

Switch Mode Power Supply (15/25/35/50/75/100/150/200/350-W Models) S8FS-C



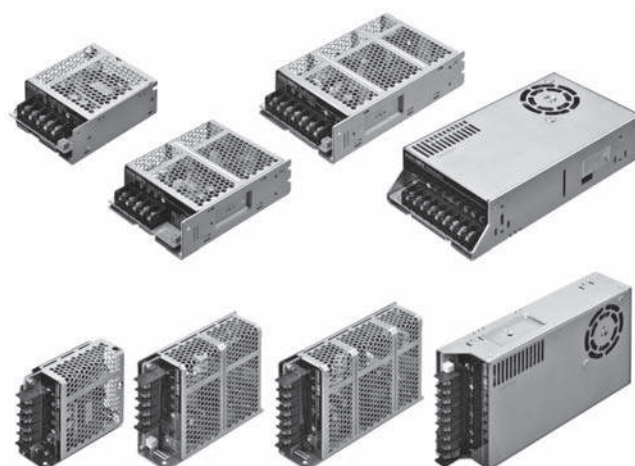
High Reliability at a Reasonable Cost. Reliable, Basic Power Supplies That Contribute to Stable Equipment Operation.

- High Reliability: Enhanced abnormal overvoltage resistance and lightning surge resistance for stable operation even with an unstable input voltage.
- Long Life: Japanese 105°C electrolytic capacitors are used to achieve stable quality and long life. A reliable 3-year warranty.*
- Wide Input Ranges: 100 to 120 VAC and 200 to 240 VAC
- Full Lineup: Models are available for the main output voltages and capacities used in FA applications.
- Global Standards: Conforms to CE (all models), Approved for UL (all models) and CCC (15 to 150-W models).
- Easy mounting to DIN Rails with Mounting Brackets.

* Refer to *Period and Terms of Warranty* on page 39.



Refer to **Safety Precautions for All Power Supplies** and **Safety Precautions** on page 36.



Product Lineup

Output voltage (VDC)	Power rating								
	15 W	25 W	35 W	50 W	75 W	100 W	150 W	200 W	350 W
5 V	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12 V	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
15 V	Yes	Yes	Yes	Yes	Yes	Yes	Yes	---	---
24 V	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
36 V	---	---	---	---	---	Yes	Yes	Yes	Yes
48 V	---	---	---	Yes	Yes	Yes	Yes	Yes	Yes

Model Number Structure

Model Number Legend

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

S8FS-C □ □ □ □ □ □
(1) (2) (3)

(1) Power Rating

Code	Power rating
015	15 W
025	25 W
035	35 W
050	50 W
075	75 W
100	100 W
150	150 W
200	200 W
350	350 W

(2) Output Voltage

Code	Output voltage (VDC)
05	5 V
12	12 V
15	15 V
24	24 V
36	36 V
48	48 V

(3) Configuration

Code	Terminal Block Direction
Blank	Models with terminal block facing upward 
J	Models with terminal block facing forward 
D	Models with DIN rail 

Ordering Information

List of Models

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

Power rating	Input voltage	Output voltage (VDC)	Output current	Built-in fan	Model with terminal block facing upward	Model with terminal block facing forward	Model with DIN rail
15 W	100 to 240 VAC (allowable range: 85 to 264 VAC or 120 to 370 VDC *1)	5 V	3 A	None	---	S8FS-C01505J	S8FS-C01505D
		12 V	1.3 A			S8FS-C01512J	S8FS-C01512D
		15 V	1 A			S8FS-C01515J	S8FS-C01515D
		24 V	0.7 A			S8FS-C01524J	S8FS-C01524D
25 W		5 V	5 A		S8FS-C02505	S8FS-C02505J	S8FS-C02505D
		12 V	2.1 A		S8FS-C02512	S8FS-C02512J	S8FS-C02512D
		15 V	1.7 A		S8FS-C02515	S8FS-C02515J	S8FS-C02515D
		24 V	1.1 A		S8FS-C02524	S8FS-C02524J	S8FS-C02524D
35 W		5 V	7 A		S8FS-C03505	S8FS-C03505J	S8FS-C03505D
		12 V	3 A		S8FS-C03512	S8FS-C03512J	S8FS-C03512D
		15 V	2.4 A		S8FS-C03515	S8FS-C03515J	S8FS-C03515D
		24 V	1.5 A		S8FS-C03524	S8FS-C03524J	S8FS-C03524D
50 W		5 V	10 A		S8FS-C05005	S8FS-C05005J	S8FS-C05005D
		12 V	4.2 A		S8FS-C05012	S8FS-C05012J	S8FS-C05012D
		15 V	3.4 A		S8FS-C05015	S8FS-C05015J	S8FS-C05015D
		24 V	2.2 A		S8FS-C05024	S8FS-C05024J	S8FS-C05024D
		48 V	1.1 A		S8FS-C05048	S8FS-C05048J	S8FS-C05048D
75 W		5 V	14 A		S8FS-C07505	S8FS-C07505J	S8FS-C07505D
		12 V	6.2 A		S8FS-C07512	S8FS-C07512J	S8FS-C07512D
		15 V	5 A		S8FS-C07515	S8FS-C07515J	S8FS-C07515D
		24 V	3.2 A		S8FS-C07524	S8FS-C07524J	S8FS-C07524D
		48 V	1.6 A		S8FS-C07548	S8FS-C07548J	S8FS-C07548D
100 W		5 V	20 A		S8FS-C10005	S8FS-C10005J	S8FS-C10005D
		12 V	8.5 A		S8FS-C10012	S8FS-C10012J	S8FS-C10012D
		15 V	7 A		S8FS-C10015	S8FS-C10015J	S8FS-C10015D
		24 V	4.5 A		S8FS-C10024	S8FS-C10024J	S8FS-C10024D
		36 V	2.8 A		S8FS-C10036	S8FS-C10036J	S8FS-C10036D
		48 V	2.3 A		S8FS-C10048	S8FS-C10048J	S8FS-C10048D
150 W	5 V	26 A	S8FS-C15005	S8FS-C15005J	S8FS-C15005D		
	12 V	12.5 A	S8FS-C15012	S8FS-C15012J	S8FS-C15012D		
	15 V	10 A	S8FS-C15015	S8FS-C15015J	S8FS-C15015D		
	24 V	6.5 A	S8FS-C15024	S8FS-C15024J	S8FS-C15024D		
	36 V	4.3 A	S8FS-C15036	S8FS-C15036J	S8FS-C15036D		
200 W	48 V	3.3 A	S8FS-C15048	S8FS-C15048J	S8FS-C15048D		
	5 V	40 A	S8FS-C20005	S8FS-C20005J	S8FS-C20005D		
	12 V	17 A	S8FS-C20012	S8FS-C20012J	S8FS-C20012D		
	24 V	8.8 A	S8FS-C20024	S8FS-C20024J	S8FS-C20024D		
	36 V	5.9 A	S8FS-C20036	S8FS-C20036J	S8FS-C20036D		
	48 V	4.43 A	S8FS-C20048	S8FS-C20048J	S8FS-C20048D		
350 W	5 V	60 A	Yes	S8FS-C35005	S8FS-C35005J	S8FS-C35005D	
	12 V	29 A		S8FS-C35012	S8FS-C35012J	S8FS-C35012D	
	24 V	14.6 A		S8FS-C35024	S8FS-C35024J	S8FS-C35024D	
	36 V	9.7 A		S8FS-C35036	S8FS-C35036J	S8FS-C35036D	
	48 V	7.32 A		S8FS-C35048	S8FS-C35048J	S8FS-C35048D	

Note: You can use brackets that are sold separately to mount the Power Supplies to DIN Rail. Refer to *Mounting Brackets (Order Separately)* on page 29.

*1. The range for compliance with EC Directives and safety standards (UL, EN, etc.) is 100 to 240 VAC.

*2. The range for compliance with EC Directives and safety standards (UL, EN, etc.) is 100 to 120 VAC, 200 to 240 VAC.

Ratings, Characteristics, and Functions

Item		Power rating Output voltage (VDC)	15 W			
			5 V	12 V	15 V	24 V
Efficiency *		115 VAC input	80% typ.	84% typ.	84% typ.	85% typ.
		230 VAC input	82% typ.	85% typ.	86% typ.	87% typ.
Input	Voltage range *		Single phase 85 to 264 VAC, 120 to 370 VDC (The L terminal for the DC input is the positive side and safety standards do not apply.) (Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on page 18.)			
	Frequency *		50 /60 Hz (47 to 450 Hz)			
	Current *	115 VAC input	0.3 A typ.			
		230 VAC input	0.19 A typ.			
	Power factor		---			
	Leakage current	115 VAC input	0.05 mA	0.05 mA	0.05 mA	0.05 mA
		230 VAC input	0.10 mA	0.10 mA	0.10 mA	0.10 mA
	Inrush current * (for a cold start at 25°)	115 VAC input	16 A typ.			
		230 VAC input	32 A typ.			
Output	Rated Output Current		3 A	1.3 A	1 A	0.7 A
	Voltage adjustment range *		-10% to 10% (with V. ADJ)			
	Ripple & Noise voltage *	100 to 240 VAC input	30 mVp-p max.	30 mVp-p max.	40 mVp-p max.	30 mVp-p max.
	Input variation influence *		0.5% max.			
	Load variation influence *		1.0% max.			
	Temperature variation influence	100 to 240 VAC input	0.03%/°C max.			
	Startup time *	115 VAC input	490 ms typ.	500 ms typ.	470 ms typ.	480 ms typ.
		230 VAC input	470 ms typ.	480 ms typ.	450 ms typ.	460 ms typ.
	Hold time *	115 VAC input	14 ms typ.	16 ms typ.	18 ms typ.	15 ms typ.
		230 VAC input	83 ms typ.	87 ms typ.	92 ms typ.	79 ms typ.
Additional functions	Overload protection		Yes, automatic reset			
	Overvoltage protection *		Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input again)			
	Overheat protection		No			
	Series operation		Yes (For up to 2 Power Supplies, external diodes are required.)			
	Parallel operation		No (However, backup operation is possible, external diodes are required.)			
	Remote sensing		No			
	Remote control		No			
	Output indicator		Yes (LED: Green)			
Insulation	Withstand voltage		3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA			
			2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA			
			1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA			
	Insulation resistance		100 MΩ min. (between all output terminals and all input terminals/PE terminals) at 500 VDC			
Environment	Ambient operating temperature		-20 to 60°C (Derating is required according to the temperature. Refer to <i>Derating Curves</i> on page 17.) (with no condensation or icing)			
	Storage temperature		-40 to 85°C (with no condensation or icing)			
	Ambient operating humidity		20% to 90% (Storage humidity: 10% to 95%)			
	Vibration resistance		10 to 55 Hz, 0.375-mm half amplitude for 2 h each in X, Y, and Z directions 10 to 500 Hz, 0.26-mm half amplitude for 1 h each in X, Y, and Z directions			
	Shock resistance		150 m/s ² , 3 times each in ±X, ±Y, ±Z directions			
Reliability	MTBF		135,000 hrs min.			
	Life expectancy *		10 years min.			
Construction	Dimensions (W×H×D)		Refer to <i>Dimensions</i> on page 23.			
	Weight		150 g max.			
	Cooling fan		No			
	Degree of protection		---			
Standards	Harmonic current emissions		Conforms to EN 61000-3-2, GB17625.1			
	EMI	Conducted Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254			
		Radiated Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254			
	EMS		Conforms to EN 61204-3 high severity levels			
	Safety Standards		Approved Standards UL : cURus UL 62368-1 (Recognition) OVC II Pol2 CSA: cURus C22.2 No62368-1 CCC: GB4943			
			Conformed Standards EN: EN 62368-1 OVC II Pol2 RCM (EN61000-6-4)			
	Marine Standards		No			
	SEMI		No			

* Refer to *Conditions* on page 12.

