

Switch Mode Power Supply (15/30/50/100/150/300/600-W Models)

S8FS-G

Superior Basic Performance That Ensures Reliability. Wide Range of Standards Certification and Greater Usability.

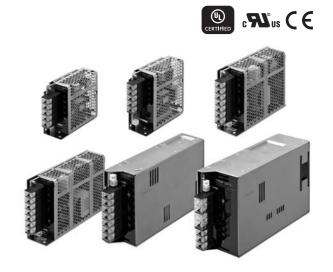
- Superior basic performance that ensures reliability
 Ambient temperatures up to 70°C, greater resistance to rusting with aluminum/stainless steel case, and applications at altitudes up to 3,000 m.
- Certification for Global Standards
 North America: UL 508 (Listing)*, CSA C22.2
 Europe: Overvoltage Category III (EN 62477-1)

EMI: Class B (EN 61204-3)

No need for control circuit transformers for which the Machinery Directive is specified. (EN/IEC 61558-2-16) India BIS: IS 13252 (Part 1)/IEC 60950-1* *Refer to pages 4 to 10 for certified models.

out and the Front Cover prevents ingress of foreign matter.

Greater Usability
 The Terminal Block Cover prevents screws from dropping



Refer to Safety Precautions for All Power Supplies and Safety Precautions on page 29.

Lineup

Output voltage (VDC)	Power rating								
Output voltage (VDC)	15 W	30 W	50 W	100 W	150 W	300 W	600 W		
5 V	Yes	Yes	Yes	Yes	Yes				
12 V	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		
48 V					Yes	Yes	Yes		

Model Number Structure

Model Number Legend

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

S8FS-	$G \square \square$		_	_	-	_	-	_
	- 1	2	2	1	_	6	7	0

1. Power Ratings	2. Output vol
015: 15 W	(VDC)
030: 30 W	05: 5 V
050: 50 W *1	12: 12 V
100: 100 W *2	15: 15 V
150: 150 W *3	24: 24 V
300: 300 W	48: 48 V
600: 600 W	

Itage 3. Configuration

C: With cover/
Direct mounting
CD: With cover/
DIN Rail mounting

4. Option (1)

None: Screw terminal block E: Connectors ***4**

5. Option (2) *5
None: None

W: Parallel operation

6. Option (3) *6

None: None R: Remote control 7. Option (4) *7
None: None

H: Extended hold time

8. Safety Standards

None: For details, refer to Safety Standards of Specifications on pages 4 to 10

500: Uncertified models by BIS and EAC Standards

- *1. The output electric power is 40 W for products with an output voltage of 5 V.
- *2. The output electric power is 80 W for products with an output voltage of 5 V.
- ***3.** The output electric power is 105 W for products with an output voltage of 5 V.
- *4. Applicable only for 150 W or less and 24 V.
- *5. Applicable only for 600 W and 24 V.
- *6. Applicable only for 100 W or more and 24 V.

- ***7.** Applicable only for 300 W or more and 24 V. ***8.** S8FS-G10024C-500, S8FS-G10024CD-500,
 - . S8FS-G10024C-500, S8FS-G10024CD-500, S8FS-G15024C-500, S8FS-G15024CD-500,
 - S8FS-G30024C-500, S8FS-G30024CD-500,
 - S8FS-G60024C-500, S8FS-G60024CD-500 only.

Ordering Information

List of Models

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

With Cover/DIN Rail Mounting

Power ratings	Input voltage	Output voltage (VDC)	Output current	Built-in fan	Model
		5 V	3 A		S8FS-G01505CD
15 W		12 V	1.3 A		S8FS-G01512CD
15 VV		15 V	1 A		S8FS-G01515CD
		24 V	0.65 A		S8FS-G01524CD
		5 V	6 A		S8FS-G03005CD
30 W		12 V	3 A		S8FS-G03012CD
30 VV		15 V	2.4 A		S8FS-G03015CD
		24 V	1.5 A		S8FS-G03024CD
		5 V	8 A * 1		S8FS-G05005CD
FO.W/		12 V	4.3 A		S8FS-G05012CD
50 W	100 to 240 VAC (Permissible range	15 V	3.5 A		S8FS-G05015CD
	85 to 264 VAC,	24 V	2.2 A	None	S8FS-G05024CD
	80 to 370 VDC) *4	5 V	16 A * 2		S8FS-G10005CD
	~ 4	12 V	8.5 A		S8FS-G10012CD
100 W		15 V	7 A		S8FS-G10015CD
		041/	4.5.4		S8FS-G10024CD
		24 V	4.5 A		S8FS-G10024CD-500 *
		5 V	21 A * 3		S8FS-G15005CD
		12 V	13 A		S8FS-G15012CD
450 \\		15 V	10 A		S8FS-G15015CD
150 W		041/	0.5.4		S8FS-G15024CD
		24 V	6.5 A		S8FS-G15024CD-500 *
		48 V	3.3 A		S8FS-G15048CD
		12 V	25 A		S8FS-G30012CD
	100 to 240 VAC	15 V	20 A		S8FS-G30015CD
300 W	(Permissible range 85 to 264 VAC,	0414	44.6		S8FS-G30024CD
	120 to 370 VDC)	24 V	14 A		S8FS-G30024CD-500 *
		48 V	7 A		S8FS-G30048CD
		12 V	50 A	Yes	S8FS-G60012CD
	100 to 240 VAC	15 V	40 A		S8FS-G60015CD
600 W	(Permissible range 85 to 264 VAC,	2414			S8FS-G60024CD
	120 to 350 VDC)	24 V	27 A		S8FS-G60024CD-500 *
	,	48 V	13 A		S8FS-G60048CD

Note: Ask your OMRON representative for pricing information on optional models.

With Cover/DIN Rail Mounting (Extended hold time type)

Power ratings	Input voltage	Output voltage (VDC)	Output current	Built-in fan	Model
300 W	100 to 240 VAC (Permissible range 85 to 264 VAC, 120 to 370 VDC)	- 24 V	14 A	Yes	S8FS-G30024CD-H
600 W	100 to 240 VAC (Permissible range 85 to 264 VAC, 120 to 350 VDC)	Z4 V	27 A	165	S8FS-G60024CD-H

^{*1.} The output electric power is 40 W.

^{*2.} The output electric power is 80 W.

^{*3.} The output electric power is 105 W.

^{*4.} Applicable to products produced from May 2018. ***5.** Production started in July 2022.

^{*6.} Production started in August 2022.

With Cover/Direct Mounting

ower ratings	Input voltage	Output voltage (VDC)	Output current	Built-in fan	Model
		5 V	3 A		S8FS-G01505C
15 W		12 V	1.3 A		S8FS-G01512C
15 VV		15 V	1 A		S8FS-G01515C
		24 V	0.65 A		S8FS-G01524C
		5 V	6 A		S8FS-G03005C
30 W		12 V	3 A		S8FS-G03012C
30 VV		15 V	2.4 A		S8FS-G03015C
		24 V	1.5 A		S8FS-G03024C
		5 V	8 A * 1		S8FS-G05005C
50.14/	100 to 240 VAC	12 V	4.3 A		S8FS-G05012C
50 W	(Permissible range	15 V	3.5 A		S8FS-G05015C
	85 to 264 VAC,	24 V	2.2 A	None	S8FS-G05024C
	80 to 370 VDC)	5 V	16 A * 2		S8FS-G10005C
	*4	12 V	8.5 A		S8FS-G10012C
100 W		15 V	7 A		S8FS-G10015C
		24 V	4.5 A		S8FS-G10024C
		24 V	4.5 A		S8FS-G10024C-500 *
		5 V	21 A * 3		S8FS-G15005C
		12 V	13 A		S8FS-G15012C
150 W		15 V	10 A		S8FS-G15015C
150 W		24 V	6.5 A		S8FS-G15024C
		24 V	0.5 A		S8FS-G15024C-500 *
		48 V	3.3 A		S8FS-G15048C
		12 V	25 A		S8FS-G30012C
	100 to 240 VAC	15 V	20 A		S8FS-G30015C
300 W	(Permissible range 85 to 264 VAC.	24 V	14 A		S8FS-G30024C
	120 to 370 VDC)	24 V	14 A		S8FS-G30024C-500 *
	120 10 370 400)	48 V	7 A	Yes	S8FS-G30048C
		12 V	50 A		S8FS-G60012C
	100 to 240 VAC	15 V	40 A		S8FS-G60015C
600 W	(Permissible range	24.1/	07.4	1	S8FS-G60024C
	85 to 264 VAC, 120 to 350 VDC)	24 V	27 A		S8FS-G60024C-500 *
		48 V	13 A	1	S8FS-G60048C

Note: 1. Ask your OMRON representative for pricing information on optional models.

