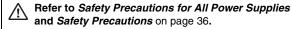
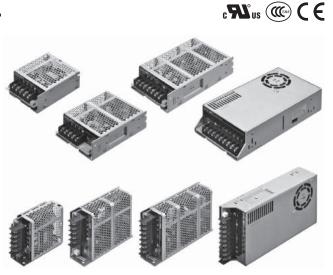


Switch Mode Power Supply (15/25/35/50/75/100/150/200/350-W Models) S8FS-C

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.





Product Lineup

Output		Power rating												
voltage	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)	121

(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
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	

S8FS-C

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 wtih DIN rail	
		5 V	3 A			S8FS-C01505J	S8FS-C01505	
45 144		12 V	1.3 A			S8FS-C01512J	S8FS-C01512	
15 W		15 V	1 A			S8FS-C01515J	S8FS-C01515	
		24 V	0.7 A			S8FS-C01524J	S8FS-C01524	
	1	5 V	5 A		S8FS-C02505	S8FS-C02505J	S8FS-C02505	
05.147		12 V	2.1 A		S8FS-C02512	S8FS-C02512J	S8FS-C02512	
25 W		15 V	1.7 A		S8FS-C02515	S8FS-C02515J	S8FS-C02515	
		24 V	1.1 A		S8FS-C02524	S8FS-C02524J	S8FS-C02524	
	1	5 V	7 A		S8FS-C03505	S8FS-C03505J	S8FS-C03505	
	100 to 240 VAC	12 V	3 A		S8FS-C03512	S8FS-C03512J	S8FS-C03512	
35 W	(allowable range:	15 V	2.4 A		S8FS-C03515	S8FS-C03515J	S8FS-C0351	
	85 to 264 VAC or 120 to 370 VDC	24 V	1.5 A		S8FS-C03524	S8FS-C03524J	S8FS-C03524	
	*1)	5 V	10 A		S8FS-C05005	S8FS-C05005J	S8FS-C05009	
		12 V	4.2 A		S8FS-C05012	S8FS-C05012J	S8FS-C05012	
50 W		15 V	3.4 A		S8FS-C05015	S8FS-C05015J	S8FS-C0501	
		24 V	2.2 A		S8FS-C05024		S8FS-C0502	
		48 V	1.1 A		S8FS-C05048		S8FS-C0504	
	100 to 120 VAC,	+	5 V	14 A		S8FS-C07505		S8FS-C0750
		12 V	6.2 A		S8FS-C07512		S8FS-C0751	
75 W		15 V	5 A	None	S8FS-C07515		S8FS-C0751	
7011		24 V	3.2 A	110110	S8FS-C07524		S8FS-C0752	
		48 V	1.6 A		S8FS-C07548	facing forward S8FS-C01505J S8FS-C01512J S8FS-C01515J S8FS-C01524J S8FS-C02505J S8FS-C02515J S8FS-C02515J S8FS-C02524J S8FS-C03505J S8FS-C03512J S8FS-C03512J S8FS-C03512J S8FS-C03512J S8FS-C05012J S8FS-C07512J S8FS-C07512J S8FS-C10012J S8FS-C10012J S8FS-C10012J S8FS-C10036J S8FS-C10048J S8FS-C15005J S8FS-C15015J S8FS-C15015J	S8FS-C0754	
	100 to 120 VAC	5 V	20 A		S8FS-C10005		S8FS-C1000	
	100 to 120 VAC, 200 to 240 VAC (allowable range: 85 to 132 VAC, 176 to 264 VAC, or 248 to 373 VDC (Select with the switch.)	200 to 240 VAC (allowable range:		S8FS-C10012		S8FS-C1001		
			15 V	7 A		S8FS-C10015		S8FS-C1001
100 W		24 V	4.5 A		S8FS-C10024		S8FS-C1002	
		248 to 373 VDC	36 V	2.8 A		S8FS-C10024		S8FS-C1002
		48 V	2.3 A		S8FS-C10030		S8FS-C1004	
	2)	5 V	2.5 A 26 A		S8FS-C15005		S8FS-C1500	
	-	12 V	12.5 A		S8FS-C15005		S8FS-C1500	
	-	15 V	12.5 A		S8FS-C15012		S8FS-C1501	
150 W	-	24 V	6.5 A		S8FS-C15015		S8FS-C1501	
					S8FS-C15024			
	100 to 100 VAC	36 V	4.3 A				S8FS-C1503	
	100 to 120 VAC, 200 to 240 VAC	48 V	3.3 A		S8FS-C15048		S8FS-C1504	
	(allowable range:	5 V	40 A		S8FS-C20005		S8FS-C2000	
000.144		12 V	17 A		S8FS-C20012		S8FS-C2001	
200 W	90 to 132 VAC, 180 to 264 VAC, or 254 to 373 VDC	24 V	8.8 A		S8FS-C20024		S8FS-C2002	
	(Select with the switch.)	36 V	5.9 A		S8FS-C20036		S8FS-C2003	
	*2)	48 V	4.43 A		S8FS-C20048		S8FS-C2004	
		5 V	60 A		S8FS-C35005		S8FS-C3500	
		12 V	29 A	.,	S8FS-C35012		S8FS-C3501	
350 W		24 V	14.6 A	Yes	S8FS-C35024		S8FS-C3502	
		36 V	9.7 A		S8FS-C35036		S8FS-C3503	
		48 V	7.32 A		S8FS-C35048	S8FS-C35048J	S8FS-C3504	

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

la		Power rating	EV	40.1/	15 W	04.1/			
Item		Output voltage	5 V	12 V	15 V	24 V			
Efficiency	<i>,</i> *	115 VAC input	80% typ.	84% typ.	84% typ.	85% typ.			
		230 VAC input	82% typ. 85% typ. 86% typ. 87% typ. Single phase 85 to 264 VAC, 120 to 370 VDC (The L terminal for the DC input is the positive side and sa						
	Voltage range *					out is the positive side and safe e. Refer to <i>Derating Curves</i> on			
	Frequency *		50 /60 Hz (47 to 450 Hz)						
	Current *	115 VAC input	0.3 A typ.						
nput	Current	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			
	Leakage current	230 VAC input	0.10 mA	0.10 mA	0.10 mA	0.10 mA			
	Inrush current *	115 VAC input	16 A typ.						
	(for a cold start at 25°)	230 VAC input	32 A typ.						
	Rated Output Curre	ent	3 A	1.3 A	1 A	0.7 A			
	Voltage adjustment	range *	-10% to 10% (with V. AD	JJ)					
	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 influ		0.5% max.						
Output	Load variation influ	1	1.0% max.						
	Temperature variation influence	100 to 240 VAC input	0.03%/°C max.	1					
Addi- ional unc- ions Reliabil- ty Con- Reliabil- ty Con- Reliabil- ty Con- Con- Con- Con- Con- Con- Con- Con	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.			
	Overload protection	1	Yes, automatic reset						
	Overvoltage protec		Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the again)						
Addi-	Overheat protection	1	No						
unc- ions Pa	Series operation		Yes (For up to 2 Power S						
	Parallel operation			peration is possible, exte	ernal diodes are required.)				
	Remote sensing		No No						
	Remote control		No Voc (LED: Groop)						
	Output indicator		Yes (LED: Green)						
	Withotond	Mills about discussion of		3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA					
Insula- tion	Withstand voltage		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	e	,		II input terminals/PE termin	,			
	Ambient operating	<u> </u>	no condensation or icing	<u> </u>	e temperature. Refer to <i>De</i>	erating Curves on page 17.) (w			
Envi-	Storage temperatur		-40 to 85°C (with no condensation or icing)						
ronment	Ambient operating	humidity	20% to 90% (Storage humidity: 10% to 95%)						
nsula- ion In A Envi- onment V	Vibration resistance	е	10 to 500 Hz, 0.26-mm h	alf amplitude for 1 h eac	th in X, Y, and Z directions th in X, Y, and Z directions				
	Shock resistance		150 m/s², 3 times each ir	1 ±X, ±Y, ±Z directions					
Reliabil-	MTBF		135,000 hrs min.						
ıty	Life expectancy *		10 years min.						
Cor-	Dimensions (W×H×	(ט	Refer to <i>Dimensions</i> on p	page 23.					
con- struc-	Weight		150 g max.						
tion	Cooling fan		No						
	Degree of protectio		Conforms to EN 61000 2	0. OB17005 1					
	Harmonic current e	1	Conforms to EN 61000-3	-2, GB1/625.1					
	EMI	Conducted Emissions	Conforms to EN 61204-3	Class B, EN 55011 Class	ass B, GB9254				
		Radiated Emissions	Conforms to EN 61204-3		ass B, GB9254				
Stan-	EMS		Conforms to EN 61204-3	high severity levels					
dards	Safety Standards		Approved Standards UL: cURus UL 60950-1 CSA: cURus C22.2 No60 CCC: GB4943 Conformed Standards EN: EN 60950-1 OVC III)950-1	12				
	Marine Standards		No						

^{*} Refer to *Conditions* on page 12.

		Power rating			25 W					
Item		Output volt-	5 V	12 V	15 V	24 V				
		age 115 VAC input	80% typ.	84% typ.	85% typ.	86% typ.				
Efficiency	*	230 VAC input	82% typ.	86% typ.	88% typ.	88% typ.				
	Voltage range *		Single phase 85 to 264 VAC	C, 120 to 370 VDC (The	L terminal for the DC input is	s the positive side and safety				
-			standards do not apply.) (De 50 /60 Hz (47 to 450 Hz)	erating is required accor	ding to the input voltage. Ref	er to <i>Derating Curves</i> on page 18				
	<u> </u>	115 VAC input	0.49 A typ.							
	Current *	230 VAC input	0.3 A typ.							
nput	Power factor									
t	Startup time * 115 V 230 V	115 VAC input	0.10 mA							
	Leakage current	230 VAC input	0.20 mA	0.20 mA	0.20 mA	0.20 mA				
Ī	Inrush current *	115 VAC input	16 A typ.		•	•				
	(for a cold start at 25°)	230 VAC input	32 A typ.							
	Rated Output Curr	ent	5 A	2.1 A	1.7 A	1.1 A				
	Voltage adjustmen	230 VAC input 32 A typ. 21	·							
			20 mVp-p max.	20 mVp-p max.	30 mVp-p max.	40 mVp-p max.				
-	Voltage range * Frequency * Current * Power factor Leakage current Inrush current * (for a cold start at 25°) Rated Output Curre Voltage adjustmen Ripple & Noise voltage * Input variation influ Load variation influ Temperature variation influence Startup time * Hold time * Overload protectio Overvoltage protect Overheat protectio Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistant Ambient operating Vibration resistance Insulation resistance Shock resistance Insulation resistance Insulation resistance Insulation resistance Insulation resistance Shock resistance Insulation resistance Insulation resistance Insulation resistance Insulation resistance Shock resistance Insulation resistance Insu		0.5% max.							
T	•		1.0% max.							
			0.03%/°C max.							
+	anon mindonos	-	390 ms tvp.	340 ms tvp.	400 ms tvp.	360 ms tvp.				
	Startup time *		* '							
+			31	j.						
	Hold time *									
	Overload protection		71		- 31	- 31				
T	Overvoltage protect	ction *	Yes, 115% or higher of rate	d output voltage, power	shut off (shut off the input vo	oltage and turn on the input agair				
	Overheat protection	n	No							
Addi- tional	Series operation		Yes (For up to 2 Power Supplies, external diodes are required.)							
func-	Parallel operation		No (However, backup operation is possible, external diodes are required.)							
lions	Remote sensing No Remote control No									
			No							
	Output indicator		Yes (LED: Green)							
			3 kVAC for 1 min. (between	all input terminals and	output terminals) current cuto	off 20 mA				
iiiSuiu	Withstand voltage		,		<u> </u>					
tion			,	•	,					
	Insulation resistan	ce	,	•						
	Ambient operating	temperature	–20 to 60°C (Derating is recondensation or icing)	quired according to the t	emperature. Refer to <i>Deratin</i>	ng Curves on page 17.) (with no				
+	Storage temperatu	re	-40 to 85°C (with no conde	nsation or icing)						
Envi-			20% to 90% (Storage humic	<u> </u>						
ronment		<u> </u>	10 to 55 Hz, 0.375-mm half 10 to 500 Hz, 0.26-mm half	amplitude for 2 h each						
	Shock resistance		150 m/s ² , 3 times each in ± 3	•	III X, 1, and 2 an octions					
			135,000 hrs min.	,, _ , , <u></u> aoooo						
i teliabii-			10 years min.							
		<d)< td=""><td>Refer to <i>Dimensions</i> on page</td><td>es 20 and 23.</td><td></td><td></td></d)<>	Refer to <i>Dimensions</i> on page	es 20 and 23.						
Con-	` `		250 g max.	·						
struc-			No							
-		on								
	Harmonic current	emissions	Conforms to EN 61000-3-2,	GB17625.1						
		Conducted Emissions	Conforms to EN 61204-3 C	ass B, EN 55011 Class	s B, GB9254					
	EMI	Radiated Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254							
	EMS		Conforms to EN 61204-3 hi	ah severity levels						
Stan- dards			Approved Standards UL: cURus UL 60950-1 (Re CSA: cURus C22.2 No6095 CCC: GB4943 Conformed Standards EN: EN 60950-1 OVC II Pol	ecognition) OVC II Pol2 0-1						
			No							
	Marine Standards									

^{*} Refer to *Conditions* on page 12.

