# Switch Mode Power Supply S8VS (15/30/60/90/120/180/240/480-W Models)

CSM\_S8VS\_DS\_E\_6\_1

### 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  $\times$  115  $\times$  127.2 mm (W  $\times$  H  $\times$  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  $\times$  85  $\times$  96.5 mm (W  $\times$  H  $\times$  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.





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## **Model Number Structure**

### Model Number Legend

Note: Not all combinations are possible. Refer to List of Models in Ordering Information, below.

S8VS-						-
	1	2	3	4	5	6

#### 1. Power Ratings

015: 15 W
030: 30 W
060: 60 W
090: 90 W
120: 120 W
180: 180 W
240: 240 W
480: 480 W

#### 2. Output voltage

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

#### 3. Indication monitor

- None: Without indication monitor (standard model)
- A: With indication monitor (maintenance forecast monitor)
- B: With indication monitor (total run time monitor)

#### 4. Alarm output

- None: Sinking \*
- P: Sourcing
- Note: No alarm output possible with 60-W models.
- \* Both sinking and sourcing outputs are available for 480-W models.

#### 5. UL Class 2 Standards

- None: Does not conform. \*
- S: Conforms.
- \*15-W, 30-W, and 60-W models conform to Class 2 standards.

#### 6. Terminal Block Form

- None: Screw terminal block
- F: Screwless terminal block

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## **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)
		5 V	2.0 A	S8VS-01505 *1	
15 W		12 V	1.2 A	S8VS-01512	
		24 V	0.65 A	S8VS-01524	
	-	5 V 4.0 A		S8VS-03005 *2	
30 W		12 V	2.5 A	S8VS-03012	_
		24 V	1.3 A	S8VS-03024	
60 W	-		2.5 A	S8VS-06024	S8VS-06024-F
00.144	100 to 240 VAC	240 VAC	3.75 A	S8VS-09024	S8VS-09024-F
90 W				S8VS-09024S	S8VS-09024S-F
120 W	-		5 A	S8VS-12024	S8VS-12024-F
180 W	-	24 V	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		C 24 V	2.5 A		S8VS-06024A	
90 W			3.75 A	Sinking	S8VS-09024A	
90 W				Sourcing	S8VS-09024AP	
120 W			5 A	Sinking	S8VS-12024A	
120 00				Sourcing	S8VS-12024AP	
100 \	0 W 100 to 240 VAC		7.5 A	Sinking	S8VS-18024A	
180 W				Sourcing	S8VS-18024AP	
240 W			10.4	Sinking	S8VS-24024A	
240 W		10 A	Sourcing	S8VS-24024AP		
480 W			20 A Peak current 30 A (200 VAC)	Sinking/ sourcing	S8VS-48024A	S8VS-48024A-F

#### 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		0 VAC 24 V	2.5 A		S8VS-06024B	-	
90 W			3.75 A	Sinking	S8VS-09024B		
90 W				Sourcing	S8VS-09024BP		
120 W			5 A	Sinking	S8VS-12024B		
120 W				Sourcing	S8VS-12024BP		
180 W	100 to 240 VAC		7.5 A	Sinking	S8VS-18024B		
100 W				Sourcing	S8VS-18024BP		
240 W			10 A	Sinking	S8VS-24024B		
240 W				Sourcing	S8VS-24024BP		
480 W			20 A Peak current 30 A (200 VAC)	Sinking/ sourcing	S8VS-48024B	S8VS-48024B-F	

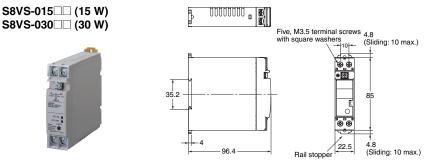
Note: Refer to pages 27 to 28 for the options that available.

