing

Note: Flashing: The output voltage is unstable, causing the LED to repeatedly turn ON and OFF.

	DC ON		DC LOW1		DC LOW2		Output voltage	Power Supply status diagnosis	
	LED (4): Green	LED (6): Yellow	Transistor outputs (8 to 10)	LED (7): Red	Transistor outputs (9 to 10)				
1	●	○	ON	○	○	ON	→ Normal (approx. 90% min. of rated output voltage)	Normal status	
2	●	●	OFF	○	○	ON	→ Normal (approx. 90% min. of rated output voltage)	The output voltage has recovered to normal status following a previous sudden voltage drop.	
3	●	○	ON	●	●	OFF	→ Output drop (approx. 90% max. of rated output voltage)	The output voltage has dropped gradually and remains low.	
4	●	●	OFF	●	●	OFF	→ Output drop (approx. 90% max. of rated output voltage)	The output voltage remains low following a previous sudden voltage drop.	
5	●	●	OFF	⊗	ON ↕ OFF	ON ↕ OFF	→ Output drop (approx. 80% of rated output voltage)	The output voltage remains low and is continuing to fluctuate following a previous sudden voltage drop.	
6	●	○	ON	⊗	ON ↕ OFF	ON ↕ OFF	→ Output drop (approx. 80% of rated output voltage)	The output voltage has dropped gradually, remains low, and is continuing to fluctuate.	
7	○	○	OFF	○	○	OFF	→ No output	No output voltage is being output.	
8	⊗	⊗	ON ↕ OFF	⊗	ON ↕ OFF	ON ↕ OFF	→ Unstable output	The output voltage is unstable.	

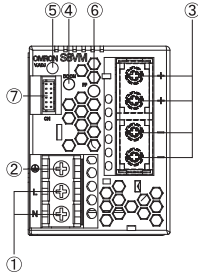
Probable cause of error	Troubleshooting methods	
---	---	1
A momentary power failure has occurred in the input.	Check that the output voltage is normal and no problems have occurred in other devices. No problems will be caused by continuing to use the Power Supply as is. To clear DC LOW1 (LED display and transistor output status), turn OFF the input power, and wait at least 60 s before turning ON the input Power Supply again.	
A momentary overload has occurred.	The load current has probably exceeded the rated current. We suggest reducing the connected load or replace the Power Supply with one that has a higher capacity.	
A momentary output voltage drop has occurred at startup due to the capacity of the capacitive factors on the load side or when the load is activated.	A large inrush current has probably flowed to the load side at startup. We suggest replacing the Power Supply with one that has a higher capacity.	2
The output voltage has returned to normal voltage following a rapid drop caused by using the output voltage adjuster (V.ADJ).	Turn OFF the input power, and wait at least 60 s before turning ON the input power again to clear the indicator status.	
Deterioration due to age (when the Power Supply has been used for several years)	The internal parts of the Power Supply may have deteriorated due to age. We suggest replacing the Power Supply. Also replace other Power Supplies that were purchased at the same time.	
Overload (immediately following first use of the Power Supply or when increasing the load)	The load current has probably exceeded the rated current. Check the actual load current and Power Supply capacity. Continued use in overload status may damage the Power Supply.	3
The output voltage dropped to -10% or lower of the rated voltage resulting from using the output voltage adjuster (V.ADJ)	Adjust the output voltage to the rated values using the output voltage adjuster (V.ADJ).	
A sudden overload occurred and the Power Supply remains in overload status.	An error has probably occurred in the load device. Turn OFF the input power, and check whether any errors have occurred in the load device. Continued use in overload status may damage the Power Supply.	4
The output voltage remains low after a rapid voltage drop caused by using the output voltage adjuster (V.ADJ).	Adjust the output voltage to the rated values using the output voltage adjuster (V.ADJ). To clear DC LOW1 (LED display and transistor output status), turn OFF the input power, and wait at least 60 s before turning ON the input power again.	
The overload status continues to fluctuate following a sudden overload.	An error has probably occurred in the load device. Turn OFF the input power, and check whether any errors have occurred in the load device. Continued use in overload status may damage the Power Supply.	5
Deterioration due to age (after using the Power Supply for several years)	The internal parts of the Power Supply may have deteriorated due to age. Replace the Power Supply. Also replace other Power Supplies that were purchased at the same time.	6
Overload (immediately following first use of the Power Supply or when increasing the load)	The load current has probably exceeded the rated current. Check the actual load current and Power Supply capacity. Continued use in overload status may damage the Power Supply.	
Power Supply interrupted or damaged.	Check whether the input power is being applied correctly. If there is no output even though the input power is applied correctly, the internal circuit is probably damaged.	
Overvoltage protection operation	Turn OFF the input power, and wait at least 3 min before turning ON the input power again. If the same status recurs, the internal circuit is probably damaged.	7
The short bar has fallen off, or the +S and -S terminals are open.	Check whether the +S and -S terminals are open. If so, the overvoltage protection function is activated. Therefore, turn OFF the input power and wait at least three minutes before turning it ON again. (S8VM-10024A□/P□ and S8VM-15024A□/P□ models only)	
Output short-circuit	Remove the cause of the output short-circuit.	
Intermittent operation due to overload (S8VM-01524A□/03024A□ only)	The load current has probably exceeded the rated current. Check the actual load current and Power Supply capacity. Continued use in overload status may damage the Power Supply.	8
The Power Supply fails to start repeatedly due to the capacity of the capacitive factors on the load side.	A large inrush current has probably flowed to the load side at startup. We suggest replacing the Power Supply with one that has a higher capacity.	
The input turns ON and OFF repeatedly.	Check whether the Power Supply's input voltage is being applied correctly.	
The status repeatedly switches between normal operation and output short-circuit.	An error has probably occurred in the load device. Turn OFF the input power, and check whether any errors have occurred in the load device.	