		Power rating			35 W						
Item		Output voltage	5 V	12 V	15 V	24 V					
		115 VAC input	81% typ.	83% typ.	84% typ.	87% typ.					
Efficiency	/ *	230 VAC input	81% typ.	84% typ.	84% typ.	87% typ.					
	Voltage range *	-									
-	Frequency *			, , , , , , , , , , , , , , , , , , , ,	0 1 0	0 10					
	Voltage range * Frequency * Current * Power factor Leakage current 1/2 Inrush current * (for a cold start at 25°) 2 Rated Output Current Voltage adjustment ration influence 1 in put variation influence 1	115 VAC input	,	,							
	Current *	•									
Input	Power factor										
		115 VAC input	0.15 mA	0.15 mA	0.15 mA	0.15 mA					
	Leakage current	-	0.30 mA	0.25 mA	0.25 mA	0.25 mA					
-	Inrush current *	-	16 A typ.			I					
		230 VAC input									
	Rated Output Curre	ent	7 A	3 A	2.4 A	1.5 A					
	•		-10% to 10% (with V. A	ADJ)							
	Ripple & Noise	100 to 240 VAC	80 mVp-p max.	90 mVp-p max.	90 mVp-p max.	80 mVp-p max.					
-	Input variation influ	uence *	0.5% max.								
	•	115 VAC input									
Output			0.03%/°C max.								
	04	115 VAC input	750 ms typ.	750 ms typ.	760 ms typ.	770 ms typ.					
	Startup time *	230 VAC input	700 ms typ.	690 ms typ.	710 ms typ.						
	Uald 4: +	115 VAC input	13 ms typ.	14 ms typ.	14 ms typ.	15 ms typ.					
	Hold time *	230 VAC input	74 ms typ.	75 ms typ.	75 ms typ.	79 ms typ.					
	Overload protectio	n	Yes, automatic reset								
ŧ	Overvoltage protect	ction *	Yes, 115% or higher of	Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input							
	Overheat protectio	n	No								
Addi- tional	Series operation		Yes (For up to 2 Power	Supplies, external diodes a	re required.)						
functions Parallel operation No (However, backup operation is possible, external diodes are required No Remote sensing No	Parallel operation		No (However, backup	operation is possible, extern	al diodes are required.)						
	Remote sensing		No								
	Output indicator		Yes (LED: Green)								
			3 kVAC for 1 min. (betw	off 20 mA							
Insula-	Withstand voltage		2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA								
tion			1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA								
	Insulation resistan	ce	100 M Ω min. (between all output terminals and all input terminals/PE terminals) at 500 VDC								
	Ambient operating	temperature		s required according to the t	emperature. Refer to <i>Deratir</i>	ng Curves on page 17.) (with no					
Envi	· ·		-40 to 85°C (with no co	ondensation or icing)							
ronment	Ambient operating	humidity	20% to 90% (Storage h	umidity: 10% to 95%)							
	Vibration resistance	e									
	Shock resistance		150 m/s ² , 3 times each	in ±X, ±Y, ±Z directions							
Reliabil-	MTBF		135,000 hrs min.								
ity	Life expectancy *		10 years min.								
_	Dimensions (W×H×	(D)	Refer to Dimensions or	pages 20 and 23.							
Con- struc-			250 g max.								
tion											
	Harmonic current	emissions	Conforms to EN 61000	-3-2, GB17625.1							
	EMI		Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254								
			Conforms to EN 61204	-3 Class B, EN 55011 Class	s B, GB9254						
0.	EMS		Conforms to EN 61204	-3 high severity levels							
Stan- dards			UL: cURus UL 60950- CSA: cURus C22.2 No	60950-1							
	Marine Standards		No								

^{*} Refer to *Conditions* on page 12.

		Power rating			50 W				
ltem		Output voltage	5 V	12 V	15 V	24 V	48 V		
		115 VAC input	79% typ.	83% typ.	84% typ.	86% typ.	87% typ.		
Efficiency	′ *	•					87% typ.		
	Voltago rongo *		,,	7.		,,,			
	voitage range	115 VAC input 230 VAC input 230 VAC input 0.59 A typ. 230 VAC input 0.60 mA 0.00	oly.) (Derating is requi	red according to the inpu	it voltage. Refer to Dera	ating Curves on page			
	Frequency *		50 /60 Hz (47 to 450	Hz)					
Trick									
	Curront	230 VAC input	0.59 A typ.			86% typ. 86% typ. r the DC input is the positivoltage. Refer to Dera 0.25 mA 0.55 mA 2.2 A 100 mVp-p max. 710 ms typ. 640 ms typ. 14 ms typ. 77 ms typ. t off the input voltage an required.) als) current cutoff 20 mA s) current cutoff 20 mA s) current cutoff 20 mA so cutoff 20 mA			
nput	Power factor								
	Intercy 115 VAC Input 27% typ. 83% typ. 84% typ. 86% t	0.25 mA	0.25 mA						
	Leakage Current	230 VAC input	0.60 mA	0.55 mA	0.55 mA	0.55 mA	0.55 mA		
	Inrush current *	115 VAC input	16 A typ.						
	(for a cold start at 25°)	230 VAC input	32 A typ.						
	Rated Output Curre	ent	10 A	4.2 A	3.4 A	2.2 A	1.1 A		
	Voltage adjustmen	t range *	-10% to 10% (with \	/. ADJ)			-		
			80 mVp-p max.	110 mVp-p max.	100 mVp-p max.	100 mVp-p max.	120 mVp-p max.		
		•	0.5% max			86% typ. 86% typ. the DC input is the posut voltage. Refer to Dera 0.25 mA 0.55 mA 2.2 A 100 mVp-p max. 710 ms typ. 640 ms typ. 14 ms typ. 77 ms typ. off the input voltage and current cutoff 20 mA current cutoff 20 mA) current cutoff 20 mA cu			
	•								
Output		I							
			0.03%/°C max.						
		115 VAC input	730 ms typ.	730 ms typ.	710 ms typ.	710 ms typ.	770 ms typ.		
	Startup time *	•					690 ms typ.		
		•							
	Hold time *								
	Overload protection	•	7.		700 typ.	7.7 me typ:	ooo typ:		
					ne nower shut off (shut	off the input voltage an	d turn on the input ac		
	· ·			or rated output voitag	ge, power snat on (snat	on the input voltage an	a tam on the input ag		
	•			war Supplies avtorna	I diadas ara raquirad \				
	•								
	Parallel operation No (However, backup operation is possible, external diodes are required.) Remote sensing No Remote control No								
	•					re required.)			
	Output indicator		, ,						
			,	•	•	•	4		
	Withstand voltage		2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA						
.1011									
	nsulation 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 n condensation or icing)						
	Storage temperatu	re		·,	a)				
	• •		,		·	710 ms typ. 770 ms typ. 690 ms typ. 14 ms typ. 77 ms typ. 80 ms ty			
ronment		•	, ,	•	,	directions			
	vibration resistance	e							
	Shock resistance		150 m/s², 3 times ea	ach in $\pm X$, $\pm Y$, $\pm Z$ dire	ctions				
Reliabil-	MTBF		135,000 hrs min.						
ty	Life expectancy *		10 years min.						
	Dimensions (W×H×	(D)	Refer to Dimensions	on pages 20 and 24					
	Weight		300 g max.						
	Cooling fan		No			quired.)) current cutoff 20 mA urrent cutoff 20 mA current cutoff 20 mA current cutoff 20 mA E terminals) at 500 VDC fer to <i>Derating Curves</i> on page 17.) (vertically a second cutoff 20 ma) rections			
	Degree of protection	on							
	Harmonic current	emissions	Conforms to EN 610	000-3-2, GB17625.1					
		Conducted	Conforms to EN 610	204-3 Class B EN FF	011 Class B CB0054				
	ЕМІ		Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254						
			Conforms to EN 612	204-3 Class B, EN 55	011 Class B, GB9254				
	EMS		Conforms to EN 612	204-3 high severity lev	/els				
	Safety Standards		UL: cURus UL 6095 CSA: cURus C22.2 CCC: GB4943 Conformed Standard	50-1 (Recognition) O\ No60950-1 ds	/C II Pol2				
	Marine Standards								
			-						

^{*} Refer to *Conditions* on page 12.

Input P Lu In (to R V R V In Output L T T	/oltage range * Frequency * Current * Power factor Leakage current nrush current * for a cold start at 25°) Rated Output Curre /oltage adjustment Ripple & Noise /oltage * nput variation influ	Output voltage 115 VAC input 230 VAC input 115 VAC input 230 VAC input 115 VAC input 230 VAC input	standards do not ap 50 /60 Hz (47 to 45 1.4 A typ. 0.83 A typ 0.25 mA 0.60 mA 16 A typ. 32 A typ.	oply.) (Derating is requir								
V File C C Input P L C In (tc C R V V R V V In C C C C C C C C C C C C C C C C C C	/oltage range * Frequency * Current * Power factor Leakage current nrush current * for a cold start at 25°) Rated Output Curre /oltage adjustment Ripple & Noise /oltage * nput variation influ	230 VAC input 115 VAC input 230 VAC input 115 VAC input 230 VAC input 115 VAC input 230 VAC input ent t range * 100 to 240 VAC	77% typ. Single phase 85 to standards do not ap 50 /60 Hz (47 to 45 1.4 A typ. 0.83 A typ 0.25 mA 0.60 mA 16 A typ. 32 A typ. 14 A	83% typ. 264 VAC, 120 to 370 V oply.) (Derating is requir i0 Hz) 0.25 mA	84% typ. DC (The L terminal for ed according to the input) 0.25 mA	87% typ. the DC input is the pos it voltage. Refer to <i>Dera</i>	87% typ.					
V Fi C C Input P L In (tc R V R V In L In	/oltage range * Frequency * Current * Power factor Leakage current nrush current * for a cold start at 25°) Rated Output Curre /oltage adjustment Ripple & Noise /oltage * nput variation influ	230 VAC input 115 VAC input 230 VAC input 115 VAC input 230 VAC input 115 VAC input 230 VAC input ent t range * 100 to 240 VAC	77% typ. Single phase 85 to standards do not ap 50 /60 Hz (47 to 45 1.4 A typ. 0.83 A typ 0.25 mA 0.60 mA 16 A typ. 32 A typ. 14 A	83% typ. 264 VAC, 120 to 370 V oply.) (Derating is requir i0 Hz) 0.25 mA	84% typ. DC (The L terminal for ed according to the input) 0.25 mA	87% typ. the DC input is the pos it voltage. Refer to <i>Dera</i>	87% typ.					
nput P Lu In (to R V R V In Dutput L L T T	Frequency * Current * Power factor Leakage current nrush current * for a cold start at 25°) Rated Output Curre /oltage adjustment Ripple & Noise /oltage * nput variation influ-	115 VAC input 230 VAC input 115 VAC input 230 VAC input 115 VAC input 1230 VAC input 230 VAC input ent t range *	Single phase 85 to standards do not ap 50 /60 Hz (47 to 45 1.4 A typ. 0.83 A typ 0.25 mA 0.60 mA 16 A typ. 32 A typ. 14 A	264 VAC, 120 to 370 V oply.) (Derating is requir i0 Hz)	DC (The L terminal for ed according to the input	the DC input is the pos ut voltage. Refer to <i>Dera</i>	itive side and safety					
nput P Lu In (to R V R V In Dutput L L T	Frequency * Current * Power factor Leakage current nrush current * for a cold start at 25°) Rated Output Curre /oltage adjustment Ripple & Noise /oltage * nput variation influ-	230 VAC input 115 VAC input 230 VAC input 115 VAC input 230 VAC input 230 VAC input ent t range * 100 to 240 VAC	50 /60 Hz (47 to 45 1.4 A typ. 0.83 A typ. 0.25 mA 0.60 mA 16 A typ. 32 A typ. 14 A	0.25 mA	0.25 mA		ating Curves on page					
nput P Lu In (fc R V In Dutput Lu To	115 VAC input 75% typ. 83% typ. 84% typ.		0.25 mA									
nput P Li In (fo R V R V In In Dutput T	Power factor Leakage current * for a cold start at 25°) Rated Output Curre / Oltage adjustment Ripple & Noise / oltage * nput variation influ	230 VAC input 115 VAC input 230 VAC input 115 VAC input 230 VAC input 230 VAC input ent t range * 100 to 240 VAC	0.83 A typ 0.25 mA 0.60 mA 16 A typ. 32 A typ. 14 A			0.25 mA						
nput P Li In (fo	Power factor Leakage current * for a cold start at 25°) Rated Output Curre / Oltage adjustment Ripple & Noise / oltage * nput variation influ	115 VAC input 230 VAC input 115 VAC input 230 VAC input 230 VAC input ent t range * 100 to 240 VAC	0.25 mA 0.60 mA 16 A typ. 32 A typ.			87% typ. 97% to the DC input is the positive sent of the DC input is the DC input input is the DC input input input is the DC input						
Lo In (to R V) R Volume In Lo Dutput	Leakage current * for a cold start at 25°) Rated Output Curre /oltage adjustment Ripple & Noise /oltage * nput variation influ	230 VAC input 115 VAC input 230 VAC input ent t range *	0.25 mA 0.60 mA 16 A typ. 32 A typ. 14 A			0.25 mA						
In (to to t	nrush current * for a cold start at 25°) Rated Output Curre /oltage adjustment ripple & Noise /oltage * nput variation influ	230 VAC input 115 VAC input 230 VAC input ent t range *	0.60 mA 16 A typ. 32 A typ. 14 A			0.25 mA						
In (to to t	nrush current * for a cold start at 25°) Rated Output Curre /oltage adjustment ripple & Noise /oltage * nput variation influ	115 VAC input 230 VAC input ent t range *	16 A typ. 32 A typ. 14 A	0.60 mA	0.60 mA	87% typ. 87% typ. ninal for the DC input is the positive input voltage. Refer to Derail 10 mVp-p max. 0.25 mA 0.60 mA 3.2 A 110 mVp-p max. 750 ms typ. 690 ms typ. 14 ms typ. 76 ms typ. 1690 ms typ. 14 ms typ. 76 ms typ. 20 minals) current cutoff 20 mA perminals) cutoff 20 mA perminals) cutoff 20 mA perminals) cutoff 20 mA perminals) cutoff 20 m	0.25 mA					
(fc R V R v In L To	for a cold start at 25°) Rated Output Curre /oltage adjustment Ripple & Noise /oltage * nput variation influ Load variation influ	230 VAC input ent t range *	32 A typ. 14 A		<u> </u>							
R V R V In Dutput	Rated Output Curre /oltage adjustment Ripple & Noise /oltage * nput variation influ- Load variation influ	ent t range * 100 to 240 VAC	14 A									
Vi R vi In Dutput	/oltage adjustment Ripple & Noise /oltage * nput variation influ Load variation influ	t range * 100 to 240 VAC			-	87% typ. 9. 9. 0.25 mA 9.60 mA 9.60 mA 9.60 mA 9.60 mA 9.60 mA 9.60 ms typ. 9.690 ms typ. 9.690 ms typ. 14 ms typ. 15 ms typ. 76 ms typ. 76 ms typ. 78 ms typ. 8hut off the input voltage and turn on the input d.) 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.						
R vo	Ripple & Noise voltage * nput variation influ	100 to 240 VAC	100/ +- 100/ / ***	6.2 A	5 A	3.2 A	1.6 A					
Output To	voltage * nput variation influ load variation influ		-10% to 10% (with	V. ADJ)		87% typ. 87% typ. 87% typ. 10						
Principut France Principular Principular	oad variation influ		80 mVp-p max.	110 mVp-p max.	90 mVp-p max.	110 mVp-p max.	140 mVp-p max.					
Output To		ience *	0.5% max.									
T-	F	ience *	1.0% max.									
a			0.03%/°C max.									
	anon influence	•	750 ms tvn	720 ms tvn	730 ms tvp	750 ms tvp	700 ms tvn					
S	Startup time *		,,	,,								
			• • • • • • • • • • • • • • • • • • • •	71	71							
Н	Hold time *	•				31						
C	Overload protection	-	,		r i iiie typi	rome typ.	7 0 me typ.					
	•				e power shut off (shut	off the input voltage and	d turn on the input ag					
-	<u> </u>			or or raise surper rolling	o, porror orrat orr (orrat	on the input ventage and	a tarri on the input ag					
ddi-	•			ower Supplies external	diodes are required)							
	•		, ,			d.) are required.)						
ions	•		, ,	nap oporation to possible	o, oxtornar aloudo aro							
_												
	Jacpar maioaroi		Yes (LED: Green) 3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA									
noulo V	Withstand voltage		2 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA									
tion			1 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA									
Ir	nsulation resistan	ce		•		,	'DC					
			,		· · · · · · · · · · · · · · · · · · ·							
A	Ambient operating	temperature			g to the temperature. I	leter to berating curves	on page 17.) (with t					
	Storage temperatui	re	-40 to 85°C (with n	o condensation or icing)							
Δ	Ambient operating	humidity	20% to 90% (Stora	ge humidity: 10% to 95	%)	3.2 A 1.6 A 3.2 A 1.6 A 750 ms typ. 700 ms ty 690 ms typ. 730 ms ty 14 ms typ. 75 ms typ. 76 ms typ. 78 ms typ. 76 ms typ. 78 ms typ. shut off the input voltage and turn on the ed.) are required.) minals) current cutoff 20 mA hals) cutoff 20 mA						
	/ibration resistanc	е										
s	Shock resistance			· · · · · · · · · · · · · · · · · · ·								
				., , 0.100	-							
·												
	•	D)		s on pages 21 and 24								
Con- W	•											
struc-												
		on										
	· ·		Conforms to EN 61	000-3-2, GB17625.1								
		Conducted										
E	EMI											
	EMS				els							
dards	Safety Standards		UL: cURus UL 609 CSA: cURus C22.2 CCC: GB4943	950-1 (Recognition) OV 2 No60950-1 rds	C II Pol2							
M	Marine Standards		No									

^{*} Refer to *Conditions* on page 12.