Item		Power rating Output voltage (VDC)	25 W			
			5 V	12 V	15 V	24 V
Efficiency *		115 VAC input	80% typ.	84% typ.	85% typ.	86% typ.
		230 VAC input	82% typ.	86% typ.	88% typ.	88% typ.
Input	Voltage range *		Single phase 85 to 264 VAC, 120 to 370 VDC (The L terminal for the DC input is the positive side and safety standards do not apply.) (Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on page 18.)			
	Frequency *		50 /60 Hz (47 to 450 Hz)			
	Current *	115 VAC input	0.49 A typ.			
		230 VAC input	0.3 A typ.			
	Power factor		---			
	Leakage current	115 VAC input	0.10 mA	0.10 mA	0.10 mA	0.10 mA
		230 VAC input	0.20 mA	0.20 mA	0.20 mA	0.20 mA
	Inrush current * (for a cold start at 25°)	115 VAC input	16 A typ.			
		230 VAC input	32 A typ.			
Output	Rated Output Current		5 A	2.1 A	1.7 A	1.1 A
	Voltage adjustment range *		-10% to 10% (with V. ADJ)			
	Ripple & Noise voltage *	100 to 240 VAC input	20 mVp-p max.	20 mVp-p max.	30 mVp-p max.	40 mVp-p max.
	Input variation influence *		0.5% max.			
	Load variation influence *		1.0% max.			
	Temperature variation influence	100 to 240 VAC input	0.03%/°C max.			
	Startup time *	115 VAC input	390 ms typ.	340 ms typ.	400 ms typ.	360 ms typ.
		230 VAC input	360 ms typ.	350 ms typ.	400 ms typ.	360 ms typ.
	Hold time *	115 VAC input	17 ms typ.	22 ms typ.	23 ms typ.	21 ms typ.
		230 VAC input	103 ms typ.	113 ms typ.	117 ms typ.	112 ms typ.
Additional functions	Overload protection		Yes, automatic reset			
	Overvoltage protection *		Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input again)			
	Overheat protection		No			
	Series operation		Yes (For up to 2 Power Supplies, external diodes are required.)			
	Parallel operation		No (However, backup operation is possible, external diodes are required.)			
	Remote sensing		No			
	Remote control		No			
	Output indicator		Yes (LED: Green)			
Insulation	Withstand voltage		3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA			
			2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA			
			1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA			
	Insulation resistance		100 MΩ min. (between all output terminals and all input terminals/PE terminals) at 500 VDC			
Environment	Ambient operating temperature		-20 to 60°C (Derating is required according to the temperature. Refer to <i>Derating Curves</i> on page 17.) (with no condensation or icing)			
	Storage temperature		-40 to 85°C (with no condensation or icing)			
	Ambient operating humidity		20% to 90% (Storage humidity: 10% to 95%)			
	Vibration resistance		10 to 55 Hz, 0.375-mm half amplitude for 2 h each in X, Y, and Z directions 10 to 500 Hz, 0.26-mm half amplitude for 1 h each in X, Y, and Z directions			
	Shock resistance		150 m/s ² , 3 times each in ±X, ±Y, ±Z directions			
Reliability	MTBF		135,000 hrs min.			
	Life expectancy *		10 years min.			
Construction	Dimensions (W×H×D)		Refer to <i>Dimensions</i> on pages 20 and 23.			
	Weight		250 g max.			
	Cooling fan		No			
	Degree of protection		---			
Standards	Harmonic current emissions		Conforms to EN 61000-3-2, GB17625.1			
	EMI	Conducted Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254			
		Radiated Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254			
	EMS		Conforms to EN 61204-3 high severity levels			
	Safety Standards		Approved Standards UL : cURus UL 62368-1 (Recognition) OVC II Pol2 CSA: cURus C22.2 No62368-1 CCC: GB4943 Conformed Standards EN: EN 62368-1 OVC II Pol2 RCM (EN61000-6-4)			
	Marine Standards		No			
	SEMI		No			

* Refer to *Conditions* on page 12.

Item		Power rating	35 W			
		Output voltage (VDC)	5 V	12 V	15 V	24 V
Efficiency *		115 VAC input	81% typ.	83% typ.	84% typ.	87% typ.
		230 VAC input	81% typ.	84% typ.	84% typ.	87% typ.
Input	Voltage range *		Single phase 85 to 264 VAC, 120 to 370 VDC (The L terminal for the DC input is the positive side and safety standards do not apply.) (Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on page 18.)			
	Frequency *		50 /60 Hz (47 to 450 Hz)			
	Current *	115 VAC input	0.66 A typ.			
		230 VAC input	0.41 A typ.			
	Power factor		---			
	Leakage current	115 VAC input	0.15 mA	0.15 mA	0.15 mA	0.15 mA
		230 VAC input	0.30 mA	0.25 mA	0.25 mA	0.25 mA
Output	Inrush current * (for a cold start at 25°)	115 VAC input	16 A typ.			
		230 VAC input	32 A typ.			
	Rated Output Current		7 A	3 A	2.4 A	1.5 A
	Voltage adjustment range *		-10% to 10% (with V. ADJ)			
	Ripple & Noise voltage *	100 to 240 VAC input	80 mVp-p max.	90 mVp-p max.	90 mVp-p max.	80 mVp-p max.
	Input variation influence *		0.5% max.			
	Load variation influence *		1.0% max.			
Additional functions	Temperature variation influence	100 to 240 VAC input	0.03%/°C max.			
	Startup time *	115 VAC input	750 ms typ.	750 ms typ.	760 ms typ.	770 ms typ.
		230 VAC input	700 ms typ.	690 ms typ.	710 ms typ.	720 ms typ.
	Hold time *	115 VAC input	13 ms typ.	14 ms typ.	14 ms typ.	15 ms typ.
		230 VAC input	74 ms typ.	75 ms typ.	75 ms typ.	79 ms typ.
	Overload protection		Yes, automatic reset			
Insulation	Overvoltage protection *		Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input again)			
	Overheat protection		No			
	Series operation		Yes (For up to 2 Power Supplies, external diodes are required.)			
	Parallel operation		No (However, backup operation is possible, external diodes are required.)			
	Remote sensing		No			
	Remote control		No			
	Output indicator		Yes (LED: Green)			
Environment	Withstand voltage		3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA			
			2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA			
			1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA			
Reliability	Insulation resistance		100 MΩ min. (between all output terminals and all input terminals/PE terminals) at 500 VDC			
	Ambient operating temperature		-20 to 60°C (Derating is required according to the temperature. Refer to <i>Derating Curves</i> on page 17.) (with no condensation or icing)			
	Storage temperature		-40 to 85°C (with no condensation or icing)			
	Ambient operating humidity		20% to 90% (Storage humidity: 10% to 95%)			
	Vibration resistance		10 to 55 Hz, 0.375-mm half amplitude for 2 h each in X, Y, and Z directions 10 to 500 Hz, 0.26-mm half amplitude for 1 h each in X, Y, and Z directions			
Construction	Shock resistance		150 m/s ² , 3 times each in ±X, ±Y, ±Z directions			
	MTBF		135,000 hrs min.			
	Life expectancy *		10 years min.			
Standards	Dimensions (W×H×D)		Refer to <i>Dimensions</i> on pages 20 and 23.			
	Weight		250 g max.			
	Cooling fan		No			
	Degree of protection		---			
Standards	Harmonic current emissions		Conforms to EN 61000-3-2, GB17625.1			
	EMI	Conducted Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254			
		Radiated Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254			
	EMS		Conforms to EN 61204-3 high severity levels			
	Safety Standards		Approved Standards UL : cURus UL 62368-1 (Recognition) OVC II Pol2 CSA: cURus C22.2 No62368-1 CCC: GB4943 Conformed Standards EN: EN 62368-1 OVC II Pol2 RCM (EN61000-6-4)			
	Marine Standards		No			
	SEMI		No			

* Refer to *Conditions* on page 12.

		Power rating	50 W				
Item	Output voltage (VDC)		5 V	12 V	15 V	24 V	48 V
Efficiency *		115 VAC input	79% typ.	83% typ.	84% typ.	86% typ.	87% typ.
		230 VAC input	80% typ.	84% typ.	85% typ.	86% typ.	87% typ.
Input	Voltage range *		Single phase 85 to 264 VAC, 120 to 370 VDC (The L terminal for the DC input is the positive side and safety standards do not apply.) (Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on page 18.)				
	Frequency *		50 /60 Hz (47 to 450 Hz)				
	Current *	115 VAC input	0.97 A typ.				
		230 VAC input	0.59 A typ.				
	Power factor		---				
	Leakage current	115 VAC input	0.25 mA	0.25 mA	0.25 mA	0.25 mA	0.25 mA
		230 VAC input	0.60 mA	0.55 mA	0.55 mA	0.55 mA	0.55 mA
Inrush current * (for a cold start at 25°)	115 VAC input	16 A typ.					
	230 VAC input	32 A typ.					
Output	Rated Output Current		10 A	4.2 A	3.4 A	2.2 A	1.1 A
	Voltage adjustment range *		-10% to 10% (with V. ADJ)				
	Ripple & Noise voltage *	100 to 240 VAC input	80 mVp-p max.	110 mVp-p max.	100 mVp-p max.	100 mVp-p max.	120 mVp-p max.
	Input variation influence *		0.5% max.				
	Load variation influence *		1.0% max.				
	Temperature variation influence	100 to 240 VAC input	0.03%/°C max.				
	Startup time *	115 VAC input	730 ms typ.	730 ms typ.	710 ms typ.	710 ms typ.	770 ms typ.
		230 VAC input	680 ms typ.	670 ms typ.	610 ms typ.	640 ms typ.	690 ms typ.
Hold time *	115 VAC input	12 ms typ.	14 ms typ.	14 ms typ.	14 ms typ.	14 ms typ.	
	230 VAC input	71 ms typ.	77 ms typ.	78 ms typ.	77 ms typ.	80 ms typ.	
Additional functions	Overload protection		Yes, automatic reset				
	Overvoltage protection *		Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input again)				
	Overheat protection		No				
	Series operation		Yes (For up to 2 Power Supplies, external diodes are required.)				
	Parallel operation		No (However, backup operation is possible, external diodes are required.)				
	Remote sensing		No				
	Remote control		No				
	Output indicator		Yes (LED: Green)				
Insulation	Withstand voltage		3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA				
			2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA				
			1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA				
	Insulation resistance		100 MΩ min. (between all output terminals and all input terminals/PE terminals) at 500 VDC				
Environment	Ambient operating temperature		-20 to 60°C (Derating is required according to the temperature. Refer to <i>Derating Curves</i> on page 17.) (with no condensation or icing)				
	Storage temperature		-40 to 85°C (with no condensation or icing)				
	Ambient operating humidity		20% to 90% (Storage humidity: 10% to 95%)				
	Vibration resistance		10 to 55 Hz, 0.375-mm half amplitude for 2 h each in X, Y, and Z directions 10 to 500 Hz, 0.26-mm half amplitude for 1 h each in X, Y, and Z directions				
	Shock resistance		150 m/s ² , 3 times each in ±X, ±Y, ±Z directions				
Reliability	MTBF		135,000 hrs min.				
	Life expectancy *		10 years min.				
Construction	Dimensions (W×H×D)		Refer to <i>Dimensions</i> on pages 20 and 24.				
	Weight		300 g max.				
	Cooling fan		No				
	Degree of protection		---				
Standards	Harmonic current emissions		Conforms to EN 61000-3-2, GB17625.1				
	EMI	Conducted Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254				
		Radiated Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254				
	EMS		Conforms to EN 61204-3 high severity levels				
	Safety Standards		Approved Standards UL : cURus UL 62368-1 (Recognition) OVC II Pol2 CSA: cURus C22.2 No62368-1 CCC: GB4943 Conformed Standards EN: EN 62368-1 OVC II Pol2 RCM (EN61000-6-4)				
	Marine Standards		No				
	SEMI		No				

* Refer to *Conditions* on page 12.

