

## 60/90/120/180/240/480-W Models

**Improved Versions of Standard-type Power Supplies without Indication Monitor (60 to 240 W). EMI Class B Compliant.**



- New 90-W models that conform to UL Class 2 standards.
- New models with screwless terminal blocks and without indication monitor (except that 480-W models have an indication monitor).
- Status displayed on 3-digit, 7-segment display.
- Safety standards:
  - UL508/60950-1,
  - CSA C22.2 No. 14/60950-1 (15-W, 30-W, 60-W to 240-W models with Indication monitor),
  - CSA C22.2 No. 107.1/60950-1 (60-W to 240-W standard, 480-W models),
  - EN 50178 (= VDE0160),
  - EN 60950-1 (= VDE0805 Teil 1)
- Compact: 150 × 115 × 127.2 mm (W × H × D) (480-W models).

## 15/30-W Models

**Compact, Thin Power Supplies That Mount Just About Anywhere to Contribute to Control Panel Downsizing**



- Compact and thin: 22.5 × 85 × 96.5 mm (W × H × D).
- Three mounting directions (standard, horizontal, facing horizontal).
- Mounting directly to the panel is possible.
- Safety standards:
  - UL508/60950-1/1604, cUL: CSA C22.2 No. 14/60950-1/213,
  - EN50178 (= VDE0160), EN60950-1 (= VDE0805 Teil 1).

## Features Common to All Models

- Mount to DIN Rail.
- Complies with SEMI F47-0200 (200-VAC input).
- RoHS-compliant.



## Ordering Information

### List of Models

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

#### Models without Indication Monitor (Standard Models)

Power ratings	Input voltage	Output voltage	Output current	Model number (screw terminal block)	Model number (screwless terminal block)
15 W	100 to 240 VAC	5 V	2.0 A	S8VS-01505 *1	---
		12 V	1.2 A	S8VS-01512	
		24 V	0.65 A	S8VS-01524	
30 W		5 V	4.0 A	S8VS-03005 *2	
		12 V	2.5 A	S8VS-03012	
		24 V	1.3 A	S8VS-03024	
60 W		24 V	2.5 A	S8VS-06024	S8VS-06024-F
90 W				3.75 A	S8VS-09024
			S8VS-09024S		S8VS-09024S-F
120 W			5 A	S8VS-12024	S8VS-12024-F
180 W			7.5 A	S8VS-18024	S8VS-18024-F
240 W			10 A	S8VS-24024	S8VS-24024-F
480 W	20 A Peak current 30 A (200 VAC)		S8VS-48024	S8VS-48024-F	

\*1. The output capacity of the S8VS-01505 is 10 W.

\*2. The output capacity of the S8VS-03005 is 20 W.

#### Models with Indication Monitor (Maintenance Forecast Monitor)

Power ratings	Input voltage	Output voltage	Output current	Alarm output	Model number (screw terminal block)	Model number (screwless terminal block)
60 W	100 to 240 VAC	24 V	2.5 A	---	S8VS-06024A	---
90 W				Sinking	S8VS-09024A	
			Sourcing	S8VS-09024AP		
120 W			5 A	Sinking	S8VS-12024A	
				Sourcing	S8VS-12024AP	
180 W			7.5 A	Sinking	S8VS-18024A	
				Sourcing	S8VS-18024AP	
240 W			10 A	Sinking	S8VS-24024A	
				Sourcing	S8VS-24024AP	
480 W			20 A Peak current 30 A (200 VAC)	Sinking/ sourcing	S8VS-48024A	

#### Models with Indication Monitor (Total Run Time Monitor)

Power ratings	Input voltage	Output voltage	Output current	Alarm output	Model number (screw terminal block)	Model number (screwless terminal block)
60 W	100 to 240 VAC	24 V	2.5 A	---	S8VS-06024B	---
90 W				Sinking	S8VS-09024B	
			Sourcing	S8VS-09024BP		
120 W			5 A	Sinking	S8VS-12024B	
				Sourcing	S8VS-12024BP	
180 W			7.5 A	Sinking	S8VS-18024B	
				Sourcing	S8VS-18024BP	
240 W			10 A	Sinking	S8VS-24024B	
				Sourcing	S8VS-24024BP	
480 W			20 A Peak current 30 A (200 VAC)	Sinking/ sourcing	S8VS-48024B	

Note: Refer to pages 27 to 28 for the options that available.