		Power rating			10	0 W				
Item		Output voltage	5 V	12 V	15 V	24 V	36 V	48 V		
		115 VAC input	80% typ.	82% typ.	83% typ.	85% typ.	86% typ.	87% typ.		
fficiency	y *	230 VAC input	81% typ.	83% typ.	84% typ.	87% typ.	87% typ.	88% typ.		
		· · · · · ·	Single phase 8	5 to 132 VAC, 17	6 to 264 VAC, 248 t	to 373 VDC Sele	86% typ. 87% typ. Select with the switch. tandards do not apply.) rating Curves on page 1 0.40 mA 0.60 mA 2.8 A P 90 mVp-p max. p. 450 ms typ. 690 ms typ. 36 ms typ. 41 ms typ. the input voltage and turn e required.) required.) anals) current cutoff 20 mA ls) current cutoff 20 mA			
	Voltage range *							٥ ١		
	Frequency *		, ,		o trie iriput voitage.	neiei io <i>Deiaiiii</i>	g Curves on page 1	0.)		
	rrequency	115 VAC input	•	0 450 HZ)						
	Current *	230 VAC input	2 A typ.							
nput	Power factor	230 VAC IIIput	1.1 A typ.							
	Power factor	11E VAC input	0.35 mA	0.25 mA	0.25 mA	0.25 mA	0.40 mA	0.40 mA		
	Leakage current	115 VAC input 230 VAC input	0.60 mA							
		•		0.55 IIIA	0.60 IIIA	0.50 IIIA	0.60 IIIA	0.60 IIIA		
	Inrush current * (for a cold start at 25°)	115 VAC input	32 A typ.							
	,	•		0.5.4	7.4	450	86% typ. 87% typ. lect with the switch dards do not applying Curves on page 0.40 mA 0.60 mA 2.8 A 90 mVp-p max 450 ms typ. 690 ms typ. 36 ms typ. 41 ms typ. input voltage and turbular toutoff 20 mA current cutoff 20 mA cutoff 20 m	0.0.4		
	Rated Output Cur				/ A	4.5 A	86% typ. 87% typ. C Select with the switch. Standards do not apply.) Perating Curves on page 0.40 mA 0.60 mA 2.8 A P-P 90 mVp-p max. typ. 450 ms typ. 450 ms typ. 47p. 36 ms typ. 41 ms typ. If the input voltage and turn I.) In re required.) In re required.) A Z directions at Z directions I Z directions I Z directions I Z directions I Z directions	2.3 A		
	Voltage adjustmer		-10% 10 10% (100 m)/n n		100 m\/n n		
Efficiency * Volument Volument	voltage *		70 mVp-p max	max.	70 mVp-p max.	max.	90 mVp-p max.	max.		
	Input variation influence *		0.5% max.					1		
	Load variation inf		1.0% max.				86% typ. 87% typ. Select with the switch. andards do not apply.) ating Curves on page 18 0.40 mA 0.60 mA 2.8 A 2.8 A 90 mVp-p max. 6. 450 ms typ. 36 ms typ. 41 ms typ. 41 ms typ. 41 ms typ. 41 ms typ. 42 ms typ. 43 ms typ. 44 ms typ. 45 ms typ. 46 ms typ. 47 ms typ. 48 ms typ. 49 ms typ. 40 ms typ. 41 ms typ. 41 ms typ. 41 ms typ. 41 ms typ. 42 ms typ. 43 ms typ. 44 ms typ. 45 ms typ. 46 ms typ. 47 ms typ. 48 ms typ. 49 ms typ. 40 ms typ. 41 ms typ. 41 ms typ. 41 ms typ. 42 ms typ. 43 ms typ. 44 ms typ. 45 ms typ. 46 ms typ. 47 ms typ. 48 ms typ. 49 ms typ. 40 ms typ. 40 ms typ. 41 ms typ. 41 ms typ. 41 ms typ. 42 ms typ. 43 ms typ. 44 ms typ. 45 ms typ. 46 ms typ. 47 ms typ. 48 ms typ. 49 ms typ. 40 ms typ. 40 ms typ. 41 ms typ. 41 ms typ. 42 ms typ. 43 ms typ. 44 ms typ. 45 ms typ. 46 ms typ. 47 ms typ. 47 ms typ. 48 ms typ. 49 ms typ. 40 ms typ. 40 ms typ. 40 ms typ. 41 ms typ. 41 ms typ. 42 ms typ. 43 ms typ. 44 ms typ. 45 ms typ. 46 ms typ. 47 ms typ. 47 ms typ. 48 ms typ. 49 ms typ. 40 ms typ. 41 ms typ. 40 ms typ. 41 ms typ. 41 ms typ. 42 ms typ. 43 ms typ. 44 ms typ. 44 ms typ. 45 ms typ. 46 ms typ. 47 ms typ. 47 ms typ. 48 ms typ. 49 ms typ. 40 ms typ. 41 ms typ. 41 ms typ. 42 ms typ. 43 ms typ. 44 ms typ.			
Output	Temperature vari-	1								
	ation influence	240 VAC input	υ.υ3%/°C max.	-						
	Startup time *	115 VAC input	710 ms typ.	440 ms typ.	440 ms typ.	430 ms typ.		430 ms typ		
	Clartup tille	230 VAC input	720 ms typ.	700 ms typ.	720 ms typ.	660 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.		
	noid time	230 VAC input	29 ms typ.	40 ms typ.	39 ms typ.	39 ms typ.	41 ms typ.	38 ms typ.		
	Overload protection	on	Yes, automatic reset							
	Overvoltage prote	ction *	Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input ag-							
ional Solutions R	Overheat protection	on	No							
	Series operation		Yes (For up to	2 Power Supplies	, external diodes ar	e required.)				
	Parallel operation		No (However,	backup operation	is possible, externa	al diodes are req	uired.)			
	Remote sensing		No							
	Remote control		No							
	Output indicator		Yes (LED: Green)							
			3 kVAC for 1 m	nin. (between all i	nput terminals and o	output terminals)	current cutoff 20 m.	Ą		
Insula-	Withstand voltage)	2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA							
tion			1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA							
	Insulation resistar	nce	100 MΩ min. (b	oetween all outpu	t terminals and all ir	put terminals/PE	terminals) at 500 \	/DC		
	Ambient operating	n temperature			d according to the te	emperature. Refe	er to <i>Derating Curve</i>	s on page 17		
	Remote control Output indicator Withstand voltage Insulation resistance Ambient operating temperature Storage temperature	y temperature	`							
Envi-			-40 to 85°C (with no condensation or icing)							
ions R R C Insulation Ir A Envi- onment V	Ambient operating	g humidity	20% to 90% (Storage humidity: 10% to 95%)							
	Vibration resistan	100 to 120 VAC/200 to 20 VAC/200 to 20 VAC input 100 mVp-p max. 100 mVp-p max. 100 mVp-p max. 120 mVp-p max. 100 to 120 VAC/200 to 240 VAC input 1.0% max. 1.15 VAC input 710 ms typ. 440 ms typ. 440 ms typ. 430 ms typ. 660 ms typ. 630 ms typ. 230 VAC input 23 ms typ. 37 ms typ. 36 ms typ. 36 ms typ. 36 ms typ. 36 ms typ. 38 ms typ. 39 ms typ. 39 ms typ. 39 ms typ. 41 ms typ. 410 ms typ. 40 ms typ. 39 ms typ. 39 ms typ. 41 ms typ. 410 ms ty								
	Shock resistance					ı, ı, anu Z dir	2.8 A 2.3 90 mVp-p max. 120 max 450 ms typ. 430 690 ms typ. 660 36 ms typ. 34 ii 41 ms typ. 38 ii nput voltage and turn on the suired.) current cutoff 20 mA rent cutoff 20 mA			
	MTBF				, ±Z directions					
	Life expectancy *			83% typ. 84% typ. 87% typ. 87% typ. 88% typ. 88% typ. 88% typ. 87% typ. 87% typ. 88% typ. 88% typ. 88% typ. 88% typ. 87% typ. 88% typ. 88% typ. 88% typ. 88% typ. 88% typ. 98 typ. 104 typ. 104 the input voltage. Refer to Derating Curves on page 18.) 8.5 A 7A 4.5 A 2.8 A 2.3 A 8.5 A 7A 4.5 A 2.8 A 2.3 A 8.5 A 7A 4.5 A 2.8 A 2.3 A 8.5 A 7A 4.5 A 2.8 A 2.3 A 8.6 (with V. ADJ) 8.7 A 4.5 A 2.8 A 2.3 A 8.8 A 7A 4.5 A 2.8 A 2.3 A 8.9 A 440 ms typ. 70 mVp-p max. 120 mVp-p max. 90 A 440 ms typ. 440 ms typ. 450 ms typ. 450 ms typ. 450 ms typ. 660 ms typ. 90 Typ. 700 ms typ. 720 ms typ. 660 ms typ. 690 ms typ. 600 ms typ. 100 ms typ. 1						
,			•	scione on pages 9	1 and 24					
Con-	Dimensions (W×H	(۵۰		isions on pages 2	ı anu 24.		E terminals) at 500 VDC er to <i>Derating Curves</i> on page 17. ections			
struc-	Weight		,							
tion	Cooling fan	ion								
	Degree of protecti			N 61000 2 2 0 0	7625 1					
	marmonic current									
	ЕМІ		· · · · · · · · · · · · · · · · · · ·							
	EMC	naulateu EIIIISSIONS				D, GD9204				
	EMS				everity ieveis					
Stan-			UL : cURus UL	. 60950-1 (Recog	nition) OVC II Pol2					
uarus	Safety Standards									
	Marine Standards		No	-				-		
			No							

^{*} Refer to Conditions on page 12.

Power rating			150 W						
tem Output voltage		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.	
	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)					
	O +	115 VAC input	2.8 A typ.						
nput	Current *	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	
	Leakage Current	230 VAC input	0.75 mA	0.75 mA	0.75 mA	0.70 mA	0.60 mA	0.70 mA	
	Inrush current *	115 VAC input	32 A typ.						
	(for a cold start at 25°)	230 VAC input	32 A typ.						
	Rated Output Curre	ent	26 A	12.5 A	10 A	6.5 A	4.3 A	3.3 A	
	Voltage adjustment	t range *	-10% to 10% (w	vith V. ADJ)	1			1	
	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 influ		0.5% max.						
Output	Load variation influ		1.0% max.						
•	Temperature variation influence	100 to 120 VAC/200 to 240 VAC input	0.03%/°C max.	1	T				
	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.	
	Overload protection	n	Yes, automatic						
Ove	Overvoltage protection *		Yes, 115% or nig again)	iner of rated outpu	t voitage, power s	snut off (snut off the	e input voltage and	turn on the inpu	
Addi-	Overheat protection	n	No						
tional	Series operation		Yes (For up to 2	Power Supplies,	external diodes	are required.)			
func- tions	Parallel operation		` '	ackup operation i			quired.)		
	Remote sensing		No						
-	Remote control		No						
	Output indicator	put indicator		n)					
			3 kVAC for 1 mi	n. (between all inp	out terminals and	d output terminals) current cutoff 20	mA	
Insula-	Withstand voltage		2 kVAC for 1 mi	n. (between all inp	out terminals and	d PE terminals) cւ	rrent cutoff 20 mA	١	
tion			1 kVAC for 1 mi	n. (between all ou	tput terminals a	nd PE terminals) o	current cutoff 20 m	nA	
	Insulation resistant	ce	100 M Ω 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)						
Envi-	Storage temperatur		-40 to 85°C (with no condensation or icing)						
ronment	Ambient operating	humidity	20% to 90% (Storage humidity: 10% to 95%)						
	Vibration resistanc	e	10 to 500 Hz, 0.	75-mm half ampli 26-mm half ampli	tude for 1 h each				
	Shock resistance		150 m/s², 3 times each in ±X, ±Y, ±Z directions						
Reliabil- ity	MTBF		135,000 hrs min	l .					
,	Life expectancy * Dimensions (W×H×	חי	10 years min. Refer to <i>Dimensions</i> on pages 21 and 24.						
Con-	Weight	,	500 g max.	nons on pages 21	anu 24.				
struc-	Cooling fan		No						
tion	Degree of protection	on							
	Harmonic current e		Conforms to EN 61000-3-2, GB17625.1						
		Conducted Emissions		•		ss B, GB9254			
	EMI	Radiated Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254 Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254						
	EMS			61204-3 high sev		, =====			
Stan- dards	Safety Standards		Approved Stand	lards 60950-1 (Recogni 2.2 No60950-1		2			
	Marine Standards		No						

^{*} Refer to *Conditions* on page 12.