Item		Power rating Output voltage (VDC)	75 W				
			5 V	12 V	15 V	24 V	48 V
Efficiency *		115 VAC input	75% typ.	83% typ.	84% typ.	87% typ.	87% typ.
		230 VAC input	77% typ.	83% typ.	84% typ.	87% typ.	87% typ.
Input	Voltage range *		Single phase 85 to 264 VAC, 120 to 370 VDC (The L terminal for the DC input is the positive side and safety standards do not apply.) (Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on page 18.)				
	Frequency *		50 /60 Hz (47 to 450 Hz)				
	Current *	115 VAC input	1.4 A typ.				
		230 VAC input	0.83 A typ.				
	Power factor		---				
	Leakage current	115 VAC input	0.25 mA	0.25 mA	0.25 mA	0.25 mA	0.25 mA
		230 VAC input	0.60 mA	0.60 mA	0.60 mA	0.60 mA	0.60 mA
	Inrush current * (for a cold start at 25°)	115 VAC input	16 A typ.				
		230 VAC input	32 A typ.				
Output	Rated Output Current		14 A	6.2 A	5 A	3.2 A	1.6 A
	Voltage adjustment range *		-10% to 10% (with V. ADJ)				
	Ripple & Noise voltage *	100 to 240 VAC input	80 mVp-p max.	110 mVp-p max.	90 mVp-p max.	110 mVp-p max.	140 mVp-p max.
	Input variation influence *		0.5% max.				
	Load variation influence *		1.0% max.				
	Temperature variation influence	100 to 240 VAC input	0.03%/°C max.				
	Startup time *	115 VAC input	750 ms typ.	720 ms typ.	730 ms typ.	750 ms typ.	700 ms typ.
		230 VAC input	710 ms typ.	680 ms typ.	690 ms typ.	690 ms typ.	730 ms typ.
	Hold time *	115 VAC input	12 ms typ.	13 ms typ.	13 ms typ.	14 ms typ.	15 ms typ.
		230 VAC input	75 ms typ.	74 ms typ.	74 ms typ.	76 ms typ.	78 ms typ.
Additional functions	Overload protection		Yes, automatic reset				
	Overvoltage protection *		Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input again)				
	Overheat protection		No				
	Series operation		Yes (For up to 2 Power Supplies, external diodes are required.)				
	Parallel operation		No (However, backup operation is possible, external diodes are required.)				
	Remote sensing		No				
	Remote control		No				
	Output indicator		Yes (LED: Green)				
Insulation	Withstand voltage		3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA				
			2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA				
			1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA				
	Insulation resistance		100 MΩ min. (between all output terminals and all input terminals/PE terminals) at 500 VDC				
Environment	Ambient operating temperature		-20 to 60°C (Derating is required according to the temperature. Refer to <i>Derating Curves</i> on page 17.) (with no condensation or icing)				
	Storage temperature		-40 to 85°C (with no condensation or icing)				
	Ambient operating humidity		20% to 90% (Storage humidity: 10% to 95%)				
	Vibration resistance		10 to 55 Hz, 0.375-mm half amplitude for 2 h each in X, Y, and Z directions 10 to 500 Hz, 0.26-mm half amplitude for 1 h each in X, Y, and Z directions				
	Shock resistance		150 m/s ² , 3 times each in ±X, ±Y, ±Z directions				
Reliability	MTBF		135,000 hrs min.				
	Life expectancy *		10 years min.				
Construction	Dimensions (W×H×D)		Refer to <i>Dimensions</i> on pages 21 and 24.				
	Weight		350 g max.				
	Cooling fan		No				
	Degree of protection		---				
Standards	Harmonic current emissions		Conforms to EN 61000-3-2, GB17625.1				
	EMI	Conducted Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254				
		Radiated Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254				
	EMS		Conforms to EN 61204-3 high severity levels				
	Safety Standards		Approved Standards UL : cURus UL 62368-1 (Recognition) OVC II Pol2 CSA: cURus C22.2 No62368-1 CCC: GB4943 Conformed Standards EN: EN 62368-1 OVC II Pol2 RCM (EN61000-6-4)				
	Marine Standards		No				
	SEMI		No				

* Refer to *Conditions* on page 12.

		Power rating	100 W					
Item		Output voltage (VDC)	5 V	12 V	15 V	24 V	36 V	48 V
Efficiency *	115 VAC input		80% typ.	82% typ.	83% typ.	85% typ.	86% typ.	87% typ.
	230 VAC input		81% typ.	83% typ.	84% typ.	87% typ.	87% typ.	88% typ.
Input	Voltage range *		Single phase 85 to 132 VAC, 176 to 264 VAC, 248 to 373 VDC Select with the switch. (The L terminal for the DC input is the positive side and safety standards do not apply.) (Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on page 18.)					
	Frequency *		50 /60 Hz (47 to 450 Hz)					
	Current *	115 VAC input	2 A typ.					
		230 VAC input	1.1 A typ.					
	Power factor		---					
	Leakage current	115 VAC input	0.35 mA	0.35 mA	0.35 mA	0.35 mA	0.40 mA	0.40 mA
		230 VAC input	0.60 mA	0.55 mA	0.60 mA	0.50 mA	0.60 mA	0.60 mA
	Inrush current * (for a cold start at 25°)	115 VAC input	32 A typ.					
		230 VAC input	32 A typ.					
Output	Rated Output Current		20 A	8.5 A	7 A	4.5 A	2.8 A	2.3 A
	Voltage adjustment range *		-10% to 10% (with V. ADJ)					
	Ripple & Noise voltage *	100 to 120 VAC/200 to 240 VAC input	70 mVp-p max.	100 mVp-p max.	70 mVp-p max.	120 mVp-p max.	90 mVp-p max.	120 mVp-p max.
	Input variation influence *		0.5% max.					
	Load variation influence *		1.0% max.					
	Temperature variation influence	100 to 120 VAC/200 to 240 VAC input	0.03%/°C max.					
	Startup time *	115 VAC input	710 ms typ.	440 ms typ.	440 ms typ.	430 ms typ.	450 ms typ.	430 ms typ.
		230 VAC input	720 ms typ.	700 ms typ.	720 ms typ.	660 ms typ.	690 ms typ.	660 ms typ.
	Hold time *	115 VAC input	23 ms typ.	37 ms typ.	36 ms typ.	34 ms typ.	36 ms typ.	34 ms typ.
		230 VAC input	29 ms typ.	40 ms typ.	39 ms typ.	39 ms typ.	41 ms typ.	38 ms typ.
Additional functions	Overload protection		Yes, automatic reset					
	Overvoltage protection *		Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input again)					
	Overheat protection		No					
	Series operation		Yes (For up to 2 Power Supplies, external diodes are required.)					
	Parallel operation		No (However, backup operation is possible, external diodes are required.)					
	Remote sensing		No					
	Remote control		No					
Insulation	Output indicator		Yes (LED: Green)					
	Withstand voltage		3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA 2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA 1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA					
Environment	Insulation resistance		100 MΩ min. (between all output terminals and all input terminals/PE terminals) at 500 VDC					
	Ambient operating temperature		-20 to 60°C (Derating is required according to the temperature. Refer to <i>Derating Curves</i> on page 17.) (with no condensation or icing)					
	Storage temperature		-40 to 85°C (with no condensation or icing)					
	Ambient operating humidity		20% to 90% (Storage humidity: 10% to 95%)					
	Vibration resistance		10 to 55 Hz, 0.375-mm half amplitude for 2 h each in X, Y, and Z directions 10 to 500 Hz, 0.26-mm half amplitude for 1 h each in X, Y, and Z directions					
Reliability	Shock resistance		150 m/s ² , 3 times each in ±X, ±Y, ±Z directions					
	MTBF		135,000 hrs min.					
Construction	Life expectancy *		10 years min.					
	Dimensions (W×H×D)		Refer to <i>Dimensions</i> on pages 21 and 24.					
	Weight		400 g max.					
	Cooling fan		No					
Standards	Degree of protection		---					
	Harmonic current emissions		Conforms to EN 61000-3-2, GB17625.1					
	EMI	Conducted Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254					
		Radiated Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254					
	EMS		Conforms to EN 61204-3 high severity levels					
	Safety Standards		Approved Standards UL : cURus UL 62368-1 (Recognition) OVC II Pol2 CSA: cURus C22.2 No62368-1 CCC: GB4943 Conformed Standards EN: EN 62368-1 OVC II Pol2 RCM (EN61000-6-4)					
	Marine Standards		No					
	SEMI		No					

* Refer to *Conditions* on page 12.

		Power rating	150 W					
Item		Output voltage (VDC)	5 V	12 V	15 V	24 V	36 V	48 V
Efficiency *	115 VAC input		81% typ.	84% typ.	85% typ.	86% typ.	86% typ.	87% typ.
	230 VAC input		82% typ.	85% typ.	86% typ.	87% typ.	87% typ.	88% typ.
Input	Voltage range *		Single phase 90 to 132 VAC , Single phase 180 to 264 VAC , 254 to 373 VDC Select with the switch. (The L terminal for the DC input is the positive side and safety standards do not apply.) (Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on page 18.)					
	Frequency *		50 /60 Hz (47 to 450 Hz)					
	Current *	115 VAC input	2.8 A typ.					
		230 VAC input	1.6 A typ.					
	Power factor		---					
	Leakage current	115 VAC input	0.50 mA	0.50 mA	0.50 mA	0.50 mA	0.40 mA	0.50 mA
		230 VAC input	0.75 mA	0.75 mA	0.75 mA	0.70 mA	0.60 mA	0.70 mA
	Inrush current * (for a cold start at 25°)	115 VAC input	32 A typ.					
		230 VAC input	32 A typ.					
Output	Rated Output Current		26 A	12.5 A	10 A	6.5 A	4.3 A	3.3 A
	Voltage adjustment range *		-10% to 10% (with V. ADJ)					
	Ripple & Noise voltage *	100 to 120 VAC/200 to 240 VAC input	50 mVp-p max.	90 mVp-p max.	110 mVp-p max.	100 mVp-p max.	200 mVp-p max.	120 mVp-p max.
	Input variation influence *		0.5% max.					
	Load variation influence *		1.0% max.					
	Temperature variation influence	100 to 120 VAC/200 to 240 VAC input	0.03%/°C max.					
	Startup time *	115 VAC input	770 ms typ.	730 ms typ.	740 ms typ.	770 ms typ.	730 ms typ.	760 ms typ.
		230 VAC input	750 ms typ.	720 ms typ.	730 ms typ.	760 ms typ.	720 ms typ.	750 ms typ.
	Hold time *	115 VAC input	29 ms typ.	24 ms typ.	27 ms typ.	23 ms typ.	23 ms typ.	21 ms typ.
		230 VAC input	35 ms typ.	30 ms typ.	31 ms typ.	28 ms typ.	29 ms typ.	27 ms typ.
Additional functions	Overload protection		Yes, automatic reset					
	Overvoltage protection *		Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input again)					
	Overheat protection		No					
	Series operation		Yes (For up to 2 Power Supplies, external diodes are required.)					
	Parallel operation		No (However, backup operation is possible, external diodes are required.)					
	Remote sensing		No					
	Remote control		No					
	Output indicator		Yes (LED: Green)					
Insulation	Withstand voltage		3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA					
			2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA					
			1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA					
	Insulation resistance		100 MΩ min. (between all output terminals and all input terminals/PE terminals) at 500 VDC					
Environment	Ambient operating temperature		-20 to 60°C (Derating is required according to the temperature. Refer to <i>Derating Curves</i> on page 17.) (with no condensation or icing)					
	Storage temperature		-40 to 85°C (with no condensation or icing)					
	Ambient operating humidity		20% to 90% (Storage humidity: 10% to 95%)					
	Vibration resistance		10 to 55 Hz, 0.375-mm half amplitude for 2 h each in X, Y, and Z directions 10 to 500 Hz, 0.26-mm half amplitude for 1 h each in X, Y, and Z directions					
	Shock resistance		150 m/s ² , 3 times each in ±X, ±Y, ±Z directions					
Reliability	MTBF		135,000 hrs min.					
	Life expectancy *		10 years min.					
Construction	Dimensions (W×H×D)		Refer to <i>Dimensions</i> on pages 21 and 24.					
	Weight		500 g max.					
	Cooling fan		No					
	Degree of protection		---					
Standards	Harmonic current emissions		Conforms to EN 61000-3-2, GB17625.1					
	EMI	Conducted Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254					
		Radiated Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254					
	EMS		Conforms to EN 61204-3 high severity levels					
	Safety Standards		Approved Standards UL : cURus UL 62368-1 (Recognition) OVC II Pol2 CSA: cURus C22.2 No62368-1 CCC: GB4943 Conformed Standards EN: EN 62368-1 OVC II Pol2 RCM (EN61000-6-4)					
	Marine Standards		No					
	SEMI		No					

* Refer to *Conditions* on page 12.