To mount a Power Supply from the front, purchase a DIN Rail-mounting Power Supply and a Front-mounting Bracket (sold separately). Refer to page 27.

With Cover/Direct Mounting (Extended hold time type)

Power ratings	Input voltage	Output voltage (VDC)	Output current	Built-in fan	Model
300 W	100 to 240 VAC (Permissible range 85 to 264 VAC, 120 to 370 VDC)	24 V	14 A	Yes	S8FS-G30024C-H
600 W	100 to 240 VAC (Permissible range 85 to 264 VAC, 120 to 350 VDC)	24 V	27 A	res	S8FS-G60024C-H

With Cover/Direct Mounting (Connector type)

Power ratings	Input voltage	Output voltage (VDC)	Output current	Built-in fan	Model
15 W	100 to 240 VAC		0.65 A	None	S8FS-G01524CE
30 W	(Permissible range	24 V	1.5 A		S8FS-G03024CE
50 W	85 to 264 VAC,		2.2 A		S8FS-G05024CE
100 W	80 to 370 VDC)		4.5 A		S8FS-G10024CE
150 W	*4		6.5 A		S8FS-G15024CE

^{*1.} The output electric power is 40 W.

^{2.} Front-mounting is not possible.

^{*2.} The output electric power is 80 W.

^{*3.} The output electric power is 105 W.

^{*4.} Applicable to products produced from May 2018.

^{*5.} Production started in July 2022.

^{*6.} Production started in August 2022.

Specifications

		Power rating			15 W			
Item	Ou	utput voltage (VDC)	5 V 12 V 15 V 24 V					
		100 VAC input	80% typ.	84% typ.	84% typ.	85% typ.		
Efficiency *1		200 VAC input	80% typ.	84% typ.	84% typ.	86% typ.		
		230 VAC input	80% typ.	84% typ.	84% typ.	86% typ.		
	Voltage range *1		* * * * * * * * * * * * * * * * * * * *	264 VAC, 80 to 370 VDC	5			
	Frequency *1		50/60 Hz (47 to 450					
	Troquonoy 4-1	100 VAC input	0.32 A typ.	112)				
	Current *1	200 VAC input	0.32 A typ.					
	Power factor *1	200 VAC IIIput	0.2 A typ.					
Input	Power factor 41	400 VAC innut						
	Leakage current *1	100 VAC input	0.5 mA max.					
		200 VAC input	1 mA max.					
	Inrush current *1 (for a cold start at	100 VAC input	14 A typ.					
	25°C)	200 VAC input	28 A typ.					
	Rated Output Curre	nt	3 A	1.3 A	1 A	0.65 A		
	Voltage adjustment		-10% to 15% (with	V.ADJ)				
	Ripple & Noise		,		40. 17	00 11		
	voltage * 1	100 to 240 VAC input	40 mVp-p max.	40 mVp-p max.	40 mVp-p max.	60 mVp-p max.		
	Input variation influ	ence * 1	0.5% max.	1		1		
	Load variation influe		1.0% max.					
Output	Temperature variation influence	100 to 240 VAC input						
		100 VAC input	1,000 ms max.					
	Startup time *1	200 VAC input	1,000 ms max.					
		100 VAC input	15 ms typ.	14 ms typ.	15 ms typ.	15 ms typ.		
	Hold time *1	200 VAC input	75 ms typ.	70 ms typ.	75 ms typ.	70 ms typ.		
	Overland protection	1			75 ms typ.	70 ms typ.		
	Overload protection		Yes, automatic reset Yes, 120% or higher of rated output voltage, power shut off (shut off the input voltage and turn of					
	Overvoltage protect	ion * 1	the input again)	r of rated output voltage,	power snut on (snut on th	ie input voitage and turn o		
	Overheat protection		No					
Additional	Series operation	!		Power Supplies, external of	diodes are required)			
functions	·		· '		· · · · · · · · · · · · · · · · · · ·	ad \		
	Parallel operation		• •	up operation is possible, e	external diodes are require	ea.)		
	Remote sensing		No					
	Remote control		No					
	Output indicator		Yes (LED: Green)					
			3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA					
Insulation	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 resistanc	e	100 M Ω min. (between all output terminals and all input terminals/PE terminals) at 500 VDC					
	Ambient operating t	emperature	–20 to 70°C (Deration	ng is required according to	the temperature.) (with	no condensation or icing)		
	Storage temperature	9	-25 to 75°C (with no	condensation or icing)				
Environment	Ambient operating h	numidity	90% max. (Storage	humidity: 90% max.)				
	Vibration resistance		10 to 55 Hz, 4.5 G r	nax., 0.375-mm half ampl	itude for 2 h each in X, Y	, and Z directions		
	Shock resistance		150 m/s², 3 times each in ±X, ±Y, ±Z directions					
Deliebility	MTBF		135,000 hrs min.					
Reliability	Life expectancy *1		10 years min.					
	Dimensions (W×H×I	0)	Refer to <i>Dimensions</i> on page 19.					
	Weight		250 g	<u> </u>				
Construction	Cooling fan		No No					
	Degree of protection	1						
	Harmonic current er		Conforms to EN 610	000-3-2				
		Conducted Emissions			Class B			
	EMI *1	Radiated Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B Conforms to EN 61204-3 Class B, EN 55011 Class B					
	FMS	. Iddiated Enilssions		204-3 high severity levels	J.400 B			
	LiftO	EMS Safety Standards *2			ctor option\			
Standards	Safety Standards * 2			UL 508 (Listing, excluding models with connector option) UL 62368-1 (Recognition, OVCII [≤ 3,000 m], Pol2) CSA C22.2 No.107.1 (excluding models with connector option) CSA C22.2 No.62368-1 (excluding models with connector option) EN 62477-1 (OVCIII [≤ 2,000 m], OVCII [> 2,000 m and ≤ 3,000 m], Pol2) EN/IEC 62368-1 (OVCIII [≤ 3,000 m], Pol2) Conforms to EN/IEC 61558-2-16 Conforms to PELV (EN/IEC 60204-1) EAC (TR CU 004/2011, TR CU 020/2011)				
	Marine Standards		RCM (EN61000-6-4)					
	SEMI			706 (200 \/AC i===+\				
ad Defends 5	_	cs and Functions on	Conforms to F47-07	oo (200 VAC IIIPUI)				
I REIET TO RE	Junge i naractarietić	··· and Eurotions on I	oade II					

^{*1.} Refer to Ratings, Characteristics, and Functions on page 11. *2. Refer to Standard Compliance on page 11.