		Power rating			200 W				
Item Output voltage		5 V 12 V 24 V 36 V 48 V							
		115 VAC input	81% typ.	85% typ.	88% typ.	89% typ.	88% typ.		
fficiency	/ *	230 VAC input	81% typ.	87% typ.	88% typ.	90% typ.	90% typ.		
	Voltage range * Frequency *		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.)						
			50 /60 Hz (47 to 4	50 Hz)					
		115 VAC input	4 A typ.						
nput	Current *	230 VAC input	2.3 A typ.						
iput	Power factor	1							
	Laskana suumant	115 VAC input	0.35 mA	0.25 mA	0.40 mA	0.20 mA	0.40 mA		
	Leakage current	230 VAC input	0.60 mA	0.50 mA	0.75 mA	0.45 mA	0.80 mA		
	Inrush current *	115 VAC input	16 A typ.	·	·	·	·		
	(for a cold start at 25°)	230 VAC input	32 A typ.						
	Rated Output Curre	ent	40 A	17 A	8.8 A	5.9 A	4.43 A		
	Voltage adjustment	t range *	-10% to 10% (with	h 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 influ	ience *	0.5% max.						
Output	Load variation influ		1.0% max.						
	Temperature vari- ation influence	100 to 120 VAC/200 to 240 VAC input	0.03%/°C max.						
	Startun tima *	115 VAC input	620 ms typ.	630 ms typ.	580 ms typ.	630 ms typ.	620 ms typ.		
	Startup time *	230 VAC input	600 ms typ.	610 ms typ.	550 ms typ.	600 ms typ.	600 ms typ.		
	11-1-14: *	115 VAC input	32 ms typ.	30 ms typ.	38 ms typ.	30 ms typ.	31 ms typ.		
	Hold time *	230 VAC input	37 ms typ.	35 ms typ.	45 ms typ.	37 ms typ.	37 ms typ.		
	Overload protection	n	Yes, automatic res	set					
Ov	Overvoltage protect	tion *	Yes, 115% or highe	er of rated output volta	ge, power shut off (shut	off the input voltage an	d turn on the input ag		
ddi-	Overheat protection	n	No						
ional	Series operation		Yes (For up to 2 F	ower Supplies, exteri	nal diodes are required)			
unc-	Parallel operation		No (However, bad	ckup operation is pos	sible, external diodes a	re required.)			
ions	Remote sensing		No						
	Remote control		No						
	Output indicator		Yes (LED: Green)						
			3 kVAC for 1 min.	(between all input ter	minals and output term	inals) current cutoff 2	0 mA		
nsula-	Withstand voltage		2 kVAC for 1 min.	(between all input ter	minals and PE termina	ls) current cutoff 20 m	Α		
ion			1 kVAC for 1 min.	(between all output to	erminals and PE termin	als) current cutoff 20	mA		
	Insulation resistant	ce	100 $\text{M}\Omega$ min. (beta	ween all output termin	als and all input termin	als/PE terminals) at 5	00 VDC		
	Ambient operating	temperature	-20 to 50°C (Dera		ding to the temperature	. Refer to <i>Derating C</i>	<i>urves</i> on page 17.) (v		
	Storage temperatur	re	-40 to 85°C (with	no condensation or ic	ing)				
Envi- onment	Ambient operating	humidity	20% to 90% (Stora	age humidity: 10% to	95%)				
Jiiiiiiiii	Vibration resistanc	e			or 2 h each in X, Y, and or 1 h each in X, Y, and				
	Shock resistance			each in ±X, ±Y, ±Z di		Z UITECHOITS			
Dali-1-1	MTBF		135,000 hrs min.		COLIOTIO				
Reliabil- ty	Life expectancy *								
-,	Dimensions (W×H×	D)	10 years min. Refer to <i>Dimensions</i> on pages 22 and 25.						
Con-	Weight	<i>D</i> ,	700 g max.	ms on pages 22 and 2					
struc-	Cooling fan								
ion	Degree of protection	ın	No						
	Harmonic current e								
	Trainionic current c	Conducted Emis-	Conforms to EN 61204-3 Class A, EN 55011 Class A						
	ЕМІ	sions Radiated Emis-	Conforms to EN 61204-3 Class A, EN 55011 Class A Conforms to EN 61204-3 Class A, EN 55011 Class A						
	EMC	sions							
Stan- lards	EMS		Approved Standar	1204-3 high severity	eveis				
iai u 3	Safety Standards			950-1 (Recognition) (2 No60950-1 ards	OVC II Pol2				
			No	7 T T T OIL					
	Marine Standards								

^{*} Refer to *Conditions* on page 12.

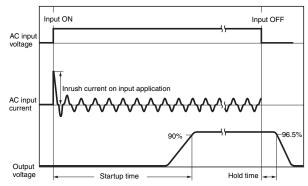
		Power rating			350 W				
tem Output voltage		5 V 12 V 24 V 36 V 48 V							
Efficiency * 115 VAC input 230 VAC input		115 VAC input	77% typ.	83% typ.	86% typ.	87% typ.	87% typ.		
		78% typ.	85% typ.	88% typ.	88% typ.	88% typ.			
	Voltage range *		Single phase 90 to 132 VAC , Single phase 180 to 264 VAC , 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.)						
				red according to the ir	put voltage. Refer to	Derating Curves on page	age 18.)		
	Frequency *		50 /60 Hz (47 to 4	150 Hz)					
	Current *	115 VAC input	6.4 A typ.						
nput		230 VAC input	3.5 A typ.						
:	Power factor				1		T		
	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.						
	Rated Output Curre	230 VAC input	32 A typ.	29 A	14.6 A	9.7 A	7.32 A		
·	•				14.6 A	9.7 A	7.32 A		
-	Voltage adjustment		-10% to 10% (wit	III V. ADJ)					
	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 influ	ience *	0.5% max.	U.					
	Load variation influ	ience *	2.0% max.	1.0% max.					
Output	Temperature variation influence	100 to 120 VAC/200 to 240 VAC input	0.03%/°C max.						
-		115 VAC input	610 ms typ.	620 ms typ.	580 ms typ.	610 ms typ.	610 ms typ.		
	Startup time *	230 VAC input	570 ms typ.	590 ms typ.	560 ms typ.	590 ms typ.	590 ms typ.		
		115 VAC input	25 ms typ.	18 ms typ.	17 ms typ.	19 ms typ.	19 ms typ.		
	Hold time *	230 VAC input	31 ms typ.	25 ms typ.	23 ms typ.	25 ms typ.	24 ms typ.		
	Overload protection	n	Yes, automatic re	set			II.		
1	Overvoltage protection *		Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input again)						
	Overvoltage protect	tion *		ner of rated output volta	age, power shut off (sh	nut off the input voltage	e and turn on the in		
	Overvoltage protection		again) Yes, power shut of	ner of rated output volta off (shut off the input von n abnormal condition)	oltage and turn on the				
tional			again) Yes, power shut cooling fan is in a	off (shut off the input ve	oltage and turn on the	input again) (Overhea			
tional func-	Overheat protection		again) Yes, power shut of cooling fan is in a Yes (For up to 2 I	off (shut off the input von abnormal condition)	oltage and turn on the	input again) (Overhead.)			
tional func-	Overheat protection		again) Yes, power shut of cooling fan is in a Yes (For up to 2 I	off (shut off the input von abnormal condition) Power Supplies, extern	oltage and turn on the	input again) (Overhead.)			
tional func-	Overheat protection Series operation Parallel operation		again) Yes, power shut of cooling fan is in a Yes (For up to 2 ling) No (However, ba	off (shut off the input von abnormal condition) Power Supplies, extern	oltage and turn on the	input again) (Overhead.)			
tional func-	Overheat protection Series operation Parallel operation Remote sensing		again) Yes, power shut of cooling fan is in a Yes (For up to 2 In No (However, ban No	off (shut off the input vin abnormal condition) Power Supplies, externickup operation is pos	oltage and turn on the	input again) (Overhead.)			
tional func-	Overheat protection Series operation Parallel operation Remote sensing Remote control		again) Yes, power shut of cooling fan is in a Yes (For up to 2 I No (However, bath No No Yes (LED: Green 3 kVAC for 1 min	off (shut off the input von abnormal condition) Power Supplies, externackup operation is pos	oltage and turn on the nal diodes are require sible, external diodes	input again) (Overhead.) are required.)	at protection when		
Addi- tional func- tions	Overheat protection Series operation Parallel operation Remote sensing Remote control		again) Yes, power shut of cooling fan is in a Yes (For up to 2 I No (However, bat No No Yes (LED: Green 3 kVAC for 1 min 2 kVAC for 1 min	off (shut off the input vin abnormal condition) Power Supplies, extern ckup operation is positive of the condition of the con	oltage and turn on the nal diodes are require sible, external diodes	input again) (Overhead.) are required.) minals) current cutoff als) current cutoff 20	at protection when a		
tional func- tions	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage	n	again) Yes, power shut of cooling fan is in a Yes (For up to 2 I No (However, bat No No Yes (LED: Green 3 kVAC for 1 min 1 kVAC for 1 min 1 kVAC for 1 min	off (shut off the input von abnormal condition) Power Supplies, extern ckup operation is positive of the condition of the con	oltage and turn on the nal diodes are require sible, external diodes	input again) (Overheadd.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20	at protection when a second se		
tional func- tions	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator	n	again) Yes, power shut of cooling fan is in a Yes (For up to 2 I No (However, bat No No Yes (LED: Green 3 kVAC for 1 min 1 kVAC for 1 min 100 MΩ min. (bet	off (shut off the input von abnormal condition) Power Supplies, extern ckup operation is positive of the condition of the con	oltage and turn on the nal diodes are require sible, external diodes minals and output terminals and PE terminals and PE terminals and PE terminals and All input terminals	input again) (Overheadd.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at	20 mA mA 0 mA 500 VDC		
tional func- tions	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage	n	again) Yes, power shut of cooling fan is in a Yes (For up to 2 I No (However, bat No No Yes (LED: Green 3 kVAC for 1 min 1 kVAC for 1 min 100 MΩ min. (bet -20 to 60°C (Dera	off (shut off the input von abnormal condition) Power Supplies, extern ckup operation is positive to the condition of the con	oltage and turn on the nal diodes are require sible, external diodes minals and output terminals and PE terminals and PE terminals and PE terminals and All input terminals	input again) (Overheadd.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at	20 mA mA 0 mA 500 VDC		
tional func- tions	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistant	ce temperature	again) Yes, power shut of cooling fan is in a Yes (For up to 2 I No (However, bath No No Yes (LED: Green 3 kVAC for 1 min 1 kVAC for 1 min 100 MΩ min. (bet -20 to 60°C (Dera (with no condens)	off (shut off the input von abnormal condition) Power Supplies, extern ckup operation is positive to the condition of the con	oltage and turn on the nal diodes are require sible, external diodes minals and output terminals and PE terminals and PE terminals and PE terminals and all input terminals and all input terminals to the temperature.	input again) (Overheadd.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at	20 mA mA 0 mA 500 VDC		
tional func- tions Insula- tion	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistance	ce temperature	again) Yes, power shut of cooling fan is in a yes (For up to 2 I No (However, bank) No No Yes (LED: Green 3 kVAC for 1 min 1 kVAC for 1 min 100 MΩ min. (bet -20 to 60°C (Dera (with no condens40 to 85°C (with	off (shut off the input von abnormal condition) Power Supplies, extern ckup operation is positive to the condition of the con	oltage and turn on the nal diodes are require sible, external diodes rminals and output ter rminals and PE terminerminals and PE terminals and all input termiding to the temperaturing)	input again) (Overheadd.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at	20 mA mA 0 mA 500 VDC		
tional func- tions insula- tion	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistant Ambient operating Storage temperature	ce temperature re humidity	again) Yes, power shut of cooling fan is in a Yes (For up to 2 I No (However, bath No No Yes (LED: Green 3 kVAC for 1 min 1 kVAC for 1 min 100 MΩ min. (bet -20 to 60°C (Dera (with no condens: -40 to 85°C (with 20% to 90% (Stor 10 to 55 Hz, 0.37)	off (shut off the input von abnormal condition) Power Supplies, extern ckup operation is positive to the condition of the con	oltage and turn on the nal diodes are require sible, external diodes minals and output terminals and PE terminals and PE terminals and all input termiding to the temperaturing) 95%) or 2 h each in X, Y, ar	input again) (Overhead) d.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at re. Refer to Derating and Z directions	20 mA mA 0 mA 500 VDC		
tional func- tions insula- tion	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistant Ambient operating Storage temperatur Ambient operating Vibration resistance	ce temperature re humidity	again) Yes, power shut of cooling fan is in a Yes (For up to 2 I No (However, bat No No No Yes (LED: Green 3 kVAC for 1 min 1 kVAC for 1 min 100 MΩ min. (bet -20 to 60°C (Dera (with no condens: -40 to 85°C (with 20% to 90% (Stor 10 to 55 Hz, 0.37 10 to 500 Hz, 0.2	off (shut off the input von abnormal condition) Power Supplies, extern ckup operation is positive to the condition of the con	oltage and turn on the nal diodes are require sible, external diodes are require sible, external diodes are required and output terminals and PE terminals and PE terminals and all input terminals and all input terminals of the temperature fing) 95%) or 2 h each in X, Y, are or 1 h each in X, Y, are	input again) (Overhead) d.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at re. Refer to Derating and Z directions	20 mA mA 0 mA 500 VDC		
tional func- tions insula- tion	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistance Ambient operating Storage temperature Ambient operating Vibration resistance	ce temperature re humidity	again) Yes, power shut of cooling fan is in a yes (For up to 2 I No (However, bank) No No Yes (LED: Green 3 kVAC for 1 min 1 kVAC for 1 min 100 MΩ min. (bet -20 to 60°C (Dera (with no condens) -40 to 85°C (with 20% to 90% (Stor 10 to 55 Hz, 0.37 10 to 500 Hz, 0.2	off (shut off the input von abnormal condition) Power Supplies, extern ckup operation is positive to the condition of the con	oltage and turn on the nal diodes are require sible, external diodes are require sible, external diodes are required and output terminals and PE terminals and PE terminals and all input terminals and all input terminals of the temperature fing) 95%) or 2 h each in X, Y, are or 1 h each in X, Y, are	input again) (Overhead) d.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at re. Refer to Derating and Z directions	20 mA mA 0 mA 500 VDC		
ional iunc- ions nsula- ion Envi- onment	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistanc Ambient operating Storage temperatur Ambient operating Vibration resistanc Shock resistance MTBF	ce temperature re humidity	again) Yes, power shut of cooling fan is in a Yes (For up to 2 I No (However, bank) No No Yes (LED: Green 3 kVAC for 1 min 2 kVAC for 1 min 1 kVAC for 1 min 100 MΩ min. (bet -20 to 60°C (Dera (with no condens.) -40 to 85°C (with 20% to 90% (Stor 10 to 55 Hz, 0.37 10 to 500 Hz, 0.2 150 m/s², 3 times 135,000 hrs min.	off (shut off the input von abnormal condition) Power Supplies, extern ckup operation is positive to the condition of the con	oltage and turn on the nal diodes are require sible, external diodes are require sible, external diodes are required and output terminals and PE terminals and PE terminals and all input terminals and all input terminals of the temperature fing) 95%) or 2 h each in X, Y, are or 1 h each in X, Y, are	input again) (Overhead) d.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at re. Refer to Derating and Z directions	20 mA mA 0 mA 500 VDC		
tional func- tions Insula- tion Envi- ronment	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistand Ambient operating Storage temperatur Ambient operating Vibration resistance MTBF Life expectancy *	ce temperature re humidity	again) Yes, power shut of cooling fan is in a Yes (For up to 2 I No (However, bath No No No Yes (LED: Green 3 kVAC for 1 min 1 kVAC for 1 min 100 MΩ min. (bet -20 to 60°C (Dera (with no condens40 to 85°C (with 20% to 90% (Stor 10 to 55 Hz, 0.37 10 to 500 Hz, 0.2 150 m/s², 3 times 135,000 hrs min. 10 years min.	off (shut off the input von abnormal condition) Power Supplies, extent ckup operation is positive to the condition of the con	oltage and turn on the nal diodes are require sible, external diodes minals and output terminals and PE terminals and PE terminals and all input terminals and all input terminals of the temperaturing) 95%) or 2 h each in X, Y, ar rections	input again) (Overhead) d.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at re. Refer to Derating and Z directions	20 mA mA 0 mA 500 VDC		
ional iunc- iions nsula- iion Envi- conment	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistand Ambient operating Storage temperatur Ambient operating Vibration resistance MTBF Life expectancy * Dimensions (W×H×	ce temperature re humidity	again) Yes, power shut of cooling fan is in a yes (For up to 2 I No (However, bath No No No Yes (LED: Green 3 kVAC for 1 min 1 kVAC for 1 min 100 MΩ min. (bet -20 to 60°C (Dera (with no condens: -40 to 85°C (with 20% to 90% (Stor 10 to 55 Hz, 0.37 10 to 500 Hz, 0.2 150 m/s², 3 times 135,000 hrs min. 10 years min. Refer to Dimension is not seen to see the cooling of the cooling	off (shut off the input von abnormal condition) Power Supplies, extern ckup operation is positive to the condition of the con	oltage and turn on the nal diodes are require sible, external diodes minals and output terminals and PE terminals and PE terminals and all input terminals and all input terminals of the temperaturing) 95%) or 2 h each in X, Y, ar rections	input again) (Overhead) d.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at re. Refer to Derating and Z directions	20 mA mA 0 mA 500 VDC		
ional iunc- ions nsula- ion Envi- ronment Reliabil- ty Con- struc-	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistand Ambient operating Storage temperatur Ambient operating Vibration resistance MTBF Life expectancy * Dimensions (W×H× Weight	ce temperature re humidity	again) Yes, power shut of cooling fan is in a Yes (For up to 2 I No (However, bath No No No Yes (LED: Green 3 kVAC for 1 min 1 kVAC for 1 min 100 MΩ min. (bet -20 to 60°C (Dera (with no condens) -40 to 85°C (with 20% to 90% (Stor 10 to 55 Hz, 0.37 10 to 500 Hz, 0.2 150 m/s², 3 times 135,000 hrs min. 10 years min. Refer to Dimensic 800 g max.	off (shut off the input von abnormal condition) Power Supplies, extentickup operation is positive to the condition of the con	oltage and turn on the nal diodes are require sible, external diodes minals and output terminals and PE terminals and PE terminals and PE terminals and all input terminals and all input terminals of the temperaturing) 95%) or 2 h each in X, Y, are or 1 h each in X, Y, arections	input again) (Overhead) d.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at re. Refer to Derating and Z directions	20 mA mA 0 mA 500 VDC		
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ional iunc- ions nsula- ion Envi- ronment Reliabil- ty Con- struc-	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistand Ambient operating Storage temperatur Ambient operating Vibration resistance MTBF Life expectancy * Dimensions (W×H× Weight	ce temperature re humidity e	again) Yes, power shut of cooling fan is in a Yes (For up to 2 I No (However, bath No No No Yes (LED: Green 3 kVAC for 1 min 1 kVAC for 1 min 100 MΩ min. (bet -20 to 60°C (Dera (with no condens -40 to 85°C (with 20% to 90% (Stor 10 to 55 Hz, 0.37 10 to 500 Hz, 0.2 150 m/s², 3 times 135,000 hrs min. 10 years min. Refer to Dimensia 800 g max. Yes (ON/OFF cor	off (shut off the input von abnormal condition) Power Supplies, extentickup operation is positive to the condition of the con	oltage and turn on the nal diodes are require sible, external diodes minals and output terminals and PE terminals and PE terminals and PE terminals and all input terminals and all input terminals of the temperaturing) 95%) or 2 h each in X, Y, are or 1 h each in X, Y, arections	input again) (Overhead) d.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at re. Refer to Derating and Z directions	20 mA mA 0 mA 500 VDC		
ional unc- ions nsula- ion Envi- conment Reliabil- ty Con- struc-	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistand Ambient operating Storage temperatur Ambient operating Vibration resistance MTBF Life expectancy * Dimensions (W×H× Weight Cooling fan Degree of protection	ce temperature re humidity e	again) Yes, power shut of cooling fan is in a Yes (For up to 2 I No (However, bank) No No Yes (LED: Green 3 kVAC for 1 min 2 kVAC for 1 min 100 MΩ min. (bet 100 min) 1 kVAC for 1 min 100 MΩ min. (bet 100 min) 1 kVAC for 1 min 100 MΩ min. (bet 100 min) 1 kVAC for 1 min 100 MΩ min. (bet 100 min) 1 kVAC for 1 min 100 MΩ min. (bet 100 min) 100 min) 100 min) 100 min) 100 to 55 Hz, 0.37 100 to 500 Hz, 0.2 150 m/s², 3 times 135,000 hrs min. 10 years min. Refer to Dimension 800 g max. Yes (ON/OFF con 100 min) 100 min)	off (shut off the input von abnormal condition) Power Supplies, extentickup operation is positive to the condition of the con	oltage and turn on the nal diodes are require sible, external diodes rminals and output terminals and PE terminals and PE terminals and all input terminals and input terminals a	input again) (Overhead) d.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at re. Refer to Derating and Z directions	20 mA mA 0 mA 500 VDC		
ional iunc- ions nsula- ion Envi- ronment Reliabil- ty Con- struc-	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistant Ambient operating Storage temperatur Ambient operating Vibration resistance MTBF Life expectancy * Dimensions (W×H× Weight Cooling fan Degree of protection	ce temperature re humidity e	again) Yes, power shut of cooling fan is in a Yes (For up to 2 I No (However, bank) No No Yes (LED: Green 3 kVAC for 1 min 2 kVAC for 1 min 100 MΩ min. (bet -20 to 60°C (Dera (with no condens: -40 to 85°C (with 20% to 90% (Stor 10 to 55 Hz, 0.37 10 to 500 Hz, 0.2 150 m/s², 3 times 135,000 hrs min. 10 years min. Refer to Dimension 100 g max. Yes (ON/OFF cor	off (shut off the input von abnormal condition) Power Supplies, extern ckup operation is positive to the condition of the con	oltage and turn on the nal diodes are require sible, external diodes minals and output terminals and PE terminals and PE terminals and all input terminals and all input terminals of the temperature of the temperature of the each in X, Y, and Y, Y, and Y, Y, A, Y, A	input again) (Overhead) d.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at re. Refer to Derating and Z directions	20 mA mA 0 mA 500 VDC		
ional unc- ions nsula- ion Envi- conment Reliabil- ty Con- struc-	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistand Ambient operating Storage temperatur Ambient operating Vibration resistance MTBF Life expectancy * Dimensions (W×H× Weight Cooling fan Degree of protection	ce temperature re humidity e D) on emissions Conducted Emissions	again) Yes, power shut of cooling fan is in a yes (For up to 2 I No (However, bank) No No Yes (LED: Green 3 kVAC for 1 min 1 kVAC for 1 min 100 MΩ min. (bet 100 min	off (shut off the input von abnormal condition) Power Supplies, extern ckup operation is positive to the condition of the con	oltage and turn on the nal diodes are require sible, external diodes minals and output terminals and PE terminals and PE terminals and all input terminals and in	input again) (Overhead) d.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at re. Refer to Derating and Z directions	20 mA mA 0 mA 500 VDC		
tional func- tions	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistanc Ambient operating Storage temperatur Ambient operating Vibration resistance MTBF Life expectancy * Dimensions (W×H× Weight Cooling fan Degree of protection Harmonic current e	ce temperature re humidity e D) on emissions Conducted Emissions	again) Yes, power shut of cooling fan is in a yes (For up to 2 I No (However, bath No No Yes (LED: Green 3 kVAC for 1 min 12 kVAC for 1 min 100 MΩ min. (bet 100 min 100 MΩ min. (bet 100 min	off (shut off the input von abnormal condition). Power Supplies, extern ckup operation is possible to the condition of the co	oltage and turn on the nal diodes are require sible, external diodes rminals and output ter minals and PE terminals and PE terminals and all input terminals and PE terminals an	input again) (Overhead) d.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at re. Refer to Derating and Z directions	20 mA mA 0 mA 500 VDC		
tional func- tions Insula- tion Envi- ronment Reliabil- ity Con- struc- tion	Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistand Ambient operating Storage temperatur Ambient operating Vibration resistance MTBF Life expectancy * Dimensions (W×H× Weight Cooling fan Degree of protection Harmonic current et EMI EMS	ce temperature re humidity e D) on emissions Conducted Emissions	again) Yes, power shut of cooling fan is in a yes (For up to 2 I No (However, bath No No No Yes (LED: Green 3 kVAC for 1 min 1 kVAC for 1 min 1 kVAC for 1 min 100 MΩ min. (beth 100 MΩ min. (b	off (shut off the input von abnormal condition). Power Supplies, extern ckup operation is possible to the condition of the co	oltage and turn on the nal diodes are require sible, external diodes rminals and output ter minals and PE terminals and PE terminals and all input terminals and PE terminals an	input again) (Overhead) d.) are required.) minals) current cutoff als) current cutoff 20 inals) current cutoff 20 inals/PE terminals) at re. Refer to Derating and Z directions	20 mA mA 0 mA 500 VDC		