Item		Power rating Output voltage (VDC)	200 W				
			5 V	12 V	24 V	36 V	48 V
Efficiency *		115 VAC input	81% typ.	85% typ.	88% typ.	89% typ.	88% typ.
		230 VAC input	81% typ.	87% typ.	88% typ.	90% typ.	90% typ.
Input	Voltage range *		Single phase 90 to 132 VAC , Single phase 180 to 264 VAC , 254 to 373 VDC. Select with the switch. (The L terminal for the DC input is the positive side and safety standards do not apply.) (Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on page 18.)				
	Frequency *		50 /60 Hz (47 to 450 Hz)				
	Current *	115 VAC input	4 A typ.				
		230 VAC input	2.3 A typ.				
	Power factor		---				
	Leakage current	115 VAC input	0.35 mA	0.25 mA	0.40 mA	0.20 mA	0.40 mA
		230 VAC input	0.60 mA	0.50 mA	0.75 mA	0.45 mA	0.80 mA
	Inrush current * (for a cold start at 25°)	115 VAC input	16 A typ.				
		230 VAC input	32 A typ.				
Output	Rated Output Current		40 A	17 A	8.8 A	5.9 A	4.43 A
	Voltage adjustment range *		-10% to 10% (with V. ADJ)				
	Ripple & Noise voltage *	100 to 120 VAC/200 to 240 VAC input	60 mVp-p max.	60 mVp-p max.	110 mVp-p max.	130 mVp-p max.	120 mVp-p max.
	Input variation influence *		0.5% max.				
	Load variation influence *		1.0% max.				
	Temperature variation influence	100 to 120 VAC/200 to 240 VAC input	0.03%/°C max.				
	Startup time *	115 VAC input	620 ms typ.	630 ms typ.	580 ms typ.	630 ms typ.	620 ms typ.
		230 VAC input	600 ms typ.	610 ms typ.	550 ms typ.	600 ms typ.	600 ms typ.
	Hold time *	115 VAC input	32 ms typ.	30 ms typ.	38 ms typ.	30 ms typ.	31 ms typ.
		230 VAC input	37 ms typ.	35 ms typ.	45 ms typ.	37 ms typ.	37 ms typ.
Additional functions	Overload protection		Yes, automatic reset				
	Overvoltage protection *		Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input again)				
	Overheat protection		No				
	Series operation		Yes (For up to 2 Power Supplies, external diodes are required.)				
	Parallel operation		No (However, backup operation is possible, external diodes are required.)				
	Remote sensing		No				
	Remote control		No				
	Output indicator		Yes (LED: Green)				
Insulation	Withstand voltage		3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA				
			2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA				
			1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA				
	Insulation resistance		100 MΩ min. (between all output terminals and all input terminals/PE terminals) at 500 VDC				
Environment	Ambient operating temperature		-20 to 50°C (Derating is required according to the temperature. Refer to <i>Derating Curves</i> on page 17.) (with no condensation or icing)				
	Storage temperature		-40 to 85°C (with no condensation or icing)				
	Ambient operating humidity		20% to 90% (Storage humidity: 10% to 95%)				
	Vibration resistance		10 to 55 Hz, 0.375-mm half amplitude for 2 h each in X, Y, and Z directions 10 to 500 Hz, 0.26-mm half amplitude for 1 h each in X, Y, and Z directions				
	Shock resistance		150 m/s ² , 3 times each in ±X, ±Y, ±Z directions				
Reliability	MTBF		135,000 hrs min.				
	Life expectancy *		10 years min.				
Construction	Dimensions (W×H×D)		Refer to <i>Dimensions</i> on pages 22 and 25.				
	Weight		700 g max.				
	Cooling fan		No				
	Degree of protection		---				
Standards	Harmonic current emissions		---				
	EMI	Conducted Emissions	Conforms to EN 61204-3 Class A, EN 55011 Class A				
		Radiated Emissions	Conforms to EN 61204-3 Class A, EN 55011 Class A				
	EMS		Conforms to EN 61204-3 high severity levels				
	Safety Standards		Approved Standards UL : cURus UL 62368-1 (Recognition) OVC II Pol2 CSA: cURus C22.2 No62368-1 Conformed Standards EN: EN 62368-1 OVC II Pol2 RCM (EN61000-6-4)				
	Marine Standards		No				
	SEMI		No				

* Refer to *Conditions* on page 12.

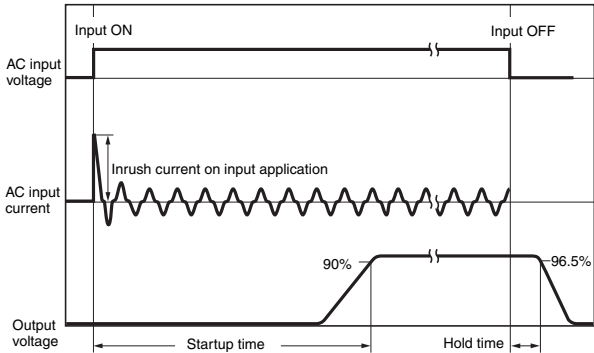
		Power rating	350 W				
Item	Output voltage (VDC)		5 V	12 V	24 V	36 V	48 V
Efficiency *	115 VAC input		77% typ.	83% typ.	86% typ.	87% typ.	87% typ.
	230 VAC input		78% typ.	85% typ.	88% typ.	88% typ.	88% typ.
Input	Voltage range *		Single phase 90 to 132 VAC , Single phase 180 to 264 VAC , 254 to 373 VDC. Select with the switch. (The L terminal for the DC input is the positive side and safety standards do not apply.) (Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on page 18.)				
	Frequency *		50 /60 Hz (47 to 450 Hz)				
	Current *	115 VAC input	6.4 A typ.				
		230 VAC input	3.5 A typ.				
	Power factor		---				
	Leakage current	115 VAC input	0.40 mA	0.40 mA	0.40 mA	0.40 mA	0.40 mA
		230 VAC input	0.75 mA	0.80 mA	0.75 mA	0.80 mA	0.80 mA
Inrush current * (for a cold start at 25°)	115 VAC input	16 A typ.					
	230 VAC input	32 A typ.					
Output	Rated Output Current		60 A	29 A	14.6 A	9.7 A	7.32 A
	Voltage adjustment range *		-10% to 10% (with V. ADJ)				
	Ripple & Noise voltage *	100 to 120 VAC/200 to 240 VAC input	110 mVp-p max.	130 mVp-p max.	120 mVp-p max.	180 mVp-p max.	180 mVp-p max.
	Input variation influence *		0.5% max.				
	Load variation influence *		2.0% max.	1.0% max.			
	Temperature variation influence	100 to 120 VAC/200 to 240 VAC input	0.03%/°C max.				
	Startup time *	115 VAC input	610 ms typ.	620 ms typ.	580 ms typ.	610 ms typ.	610 ms typ.
		230 VAC input	570 ms typ.	590 ms typ.	560 ms typ.	590 ms typ.	590 ms typ.
	Hold time *	115 VAC input	25 ms typ.	18 ms typ.	17 ms typ.	19 ms typ.	19 ms typ.
		230 VAC input	31 ms typ.	25 ms typ.	23 ms typ.	25 ms typ.	24 ms typ.
Additional functions	Overload protection		Yes, automatic reset				
	Overvoltage protection *		Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input again)				
	Overheat protection		Yes, power shut off (shut off the input voltage and turn on the input again) (Overheat protection when the cooling fan is in an abnormal condition)				
	Series operation		Yes (For up to 2 Power Supplies, external diodes are required.)				
	Parallel operation		No (However, backup operation is possible, external diodes are required.)				
	Remote sensing		No				
	Remote control		No				
Output indicator		Yes (LED: Green)					
Insulation	Withstand voltage		3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA 2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA 1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA				
	Insulation resistance		100 MΩ min. (between all output terminals and all input terminals/PE terminals) at 500 VDC				
Environment	Ambient operating temperature		-20 to 60°C (Derating is required according to the temperature. Refer to <i>Derating Curves</i> on page 17.) (with no condensation or icing)				
	Storage temperature		-40 to 85°C (with no condensation or icing)				
	Ambient operating humidity		20% to 90% (Storage humidity: 10% to 95%)				
	Vibration resistance		10 to 55 Hz, 0.375-mm half amplitude for 2 h each in X, Y, and Z directions 10 to 500 Hz, 0.26-mm half amplitude for 1 h each in X, Y, and Z directions				
	Shock resistance		150 m/s², 3 times each in ±X, ±Y, ±Z directions				
Reliability	MTBF		135,000 hrs min.				
	Life expectancy *		10 years min.				
Construction	Dimensions (W×H×D)		Refer to <i>Dimensions</i> on pages 22 and 25.				
	Weight		800 g max.				
	Cooling fan		Yes (ON/OFF control according to internal temperature)				
	Degree of protection		---				
Standards	Harmonic current emissions		---				
	EMI	Conducted Emissions	Conforms to EN 61204-3 Class A, EN 55011 Class A				
		Radiated Emissions	Conforms to EN 61204-3 Class A, EN 55011 Class A				
	EMS		Conforms to EN 61204-3 high severity levels				
	Safety Standards		Approved Standards UL : cURus UL 62368-1 (Recognition) OVC II Pol2 CSA: cURus C22.2 No62368-1 Conformed Standards EN: EN 62368-1 OVC II Pol2 RCM (EN61000-6-4)				
	Marine Standards		No				
	SEMI		No				

* Refer to *Conditions* on page 12.

Conditions

Efficiency		The value is given for the rated output voltage and rated output current.
Input	Voltage range	Although some inverters give 50/60 Hz as the output frequency, do not use an inverter output as the power source for the Power Supply. Doing so may result in smoking or burning due to internal temperature increases in the Power Supply. If you connect a UPS to the input, do not connect one with a square wave output.
	Frequency	
	Current	The value is given for the rated output voltage and rated output current.
	Inrush current (for a cold start at 25°C)	The value is given for a cold start at 25°C. Refer to following for details.
Output	Voltage adjustment range	If the output voltage adjuster (V. ADJ) is turned, the voltage will increase by 10% or more over the voltage adjustment range. When adjusting the output voltage, confirm the actual output voltage from the Power Supply and be sure that load is not damaged.
	Ripple & Noise voltage	The value is given for the rated output voltage and rated output current. The value is for an ambient operating temperature of 25°C.
	Input variation influence	This is the maximum variation in the output voltage when the input voltage is gradually changed within the allowable input voltage range at the rated output voltage and rated output current.
	Load variation influence	This is the value when the output current is changed from 0 A to the rated output current while the input voltage is within the allowable input voltage.
	Startup time	The value is given for the rated output voltage and rated output current. The value is given for a cold start at 25°C. Refer to following for details.
	Hold time	The value is given for the rated output voltage and rated output current. Refer to following for details.
Additional functions	Overvoltage protection	Refer to <i>Overvoltage Protection</i> on page 19 for information on resetting the input power.
Reliability	Life expectancy	Refer to <i>Recommended Replacement Periods and Periodic Replacement for Preventive Maintenance</i> on page 39 for details.

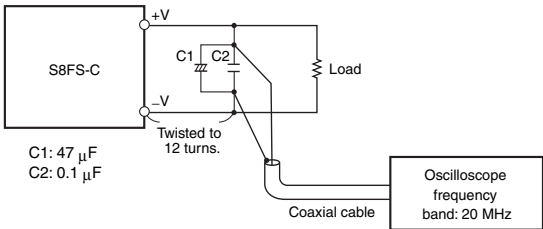
Inrush Current, Startup Time, and Output Hold Time



Note: Twice the normal input current will flow for a redundant system. Sufficiently check the fusing characteristics of fuses and the operating characteristics of breakers and select fuses and breakers so that external fuses will not burn out or breakers will not operate due to inrush current.