Item Efficiency * 1	Oı	Power rating							
Efficiency * 1					30 W 5 V 12 V 15 V 24 V				
Efficiency *1		100 VAC input	81% typ.	84% typ.	86% typ.	86% typ.			
, , ,		200 VAC input	81% typ.	86% typ.	88% typ.	88% typ.			
		230 VAC input	81% typ.	86% typ.	88% typ.	89% typ.			
	Voltage range *1	•	* '	264 VAC, 80 to 370 VDC	,,				
	Frequency *1		50/60 Hz (47 to 450 Hz)						
		100 VAC input	0.72 A typ.	,					
	Current *1	200 VAC input	0.43 A typ.						
Innut	Power factor *1								
Input		100 VAC input	0.5 mA max.						
	Leakage current *1	200 VAC input	1 mA max.						
	Inrush current *1	100 VAC input	14 A typ.						
	(for a cold start at	200 VAC input	28 A typ.						
	25°C)	·							
	Rated Output Currer		6 A	3 A	2.4 A	1.5 A			
	Voltage adjustment	range * 1	-10% to 15% (with	V.ADJ)					
	Ripple & Noise voltage *1	100 to 240 VAC input	50 mVp-p max.	60 mVp-p max.	50 mVp-p max.	60 mVp-p max.			
	Input variation influe	nput variation influence *1							
Output	Load variation influe	ence * 1	1.0% max.						
Temperature variation influence		100 to 240 VAC input	0.05%/°C max.						
	Startup time *1	100 VAC input	1,000 ms max.						
	Juliup unie mi	200 VAC input	1,000 ms max.						
	Hold time #1	Hold time * 1		10 ms typ.	11 ms typ.	10 ms typ.			
	ाठाव सामिट का	200 VAC input	60 ms typ.	50 ms typ.	50 ms typ.	55 ms typ.			
	Overload protection		Yes, automatic rese	et					
	Overvoltage protection *1			r of rated output voltage,	power shut off (shut off th	e input voltage and tur			
	Overheat protection		No						
Additional	Series operation		Yes (For up to two I	Power Supplies, external	diodes are required.)				
unctions	Parallel operation		No (However, back	up operation is possible, e	external diodes are require	ed.)			
	Remote sensing		No						
	Remote control		No						
	Output indicator		Yes (LED: Green)						
			3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff						
lmaule#:	Withstand voltage	hstand voltage		2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA					
Insulation			1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA						
	Insulation resistance	е	100 M Ω min. (between all output terminals and all input terminals/PE terminals) at 500 VDC						
	Ambient operating t	emperature	-20 to 70°C (Derating is required according to the temperature.) (with no condensation or icing						
	Storage temperature		-25 to 75°C (with no condensation or icing)						
Environment	Ambient operating h		`	humidity: 90% max.)					
	Vibration resistance		10 to 55 Hz, 4.5 G r	max., 0.375-mm half ampl	litude for 2 h each in X, Y	, and Z directions			
	Shock resistance		150 m/s², 3 times each in ±X, ±Y, ±Z directions						
B. II. I	MTBF		135,000 hrs min.						
Reliability	Life expectancy *1		10 years min.						
	Dimensions (W×H×E	0)	Refer to <i>Dimensions</i> on page 19.						
0	Weight		250 g						
Construction	Cooling fan		No						
	Degree of protection	1							
	Harmonic current er	missions	Conforms to EN 61	000-3-2					
	EMI *1	Conducted Emissions		204-3 Class B, EN 55011					
	EMS	Radiated Emissions		204-3 Class B, EN 55011 204-3 high severity levels					
	EIVIO								
Standards	Safety Standards *2	Safety Standards * 2		UL 508 (Listing, excluding models with connector option) UL 62368-1 (Recognition, OVCII [≤ 3,000 m], Pol2) CSA C22.2 No.107.1 (excluding models with connector option) CSA C22.2 No.62368-1 (excluding models with connector option) EN 62477-1 (OVCIII [≤ 2,000 m], OVCII [> 2,000 m and ≤ 3,000 m], Pol2) EN/IEC 62368-1 (OVCIII [≤ 3,000 m], Pol2) Conforms to EN/IEC 61558-2-16 Conforms to PELV (EN/IEC 60204-1) EAC (TR CU 004/2011, TR CU 020/2011)					
	Marine Standards		RCM (EN61000-6-4	.,					
				706 (200 \/AC innext)					
	SEMI	cs, <i>and Functions</i> on		706 (200 VAC input)					

^{*1.} Refer to *Ratings, Characteristics, and Functions* on page 11. ***2.** Refer to *Standard Compliance* on page 11.

		Power rating	50 W						
Item Output voltage (VDC)			5 V 12 V 15 V 24 V						
		100 VAC input	81% typ.	84% typ.	86% typ.	86% typ.			
Efficiency *1		200 VAC input	82% typ.	86% typ.	88% typ.	89% typ.			
Emciency 41		230 VAC input	82% typ.	86% typ.	88% typ.	89% typ.			
	Voltage range *1	200 VAO IIIput		264 VAC, 80 to 370 VDC	- ''	09 /0 тур.			
	Frequency *1		50/60 Hz (47 to 45						
	1 requeries 4-1	100 VAC input	1.1 A typ.	0112)					
	Current *1	200 VAC input	0.62 A typ.						
	Power factor *1	200 VAC IIIput	0.02 A typ.						
Input	Fower factor wi	100 VAC input	0.5 mA max.						
	Leakage current *1	200 VAC input	1 mA max.						
	Invitab accurant shift	· ·							
	Inrush current *1 (for a cold start at	100 VAC input	14 A typ.						
	25°C)	200 VAC input	28 A typ.						
	Rated Output Currer	nt	8 A	2.2A					
	Voltage adjustment	range * 1	-10% to 15% (with						
	Ripple & Noise	4004-0401/40:	40>/	40 1/	40> /	00 1/			
	voltage *1	100 to 240 VAC input	40 mVp-p max.	40 mVp-p max.	40 mVp-p max.	60 mVp-p max.			
Input variation in		ence * 1	0.5% max.						
Output	Load variation influe	ence * 1	1.0% max.						
Gutput	Temperature	100 to 240 VAC input	0.05%/°C max						
	variation influence								
	Startup time #1	100 VAC input	1,000 ms max.						
		200 VAC input	1,000 ms max.						
	Hold time * 1	100 VAC input	14 ms typ.	11 ms typ.	10 ms typ.	10 ms typ.			
	Tiola timo 41	200 VAC input	75 ms typ.	60 ms typ.	60 ms typ.	55 ms typ.			
	Overload protection		Yes, automatic res	et					
	Overvoltage protection *1			er of rated output voltage,	power shut off (shut off th	ne input voltage and turn o			
			the input again)						
Additional	Overheat protection		No						
unctions			· ' '	Power Supplies, external	· · · · · · · · · · · · · · · · · · ·				
Para Ren	Parallel operation		•	up operation is possible, e	external diodes are requir	ed.)			
	Remote sensing		No						
	Remote control		No						
	Output indicator		Yes (LED: Green)						
			3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA						
	Withstand voltage		2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA						
Insulation	The state of the s		1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA						
			500 VAC for 1 min. (between all output terminals and RC terminals) current cutoff 20 mA						
	Insulation resistanc	е	$100~\text{M}\Omega$ min. (between all output terminals and all input terminals/PE terminals) at 500 VDC						
	Ambient operating t	emperature	-20 to 70°C (Derating is required according to the temperature.) (with no condensation or icing)						
	Storage temperature	e	-25 to 75°C (with r	no condensation or icing)					
Environment	Ambient operating h	numidity	90% max. (Storage	humidity: 90% max.)					
	Vibration resistance		10 to 55 Hz, 4.5 G	max., 0.375-mm half ampl	itude for 2 h each in X, Y	, and Z directions			
	Shock resistance		150 m/s², 3 times each in ±X, ±Y, ±Z directions						
Deliahilit.	MTBF		135,000 hrs min.						
Reliability	Life expectancy *1		10 years min.						
	Dimensions (W×H×I	0)	Refer to <i>Dimensions</i> on page 20.						
Camat	Weight		300 g						
Construction	Cooling fan		No						
	Degree of protection	1							
	Harmonic current er	missions	Conforms to EN 61	000-3-2					
	FAUL & C	Conducted Emissions							
	EMI *1	Radiated Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B						
	EMS		Conforms to EN 61204-3 class B, EN 33011 class B Conforms to EN 61204-3 high severity levels						
Standards Safety Standards ≭ 2			UL 508 (Listing, excluding models with connector option) UL 62368-1 (Recognition, OVCII [≤ 3,000 m], Pol2) CSA C22.2 No.107.1 (excluding models with connector option) CSA C22.2 No.62368-1 (excluding models with connector option) EN 62477-1 (OVCIII [≤ 2,000 m], OVCII [> 2,000 m and ≤ 3,000 m], Pol2) EN/IEC 62368-1 (OVCII [≤ 3,000 m], Pol2) Conforms to EN/IEC 61558-2-16 Conforms to PELV (EN/IEC 60204-1) EAC (TR CU 004/2011, TR CU 020/2011)						
	Marine Standards		RCM (EN61000-6- No	•1					
				706 (200 VAC input)					
SEMI 1. Peter to Patings, Characteristics, and Eunstians on			Conforms to F47-0706 (200 VAC input)						

^{*1.} Refer to Ratings, Characteristics, and Functions on page 11.
*2. Refer to Standard Compliance on page 11.