^{*} Refer to *Conditions* on page 12.

Conditions

Efficiency		The value is given for the rated output voltage and rated output current.			
	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			
Input	Frequency	increases in the Power Supply. If you connect a UPS to the input, do not connect one with a square wave output.			
	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.			
v	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.			
Output	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 Overvoltage Protection on page 19 for information on resetting the input power.			
Reliability	Life expectancy	Refer to Recommended Replacement Periods and Periodic Replacement for Preventive Maintenance on page 39 for details.			

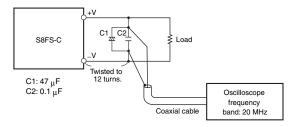
Inrush Current, Startup Time, and Output Hold Time



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

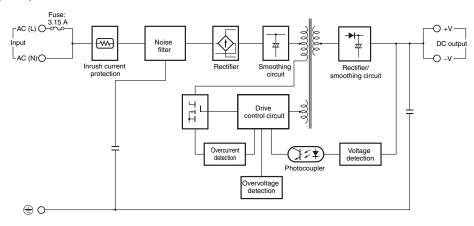
The specified standard for the ripple voltage noise was measured with the following measurement circuit.

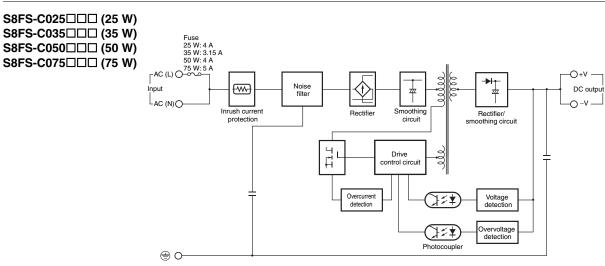


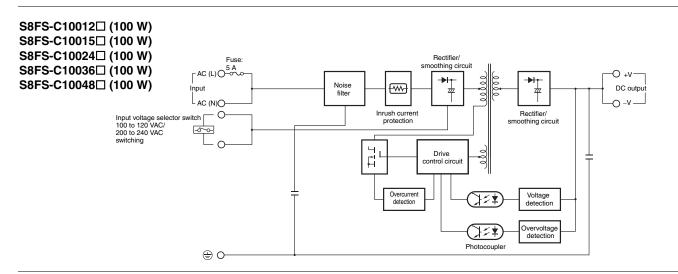
Connections

Block Diagrams

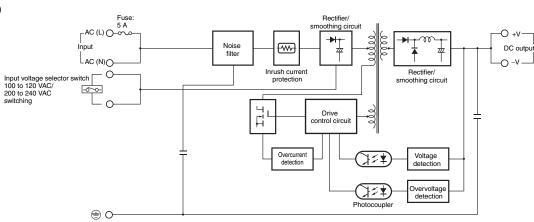
S8FS-C015□□□ (15 W)



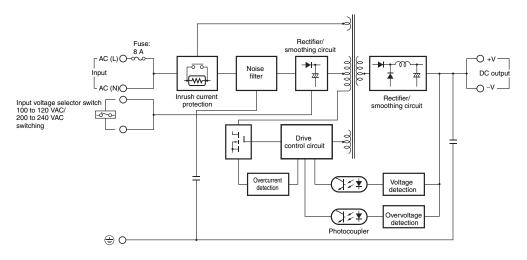




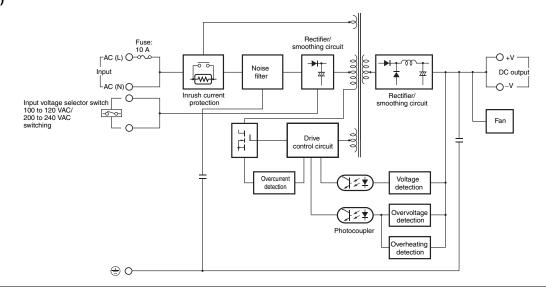
S8FS-C10005□ (100 W) S8FS-C150□□□ (150 W)



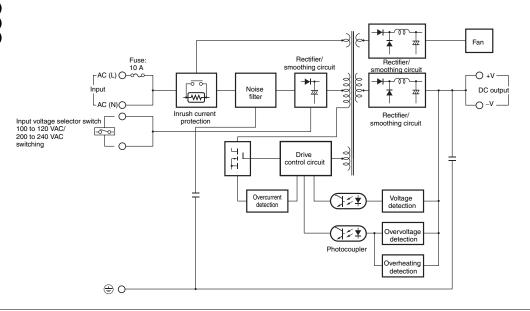
S8FS-C200□□□ (200 W)



S8FS-C35024□ (350 W)



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



Construction and Nomenclature

Nomenclature

25-W, 35-W, 50-W, 15-W Models 100-W and 150-W Models 200-W and 350-W Models and 75-W Models OMBON SEFE POWER SUPPLY 4 4 أعاماماماماماها (5) (5) 2 (3) (3) S8FS-C025□□ S8FS-C050□□ S8FS-C100□□ S8FS-C200□□ S8FS-C035□□ S8FS-C075□□ S8FS-C150□□ S8FS-C350□□ RON SOFS POWER SUPPLY (6) -(5) (5) 2 2 3 1 S8FS-C025□□□ S8FS-C015□□□ S8FS-C050□□□ S8FS-C100□□□ S8FS-C200□□□ S8FS-C035□□□ S8FS-C075□□□ S8FS-C150□□□ S8FS-C350□□□ CHECK INPUT VOLTAGE SELECTOR SWITCH BEFORE POWER ON INPUT:100-120VAC (输入) 200-240VAC 6

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

^{*1.} The fuse is located on the (L) side. It is not user replaceable. For a DC power input, connect the positive voltage to the L terminal.
*2. This is the protective earth terminal specified in the safety standards. Always ground this terminal.
*3. The 100-W, 150-W, 200-W, and 350-W models only.

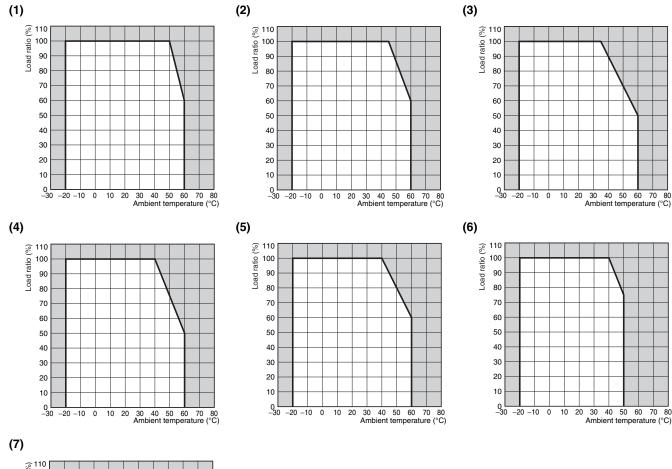
^{*4.} Refer to Input Voltage Selector Switch in Safety Precautions on page 36.