Ripple Noise Voltage

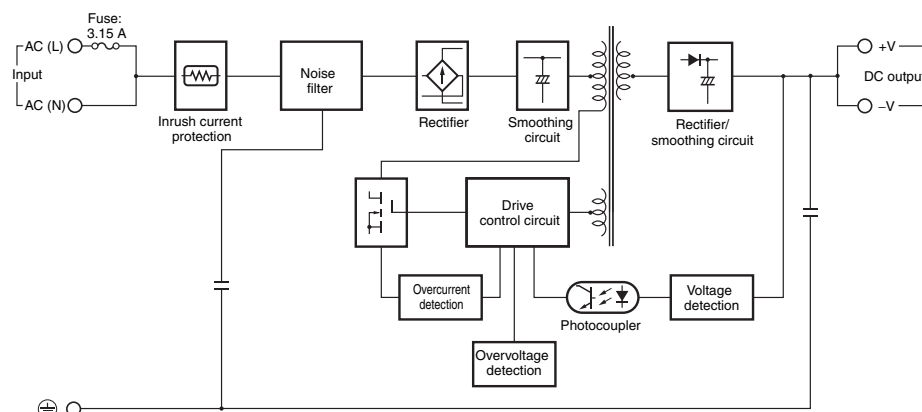
The specified standard for the ripple voltage noise was measured with the following measurement circuit.



Connections

Block Diagrams

S8FS-C015□□□ (15 W)

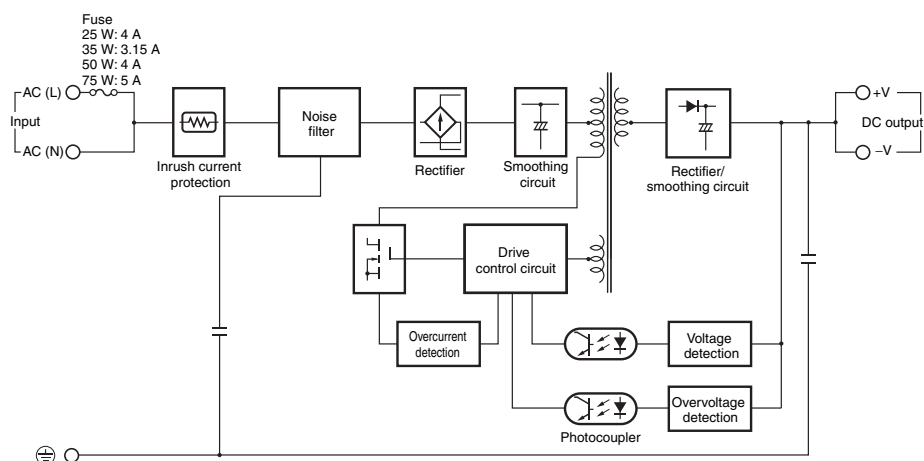


S8FS-C025□□□ (25 W)

S8FS-C035□□□ (35 W)

S8FS-C050□□□ (50 W)

S8FS-C075□□□ (75 W)



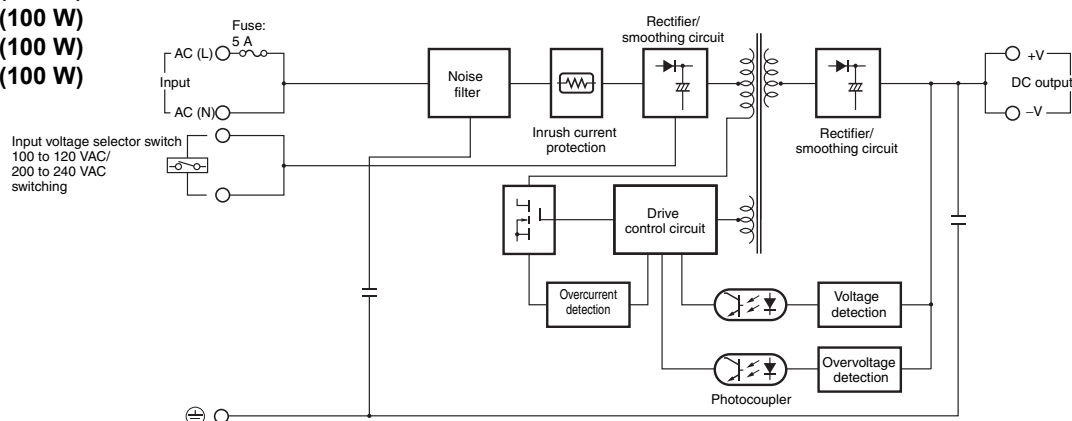
S8FS-C10012□ (100 W)

S8FS-C10015□ (100 W)

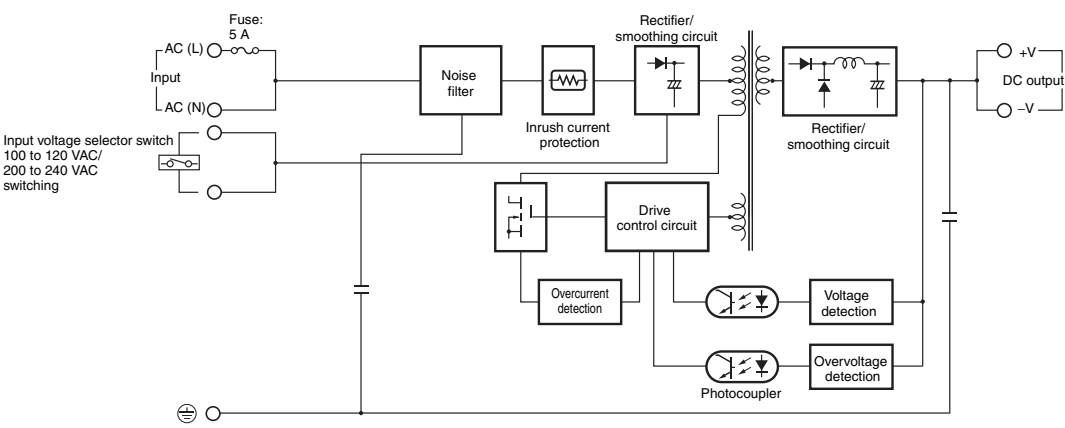
S8FS-C10024□ (100 W)

S8FS-C10036□ (100 W)

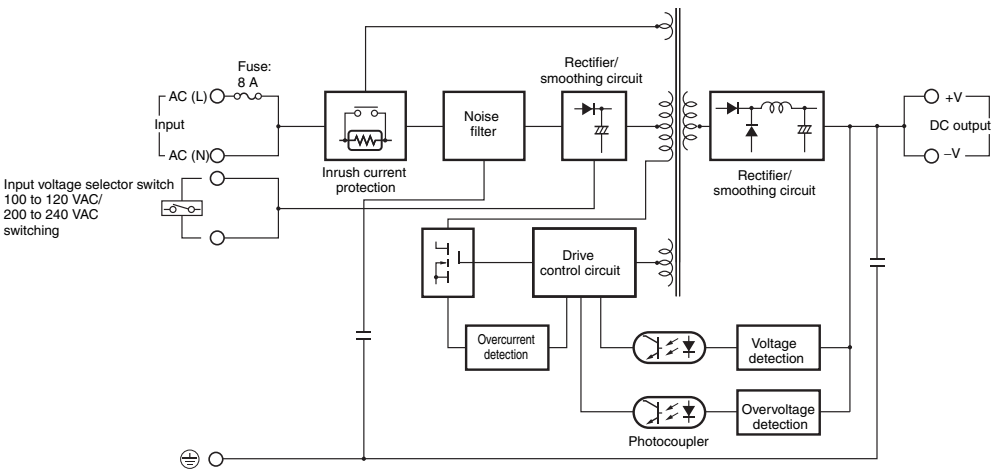
S8FS-C10048□ (100 W)

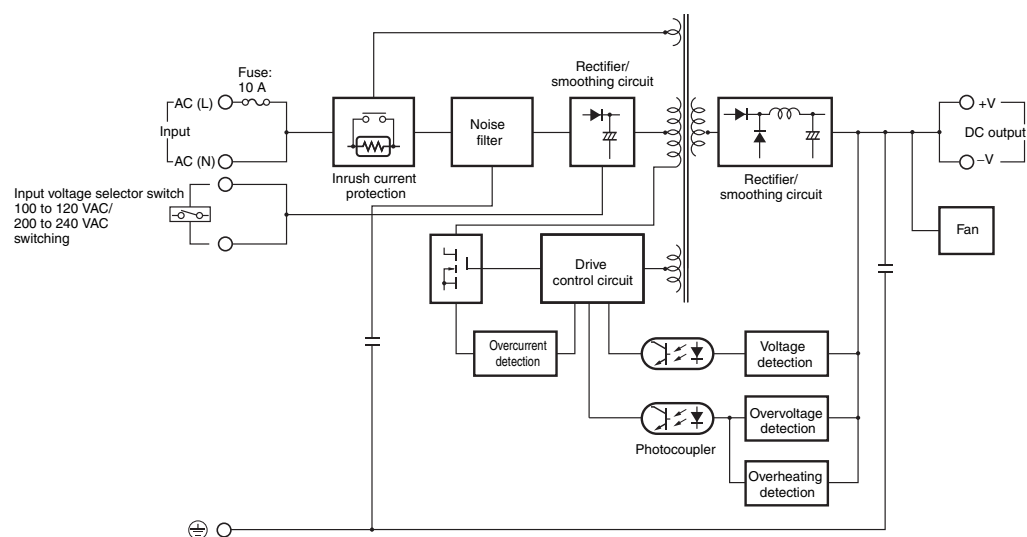
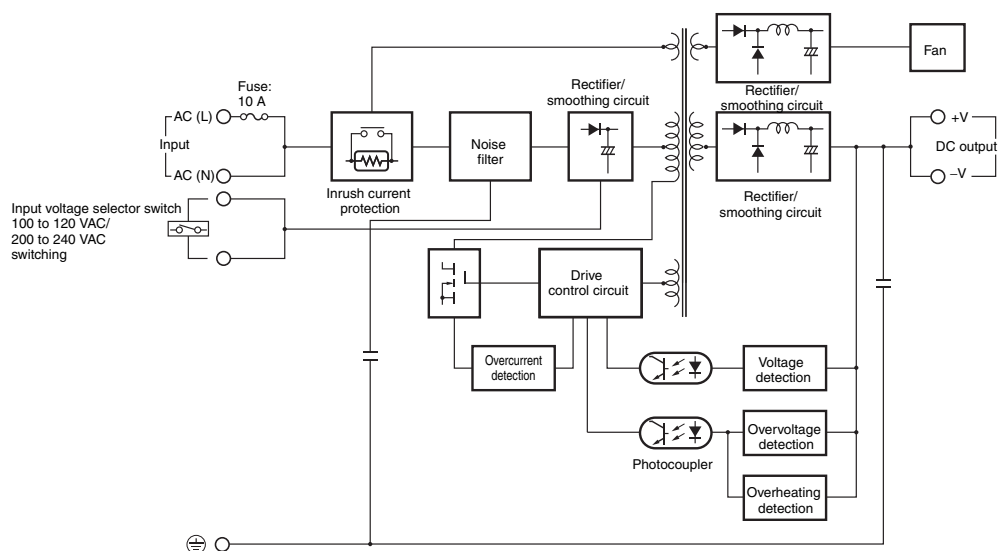


S8FS-C10005 (100 W)
S8FS-C150 (150 W)



S8FS-C200 (200 W)