Item	Power ratings		60 W			90 W				
	Type		Standard	Maintenance forecast monitor	Total run time monitor	Standard	Maintenance forecast monitor	Total run time monitor		
Efficiency (typical)			78% min.			80% min.				
Input	Voltage *1		100 to 240 VAC (85 to 264 VAC)							
	Frequency *1		50/60 Hz (47 to 450 Hz)							
	Current	100-V input	1.7 A max.				2.3 A max.			
		200-V input	1.0 A max.				1.4 A max.			
	Power factor		---							
	Harmonic current emissions		Conforms to EN61000-3-2							
	Leakage current	100-V input	0.5 mA max.							
200-V input		1.0 mA max.								
Inrush current *2	100-V input	25 A max. (for a cold start at 25°C)								
	200-V input	50 A max. (for a cold start at 25°C)								
Output	Voltage adjustment range *3		-10% to 15% (with V. ADJ)			The voltage cannot be adjusted for the S8VS-09024S-□.				
	Ripple		2.0% (p-p) max. (at rated input/output voltage)							
	Input variation influence		0.5% max. (at 85- to 264-VAC input, 100% load)							
	Load variation influence (rated input voltage)		1.5% max. (with rated input, 0 to 100% load)							
	Temperature variation influence		0.05%/°C max.							
	Startup time *2		1,000 ms max. (at rated input/output voltage)							
	Hold time *2		20 ms min. (at rated input/output voltage)							
Additional functions	Overload protection *2		105% to 160% of rated load current, voltage drop, intermittent, automatic reset							
	Overvoltage protection *2, *4		Yes							
	Output voltage indication *5		No	Yes (selectable) *6		No	Yes (selectable) *6			
	Output current indication *5		No	Yes (selectable) *7		No	Yes (selectable) *7			
	Peak-hold current indication *5		No	Yes (selectable) *8		No	Yes (selectable) *8			
	Maintenance forecast monitor indication *5		No	Yes (selectable)	No	No	Yes (selectable)			
	Maintenance forecast monitor output		No				Yes (transistor output), 30 VDC max., 50 mA max. *9		No	
	Total run time monitor indication *5		No		Yes (selectable)	No		Yes (selectable)		
	Total run time monitor output *5		No				Yes (transistor output), 30 VDC max., 50 mA max. *9			
	Undervoltage alarm indication *5		No	Yes (selectable)		No	Yes (selectable)			
	Undervoltage alarm output terminals		No				Yes (transistor output), 30 VDC max., 50 mA max. *9			
Parallel operation		No								
Series operation		Yes for up to 2 Power Supplies (with external diode)								
Other	Operating ambient temperature		Refer to the derating curve in <i>Engineering Data (60-W, 90-W, 120-W, 180-W, 240-W, and 480-W Models)</i> . (with no icing or condensation)							
	Storage temperature		-25 to 65°C							
	Operating ambient humidity		25% to 85% (Storage humidity: 25% to 90%)							
	Dielectric strength		3.0 kVAC for 1 min. (between all inputs and outputs/ alarm outputs; detection current: 20 mA) 2.0 kVAC for 1 min. (between all inputs and PE terminals; detection current: 20 mA) 1.0 kVAC for 1 min. (between all outputs/ alarm outputs and PE terminals; detection current for standard models: 30 mA, detection current for models with indication monitor: 20 mA) 500 VAC for 1 min. (between all outputs and alarm outputs; detection current: 20 mA)							
	Insulation resistance		100 MΩ min. (between all outputs/ alarm outputs and all inputs/ PE terminals) at 500 VDC							
	Vibration resistance		10 to 55 Hz, 0.375-mm single amplitude for 2 h each in X, Y, and Z directions 10 to 150 Hz, 0.35-mm single amplitude (5 G max.) for 80 min each in X, Y, and Z directions							
	Shock resistance		150 m/s <sup>2</sup> , 3 times each in ±X, ±Y, and ±Z directions							
	Output indicator		Yes (color: green)							
	EMI	Conducted Emissions	Models with indication monitor: Conforms to EN61204-3 EN55011 Class A and based on FCC Class A, Conforms to EN61204-3 EN55011 Class B *11 Standard models: Conforms to EN61204-3 EN55011 Group 1 Class B and based on FCC Class A							
		Radiated Emissions	Models with indication monitor: Conforms to EN61204-3 EN55011 Class A, Conforms to EN61204-3 EN55011 Class B *11 Standard models: Conforms to EN61204-3 EN55011 Group 1 Class B							
	EMS		Conforms to EN61204-3 high severity levels							
	Approved standards		UL for standard models: UL508 (Listing; Class 2: Per UL1310), UL60950-1 UL for models with indication monitor: UL508 (Listing; Class 2: Per UL1310), UL60950-1 cUL for standard models: CSA C22.2 No.107.1 (Class 2: Per CSA C22.2 No. 223) cUL for models with indication monitor: CSA C22.2 No. 14 (Class 2) cUR: CSA No.60950-1 EN/VDE: EN50178 (= VDE0160), EN60950-1 (SELV) (= VDE0805 Teil 1) According to VDE 0106/P100, IP20 (except terminal block) KOSHA S Mark *10			UL for standard models: UL508 (Listing), UL60950-1 UL for standard models S8VS-09024S-□ only: UL508 (Listing, Class 2: Per UL1310), UL60950-1 UL for models with indication monitor: UL508 (Listing), UL60950-1 cUL for standard models: CSA C22.2 No.107.1 (Class 2: Per CSA C22.2 No. 223) cUL for standard models S8VS-09024S-□ only: CSA C22.2 No.107.1 (Class 2: Per CSA C22.2 No. 223) cUL for models with indication monitor: CSA C22.2 No. 14 cUR: CSA No.60950-1 EN/VDE: EN50178 (= VDE0160), EN60950-1 (SELV) (= VDE0805 Teil 1) According to VDE 0106/P100, IP20 (except terminal block) KOSHA S Mark *10				
	SEMI		F47-0200 (200-VAC input)							
	Weight		330 g max.			490 g max.				