		Power ratings		120 W			180 W		
Item Type		Standard	Maintenance forecast monitor	Total run time monitor	Standard	Maintenance forecast monitor	Total run time monitor		
Efficiency (typical)		80% min.							
	Voltage *1		100 to 240 VAC (85 to 264 VAC)						
Input	Frequency *1		50/60 Hz (47 to 63	Hz)					
	Current	100-V input	1.9 A max.			2.9 A max.			
		200-V input	1.1 A max.			1.6 A max.			
	Power factor		0.95 min.						
	Harmonic current emission	1	Conforms to EN61	000-3-2					
	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 co						
		200-V input	50 A max. (for a co	,					
	Voltage adjustment range	*3	-10% to 15% (with V.ADJ)						
	Ripple			t rated input/output vol	•				
	Input variation influence		0.5% max. (at 85- t	to 264-VAC input, 1009	% load)				
Dutput	Load variation influence (rated input voltage)		1.5% max. (with rat	ted input, 0 to 100% lo	ad)				
	Temperature variation influ	lence	0.05%/°C max.						
	Startup time *2		1,000 ms max. (at	rated input/output volta	ige)				
	Hold time *2		20 ms min. (at rate	d input/output voltage)					
	Overload protection *2		105% to 160% of ra	ated load current, volta	ge drop, automatic res	et			
	Overvoltage protection *2,	, *4	Yes						
	Output voltage indication >	*5	No Yes (selectable) *6			No	Yes (selectable) *6	6	
	Output current indication *5		No	Yes (selectable) *7		No	Yes (selectable) *7		
	Peak-hold current indication	on *5	No	Yes (selectable) *8		No	Yes (selectable) *8	-	
	Maintenance forecast mon	itor indication *5	No	Yes (selectable)	No	No	Yes (selectable)	No	
Additional	Maintenance forecast mon	itor output	No	Yes (transistor output), 30 VDC max., 50 mA max. *9	No	No	Yes (transistor output), 30 VDC max., 50 mA max. *9	No	
unctions	Total run time monitor indi	Total run time monitor indication *5		No		No Yes (sele		Yes (selectable)	
	Total run time monitor output *5				output), 30 VDC max., 50 mA max.	No output),		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		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)							
	Operating ambient temperation	ature	Refer to the derating curve in Engineering Data (60-W, 90-W, 120-W, 180-W, 240-W, and 480-W Models). (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 M $\Omega$ 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		$150 \text{ m/s}^2$ , 3 times each in ±X, ±Y, and ±Z directions						
	Output indicator		Yes (color: green)						
Other	EMI	Conducted Emissions	Models with indication monitor: Conforms to EN61204-3 EN55011 Class A and based on FCC Class A, Conforms to EN61204- 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						
			Conforms to EN61204-3 high severity levels						
	EMS	Approved standards		UL: UL508 (Listing), UL60950-1 cUL for standard models: CSA C22.2 No. 107.1 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 VDE0106/P100, IP20 (except terminal block) KOSHA S Mark ≉10					
			cUL for standard m cUL for models with cUR: CSA No. 609 EN/VDE: EN50178 According to VDE0	h indication monitor: C 50-1 3 (= VDE0160), EN609 106/P100, IP20 (excep	SA C22.2 No.14 50-1 (SELV) (= VDE08	05 Teil 1)			
			cUL for standard m cUL for models with cUR: CSA No. 609 EN/VDE: EN50178 According to VDE0	h indication monitor: C 50-1 3 (= VDE0160), EN609 106/P100, IP20 (excep 10	SA C22.2 No.14 50-1 (SELV) (= VDE08	05 Teil 1)			

### Dimensions

### **Power Supplies with Screw Terminal Blocks**

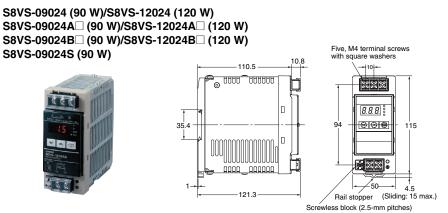
Note: All units are in millimeters unless otherwise indicated.



Note: The illustration is the S8VS-03024 model.

S8VS-06024 (60 W) S8VS-06024A (60 W) Five, M4 terminal screws 11.3 with square washers S8VS-06024B (60 W) +10+ 00 0 333 *8.8.8*. 35.4 Ģ 9F òllõo 000 )))) 0 40 4.5 108.3 (Sliding: 15 max.) Rail stopper

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



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