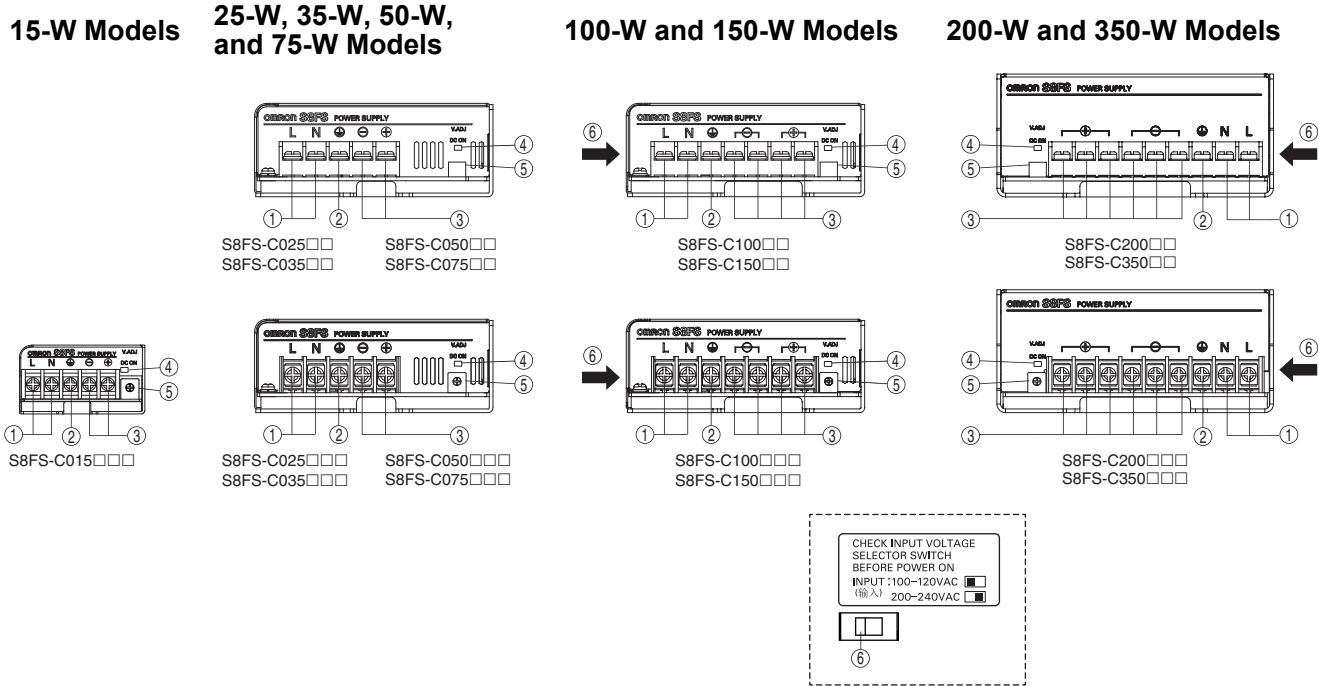


S8FS-C35024□ (350 W)**S8FS-C35005□ (350 W)****S8FS-C35012□ (350 W)****S8FS-C35036□ (350 W)****S8FS-C35048□ (350 W)**

S8FS-C

Construction and Nomenclature

Nomenclature



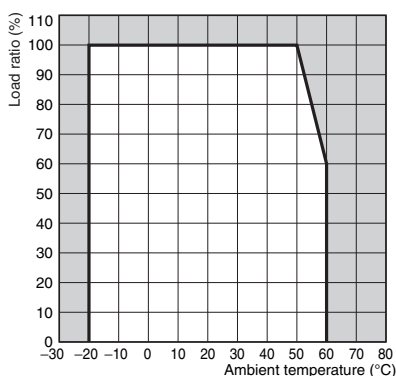
Engineering Data

Derating Curves

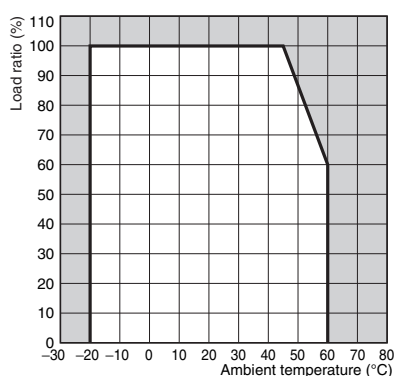
Derating for Ambient Temperatures

Derating for Ambient Temperatures										
Power rating Output voltage	15 W	25 W	35 W	50 W	75 W	100 W	150 W	200 W	350 W	
5 V	(1)	(2)	(1)	(1)	(3)	(4)	(5)	(7)	(1)	
12 V		(1)			(1)	(1)	(2)	(1)		(6)
15 V									---	---
24 V									(6)	(1)
36 V										
48 V	---	---	---	(1)						

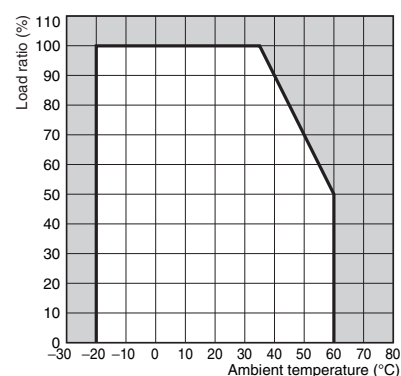
(1)



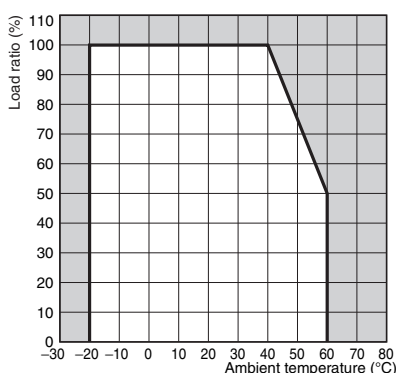
(2)



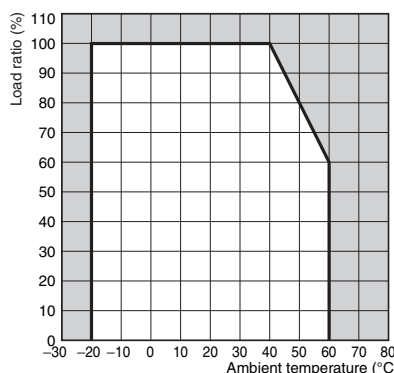
(3)



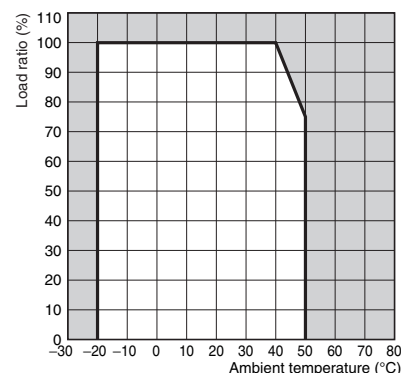
(4)



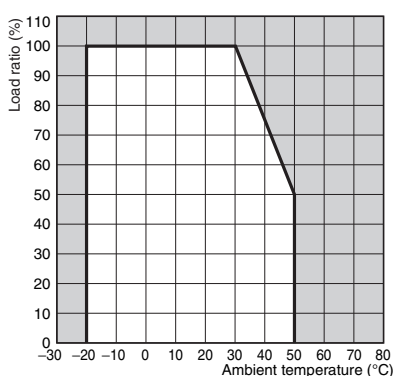
(5)



(6)



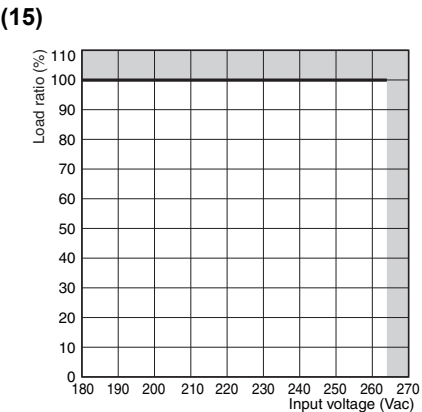
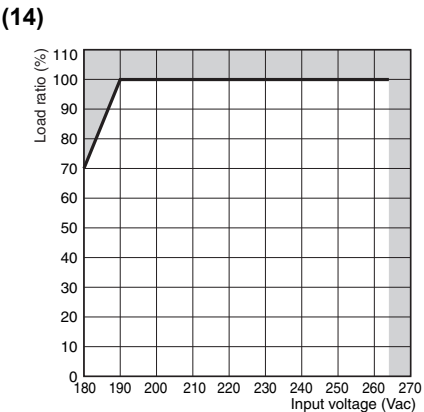
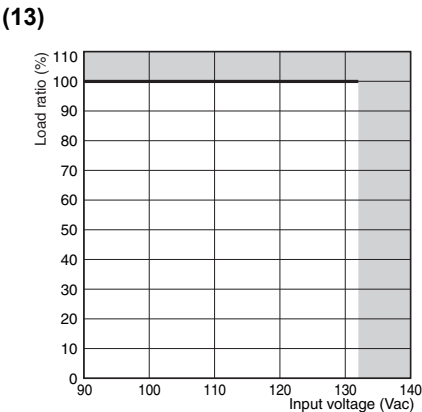
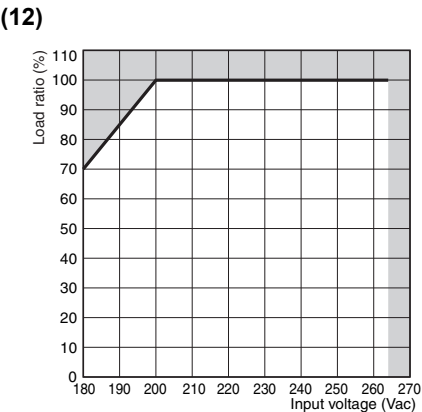
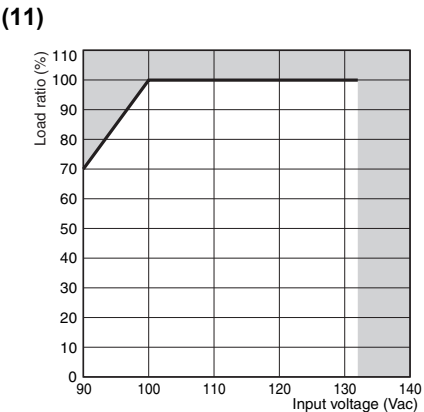
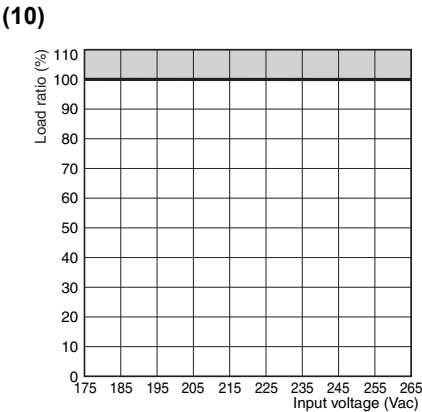
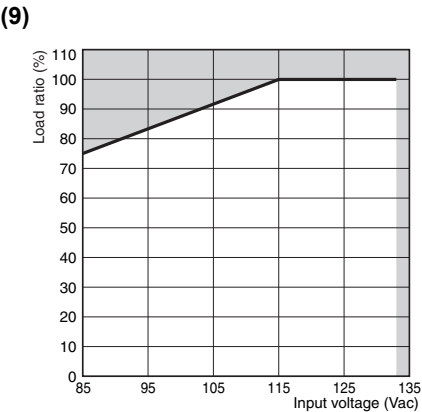
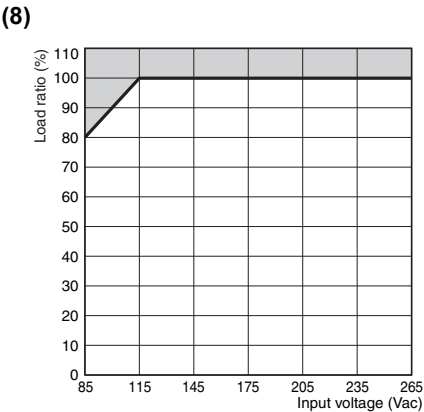
(7)



Note: The internal parts may occasionally deteriorate or be damaged. Use the standard mounting method only. Do not use the Power Supply in the area outside the derating curve.