Construction and Nomenclature (300-W, 600-W, 1,500-W Models)

■ Nomenclature

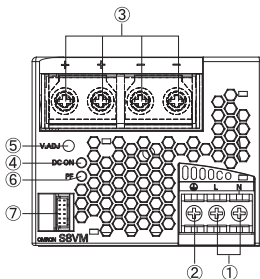
300-W Models

S8VM-300□□C



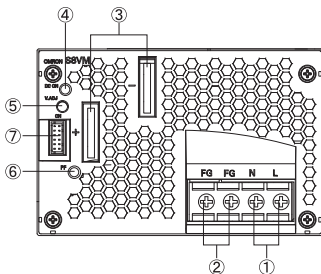
600-W Models

S8VM-600□□C



1,500-W Model

S8VM-15224C



No.	Name	Function
1	AC input terminals (L), (N)	Connect the input lines to these terminals. (See note 1.)
2	PE terminal: Protective earthing terminal (⊕) (S8VM-300□□C/S8VM-600□□C) FG terminal: Frame ground terminal (S8VM-15224C)	Connect the ground line to this terminal. (See note 2.)
3	DC output terminals (-V), (+V)	Connect the load lines to these terminals.
4	Output indicator (DC ON: Green)	Lights (green) while a direct current (DC) output is ON.
5	Output voltage adjuster (V.ADJ)	Use to adjust the voltage.
6	Power failure alarm indicator (PF: Red)	Lights when the output voltage decreases, the fan stops, and the system is on standby using the remote control function.
7	Signal I/O connector (See note 3.)	1: DC output monitor pin (+V) 2: Remote sensing pin (+S) 3: DC output monitor pin (-V) 4: Remote sensing pin (-S) 5: Current balance pin (CB) 6: Signal ground pin for current balance (CBG) 7: Remote control pin (+RC) 8: Remote control pin (-RC) 9: No connect 10: No connect 11: Power failure alarm output pin (PF-C) (collector) 12: Power failure alarm output pin (PF-E) (emitter)

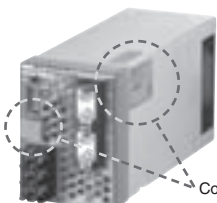
Note: 1. The fuse is located on the (L) side. It is NOT user-replaceable.

- Protective earthing connection is the panel mounting hole of the metal case. (A protective earthing connection stipulated in safety standards is used. Connect the ground completely).
Ground terminal: M4 (Depth: 6 mm max.)/Ground wire: AWG 18

- The standard supplied connector for signal I/O is mounted to CN when S8VM is shipped. The supplied signal I/O connector shorts between 1 and 2, between 3 and 4, and between 7 and 8. **The stability and accuracy of the output will deteriorate if the connector is removed. Always connect the +S and -S pins.**
Do not connect a load to the output voltage monitor terminals (+V, -V).

■ Output Color Label

This color label identifies the output voltage by color.



Color label identifying output voltage

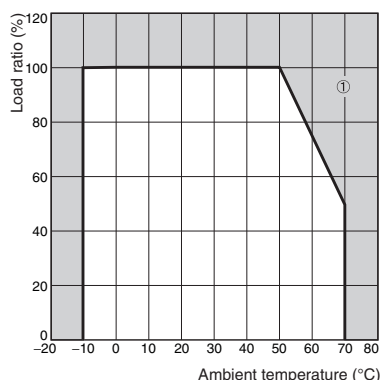
- Green: 5 V
- Blue: 12 V
- Yellow: 15 V
- White: 24 V

Note: A 300-W model is shown above. The label is in a different place on 600-W models and 1,500-W model.

Engineering Data (300-W, 600-W, 1,500-W Models)

Derating Curve

300W/600W/1,500W



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

- When mounting two or more Power Supplies side-by-side, allow at least 20 mm spacing between them. Always provide at least 50 mm of mounting space for the surface with the fan mounted. Be sure to provide at least 50 mm (S8VM-300□□C/600□□C) or 100 mm (S8VM-15224C) of mounting space on the opposite side of the surface with the fan mounted.
- When using the 1,500-W model for a long period of time at an input voltage of 90 VAC or lower, reduce the load to 80% or less of the above derating curve.
- The ambient temperature is specified at a location 50 mm in front of the center of the Power Supply's front panel.

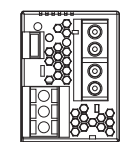
Mounting

Standard Mounting

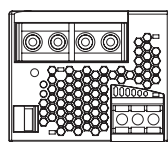
Correct

Correct

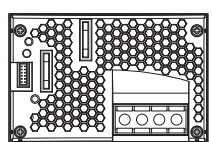
Correct



300 W *1



600 W *1



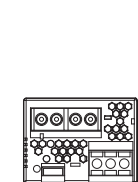
1,500 W *1

Horizontal Mounting

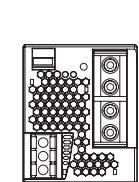
Correct

Correct

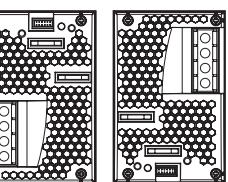
Correct



300 W *1



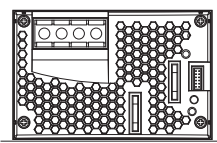
600 W *1



1,500 W *1

Upside-down Mounting (S8VM-15224C Only)

Correct



1,500 W *1

Side Mounting

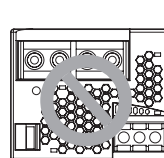
Incorrect

Incorrect

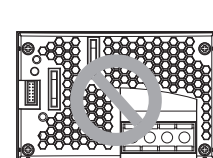
Incorrect



300 W



600 W



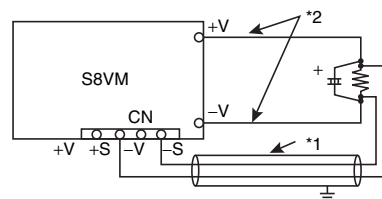
1,500 W

Note: 1. The internal parts may occasionally deteriorate or be broken due to adverse heat dissipation depending on the mounting status. Do not use the Power Supply in any mounting direction other than those specified.