		Power rating	100 W					
Item	Oı	utput voltage (VDC)	5 V 12 V 15 V 24 V					
		100 VAC input	79% typ.	84% typ.	85% typ.	87% typ.		
Efficiency *1		200 VAC input	81% typ.	86% typ.	87% typ.	89% typ.		
		230 VAC input	81% typ.	86% typ.	87% typ.	89% typ.		
	Voltage range *1	200 tree input		264 VAC, 80 to 370 VE		00 % typ.		
	Frequency *1		50/60 Hz (47 to 450 Hz)					
	Troquency 41	100 VAC input	2.1 A typ.					
	Current *1	200 VAC input	1.2 A typ.					
Input	Power factor *1	200 VAO Input						
input	T OWEI INCION TO	100 VAC input	0.5 mA max.					
	Leakage current *1	200 VAC input	1 mA max.					
	1	100 VAC input	14 A typ.					
	Inrush current *1 (for a cold start at 25°C)	200 VAC input	28 A typ.					
	Rated Output Current	200 VAC IIIput	16 A	8.5 A	7 A	4.5 A		
	Voltage adjustment range	- sted	-10% to 15% (with		1 A	4.5 A		
			` `		100 m\/n n may	90 m\/n n may		
Ripple & Noise voltage *		•	70 mVp-p max.	90 mVp-p max.	100 mVp-p max.	80 mVp-p max.		
	Input variation influence							
Output	Load variation influence	₹1 	1.0% max.					
Output	Temperature variation influence	100 to 240 VAC input						
	Startup time #1	100 VAC input	1,000 ms max.					
		200 VAC input	1,000 ms max.			1.0		
	Hold time * 1	100 VAC input	12 ms typ.	11 ms typ.	11 ms typ.	10 ms typ.		
		200 VAC input	70 ms typ.	55 ms typ.	55 ms typ.	55 ms typ.		
	Overload protection		Yes, automatic res					
	Overvoltage protection *	1	Yes, 120% or higher of rated output voltage, power shut off (shut off the input voltage and tur					
	Overheat protection		on the input again) No					
Additional	Series operation			Power Supplies, externa	al diadas ara raquirad \			
functions	·			• • • • • • • • • • • • • • • • • • • •	• • •	univad \		
	Parallel operation		No (However, back	rup operation is possible	, external diodes are rec	quirea.)		
	Remote sensing Remote control			.	4: \			
			Yes (Unity for mode Yes (LED: Green)	els with remote control o	puon)			
	Output indicator		3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA					
			2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA					
	Withstand voltage		1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA					
Insulation	Transland Voltage		Only Remote control					
			Only Remote control 500 VAC for 1 min. (between all output terminals and RC terminals) current cutoff 20 mA					
	Insulation resistance		100 M Ω min. (between all output terminals and all input terminals/PE terminals) at 500 VDC					
			-20 to 70°C (Derating is required according to the temperature. Refer to Engineering Data)					
	Ambient operating temper	erature	(with no condensati		, to the temperature. I to	ior to Eriginiooning Duta,		
	Storage temperature		-25 to 75°C (with no condensation or icing)					
Environment	Ambient operating humid	lity	90% max. (Storage	humidity: 90% max.)				
	Vibration resistance		10 to 55 Hz, 4.5 G max., 0.375-mm half amplitude for 2 h each in X, Y, and Z directions					
	Shock resistance		150 m/s ² , 3 times each in ±X, ±Y, ±Z directions					
	MTBF		135,000 hrs min.					
Reliability	Life expectancy *1		10 years min.					
	Dimensions (W×H×D)		Refer to <i>Dimensions</i> on page 21.					
	Weight		400 g	. <u> </u>				
Construction	Cooling fan		No					
	Degree of protection							
	Harmonic current emission	ons	Conforms to EN 61	000-3-2				
		Conducted Emissions		204-3 Class B, EN 5501	11 Class B			
	EMI *1	Radiated Emissions		204-3 Class B, EN 5501				
	EMS		Conforms to EN 61	204-3 high severity leve	ls			
				cluding models with con		control option)		
			UL 508 (Recognition	on, models with remote of	control option)	, ,		
			UL 62368-1 (Recognition, OVCII [≤ 3,000 m], Pol2) CSA C22.2 No.107.1 (excluding models with connector option or remote control option)					
Standards				7.1 (excluding models wi 58-1 (excluding models wi				
	Safety Standards *2			II [≤ 2,000 m], OVCII [> :				
			EN/IEC 62368-1 (0	OVCII [≤ 3,000 m], Pol2)		,		
			Conforms to EN/IÈ					
				(EN/IEC 60204-1) 11. TR CH 020/2011) (Exc	luding S8ES-G10024C.50	0 and S8ES-G10024CD 50		
			EAC (TR CU 004/2011, TR CU 020/2011) (Excluding S8FS-G10024C-500 and S8FS-G10024CD-50 RCM (EN61000-6-4)					
	Marine Standards		No	•				
	SEMI			706 (200 VAC innut)				
	SEMI Pofor to Patings Characteristics and Eunstions on page			Conforms to F47-0706 (200 VAC input)				

^{*1.} Refer to Ratings, Characteristics, and Functions on page 11. *2. Refer to Standard Compliance on page 11.