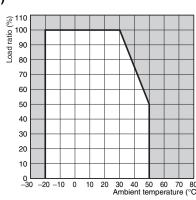
Engineering Data

Derating Curves

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		(2)			(3)	(4)	(5)	(7)	(1)
12 V	(1)	(4)	(1)	1) (1)	(1)		(1)	(6)	(1)
15 V	(1)	(1)	(1)						
24 V						(2)			
36 V								(6)	(1)
48 V				(1)	(1)				



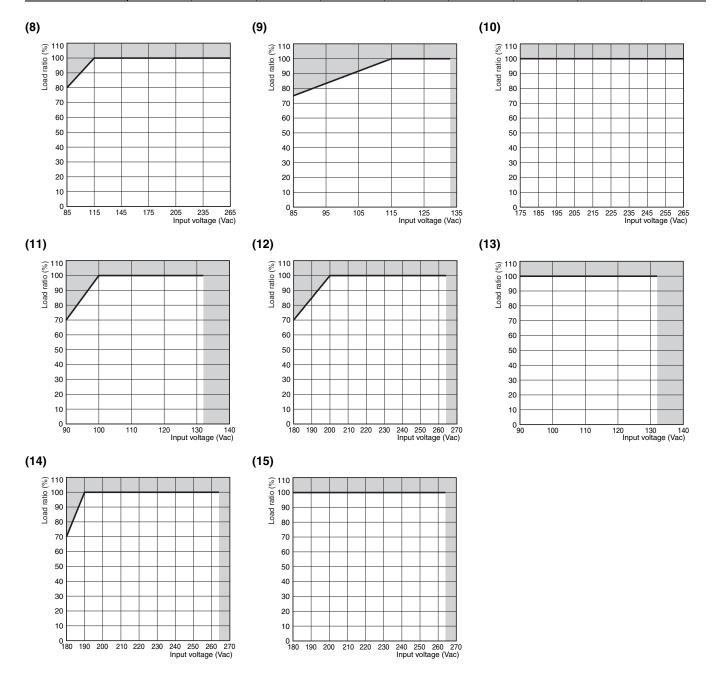


Note: The internal parts may occasionally deteriorate or be damaged. Use the standard mounting method only. Do not use the Power Supply in the area outside the derating curve.

S8FS-C

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								(11) (14)	(11) (15)
12 V	(8)	(8)	(8)	(8)	(0)		(11) (12)	(11)(14)	(11) (13)
15 V	(0)	(8)			(8)	(9) (10)			
24 V						(9) (10)			
36 V								(13) (15)	(11) (15)
48 V				(8)	(8)				

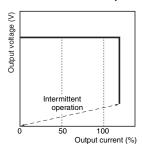


Note: The internal parts may occasionally deteriorate or be damaged. Use the standard mounting method only. Do not use the Power Supply in the area outside the derating curve.

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.



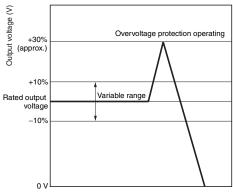
The values shown in the above diagrams are for reference only.

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.

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 approximately 130% 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)

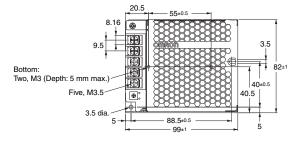
If the internal temperature rises excessively as a result of fan failure or any other reason, the overheat protection circuit will operate to protect internal elements. Reset the input power by turning it OFF for at least three minutes and then turning it back ON again.

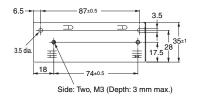
Dimensions (Unit: mm)

Power Supplies Models with Terminal Block Facing Upward

S8FS-C025□□ (25 W)





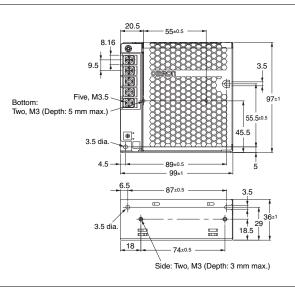


Panel mounting hole dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 40±0.5	Two, 3.5 dia.
Side mounting	Two, M3	Two, 3.5 dia.

S8FS-C035□□ (35 W)



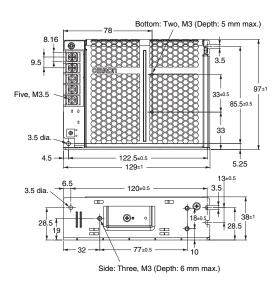


Panel mounting hole dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 55,5±0.5	Two, 3.5 dia.
Side mounting	Two, M3	Two, 3.5 dia.

S8FS-C050□□ (50 W)

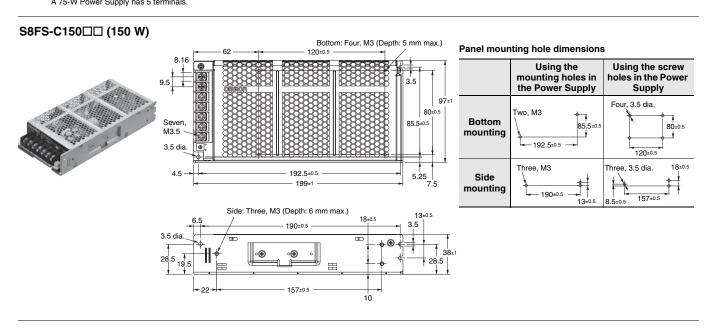




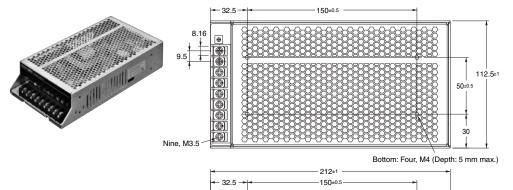
Panel mounting hole dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 85.5±0.5	Two, 3.5 dia.
Side mounting	Three, M3	Three, 3.5 dia. 18±0.5

S8FS-C075□□ (75 W) S8FS-C100□□ (100 W) Panel mounting hole dimensions 8.16 Using the mounting holes in the Power Using the screw holes in the Supply **Power Supply** Bottom: Two, M3 (Depth: 5 mm max.) Two, 3.5 dia. 84.5±0. **Bottom** 84.5±0.5 mounting 78±0.5 32 --- 152.5±0.5 Three, M3 18±0.5 Side 152.5±0.5 mounting 159±1 - 150±0.5 117±0.5 Side: Three, M3 (Depth: 6 mm max.) 13±0.5 150±0.5 3.5 dia The figure shows a 100-W Power Supply. A 75-W Power Supply has 5 terminals.



S8FS-C200□□ (200 W)

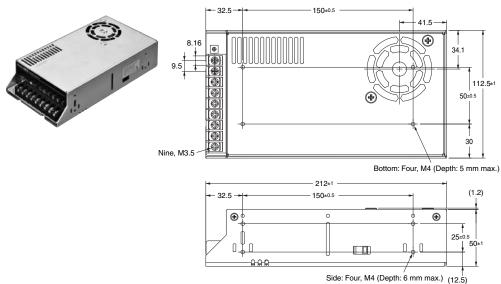


(

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		

S8FS-C350□□ (350 W)



Panel mounting hole dimensions

•

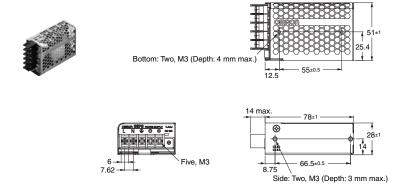
(12.5)

Side: Four, M4 (Depth: 6 mm max.)

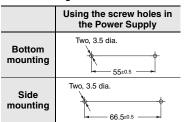
	Using the screw holes in the Power Supply
Bottom mounting	Four, 4.5 dia.
Side mounting	Four, 4.5 dia. 25±0.5

Models with Terminal Block Facing Forward

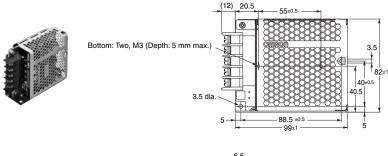
S8FS-C015□□J (15 W)



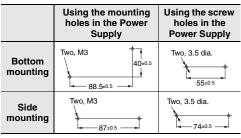
Panel mounting hole dimensions



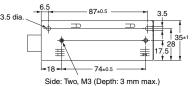
S8FS-C025□□J (25 W)



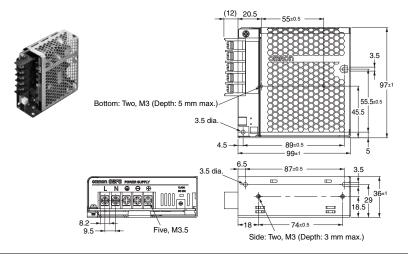
Panel mounting hole dimensions







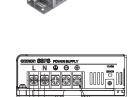
S8FS-C035□□J (35 W)



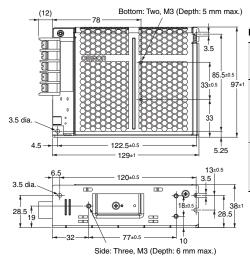
Panel mounting hole dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 55.5=0.5	Two, 3.5 dia.
Side mounting	Two, M3	Two, 3.5 dia.



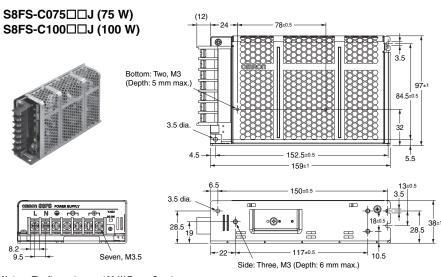


Five, M3.5



Panel mounting hole dimensions

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



Panel mounting hole dimensions

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

Using the screw holes in the Power

Supply Four, 3.5 dia.

120±0.

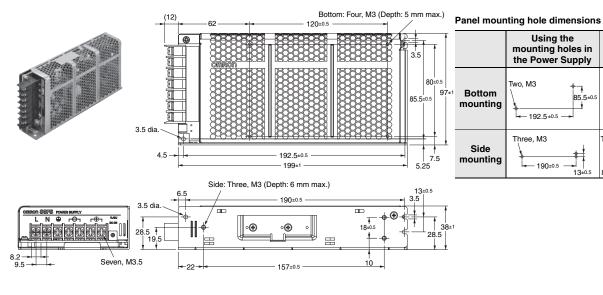
157±0.5

Three, 3.5 dia.

80±0.5

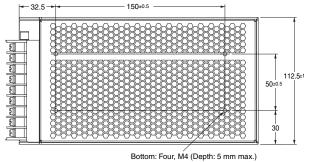
Note: The figure shows a 100-W Power Supply. A 75-W Power Supply has 5 terminals.

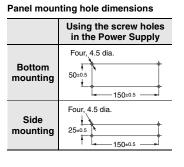
S8FS-C150□□J (150 W)

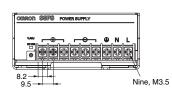


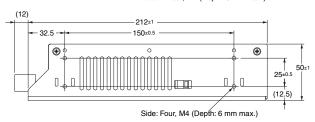
S8FS-C200□□J (200 W)





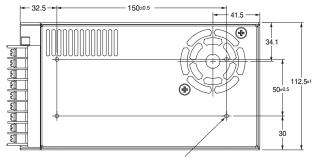




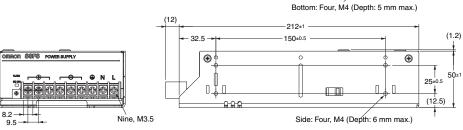


S8FS-C350□□J (350 W)









Panel mounting hole dimensions

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

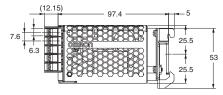
S8FS-C

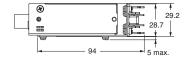
Models with DIN rail

S8FS-C015□□D (15 W)



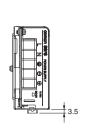


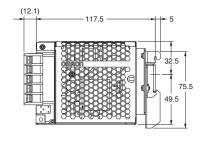


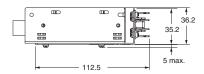


S8FS-C025□□D (25 W)



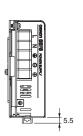


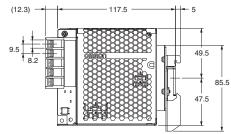


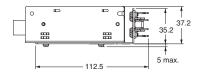


S8FS-C035□□D (35 W)

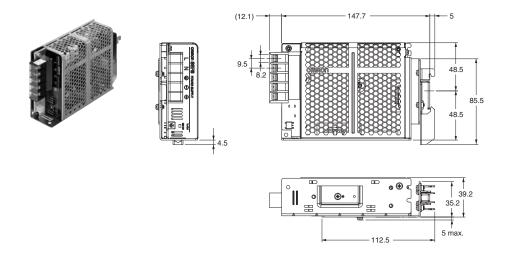




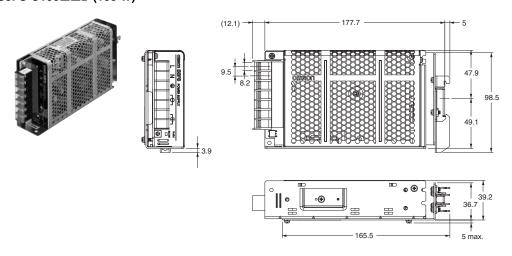




S8FS-C050□□D (50 W)

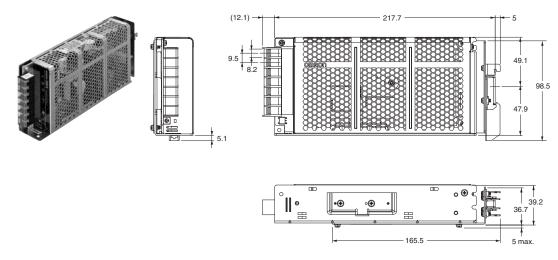


S8FS-C075□□D (75 W) S8FS-C100□□D (100 W)

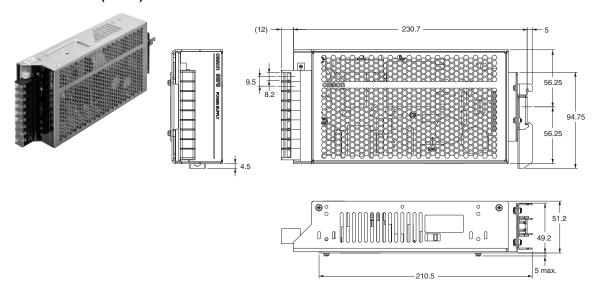


Note: The figure shows a 100-W Power Supply. A 75-W Power Supply has 5 terminals.