Derating for Input Voltages

Power rating Output voltage	15 W	25 W	35 W	50 W	75 W	100 W	150 W	200 W	350 W
5 V	(8)	(8)	(8)	(8)	(8)	(9) (10)	(11) (12)	(11) (14)	(11) (15)
12 V								---	---
15 V									
24 V								(13) (15)	(11) (15)
36 V	---	---	---	---					
48 V	---	---	---	(8)	(8)				

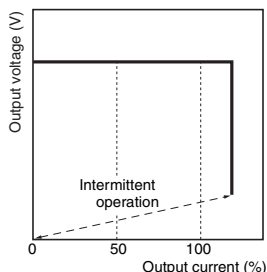


Note: The internal parts may occasionally deteriorate or be damaged. Use the standard mounting method only. Do not use the Power Supply in the area outside the derating curve.

Overload Protection

The load and the Power Supply are automatically protected from short-circuit currents and overcurrent damage by this function. Overload protection is activated if the output current rises above 105% of the rated current.

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

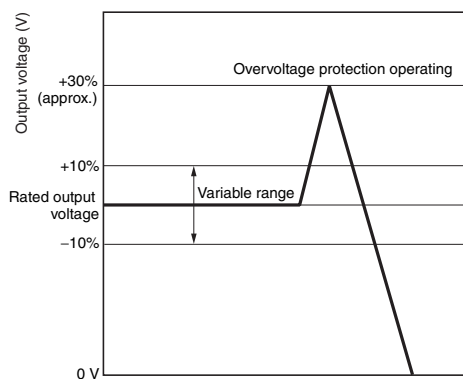


The values shown in the above diagrams are for reference only.

- Note:**
1. If the Power Supply has been short-circuited or supplied with an overcurrent longer than 10 seconds, the internal parts of the Power Supply may occasionally deteriorate or be damaged.
 2. Internal parts may possibly deteriorate or be damaged if the Power Supply is used for applications with frequent inrush current or overloading at the load end. Do not use the Power Supply for such applications.

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 115% 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.



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

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

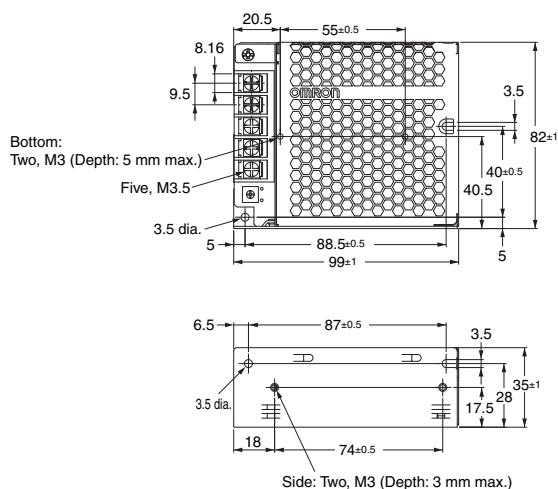
Overheat Protection (S8FS-C350□□□ Only)

If the internal temperature rises excessively as a result of fan failure or any other reason, the overheat protection circuit will operate to protect internal elements. Reset the input power by turning it OFF for at least three minutes and then turning it back ON again.

Dimensions

Power Supplies

S8FS-C025□□ (25 W)



	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 88.5$\pm$0.5 40$\pm$0.5	Two, 3.5 dia. 55$\pm$0.5
Side mounting	Two, M3 87$\pm$0.5	Two, 3.5 dia. 74$\pm$0.5

Technical drawing showing the bottom and side views of a rectangular component with dimensions and labels.

Bottom View Dimensions:

- Overall width: 20.5
- Overall height: 55 ± 0.5
- Top edge features: 8.16 (top hole), 9.5 (bottom hole)
- Left edge features: 97 ± 1 (total height), 55.5 ± 0.5 (height to top hole), 45.5 (height to bottom hole), 5 (bottom hole offset)
- Right edge features: 3.5 (top hole offset), 99 ± 1 (total width), 4.5 (bottom hole offset)
- Internal features: 89 ± 0.5 (width to right edge), 6.5 (width to left edge)
- Labels: "Five, M3.5" (pointing to top hole), "Two, M3 (Depth: 5 mm max.)" (pointing to bottom hole), "3.5 dia." (pointing to bottom hole)

Side View Dimensions:

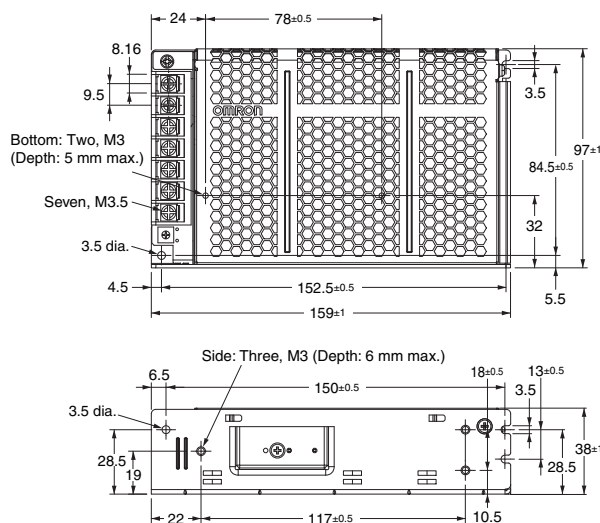
- Overall width: 87 ± 0.5
- Overall height: 36 ± 1
- Top edge features: 6.5 (width to left edge), 3.5 (top hole offset)
- Left edge features: 18 (width to left edge), 74 ± 0.5 (width to right edge)
- Right edge features: 29 (height to top hole), 18.5 (height to bottom hole)
- Internal features: 3.5 (width to left edge), 3.5 (width to right edge)
- Labels: "Side: Two, M3 (Depth: 3 mm max.)" (pointing to bottom hole), "3.5 dia." (pointing to bottom hole)

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 89±0.5 55.5±0.5	Two, 3.5 dia. 55±0.5
Side mounting	Two, M3 87±0.5	Two, 3.5 dia. 74±0.5

[illegible]

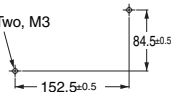
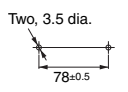
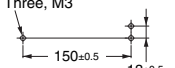
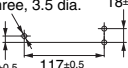
	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 122.5±0.5 85.5±0.5	Two, 3.5 dia. 33±0.5
Side mounting	Three, M3 120±0.5 13±0.5	Three, 3.5 dia. 9±0.5 77±0.5 18±0.5

S8FS-C075□□ (75 W)
S8FS-C100□□ (100 W)

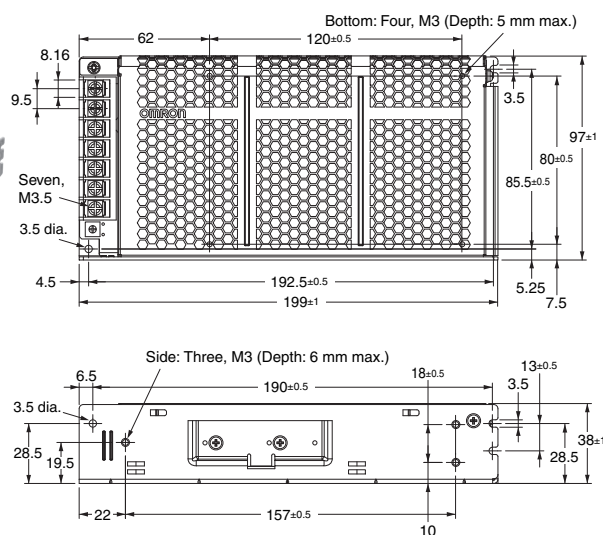


Note: The figure shows a 100-W Power Supply.
 A 75-W Power Supply has 5 terminals.

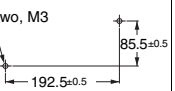
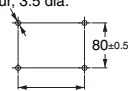
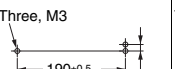
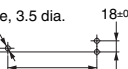
Panel mounting hole dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 	Two, 3.5 dia. 
Side mounting	Three, M3 	Three, 3.5 dia. 

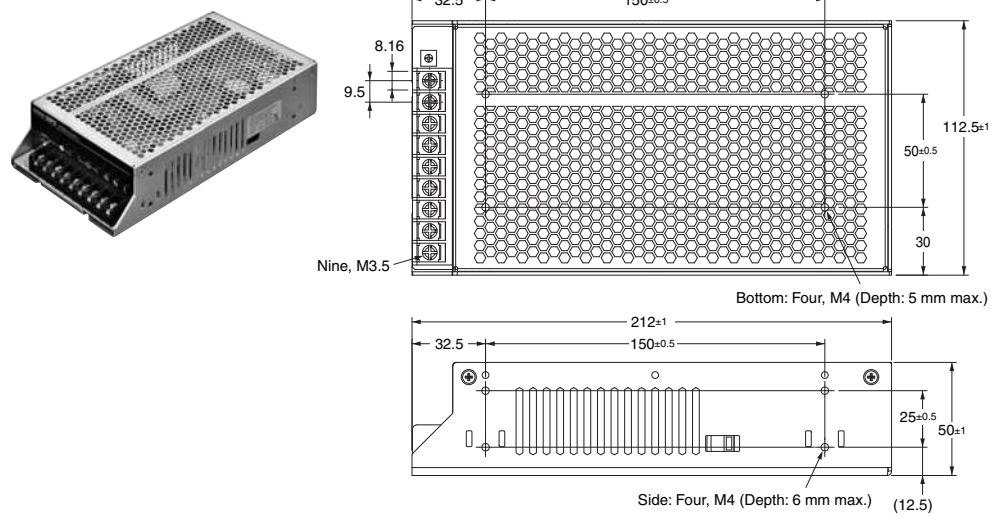
S8FS-C150□□ (150 W)



Panel mounting hole dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 	Four, 3.5 dia. 
Side mounting	Three, M3 	Three, 3.5 dia. 

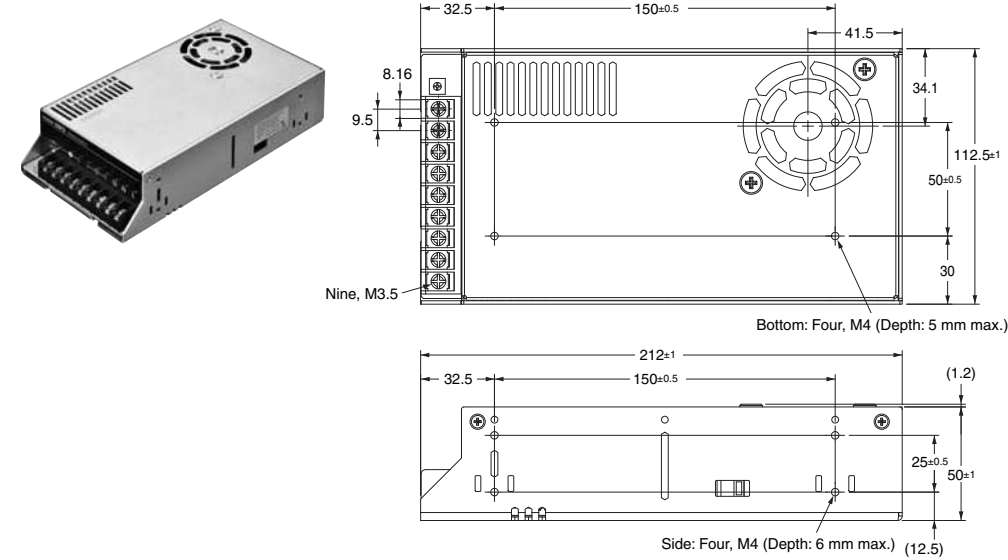
S8FS-C200□□ (200 W)



Panel mounting hole dimensions

	Using the screw holes in the Power Supply
Bottom mounting	Four, 4.5 dia. 50±0.5 150±0.5
Side mounting	Four, 4.5 dia. 25±0.5 150±0.5

S8FS-C350□□ (350 W)