\*1. 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.

\*2. Refer to *Engineering Data (60-W, 90-W, 120-W, 180-W, 240-W, and 480-W Models)* on page 22 for details.

\*3. If the output voltage adjuster (V. ADJ) is turned, the voltage will increase by more than +15% of the voltage adjustment range (by more than +10% for 240-W models with indication monitor).

\*4. When adjusting the output voltage, confirm the actual output voltage from the Power Supply and be sure that the load is not damaged.

\*5. To reset the protection, turn OFF the input power for three minutes or longer and then turn it back ON.

\*6. Displayed on 7-segment LED. (character height: 8 mm)

\*7. Resolution of output voltage indication: 0.1 V, Precision of output voltage indication: ±2% (percentage of output voltage value, ±1 digit)

\*8. Resolution of output current indication: 0.1 A; Precision of output current indication: ±5% F.S. ±1 digit max. (specified by rated output voltage)

\*9. Resolution of peak-hold current indication: 0.1 A; Precision of peak-hold current indication: ±5% F.S. ±1 digit max. (specified by rated output voltage); Signal width required for peak-hold current: 20 ms

\*10. A Type and B Type: Sinking, AP Type and BP Type: Sourcing

\*11. S8VS-06024A, S8VS-09024A/AP, S8VS-12024A/AP, S8VS-18024A/AP, and S8VS-24024A/AP only

\*12. To ensure the emission rating, a ferrite ring core should be used in all cabling (TDK HF60T, HF70RH or equivalent model).