		Power rating			150 W			
Item Output voltage (VDC)		5 V 12 V 15 V 24 V 48 V						
		100 VAC input	78% typ.	84% typ.	85% typ.	87% typ.	85% typ.	
Efficiency *1		200 VAC input	81% typ.	87% typ.	88% typ.	89% typ.	88% typ.	
Iniciency of		•						
	T	230 VAC input	81% typ.	87% typ.	88% typ.	90% typ.	88% typ.	
	Voltage range *1		0 1	to 264 VAC, 80 to	370 VDC			
	Frequency *1		50 /60 Hz (47 to 450 Hz)					
	C	100 VAC input	3 A typ.					
	Current *1	200 VAC input	1.8 A typ.					
Input	Power factor *1							
	Tollor redict vi	100 VAC input	0.5 mA max.					
	Leakage current *1	200 VAC input						
		100 VAC input	1 mA max.					
			14 A typ.					
		200 VAC input	28 A typ.	1	1	1	1	
	Rated Output Current		21 A	13 A	10 A	6.5 A	3.3 A	
	Voltage adjustment range	*1	-10% to 15% (wi	th V.ADJ)				
	Ripple & Noise voltage *1	100 to 240 VAC input	100 mVp-p max.	110 mVp-p max.	80 mVp-p max.	110 mVp-p max.	120 mVp-p ma	
	Input variation influence	k 1	0.5% max.		1		1	
	Load variation influence	k 1	1.0% max.					
Output	Temperature variation influence	100 to 240 VAC input	0.05%/°C max.					
		100 VAC input	1,000 ms max.					
	Startup time *1	200 VAC input	1,000 ms max.					
		100 VAC input	,	10 ma tum	10 mag tum	10 ma tun	11 ma tum	
	Hold time *1		14 ms typ.	10 ms typ.	10 ms typ.	10 ms typ.	11 ms typ.	
		200 VAC input	80 ms typ.	55 ms typ.	55 ms typ.	55 ms typ.	55 ms typ.	
	Overload protection		Yes, automatic re					
	Overvoltage protection *	1	, ,		oltage, power shu	it off (shut off the inp	ut voltage and tu	
	0 1	on the input again	n)					
A alaliti a m a l	Overheat protection		No					
Additional unctions	Series operation		Yes (For up to tw	o Power Supplies,	external diodes ar	e required.)		
unctions	Parallel operation		No (However, backup operation is possible, external diodes are required.)					
	Remote sensing		No					
	Remote control		Yes (Only for models with remote control option)					
	Output indicator			Yes (LED: Green)				
	Jusput mulcator		3 kVAC for 1 min.(between all input terminals and output terminals) current cutoff 20 mA					
			2 kVAC for 1 min.(between all input terminals and output terminals) current cutoff 20 mA					
	west of the state of			•		,		
Insulation	Withstand voltage				t terminals and PE	terminals) current of	cutoff 20 mA	
			Only Remote control 500 VAC for 1 min (between all output terminals and RC terminals) current cutoff 20 mA					
			500 VAC for 1 min.(between all output terminals and RC terminals) current cutoff 20 mA					
	Insulation resistance		100 MΩ min.(between all output terminals and all input terminals/PE terminals) at 500 VDC					
	Ambient operating tempe	rature	-20 to 70°C (Derating is required according to the temperature. Refer to Engineering Data)					
			(with no condensation or icing)					
Environment	Storage temperature		-25 to 75°C (with no condensation or icing)					
Livironinent	Ambient operating humid	ity	90% max. (Storage humidity: 90% max.)					
	Vibration resistance		10 to 55 Hz, 4.5 G max., 0.375-mm half amplitude for 2 h each in X, Y, and Z directions					
	Shock resistance		150 m/s², 3 times each in ±X, ±Y, ±Z directions					
	MTBF		135,000 hrs min.					
Reliability	Life expectancy *1		10 years min.					
	Dimensions (W×H×D)		Refer to <i>Dimensions</i> on page 23.					
	Weight			pago 20.				
Construction			500 g					
	Cooling fan		No					
	Degree of protection							
	Harmonic current emission	1		61000-3-2 (Applical		οτ the rated load.)		
	EMI *1	Conducted Emissions	-	61204-3 Class B, E				
	, .	Radiated Emissions	Conforms to EN	61204-3 Class B, E	N 55011 Class B			
	EMS		Conforms to EN 61204-3 high severity levels					
			UL 508 (Listing, excluding models with connector option or remote control option)					
			UL 508 (Recognition, models with remote control option)					
			UL 62368-1 (Recognition, OVCII [≤ 3,000 m], Pol2)					
						r option or remote c		
Standards						r option or remote co	ntroi option)	
	Safety Standards *2			CIII [≤ 2,000 m], OV (OVCII [≤ 3,000 m].		u ≥ 3,000 mj, P012)		
	Jaiety Standards 42		Conforms to EN/		1 012)			
				V (EN/IEC 60204-1)			
						G15024C-500 and S8	3FS-G15024CD-50	
			RCM (EN61000-	6-4)	, ,			
						V type only. However	er, excluding S8F	
		BIS (IS 13252 (Part 1)/IEC 60950-1) (Output voltage 24 V type only. However, excluding S8F3 G15024C-500 and S8FS-G15024CD-500.)						
	Marine Standards		No					
	SEMI		Conforms to F47	-0706 (200 VAC inp	out)			
. Defeate D	atings Characteristics ar	d Eunations on page	11	•				

^{*1.} Refer to Ratings, Characteristics, and Functions on page 11. *2. Refer to Standard Compliance on page 11.

		Power rating		30	0 W		
Item	Oı	utput voltage (VDC)	12 V	15 V	24 V	48 V	
	0	100 VAC input	81% typ.	81% typ.	82% typ.	82% typ.	
⊏£€: - :		· .		* * * * * * * * * * * * * * * * * * * *			
Efficiency *1		200 VAC input	85% typ.	85% typ.	87% typ.	87% typ.	
		230 VAC input	85% typ. 86% typ. 87% typ. 87% typ.				
	Voltage range *1		Single phase, 85 to 264 VAC, 120 to 370 VDC				
	Frequency *1		50/60 Hz (47 to 63 Hz)				
	0	100 VAC input	4.2 A typ.				
	Current *1	200 VAC input	2.1 A typ.				
Input	Power factor *1		0.9 min.				
прис	1 OWC1 IUCIOI 4-1	100 VAC input	0.5 mA max.				
	Leakage current *1						
		200 VAC input	1 mA max.				
	Inrush current *1	100 VAC input	14 A typ.				
	(for a cold start at 25°C)	200 VAC input	28 A typ.				
	Rated Output Curre	nt	25 A	20 A	14 A	7 A	
	Voltage adjustment	range *1	-10% to 15% (with V.A	DJ)		<u>'</u>	
	Ripple & Noise voltage *1	100 to 240 VAC input	140 mVp-p max.	270 mVp-p max.	150 mVp-p max.	330 mVp-p max.	
	Input variation influ	•	0.5% max.				
	Load variation influ		1.0% max.				
		5110 6 & 1	1.0 /0 IIIdX.				
Outro t	Temperature variation influence	100 to 240 VAC input	0.05%/°C max.				
Output	Startup times and	100 VAC input	1,000 ms max.				
	Startup time *1	200 VAC input	1,000 ms max.				
		100 VAC input	30 ms typ.	30 ms typ.	30 ms typ. 40 ms typ. (Extended hold time type)	30 ms typ.	
	Hold time * 1	200 VAC input	30 ms typ.	25 ms typ.	30 ms typ. 40 ms typ. (Extended hold time type)	30 ms typ.	
	Overload protection		Yes, automatic reset				
	Overvoltage protect		Yes, 120% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input again				
					, ,		
	Overheat protection		Yes, power shut off (shut off the input voltage and turn on the input again)				
Additional	Series operation		Yes (For up to two Power Supplies, external diodes are required.)				
functions	Parallel operation		No (However, backup operation is possible, external diodes are required.)				
-	Remote sensing		No				
	Remote control		Yes (Only for models with remote control option)				
	Output indicator		Yes (LED: Green)				
	-		3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA				
			2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA				
	Withstand voltage		1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA				
Insulation			Only Remote control				
			Only Remote control 500 VAC for 1 min. (between all output terminals and RC terminals) current cutoff 20 mA				
	Insulation resistanc	^	100 M Ω min. (between all output terminals and RC terminals) current cuton 20 mA 100 M Ω min. (between all output terminals and all input terminals/PE terminals) at 500 VDC				
			-20 to 70°C (Derating is required according to the temperature.) (with no condensation or icing)				
	Ambient operating t	<u> </u>			ie temperature.) (with no	condensation or icing)	
	Storage temperature	9	−25 to 75°C (with no condensation or icing)				
Environment	Ambient operating h	numidity	90% max. (Storage humidity: 90% max.)				
	Vibration resistance		10 to 55 Hz, 4.5 G max., 0.375-mm half amplitude for 2 h each in X, Y, and Z directions				
	Shock resistance		150 m/s², 3 times each in ±X, ±Y, ±Z directions				
	MTBF		135,000 hrs min.				
Reliability	Life expectancy *1		10 years min.				
	Dimensions (W×H×I	n)	· · · · · · · · · · · · · · · · · · ·				
	•	<i>-</i> 1	Refer to <i>Dimensions</i> on page 25				
Construction	Weight		700 g				
	Cooling fan		Yes				
	Degree of protection	1					
	Harmonic current er	missions	Conforms to EN 61000-	-3-2	·		
	ENI de	Conducted Emissions	Conforms to EN 61204	-3 Class B, EN 55011 Cl	ass B		
	EMI *1	Radiated Emissions	Conforms to EN 61204	-3 Class B, EN 55011 Cl	ass B		
	EMS			*			
			Conforms to EN 61204-3 high severity levels UL 508 (Listing, excluding models with remote control option)				
Standards	Safety Standards *2		UL 508 (Recognition, m UL 62368-1 (Recognition CSA C22.2 No.107.1 (e CSA C22.2 No.62368-1 EN 62477-1 (OVCIII [≤ EN/IEC 62368-1 (OVCI Conforms to EN/IEC 61 Conforms to PELV (EN EAC (TR CU 004/2011, RCM (EN61000-6-4)	nodels with remote control of the c	option) ol2) note control option)	nd S8FS-G30024CD-500	
	Marine Standards		No	,			
				(200)/() (:==:-+)			
M D (: =	SEMI	ss and Eunctions on	Conforms to F47-0706	(200 VAC IIIPUL)			

^{*1.} Refer to Ratings, Characteristics, and Functions on page 11.
*2. Refer to Standard Compliance on page 11.