- Use the metal plate as the mounting panel (*1).
- To ensure sufficient cooling, do not cover the air holes located on the side the fan is mounted and the opposite side.
- Mounting screw tightening torque (recommended value: M4 (1.27 N·m))
The screws must not protrude more than 6 mm inside the Power Supply.

Remote Sensing Function

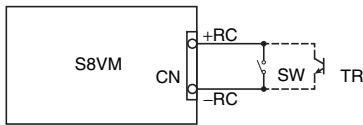
Use remote sensing to automatically compensate for voltage drops on the load lines. Connect the +S pin (pin 2 on CN) to the positive load terminal and the -S pin (pin 4 on CN) to the negative load terminal to enable remote sensing. When not using the remote sensing function, use the standard supplied connector. The +S and +V pins (pin 1 on CN) and the -S and -V pins (pin 3 on CN) will be connected.



- Note:**
- Use 2-conductor shielded cable as connection wire (*1).
 - Use as thick a wire as possible since high voltage drops on the load lines (*2) may activate the overvoltage protection function.
 - Do not allow the voltage drop on the load line to exceed 0.3 V.
 - If the sensing line is too long, it is necessary to put an electrolytic capacitor across the load terminals. The electrolytic capacitor may generate heat due to the ripple current, depending on connected load. Therefore, the electrolytic capacitor must have a ripple current allowance higher than the output ripple current.
 - The stability and accuracy of the output will deteriorate if the short bar is missing or if the +S and -S pins are open. Always connect the +S and -S pins.
 - Remove the standard supplied connector and prepare a connector harness separately.

Remote Control Function

This function turns outputs ON and OFF using an external signal while input voltage is applied, using the +RC pin (pin 7 on CN) and the -RC pin (pin 8 on CN). Connect a switch or transistor to the +RC and -RC pins to use the remote control function. When not using this function, the +RC and -RC pins are shorted by using the standard supplied connector.



+RC Level for -RC	Output voltage	Built-in Fan Motor
Short or L (0 to 0.8 V)	ON	Rotate
Open or H (2.4 to 12 V)	OFF	Stop

Maximum input voltage: 12 V max.

Maximum allowable reverse voltage: -1 V max.

Sink Current: 3.5 mA

- Note:**
1. Use 2-conductor shielded cable or twisted-pair cable as connection wire.
 2. The remote control circuit is isolated from the input and output circuits of the power supply.
 3. Remove the standard supplied connector and prepare a connector harness separately.

Power Failure Alarm Function

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

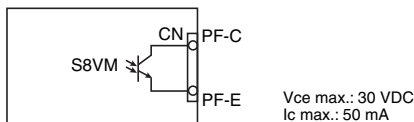
Transistor output: 30 VDC max., 50 mA max.

Residual voltage when ON: 2 V max.

Leakage current when OFF: 0.1 mA max.

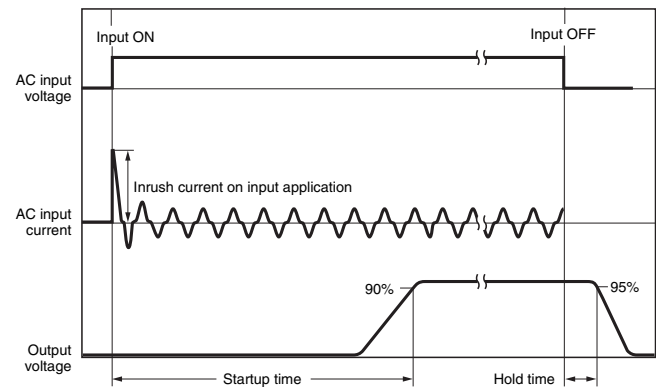
Alarm detection voltage: Approx. 80% of output voltage setting

During detection, the transistor is OFF (with no continuity across pins 11 and 12 on CN), and the LED (red) lights.



- Note:**
1. This function monitors the voltage at the power supply output terminals. To check actual voltage, measure the voltage on the load side.
 2. Outputs are forced OFF if the built-in fan motor stops (S8VM-15224C only).
 3. Remove the standard supplied connector and prepare a connector harness separately.

Inrush Current, Startup Time, Output Hold Time



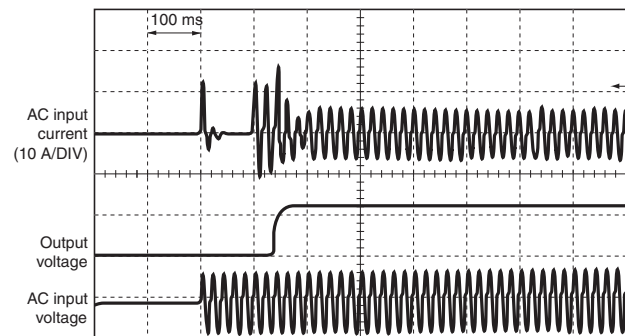
Note: A maximum input surge current of approx. 40 A will flow at startup even when not turning ON the input. Consider this surge current when selecting the input switch, input breaker, or external fuse.

Input Current Waveform When Input Is Turned ON

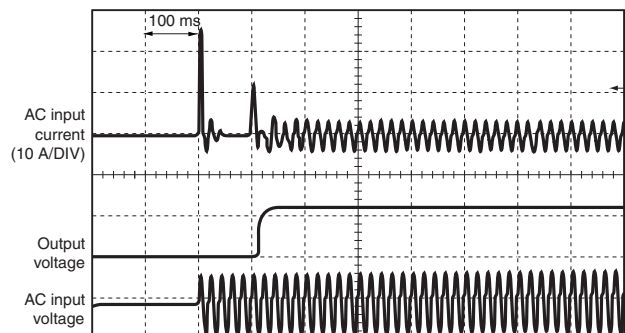
The following examples show typical waveforms.