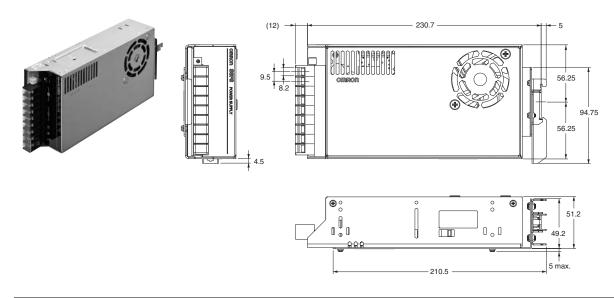
S8FS-C150□□D (150 W)



S8FS-C200□□D (200 W)



S8FS-C350□□D (350 W)



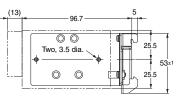
Mounting Brackets (Order Separately)

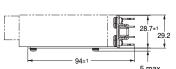
Power rating	Mounting direction	Model	
15 W		S82Y-FSC015DIN	
25 W		S82Y-FSC025DIN	
35 W		S82Y-FSC050DIN	
50 W		3621-F3C030DIIN	
75 W	DIN Rail		
100 W		S82Y-FSC150DIN	
150 W			
200 W		S82Y-FSC350DIN	
350 W		3621-F3C330DIN	
15 W		S82Y-FSC015DIN-S	
25 W		S82Y-FSC025DIN-S	
35 W		S82Y-FSC035DIN-S	
50 W	Bottom-mounting to DIN Rail	S82Y-FSC050DIN-S	
75 W	Sire Hair	S82Y-FSC100DIN-S	
100 W		3021-F3C100DIN-3	
150 W		S82Y-FSC150DIN-S	
200 W	Bottom-mounting with L-brackets	S82Y-FSC350B (4 brackets)	
350 W	Bottom-mounting with L-brackets	3021-F3C330B (4 Drackets)	

S82Y-FSC015DIN

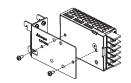






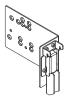


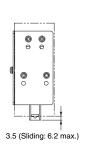
Mounting Method

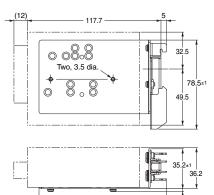


Accessories (2 locations)
Be sure to use the accessory screws.
Mounting screw tightening torque: 0.48 to
0.59 N·m for M3 screws

S82Y-FSC025DIN

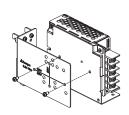






112.5±1

Mounting Method

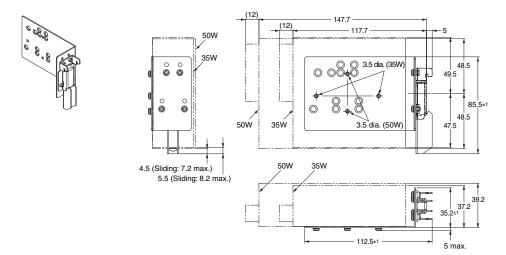


Accessories (2 locations)

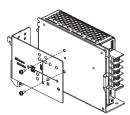
Be sure to use the accessory screws.

Mounting screw tightening torque: 0.48 to
0.59 N·m for M3 screws

S82Y-FSC050DIN

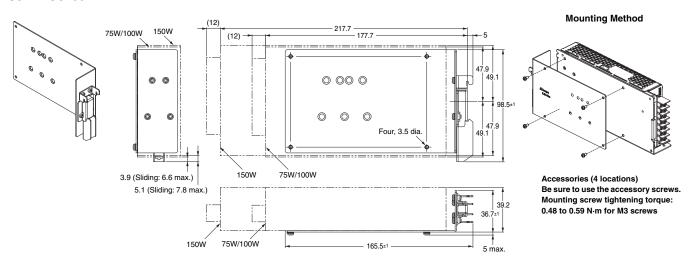


Mounting Method

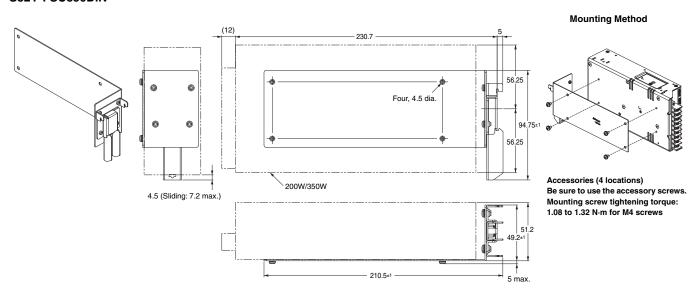


Accessories (2 locations)
Be sure to use the accessory screws.
Mounting screw tightening torque:
0.48 to 0.59 N·m for M3 screws

S82Y-FSC150DIN



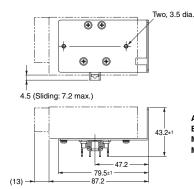
S82Y-FSC350DIN



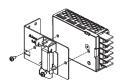
S82Y-FSC015DIN-S







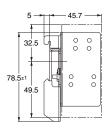
Mounting Method

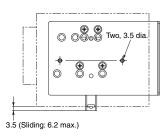


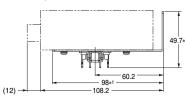
Accessories (2 locations)
Be sure to use the accessory screws.
Mounting screw tightening torque: 0.48 to 0.59 N·m for M3 screws

S82Y-FSC025DIN-S

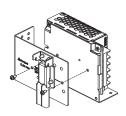








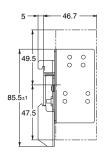
Mounting Method

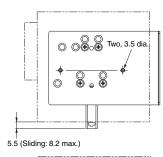


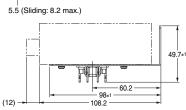
Accessories (2 locations)
Be sure to use the accessory screws.
Mounting screw tightening torque: 0.48 to
0.59 N·m for M3 screws

S82Y-FSC035DIN-S

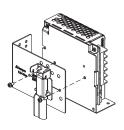








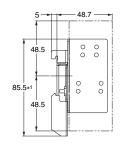
Mounting Method

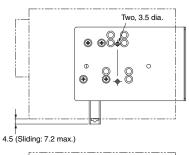


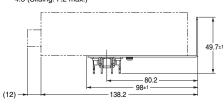
Accessories (2 locations)
Be sure to use the accessory screws.
Mounting screw tightening torque: 0.48 to 0.59
N·m for M3 screws

S82Y-FSC050DIN-S

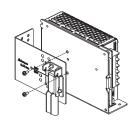






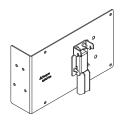


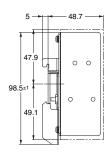
Mounting Method

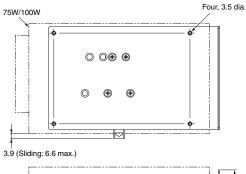


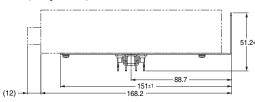
Accessories (2 locations) Be sure to use the accessory screws. Mounting screw tightening torque: 0.48 to 0.59 N·m for M3 screws

S82Y-FSC100DIN-S

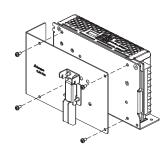








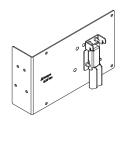
Mounting Method

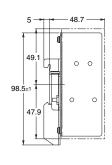


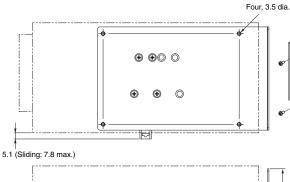
Accessories (4 locations) Be sure to use the accessory screws. Mounting screw tightening torque: 0.48 to 0.59 N·m for M3 screws

Mounting Method

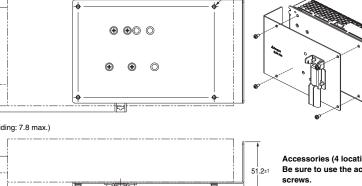
S82Y-FSC150DIN-S







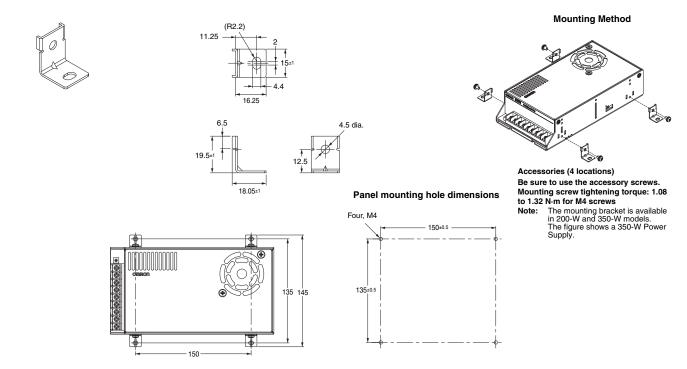
-208.2 -



-108.7 - 151±1

Mounting screw tightening torque: 0.48 to 0.59 N·m for M3 screws

S82Y-FSC350B (Four Brackets)



For Users of S8JC DIN Rail-mounting Power Supplies

If you are using a DIN Rail-mounting S8JC-series Power Supply, you can use a DIN Rail-mounting S8FS-C-series Power Supply or replace it with an S8FS-C-series Power Supply with a Forward-facing Terminal Block and a DIN Rail Mounting Bracket.

Table of Corresponding S8JC Power Supplies and S8FS-C□J Power Supplies with DIN Rail Mounting Brackets

Power rating	S8JC-Z *2	S8JC-ZS		S8FS-C Power Supply		DIN Rail-mounting Bracket *1
	S8JC-Z01505CD	S8JC-ZS01505CD-AC2	\Rightarrow	S8FS-C01505J		
15 W	S8JC-Z01512CD	S8JC-ZS01512CD-AC2	\Rightarrow	S8FS-C01512J	+	S82Y-FSC015DIN
	S8JC-Z01524CD	S8JC-ZS01524CD-AC2	\Rightarrow	S8FS-C01524J		
	S8JC-Z03505CD	S8JC-ZS03505CD-AC2	\Rightarrow	S8FS-C03505J		
35 W	S8JC-Z03512CD	S8JC-ZS03512CD-AC2	\Rightarrow	S8FS-C03512J	+	S82Y-FSC050DIN
	S8JC-Z03524CD	S8JC-ZS03524CD-AC2	\Rightarrow	S8FS-C03524J		
	S8JC-Z05005CD	S8JC-ZS05005CD-AC2	\Rightarrow	S8FS-C05005J		
50 W	S8JC-Z05012CD	S8JC-ZS05012CD-AC2	\Rightarrow	S8FS-C05012J	١.	S82Y-FSC050DIN
50 W	S8JC-Z05024CD	S8JC-ZS05024CD-AC2	\Rightarrow	S8FS-C05024J	+	3621-F3C030DIN
	S8JC-Z05048CD		\Rightarrow	S8FS-C05048J		
	S8JC-Z10005CD	S8JC-ZS10005CD-AC2	\Rightarrow	S8FS-C10005J		
100 W	S8JC-Z10012CD	S8JC-ZS10012CD-AC2	\Rightarrow	S8FS-C10012J	١.	S82Y-FSC150DIN
100 W	S8JC-Z10024CD	S8JC-ZS10024CD-AC2	\Rightarrow	S8FS-C10024J	+	3621-F3C130DIN
	S8JC-Z10048CD		\Rightarrow	S8FS-C10048J		
	S8JC-Z15005CD	S8JC-ZS15005CD-AC2	\Rightarrow	S8FS-C15005J		
150 W	S8JC-Z15012CD	S8JC-ZS15012CD-AC2	\Rightarrow	S8FS-C15012J	١.	S82Y-FSC150DIN
150 W	S8JC-Z15024CD	S8JC-ZS15024CD-AC2	\Rightarrow	S8FS-C15024J	+	3621-F3C130DIN
	S8JC-Z15048CD		\Rightarrow	S8FS-C15048J		
	S8JC-Z35005CD	S8JC-ZS35005CD-AC2	\Rightarrow	S8FS-C35005J		
350 W	S8JC-Z35012CD	S8JC-ZS35012CD-AC2	\Rightarrow	S8FS-C35012J	+	S82Y-FSC350DIN
	S8JC-Z35024CD	S8JC-ZS35024CD-AC2	\Rightarrow	S8FS-C35024J		

^{*1.} To mount an S8FS-series Power Supply that is not a DIN Rail-mounting model to a DIN Rail, purchase a DIN Rail-mounting Bracket separately from the Power Supply.

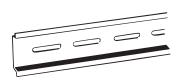
^{*2.} Consult with your OMRON representative if you use a 15-W or 35-W S8JC-Z Power Supply with a 48-V output voltage.

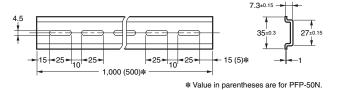
DIN Rail (Order Separately)

Note: All units are in millimeters unless otherwise indicated.

Mounting Rail

(Material: Aluminum)

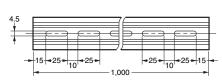


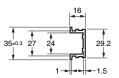




Mounting Rail (Material: Aluminum)



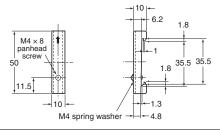






End Plate







- Note: 1. If there is a possibility that the Power Supply will be subject to vibration or shock, use a steel DIN Rail. Otherwise, metallic filings may result from aluminum abrasion.
 - 2. If there is a possibility of the Power Supply sliding sideways, place an End Plate (PFP-M) on each end of the Power Supply.

Terminal Cover (Order Separately)

Terminal block direction	Power rating	Applicable models	Terminal Cover model number	
	25-W	S8FS-C025□□		
	35-W	S8FS-C035□□	S82Y-FSC-C5	
	50-W	S8FS-C050□□	0021-100-03	
Models with terminal block	75-W	S8FS-C075□□		
facing upward	100-W	S8FS-C100□□	S82Y-FSC-C7	
	150-W	S8FS-C150□□	3021-130-07	
	200-W	S8FS-C200□□	S82Y-FSC-C9	
	350-W	S8FS-C350□□	3021-F30-09	
	15-W	S8FS-C015□□J/D	S82Y-FSC-C5MF	
	25-W	S8FS-C025□□J/D		
	35-W	S8FS-C035□□J/D	S82Y-FSC-C5F	
	50-W	S8FS-C050□□J/D	- 5021-F50-05F	
Models with terminal block facing forward	75-W	S8FS-C075□□J/D		
aong forward	100-W	S8FS-C100□□J/D	000V F00 07F	
	150-W	S8FS-C150□□J/D	S82Y-FSC-C7F	
	200-W	S8FS-C200□□J/D	S82Y-FSC-C9F	
	350-W	S8FS-C350□□J/D	3021-730-097	

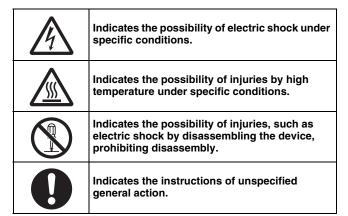
Safety Precautions

Refer to Safety Precautions for All Power Supplies.

Warning Indications

CAUTION	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or in property damage.
Precautions for Safe Use	Supplementary comments on what to do or avoid doing, to use the product safely.
Precautions for Correct Use	Supplementary comments on what to do or avoid doing, to prevent failure to operate, malfunction or undesirable effect on product performance.

Meaning of Product Safety Symbols



⚠ CAUTION

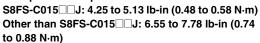
Minor electric shock, fire, or Product failure may occasionally occur. Do not disassemble, modify, or repair the Product or touch the interior of the Product.