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Power rating		600 W					
Item	Item Output voltage (VDC)		12 V	15 V	24 V	48 V	
		100 VAC input	84% typ.	84% typ.	85% typ.	88% typ.	
Efficiency *1		200 VAC input	88% typ.	88% typ.	89% typ.	92% typ.	
		230 VAC input	88% typ.	88% typ.	90% typ.	92% typ.	
	Voltage range *1	200 tree input	Single phase, 85 to 264 VAC, 120 to 350 VDC				
	Frequency *1		50 /60 Hz(47 to 63 Hz)				
	Troquonoy 4-1	100 VAC input	7.7 A typ.				
	Current *1	200 VAC input	**				
Input	Power factor *1	200 VAC IIIput	3.8 A typ. 0.9 min.				
IIIput	1 Ower factor 41	100 VAC input	0.5 mA max.				
	Leakage current *1	200 VAC input	1 mA max.				
	Inrush current *1	100 VAC input	14 A typ.				
	(for a cold start at 25°C)		28 A typ.				
	Rated Output Curre		50 A typ.	40 A	27 A	13 A	
	Voltage adjustment		-10% to 15% (with V.A		ZIA	13 A	
		100 to 240 VAC input	170 mVp-p max.	170 mVp-p max.	280 mVp-p max.	340 mVp-p max.	
	Input variation influ		0.5% max.	170 mvp-p max.	200 mvp-p max.	340 птур-р птах.	
	Load variation influe		1.0% max.				
		# III (日本 I	1.070 IIIax.				
Outnut	Temperature variation influence	100 to 240 VAC input	0.05%/°C max.				
Output	Startup time #1	100 VAC input	1,000 ms max.				
	Juliup unie 🕶	200 VAC input	1,000 ms max.				
	Hald time and	100 VAC input	30 ms typ.	25 ms typ.	30 ms typ. 40 ms typ. (Extended hold time type)	30 ms typ.	
	Hold time * 1	200 VAC input	30 ms typ.	25 ms typ.	30 ms typ. 40 ms typ. (Extended hold time type)	30 ms typ.	
	Overload protection		Yes, automatic reset				
	Overvoltage protect		Yes, 120% or higher of rat	ed output voltage, power shu	t off (shut off the input voltage	e and turn on the input agair	
	Overheat protection		Yes, power shut off (shut off the input voltage and turn on the input again)				
Additional	Series operation		Yes (For up to two Power Supplies, external diodes are required.)				
functions	Parallel operation		Yes (up to five Power Supplies, S8FS-G60024 (models with parallel operation option) only).				
	Remote sensing		No	тарриоз, сог с сосод г (г		<u> </u>	
	Remote control		Yes (Only Remote control)				
	Output indicator		Yes (LED: Green)				
	- Carpar marcator		3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA				
			2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA				
	Withstand voltage		1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA				
Insulation			Only Remote control				
			500 VAC for 1 min. (between all output terminals and RC terminals) current cutoff 20 mA				
	Insulation resistanc	е	100 M Ω min. (between all output terminals and all input terminals/PE terminals) at 500 VDC				
	Ambient operating t	emperature	-20 to 70°C (Derating is required according to the temperature.) (with no condensation or icing)				
	Storage temperature	9	-25 to 75°C (with no co	ndensation or icing)			
Environment	Ambient operating h		90% max. (Storage humidity: 90% max.)				
	Vibration resistance		10 to 55 Hz, 4.5 G max., 0.375-mm half amplitude for 2 h each in X, Y, and Z directions				
	Shock resistance		150 m/s², 3 times each in ±X, ±Y, ±Z directions				
Dallat III	MTBF		135,000 hrs min.				
Reliability	Life expectancy *1		10 years min.				
	Dimensions (W×H×I	0)	Refer to <i>Dimensions</i> or	ı page 26.			
0	Weight		1,050 g				
Construction	Cooling fan		Yes				
	Degree of protection	1					
	Harmonic current er		Conforms to EN 61000	-3-2			
	FAU &	Conducted Emissions		-3 Class B, EN 55011 Cla	ss B		
	EMI *1	Radiated Emissions		-3 Class B, EN 55011 Cla			
	EMS	-	Conforms to EN 61204	,			
Standards	Safety Standards *2		UL 508 (Listing, exclud UL 508 (Recognition, n UL 62368-1 (Recognition CSA C22.2 No.107.1 (€ CSA C22.2 No.62368-1 (OVCIII [≤ EN/IEC 62368-1 (OVCIII Conforms to EN/IEC 6200 (TR CU 004/2011, RCM (EN61000-6-4) BIS (IS 13252 (Part 1)/	ing models with remote condels with remote control on, OVCII [≤ 3,000 m], Poix cluding models with remote control on, OVCII [≤ 3,000 m], Poix (excluding models with report (excluding models with report (excluding models with report (excluding models) and poix (excluding models) for the control of the con	l option) (2) (3) (4) (5) (6) (7) (7) (8) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	nd S8FS-G60024CD-500	
	Marine Standards		G60024C-500 and S8FS-G60024CD-500.) No				
	SEMI			(200 VΔC input)			
SEMI			Conforms to F47-0706 (200 VAC input)				

^{*1.} Refer to Ratings, Characteristics, and Functions on page 11. *2. Refer to Standard Compliance on page 11.

Ratings, Characteristics, and Functions

Efficiency			The value is when both rated output voltage and rated output current are satisfied.		
	Voltag	e range	Do not use an inverter output for the Power Supply. Inverters with an output frequency of		
	Freque	ency	50/60 Hz are available, but the rise in the internal temperature of the Power Supply may result in ignition or burning.		
	Currer	nt	The value is when both rated output voltage and rated output current are satisfied.		
Input	Power	factor	The value is when both rated output voltage and rated output current are satisfied.		
	Leaka	ge current	The values are determined according to the Act on Power Supply Safety of Electrical Appliances and Materials.		
		current	For a cold start at 25°C. Refer to the following figure.		
	Voltage	e adjustment range	If the output voltage adjuster (V. ADJ) is turned, the voltage will increase by more than +159 of the voltage adjustment range. When adjusting the output voltage, confirm the actual output voltage from the Power Supply and be sure that the load is not damaged.		
	Ripple	& Noise voltage	The value is when both rated output voltage and rated output current are satisfied. A characteristic when the ambient operating temperature is 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 v	variation influence	This is the value when the output current is changed from 0 A to the rated output curren while the input voltage is within the allowable input voltage.		
	Startu	p time	The value is when both rated output voltage and rated output current are satisfied. For a cold start at 25°C. Refer to the following figure.		
	Hold time		The value is when both rated output voltage and rated output current are satisfied. At 25°C. Refer to the following figure.		
Additional functions	Overvoltage protection		Refer to Overvoltage Protection on page 18 for the time when input voltage shuts off and input turns on again.		
Reliability	Life expectancy		Refer to Recommended Replacement Periods and Periodic Replacement for Preventive Maintenance on page 33 for details.		
Standards	ЕМІ	Conducted Emissions	The 150-W and higher models conform to Class B when an aluminum plate is set under the		
Standards	EIVII	Radiated Emissions	Power Supply.		

Standard Compliance

- The input voltage range for compliance with EC Directives and other safety standards (UL, EN, etc.) is 90 to 264 VAC.
- EN/IEC 61558-2-16

To comply with EN/IEC 60204-1 (Machine Safety), a transformer is required in the control circuit. If, however, a Power Supply that has a built-in transformer that complies with EN/IEC 6155-8-2-16 is used, an external transformer is not required.