S8VM-300□□C

100 VAC, Load ratio: 100%

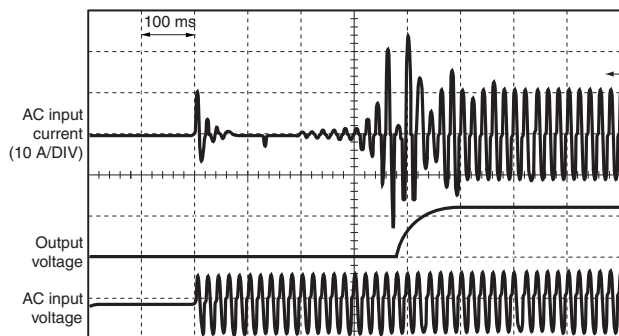


200 VAC, Load ratio: 100%

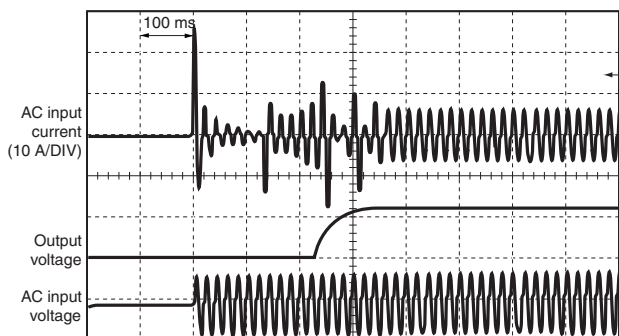


S8VM-600□□C

100 VAC, Load ratio: 100%

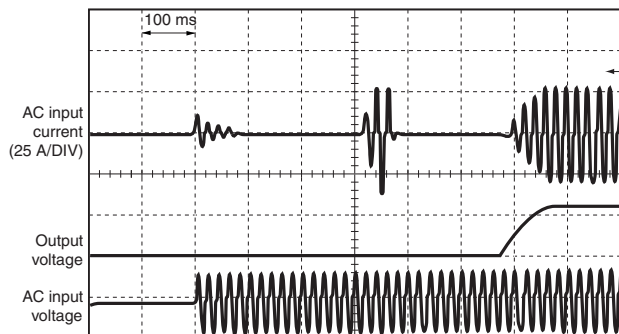


200 VAC, Load ratio: 100%

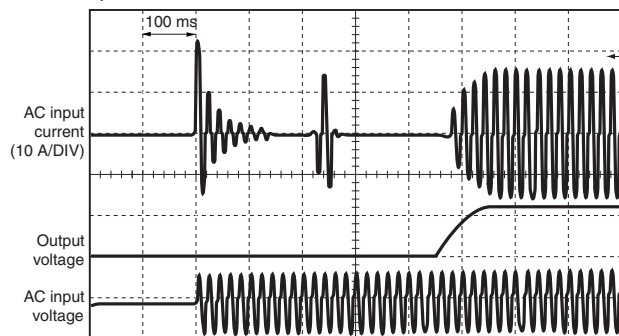


S8VM-15224C

100 VAC, Load ratio: 100%



200 VAC, Load ratio: 100%



Reference Values

Item	Value	Definition
Reliability (MTBF)	300 W: 135,000 hrs 600 W: 120,000 hrs 1,500 W: 100,000 hrs	MTBF stands for Mean Time Between Failures, which is calculated according to the probability of accidental device failures, and indicates the reliability of a device. Therefore, it does not necessarily represent the life of the Power Supply.
Life expectancy	10 yrs. min.	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.

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 rises above 105% of the rated current, the protection function is triggered, automatically decreasing the output voltage.

S8VM-300□□C/600□□C

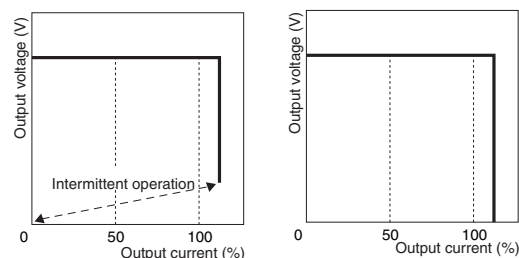
When the output current returns within the rated range, overload protection is automatically cleared.

S8VM-15224C

Outputs are interrupted if an overload continues for 5 seconds or more. To reset the Power Supply, leave the input power OFF for more than 3 minutes and then turn it ON again. Alternatively, turn OFF and ON the remote control signal.

300W/600W (5 V)

300W/600W/1,500W (12 V, 15 V, 24 V)

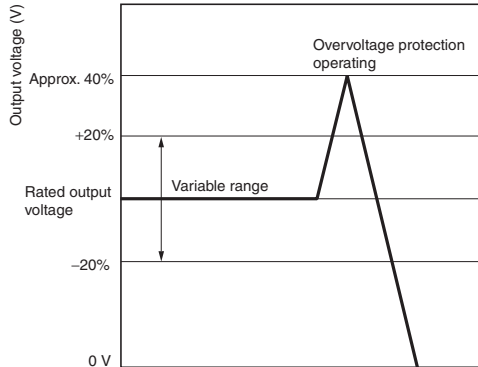


The values shown in the above diagrams are for reference only.

- Note:**
- If the Power Supply has been short-circuited or supplied with an overcurrent for longer than 30 seconds, the internal parts of the Power Supply may occasionally be deteriorated or damaged.
 - The internal parts may possibly be deteriorated or damaged. Do not use the Power Supply for applications where the load causes frequent inrush current and overload.

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. When an excessive voltage that is approximately 140% 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 three minutes and then turning it back ON again. Alternatively, turn OFF and ON the remote control signal.



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

- Note:**
1. Do not turn ON the input power again until the cause of the overvoltage has been removed.
 2. The overvoltage protection function may be activated when the output voltage adjuster (V.ADJ) is set to a value that exceeds +20% of the rated output voltage.