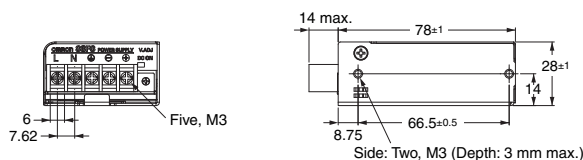
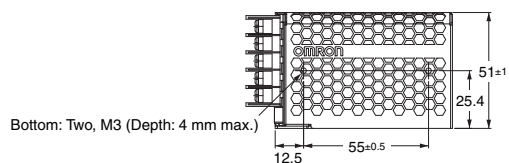


Panel mounting hole dimensions

	Using the screw holes in the Power Supply
Bottom mounting	Four, 4.5 dia. 50±0.5 150±0.5
Side mounting	Four, 4.5 dia. 25±0.5 150±0.5

Models with Terminal Block Facing Forward

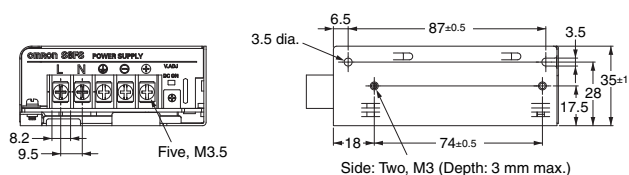
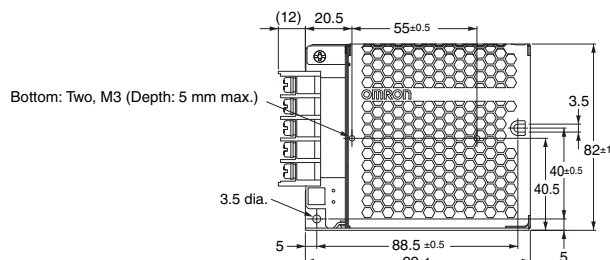
S8FS-C015□□J (15 W)



Panel mounting hole dimensions

	Using the screw holes in the Power Supply
Bottom mounting	Two, 3.5 dia. 55±0.5
Side mounting	Two, 3.5 dia. 66.5±0.5

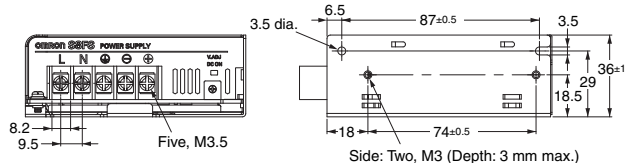
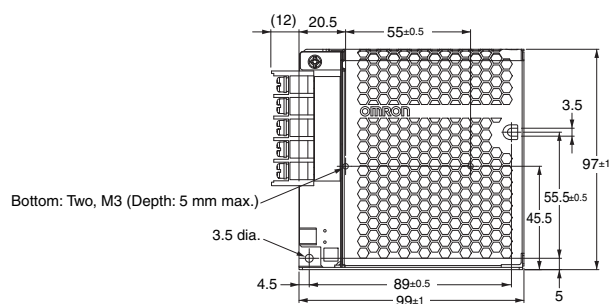
S8FS-C025□□J (25 W)



Panel mounting hole dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 88.5±0.5	Two, 3.5 dia. 55±0.5
Side mounting	Two, M3 87±0.5	Two, 3.5 dia. 74±0.5

S8FS-C035□□J (35 W)

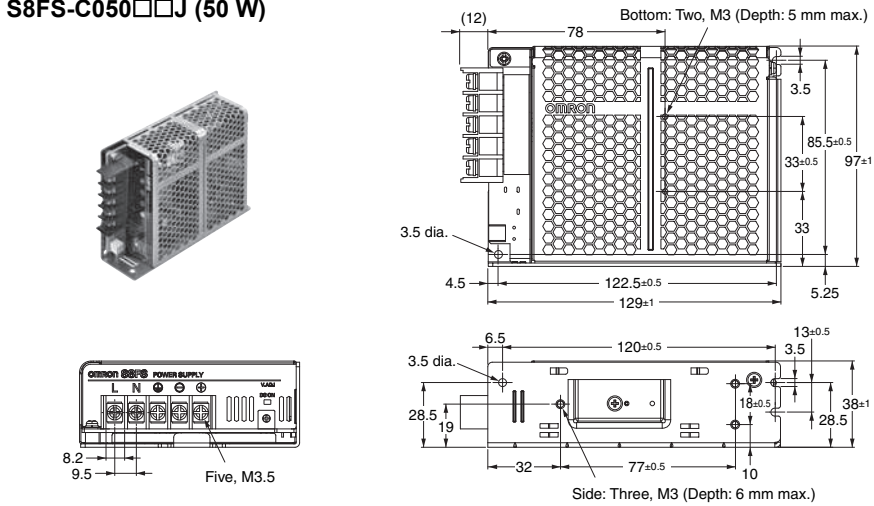


Panel mounting hole dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 89±0.5	Two, 3.5 dia. 55±0.5
Side mounting	Two, M3 87±0.5	Two, 3.5 dia. 74±0.5

S8FS-C

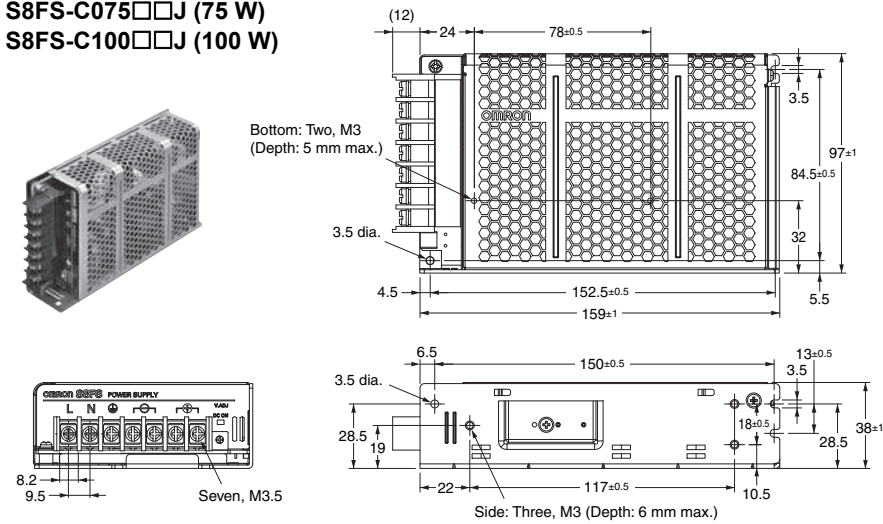
S8FS-C050□□J (50 W)



Panel mounting hole dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 122.5±0.5 85.5±0.5	Two, 3.5 dia. 33±0.5
Side mounting	Three, M3 120±0.5 13±0.5	Three, 3.5 dia. 18±0.5 9±0.5 77±0.5

S8FS-C075□□J (75 W)
S8FS-C100□□J (100 W)

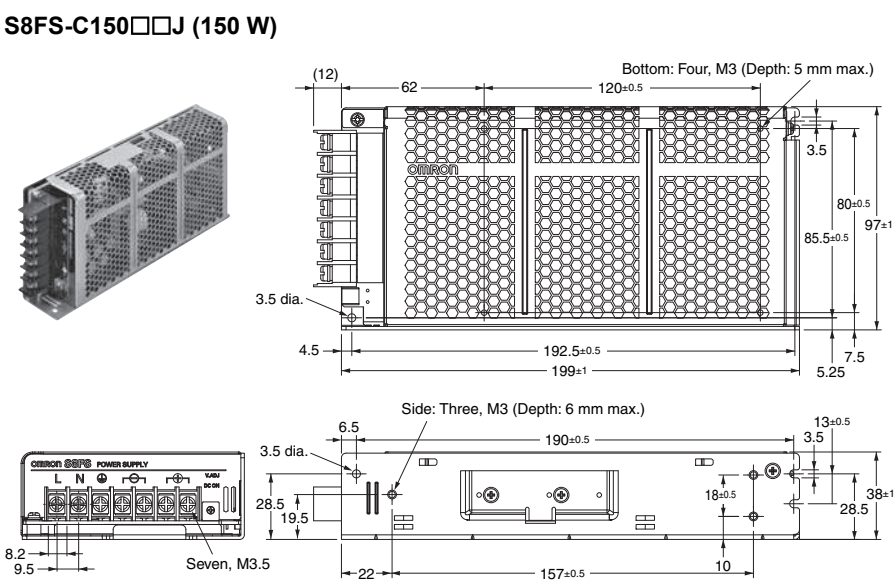


Panel mounting hole dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 152.5±0.5 84.5±0.5	Two, 3.5 dia. 78±0.5
Side mounting	Three, M3 150±0.5 13±0.5	Three, 3.5 dia. 18±0.5 9.5±0.5 117±0.5

Note: The figure shows a 100-W Power Supply.
A 75-W Power Supply has 5 terminals.

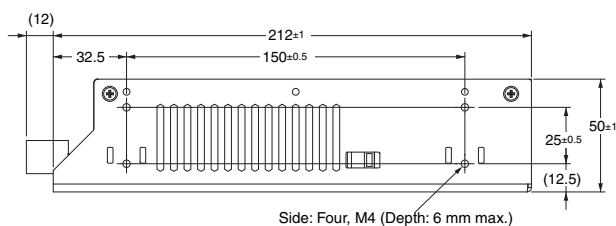
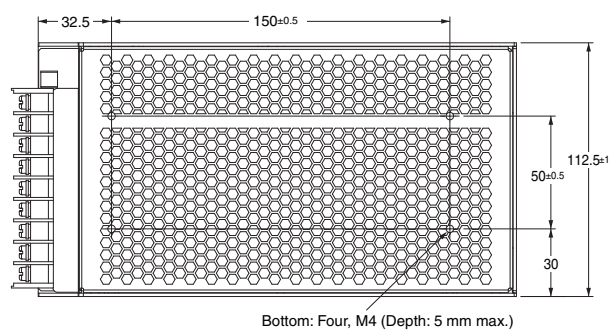
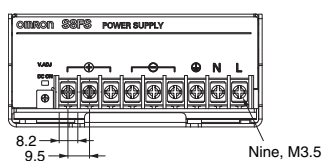
S8FS-C150□□J (150 W)



Panel mounting hole dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 192.5±0.5 85.5±0.5	Four, 3.5 dia. 80±0.5 120±0.5
Side mounting	Three, M3 190±0.5 13±0.5	Three, 3.5 dia. 18±0.5 8.5±0.5 157±0.5

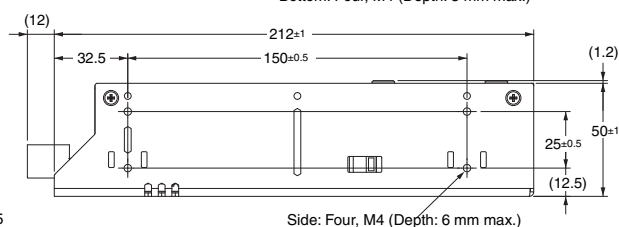
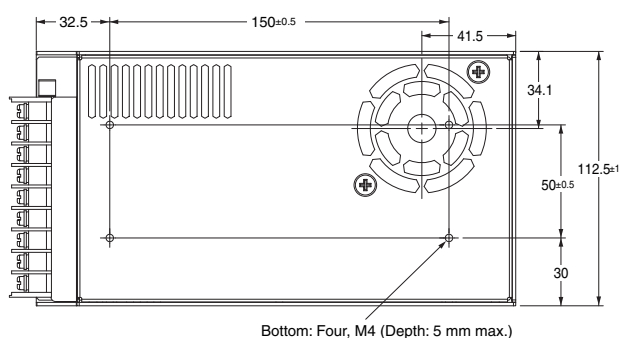
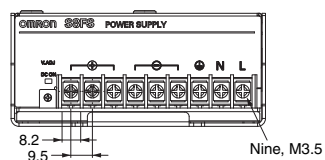
S8FS-C200□□J (200 W)



Panel mounting hole dimensions

	Using the screw holes in the Power Supply
Bottom mounting	Four, 4.5 dia.
Side mounting	Four, 4.5 dia.

S8FS-C350□□J (350 W)



Panel mounting hole dimensions

	Using the screw holes in the Power Supply
Bottom mounting	Four, 4.5 dia.
Side mounting	Four, 4.5 dia.