• Safety standard targets during a DC input *

During a DC input, UL 62368-1, cUR (CSA C22.2 No. 62368-1), EN/IEC 62368-1, EN 62477-1, EN/IEC 61558-2-16, and EN/IEC 60204-1 are safety standard targets. (However, the input voltage range is 120 to 320 VDC. The safety standards during DC input are not acquired for the S8FS-G60048□.)

It is possible to comply with the safety standards by connecting a UL-authenticated fuse. Select a UL-authenticated fuse that satisfies the following conditions:

```
S8FS-G015□□/030□□ (320 VDC or above, 3 A)
```

S8FS-G050□□ (320 VDC or above, 4 A)

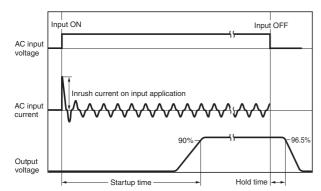
S8FS-G100 \square (320 VDC or above, 8 A)

S8FS-G150□□ (320 VDC or above, 10 A)

S8FS-G300 (320 VDC or above, 12 A) S8FS-G600 (320 VDC or above, 20 A)

- To comply with the PELV output of the EN/IEC 60204-1, ground the output negative side (-V) to PE. *
- * Applicable to products produced from May 2018

Inrush Current, Startup Time, Output Hold Time

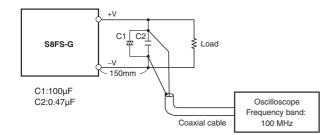


Note: The total inrush current of all of the Power Supplies will flow for parallel operation or backup operation.

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

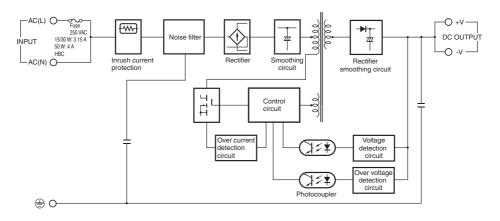
The specified standard for the ripple voltage noise was measured with a measurement circuit that is based on JEITA standard RC-9131A.



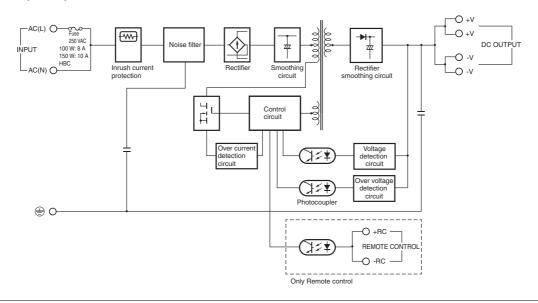
Connections

Block Diagrams

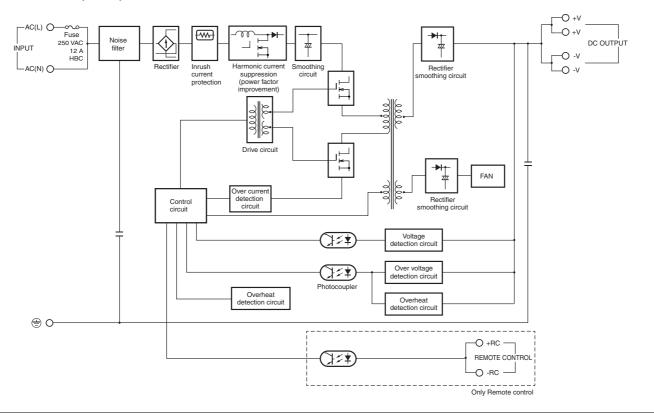
S8FS-G015□□□ (15 W) S8FS-G030□□□ (30 W) S8FS-G050□□□ (50 W)



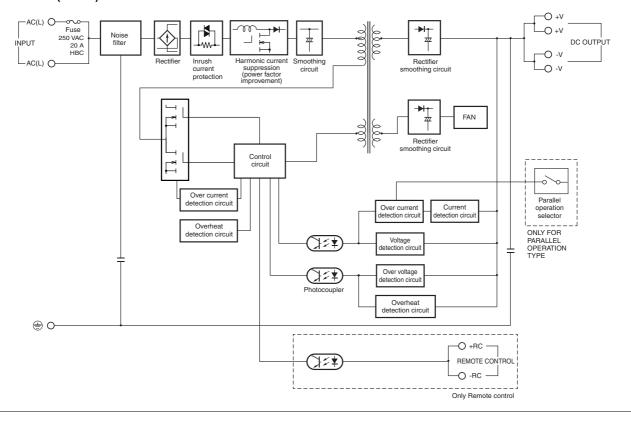
S8FS-G100□□□ (100 W) S8FS-G150□□□ (150 W)



S8FS-G300□□□ (300 W)



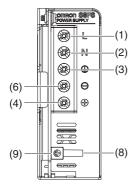
S8FS-G600□□□ (600 W)



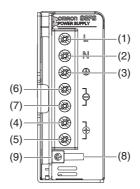
Construction and Nomenclature

Nomenclature

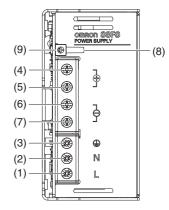




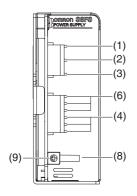
\$8FS-G100□□□ \$8FS-G150□□□



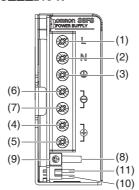
S8FS-G300□□□
S8FS-G600□□□



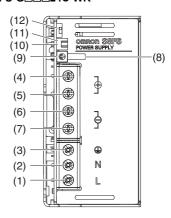
S8FS-G□□□24CE



S8FS-G□□□24C-R



S8FS-G□□□24C-WR



No.	Terminal name	Name	Function		
(1)	L	Input terminals	Connect the input lines to these terminals. *1		
(2)	N	Input terminals	Connect the input lines to these terminals. *1		
(3)	PE	Protective Earth terminal (⊕)	Connect the ground line to this terminal. *2		
(4)	+V1				
(5)	+V2	DC output terminals	Connect the load lines to these terminals.		
(6)	-V1	DC output terminals			
(7)	-V2				
(8)		Output indicator (DC ON: green)	Lights while a direct current (DC) output is ON.		
(9)		Output voltage adjuster (V.ADJ)	Use to adjust the voltage.		
(10)	+RC	Remote control terminals	Wire for remote control.		
(11)	-RC	Remote control terminals	whe for remote control.		
(12)		Parallel operation switch	To operate in parallel, set the switch to the "PARALLEL" side.		

^{*1.} The fuse is located on the (L) side. It is not user-replaceable. For a DC input, connect the positive voltage to the L terminal.

Input and Output Connectors (Connector type)

			- · ·			
			Applicable connector	Housing	Terminals	Applicable crimp tool
Input side	All models	CN110	B3P5-VH (LF) (SN)	VHR-5N		
Output side	S8FS-G01524□E S8FS-G03024□E tout side S8FS-G05024□E CN5	CN510	B4P-VH (LF) (SN)	VHR-4N	Reel: SVH-21T-P1.1 Bulk: BVH-21T-P1.1	YC-160R
•	S8FS-G10024□E S8FS-G15024□E		B6P-VH (LF) (SN)	VHR-6N		
Manufacturer			J.S.T. Mfg. Co., Ltd.	•		

Note: The female connectors that are required for wiring are not provided with the Power Supply.

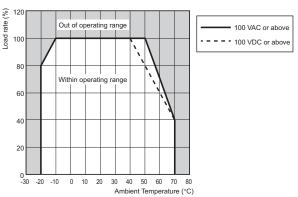
^{*2.} This is the protective earth terminal specified in the safety standards. Always ground this terminal.

Engineering Data

Derating Curves

Output Derating

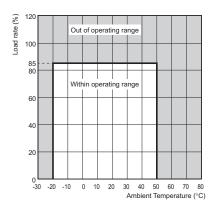
Standalone operation (15 W to 150 W)



Note: Multiply the load ratio shown in the above output derating curve by the coefficient of load reduction to input voltage.