Overheat Protection

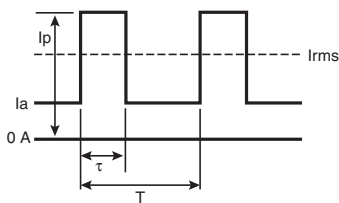
The overheat protection circuit will operate and outputs will be shut OFF to protect the Power Supply if the ambient temperature rises, the fan stops, or other errors cause the Power Supply's internal temperature to rise. To reset the Power Supply, leave the input power OFF long enough for the Power Supply to cool sufficiently and then turn it ON again. Alternatively turn OFF the remote control signal long enough to cool sufficiently and then turn it ON again.

Peak Output Current

(S8VM-30024C/60024C/15224C Only)

The peak current must satisfy the following conditions. Reduce the peak current according to the load rate of the derating curve.

Input voltage range: 180 to 240 VAC
 Peak current pulse width: 10 s max.
 Duty: 35% max.
 Peak current value: Within the rated peak current
 Effective output current: Within the rated current



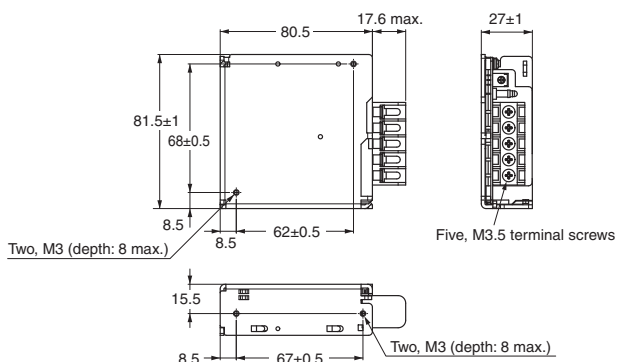
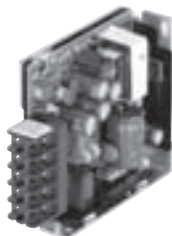
- Ip: Peak current (A)
 - Irms: Effective output current (A)
 - Iav: Rated current (A)
 - Ia: Continuous load current (A)
 - D: Duty
 - tau: Peak current pulse width (s)
 - T: Cycle (s)
- $$I_{av} \geq I_{rms} = \sqrt{I_p^2 \times D + I_a^2 \times (1-D)}$$
- $$D = \frac{\tau}{T}$$

Dimensions

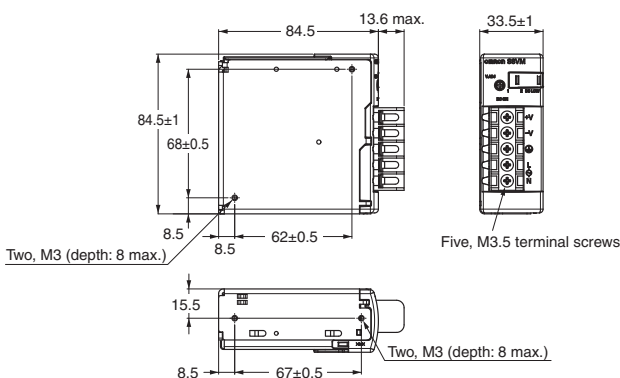
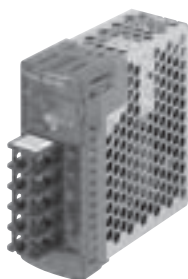
Note: All units are in millimeters unless otherwise indicated.

Bottom Mounting Models (15-W, 30-W, 50-W, 100-W, 150-W Models)

S8VM-015□□
S8VM-015□□C
S8VM-01524A



Note: The image is the S8VM-01524 Model.

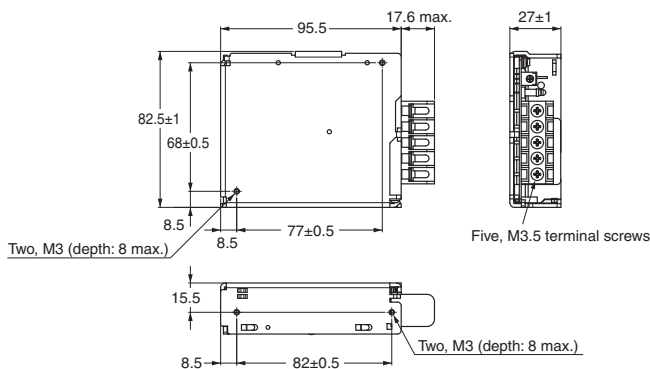
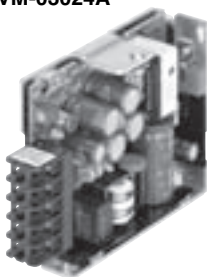


Note: The image is the S8VM-01524A Model.

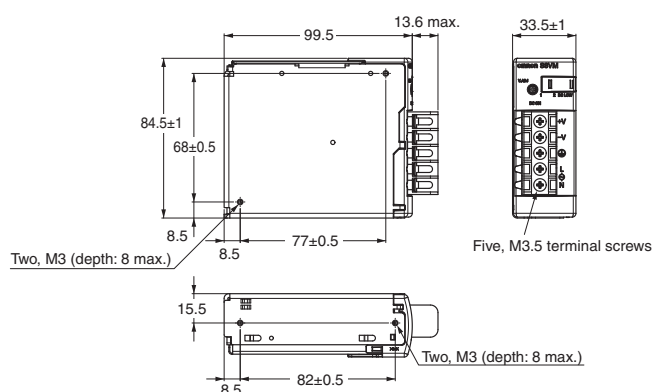
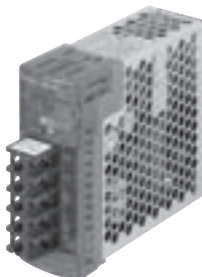
Mounting Holes

	Bottom View
Side Mounting	<p>Two, 4 dia.</p> <p>68±0.5</p> <p>62±0.5</p>
Bottom Mounting	<p>Two, 4 dia.</p> <p>67±0.3</p>

S8VM-030□□
S8VM-030□□C
S8VM-03024A



Note: The image is the S8VM-03024 Model.