Minor burns may occasionally occur. Do not touch the Product while power is being supplied or immediately after power is turned OFF.



Fire may occasionally occur. Tighten terminal screws to the specified torque.





Minor injury due to electric shock may occasionally occur. Do not touch the terminals while power is being supplied.



Minor electric shock, fire, or Product failure may occasionally occur. Do not allow any pieces of metal or conductors or any clippings or cuttings resulting from installation work to enter the Product.



Precautions for Safe Use

Ambient Operating and Storage Environments

- Store the Power Supply at a temperature of –40 to 85°C and a humidity of 10% to 95%.
- The internal parts may occasionally deteriorate or be damaged.
 Use the standard mounting method only. Do not use the Power Supply outside the derating range.
- Use the Power Supply at a humidity of 20% to 90%.
- Do not use the Power Supply in locations subject to direct sunlight.
- Do not use the Power Supply in locations where liquids, foreign matter, or corrosive gases may enter the interior of the Power Supplies.

Installation Environment

- Do not use the Power Supply in locations subject to shocks or vibrations. Install the Power Supply away from contactors and other parts and devices that are sources of vibration.
- Install the Power Supply well away from any sources of strong, high-frequency noise and surge.

Input Voltage Selector Switch

- For 100-W or higher models, the input voltage is factory-set to 200 to 240 V.
 - To use an input voltage of 100 to 120 VAC, change the input voltage selector switch to the 100 to 120 VAC setting. To use a DC input, set the input voltage selector switch to the 200 to 240 VAC setting.
- Minor electric shock may occasionally occur. Do not operate the input voltage selector switch while power is being supplied.

Mounting

- Take adequate measures to ensure proper heat dissipation to increase the long-term reliability of the Power Supply.
- For models other than the S8FS-C350□□□, be sure to allow convection in the atmosphere around devices when mounting. Do not use the Power Supply in locations where the ambient temperature exceeds the range of the derating curve.
- For the S8FS-C350 : Forced air cooling with a fan is used. Do not allow the ventilation holes to be blocked. The effectiveness of cooling would be reduced.
- The internal parts may occasionally deteriorate or be damaged.
 Use the standard mounting method only. Do not use the Power Supply outside the derating range.
- If you mount the Power Supply by using the screw holes provided on the chassis, the screws should preferably not penetrate beyond the exterior by more than 3 mm inside the Power Supply. If you use screws that are longer than this, make sure that they do not penetrate beyond the depth given in the dimensional diagram. Use the following tightening torque.

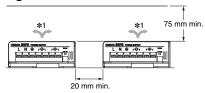
0.48 to 0.59 N·m for M3 screws

- 1.08 to 1.32 N·m for M4 screws
- When cutting out holes for mounting, make sure that cuttings do not enter the interior of the Power Supplies.
- The internal parts may occasionally deteriorate or be damaged due to adverse heat radiation. Do not loosen the screws on the Power Supplies.

Mounting

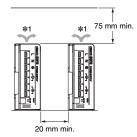
The standard mounting pattern is shown below.

Mounting Pattern A



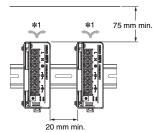
The above figure shows a model with the terminal block facing upward.

Mounting Pattern B



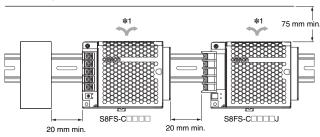
The above figure shows a model with the terminal block facing upward.

Mounting Pattern C *2



The above figure shows a model with the terminal block facing forward.

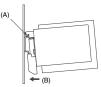
Mounting Pattern D*2

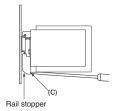


To mount the Power Supply to a DIN Rail, hook portion (A) of the Power Supply onto the DIN Rail and press the Power Supply in direction (B) until you hear it lock into place. Make sure that the catch on the Mounting Bracket is engaged with the DIN Rail.

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

- *1. Air flow
- *2. For mounting patterns C and D, a separately sold Mounting Bracket is used to mount the Power Supplies to DIN Rail. Refer to *Mounting Brackets* (Order Separately) on page 29 for the separately sold Mounting Brackets.





Wiring

- Connect the ground completely.
 A protective earthing terminal stipulated in safety standards is used. Electric shock or malfunction may occur if the ground is not connected completely.
- Minor fire may possibly occur. Ensure that input and output terminals are wired correctly.
- Do not apply more than 75 N force to the terminal block when tightening it.
- Be sure to remove the sheet covering the Power Supply for machining before power-ON so that it does not interfere with heat dissipation.
- Use the following material for the wires to be connected to the S8FS-C to prevent smoking or ignition caused by abnormal loads.

Recommended Wire Gauges

Terminals	Model	Recommended Wire Gauges
	S8FS-C015□□□	AWG14 to 22
Input	S8FS-C025□□□ to S8FS-C100□□□	AWG12 to 20
прис	S8FS-C150□□□ or S8FS-C200□□□	AWG12 to 16
	S8FS-C350□□□	AWG12
	S8FS-C015□□□	AWG14 to 18
	S8FS-C02512 to S8FS-C02524□	
	S8FS-C03515 to S8FS-C03524□	AWG12 to 20
	S8FS-C05024 to S8FS-C05048□	
	S8FS-C02505 or S8FS-C03512□	
	S8FS-C05012 to S8FS-C05015□	
	S8FS-C07515 to S8FS-C07548□	AWG12 to 16
Output	S8FS-C10024 to S8FS-C10048□	
	S8FS-C15036 to S8FS-C15048□	
	S8FS-C03505 or S8FS-C05005□	
	S8FS-C07505 to S8FS-C07512□	AWG12
	S8FS-C10005 to S8FS-C10015□	
	S8FS-C15005 to S8FS-C15024□	
	S8FS-C200□□□ or S8FS-C350□□□	
Protective	S8FS-C015□□□	AWG14
earth terminal	S8FS-C025□□□ to S8FS-C350□□□	AWG12 to 14

Note: The current capacity for the output terminals on the S8FS-C025□□□ to S8FS-C350□□□ is 25 A for each terminal. Make sure to use multiple terminals together if the current flow is higher than the current capacity for each terminal.

Overload Protection

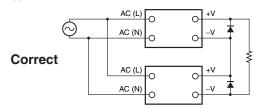
- If the Power Supply has been short-circuited or supplied with an overcurrent longer than 10 seconds, the internal parts of the Power Supply may occasionally deteriorate or be damaged.
- Internal parts may possibly deteriorate or be damaged if the Power Supply is used for applications with frequent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

Output Voltage Adjuster (V. ADJ)

- The output voltage adjuster (V. ADJ) may possibly be damaged if it is turned with unnecessary force. Do not turn the adjuster with excessive force.
- After completing output voltage adjustment, be sure that the output capacity or output current does not exceed the rated output capacity or rated output current.

Series Operation

Two Power Supplies can be connected in series.



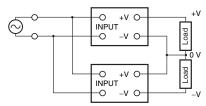
Note: 1. If the load is short-circuited, a reverse voltage will be generated inside the Power Supply. If this occurs the Power Supply may possibly deteriorate or be damaged. Always connect a diode as shown in the figure. Select a diode having the following ratings.

Туре	Schottky Barrier diode
Dielectric strength (VRRM)	Twice the rated output voltage or above
Forward current (I _F)	Twice the rated output current or above

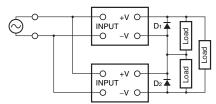
 Although Power Supplies having different specifications can be connected in series, the current flowing through the load must not exceed the smaller rated output current.

Making Positive/Negative Outputs

• The outputs are floating outputs (i.e., the primary circuits and secondary circuits are separated). You can therefore make positive and negative outputs by using two Power Supplies. You can make positive and negative outputs with any of the models. If positive and negative outputs are used, connect Power Supplies of the same model as shown in the following figure. (Combinations with different output capacities or output voltages can be made. However, use the lower of the two maximum rated output currents as the current to the loads.)



 Depending on the model, internal circuits may be damaged due to startup failure when the power is turned ON if loads such as a servomotor or operational amplifier operate in series. Therefore, connect bypass diodes (D₁, D₂) as shown in the following figure.

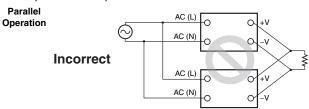


· Select a diode having the following ratings.

Туре	Schottky Barrier diode
Dielectric strength (VRRM)	Twice the rated output voltage or above
Forward current (I _F)	Twice the rated output current or above

Parallel Operation

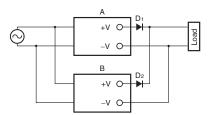
Parallel operation is not possible.



Backup Operation

Backup operation is possible if you use two Power Supplies of the same model.

Connect diodes as shown in the following figure for backup operation.



Select a diode having the following ratings.

Туре	Schottky Barrier diode
Dielectric strength (VRRM)	Twice the rated output voltage or above
Forward current (I _F)	Twice the rated output current or above

- The output voltages of Power Supplies A and B output must be set higher only by a value equivalent to the drop in forward voltages (V_F) of diodes D₁ and D₂.
- Power loss occurs equivalent to the Power Supply output current (lout) times the diode forward voltage (VF), and heat is generated.
 The diode must be cooled to ensure that its temperature is kept at or below the value indicated in the diode catalog.
- There will be a power loss caused by load power and diodes. Be sure that this total power loss does not exceed the rated output power (rated output voltage times rated output current) of each Power Supply.

In Case There Is No Output Voltage

There is a possibility that functions such as overcurrent protection, over-voltage protection or overheating protection are functioning. The internal protection circuit may operate if a large amount of surge voltage such as a lightening surge occurs while turning ON the Power Supply.

In case there is no output voltage, please check the following points before contacting us:

- Checking overload protection status:
 Check whether the load is in overload status or is short-circuited.
 Remove wires to load when checking.
- Checking overvoltage or internal protection:
 Turn the power supply OFF once, and leave it OFF for at least 3 minutes. Then turn it ON again to see if this clears the condition.
- Check overheating protection (350-W model):
 Switch off the input power supply and switch back on after allowing sufficient time for cooling.

Charging Batteries

If you connect a battery at the load, install overcurrent control and overvoltage protection circuits.

Period and Terms of Warranty

Warranty Period

The Power Supply warranty is valid for a period of three years from the date of shipment from the factory.

Terms of Warranty

The warranty is valid only for the following operating conditions.

- 1. Average ambient operating temperature of the Power Supply: 40°C max.
- 2. Average load rate: 80% max.
- 3. Mounting method: Standard mounting
- * The maximum ratings must be within the derating curve.

If the Power Supply fails for reasons attributable to OMRON within the above warranty period, OMRON will repair or replace the faulty part of the Power Supply at the place of purchase or the place where the Power Supply delivered without charge. This warranty does not cover the following types of failures.

- (1) Failures that result from handling or operation of the Power Supply under conditions or in environments that are not given in this document and not given in any other specifications exchanged between OMRON and the customer
- (2) Failures that originate in causes other than the delivered product itself
- (3) Failures caused by disassembly, modification, or repair of the Power Supply by anyone other than OMRON
- (4) Failures caused by applications or uses for which the Power Supply was not originally intended
- (5) Failures caused by factors that could not be anticipated with the scientific or technical knowledge available when the Power Supply was shipped
- (6) Failures caused by other causes for which OMRON is not responsible, such as natural disasters and other acts of God This warranty is limited to the individual product that was delivered and does not cover any secondary, subsequent, or related damages.

Recommended Replacement Periods and Periodic Replacement for Preventive Maintenance

The recommended replacement period for preventive maintenance is greatly influenced by the application environment of the Power Supply. As a guideline, the recommended replacement period is 7 to 10 years.* To prevent failures and accidents that can be caused by using a Power Supply beyond its service life, we recommend that you replace the Power Supply as early as possible within the recommended replacement period. However, bear in mind that the recommended replacement period is for reference only and does not guarantee the life of the Power Supply.

Many electronic components are used in the Power Supply and the Power Supply depends on the correct operation of these components to achieve the original Power Supply functions and performance. However, the influence of the ambient temperature on aluminum electrolytic capacitors is large, and the service life is reduced by half for each 10°C rise in temperature (Arrhenius law). When the capacity reduction life of the electrolytic capacitor is reached, Power Supply failures or accidents may occur. We therefore recommend that you replace the Power Supply periodically to minimize Power Supply failures and accidents in advance.

* The recommended replacement period applies under the following conditions: rated input voltage, load rate of 50% max., ambient temperature of 40°C max., and the standard mounting method. (The fan is excluded for models with fans.)

This product model is designed with a service life of 10 years minimum under the above conditions.

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Terms and Conditions Agreement

Read and understand this catalog.

Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments.

Warranties.

- (a) Exclusive Warranty. Omron's exclusive warranty is that the Products will be free from defects in materials and workmanship for a period of twelve months from the date of sale by Omron (or such other period expressed in writing by Omron). Omron disclaims all other warranties, express or implied.
- (b) Limitations. OMRON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCTS. BUYER ACKNOWLEDGES THAT IT ALONE HAS DETERMINED THAT THE PRODUCTS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE.

Omron further disclaims all warranties and responsibility of any type for claims or expenses based on infringement by the Products or otherwise of any intellectual property right. (c) Buyer Remedy. Omron's sole obligation hereunder shall be, at Omron's election, to (i) replace (in the form originally shipped with Buyer responsible for labor charges for removal or replacement thereof) the non-complying Product, (ii) repair the non-complying Product, or (iii) repay or credit Buyer an amount equal to the purchase price of the non-complying Product; provided that in no event shall Omron be responsible for warranty, repair, indemnity or any other claims or expenses regarding the Products unless Omron's analysis confirms that the Products were properly handled, stored, installed and maintained and not subject to contamination, abuse, misuse or inappropriate modification. Return of any Products by Buyer must be approved in writing by Omron before shipment. Omron Companies shall not be liable for the suitability or unsuitability or the results from the use of Products in combination with any electrical or electronic components, circuits, system assemblies or any other materials or substances or environments. Any advice, recommendations or information given orally or in writing, are not to be construed as an amendment or addition to the above warranty.

See http://www.omron.com/global/ or contact your Omron representative for published information.

Limitation on Liability; Etc.

OMRON COMPANIES SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE OR STRICT LIABILITY.

Further, in no event shall liability of Omron Companies exceed the individual price of the Product on which liability is asserted.

Suitability of Use.

Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY OR IN LARGE QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

Programmable Products.

Omron Companies shall not be responsible for the user's programming of a programmable Product, or any consequence thereof.

Performance Data.

Data presented in Omron Company websites, catalogs and other materials is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of Omron's test conditions, and the user must correlate it to actual application requirements. Actual performance is subject to the Omron's Warranty and Limitations of Liability.

Change in Specifications.

Product specifications and accessories may be changed at any time based on improvements and other reasons. It is our practice to change part numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the Product may be changed without any notice. When in doubt, special part numbers may be assigned to fix or establish key specifications for your application. Please consult with your Omron's representative at any time to confirm actual specifications of purchased Product.

Errors and Omissions.

Information presented by Omron Companies has been checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical or proofreading errors or omissions.

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CSM_2_4_0916 Cat. No. T062-E1-03 0916 (0915)