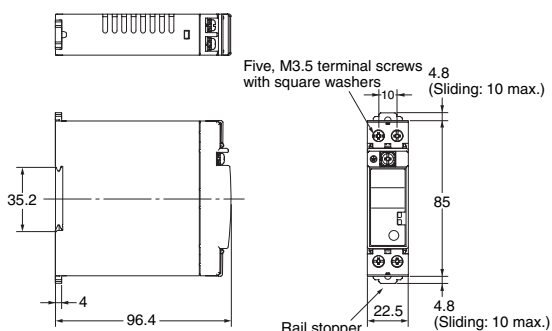
\*13. To ensure the emission rating, a ferrite ring core should be used in all cabling (SEIWA E04SR301334 or equivalent model).

## Dimensions

### Power Supplies with Screw Terminal Blocks

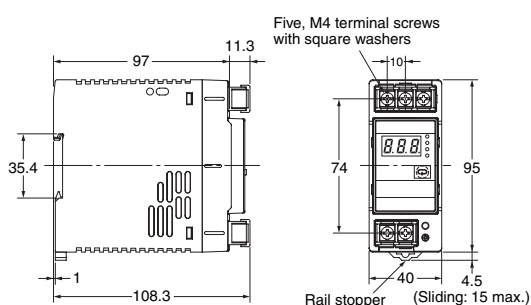
Note: All units are in millimeters unless otherwise indicated.

S8VS-015□□ (15 W)  
S8VS-030□□ (30 W)



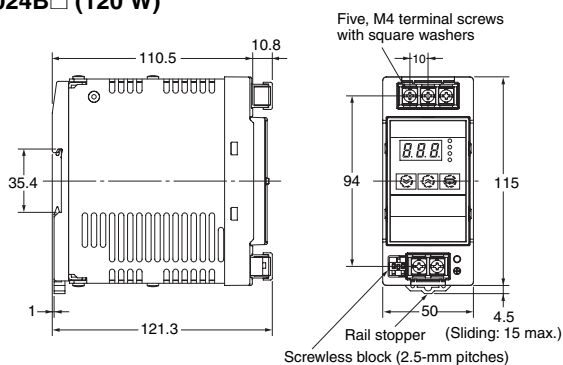
Note: The illustration is the S8VS-03024 model.

S8VS-06024 (60 W)  
S8VS-06024A (60 W)  
S8VS-06024B (60 W)



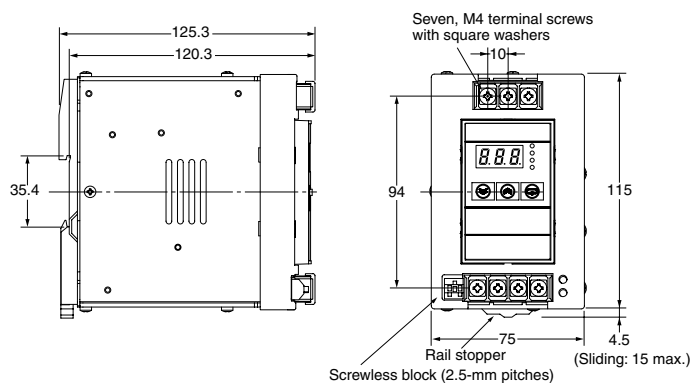
Note: The illustration is the S8VS-06024A model.

S8VS-09024 (90 W)/S8VS-12024 (120 W)  
S8VS-09024A□ (90 W)/S8VS-12024A□ (120 W)  
S8VS-09024B□ (90 W)/S8VS-12024B□ (120 W)  
S8VS-09024S (90 W)



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

S8VS-18024 (180 W)  
S8VS-18024A□ (180 W)  
S8VS-18024B□ (180 W)



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