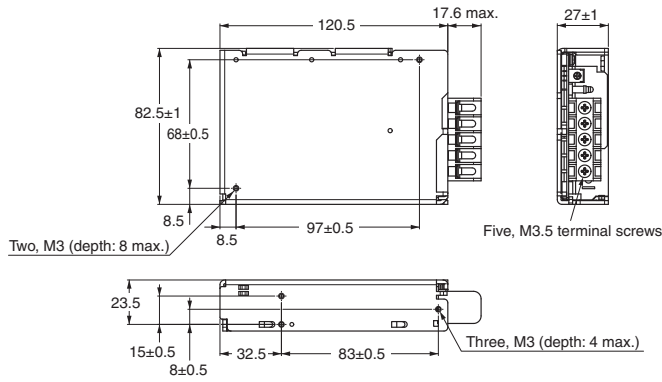
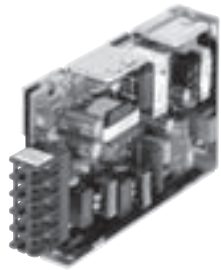


Note: The image is the S8VM-03024A Model.

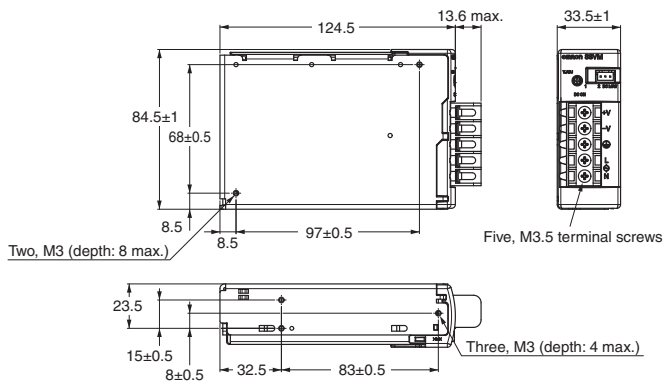
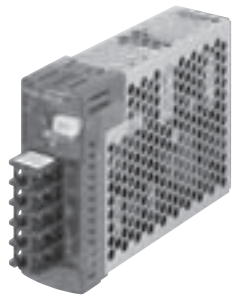
Mounting Holes

	Bottom View
Side Mounting	<p>Two, 4 dia.</p> <p>68±0.5</p> <p>77±0.5</p>
Bottom Mounting	<p>Two, 4 dia.</p> <p>82±0.3</p>

S8VM-050□□
 S8VM-050□□C
 S8VM-05024A
 S8VM-05024P



Note: The image is the S8VM-05024 Model.

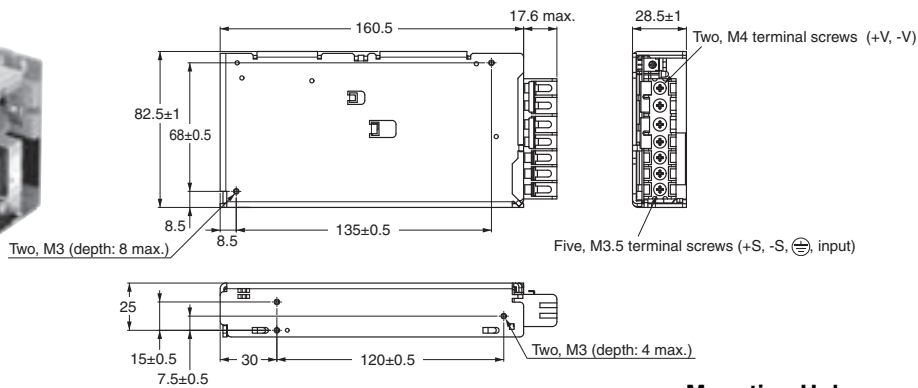
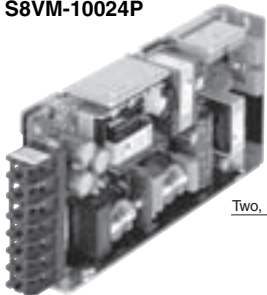


Note: The image is the S8VM-05024A Model.

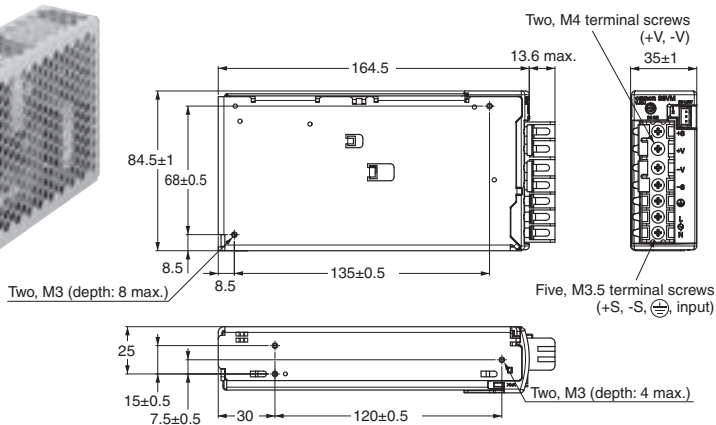
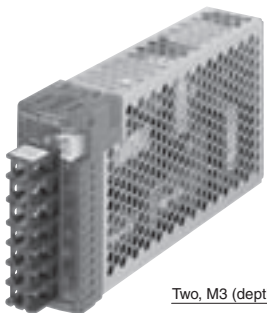
Mounting Holes

Bottom View	
Side Mounting	Two, 4 dia. 68±0.5 97±0.5
Bottom Mounting	Three, 4 dia. 15±0.2 8±0.2 83±0.5

S8VM-100□□
 S8VM-100□□C
 S8VM-10024A
 S8VM-10024P



Note: The image is the S8VM-10024 Model.

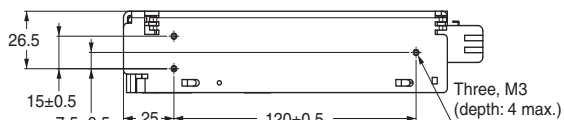
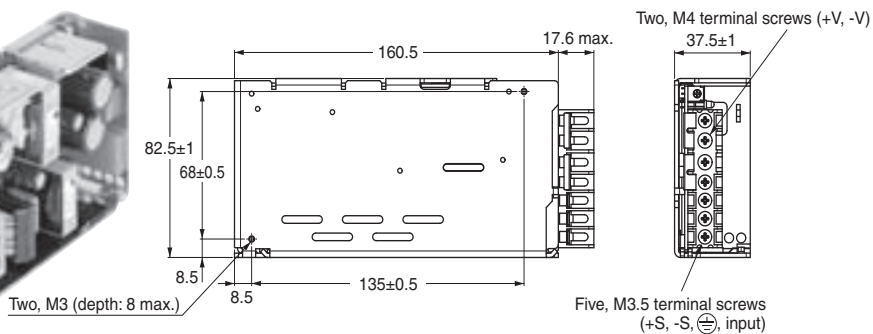
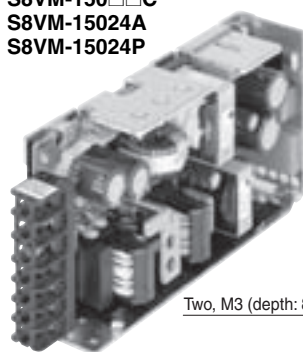


Note: The image is the S8VM-10024A Model.

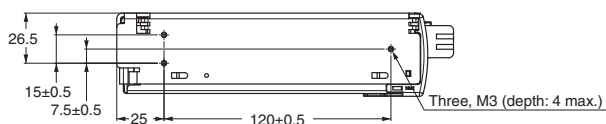
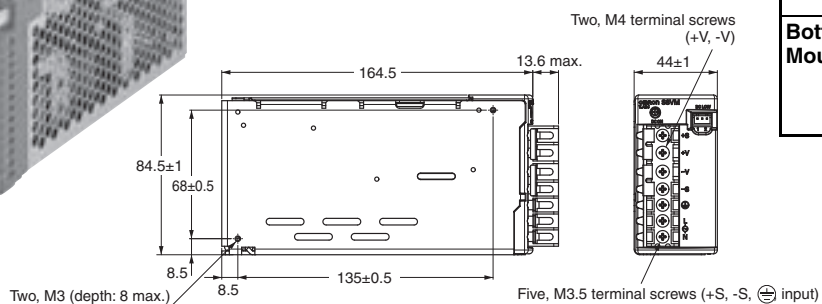
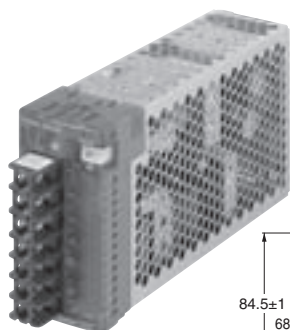
Mounting Holes

Bottom View	
Side Mounting	Two, 4 dia. 68±0.5 135±0.5
Bottom Mounting	Three, 4 dia. 15±0.2 7.5±0.2 120±0.5

S8VM-150□□
 S8VM-150□□C
 S8VM-15024A
 S8VM-15024P



Note: The image is the S8VM-15024 Model.



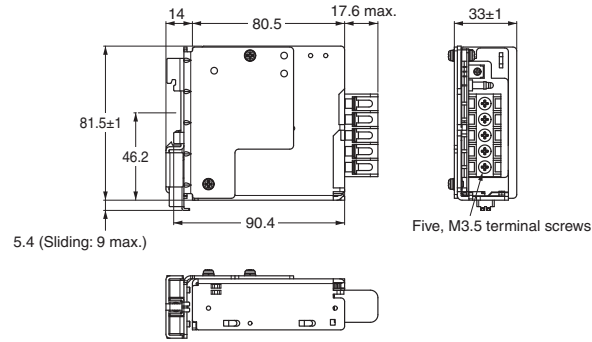
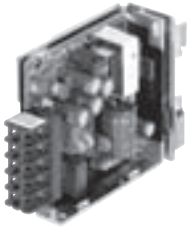
Note: The image is the S8VM-15024A Model.

Mounting Holes

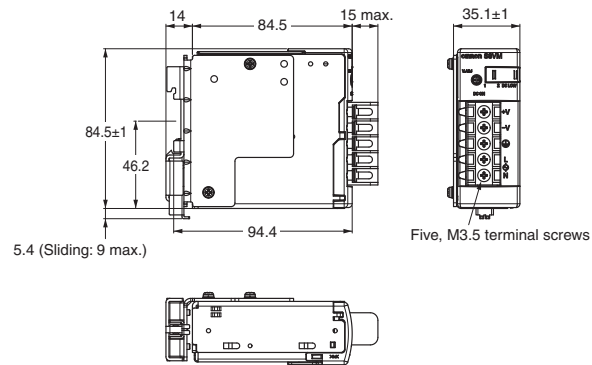
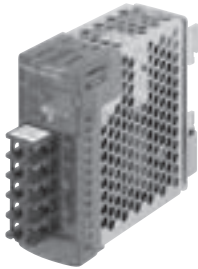
	Bottom View
Side Mounting	<p>Two, 4 dia.</p>
Bottom Mounting	<p>Three, 4 dia.</p>

■ DIN Rail Mounting Bracket Models (15-W, 30-W, 50-W, 100-W, 150-W Models)

S8VM-015□□D
 S8VM-015□□CD
 S8VM-01524AD

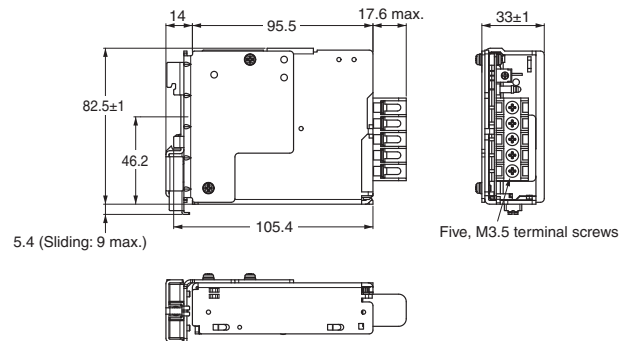
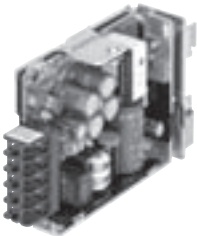


Note: The image is the S8VM-01524AD Model.

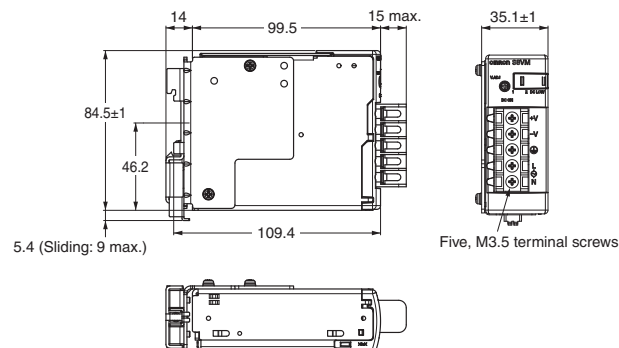
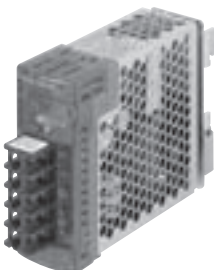


Note: The image is the S8VM-01524AD Model.

S8VM-030□□D
 S8VM-030□□CD
 S8VM-03024AD

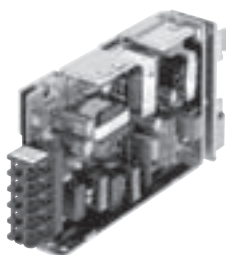


Note: The image is the S8VM-03024AD Model.

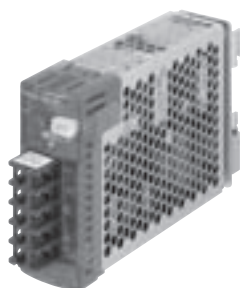
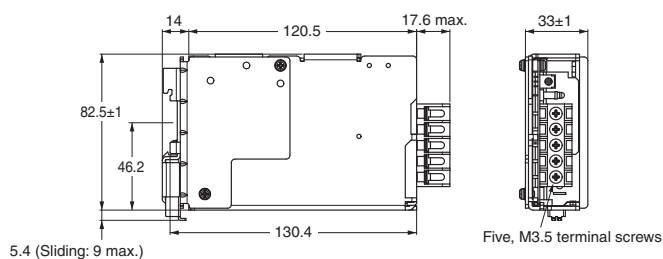


Note: The image is the S8VM-03024AD Model.

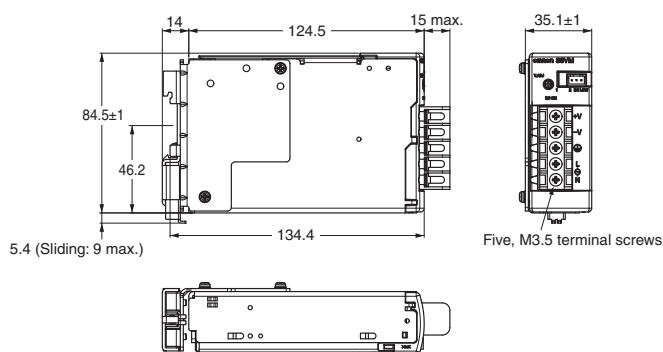
S8VM-050□□D
 S8VM-050□□CD
 S8VM-05024AD
 S8VM-05024PD



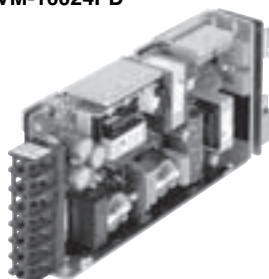
Note: The image is the S8VM-05024D Model.



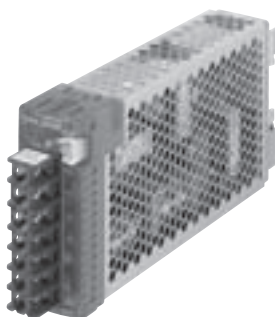
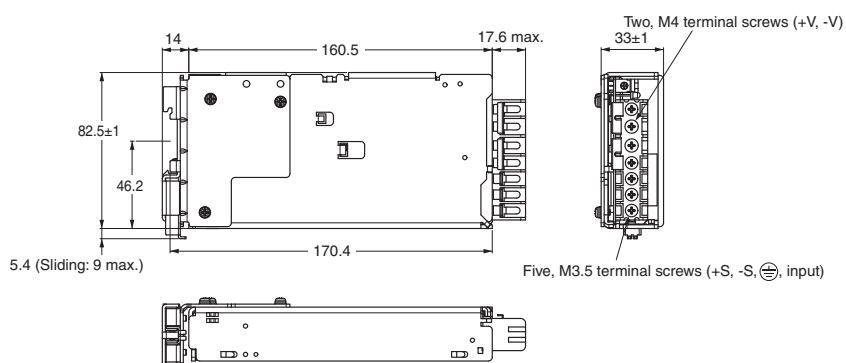
Note: The image is the S8VM-05024AD Model.



S8VM-100□□D
 S8VM-100□□CD
 S8VM-10024AD
 S8VM-10024PD



Note: The image is the S8VM-10024D Model.



Note: The image is the S8VM-10024AD Model.