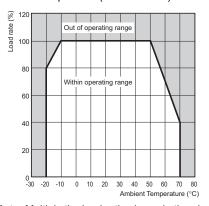
Parallel Operation

For Models with Parallel Operation Option



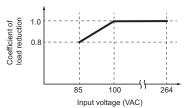
Note: Multiply the load ratio shown in the above output derating curve by the coefficient of load reduction to input voltage.

Standalone operation (300 W/600 W)



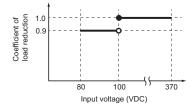
Note: Multiply the load ratio shown in the above output derating curve by the coefficient of load reduction to input voltage.

Coefficient of load reduction to input voltage AC input (15 W to 600 W)



* 15 W/30 W/50 W/100 W/150 W only when used at ambient temperature 40°C or higher

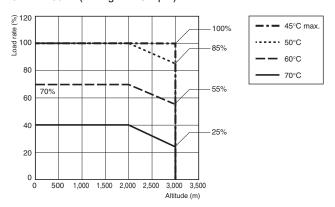
DC input (15 W to 150 W)



This Power Supply can be used at an altitude of 3,000 m.

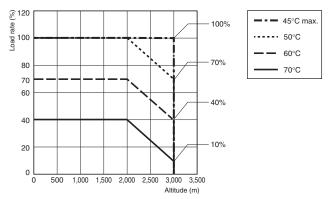
Between 2,000 and 3,000 m, derate the load according to the following derating curve.

15 W to 150 W (During an AC input)



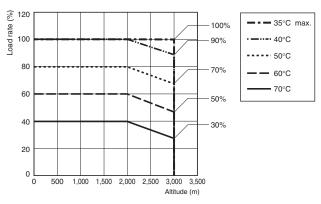
Note: Multiply the load ratio shown in the above output derating curve by the coefficient of load reduction to input voltage.

300 W and 600 W



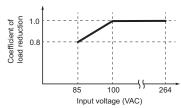
Note: Multiply the load ratio shown in the above output derating curve by the coefficient of load reduction to input voltage.

15 W to 150 W (During a DC input)



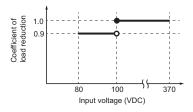
Note: Multiply the load ratio shown in the above output derating curve by the coefficient of load reduction to input voltage.

Coefficient of load reduction to input voltage AC input (15 W to 600 W)



★ 15 W/30 W/50 W/100 W/150 W only when used at ambient temperature 40°C or higher

DC input (15 W to 150 W)

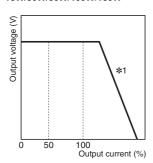


Engineering Data

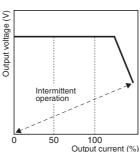
Overload Protection

The load and the Power Supply are automatically protected from overcurrent damage by this function. Overload protection is activated if the output current rises above 105 to 160% of the rated current. When the output current returns within the rated range overload protection is automatically cleared.

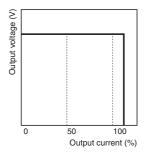
15W/30W/50W/100W/150W







600W



*1. Operation is intermittent in a fixed cycle in short-circuited or overcurrent states.

Note: 1. Internal parts may occasionally deteriorate or be damaged if a short-circuited or overcurrent state continues during operation.

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.

If an excessive voltage that is 120% of the rated voltage or more is output, the output voltage is shut OFF.

Reset the input power by turning it OFF for at least three minutes and then turning it back ON again.

Overheating Protection (300 W and 600 W)

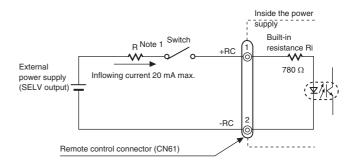
If the internal temperature of the Power Supply rises excessively as a result of fan failure or any other reason, the overheat protection circuit will be triggered to shut OFF the output voltage.

To restore operation, turn OFF the input power supply long enough for the Power Supply to cool sufficiently and then turn it ON again.

Remote Control Function (Only Remote control)

This function is to turn ON/OFF the output by applying a voltage to the remote control connector from a DC power Supply (external power supply) other than this Power Supply.

Voltage between +RC and -RC (V)	Output voltage (VDC)
4.5 to 12.5	ON
0 to 0.5	OFF



Usage example of the remote control

Connectors used:

	CN61	Applicable connector	Applicable contact
Model	B2B-XH-AM	XHP-2	SXH-001T-P0.6 or SXH-002T-P0.6
Manufacturer		J.S.T. Mfg. Co., Ltd.	

Applicable crimp tool: YC-110R (J.S.T. Mfg. Co., Ltd.) or YRS-110 (J.S.T. Mfg. Co., Ltd.)

Note: 1. When the external power supply is 4.5 to 12.5 V, the current limiting resistor R is not required. When it is 12.5 to 24.5 V, insert 1.5 k Ω as the current limiting resistor R.

Reverse connection of the connector may cause damage on the internal parts.

 The +RC and -RC terminals are the secondary circuit of the Power Supply. Use an SELV output power supply for an external power supply. The remote control circuit is insulated from the secondary output of the Power Supply (functional insulation).

Reference Value

	Value
Reliability (MTBF)	Single phase model 15W: 970,000 30W: 970,000 50W: 880,000 100W: 730,000 150W: 620,000 300W: 200,000 600W: 190,000
Definition	MTBF stands for Mean Time Between Failures, which is calculated according to the probability of accidental device failures, and indicates reliability of devices. Therefore, it does not necessarily represent a life of the product.
Life expectancy	10 yrs. Min.
Definition	The life expectancy indicates average operating hours under the ambient temperature of 40°C and a load rate of 50%. Normally this is determined by the life expectancy of the built-in aluminum electrolytic capacitor.

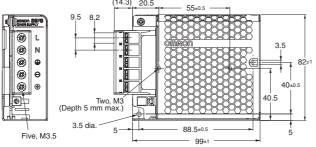
Dimensions (Unit: mm)

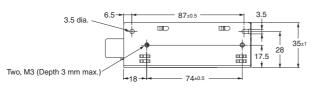
Power Supplies

15 W and 30 W

S8FS-G015□□C S8FS-G030□□C





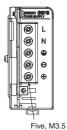


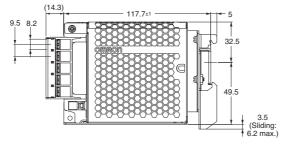
Panel mounting holes dimensions

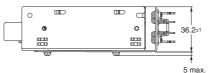
	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Side Mounting	Two, M3 40±0.5	Two, 3.5 dia.
Bottom Mounting	Two, M3	Two, 3.5 dia.

S8FS-G015□□CD S8FS-G030□□CD



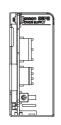


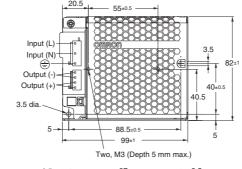


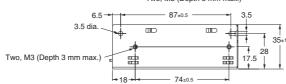


\$8FS-G015□□E \$8FS-G030□□E







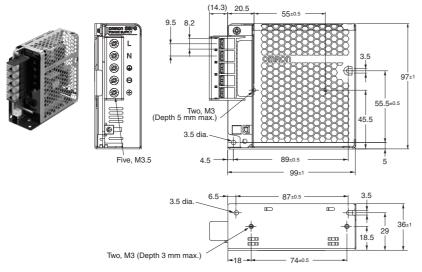


Panel mounting holes dimensions

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

50W

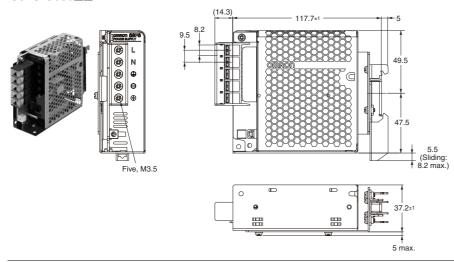
S8FS-G050□□C



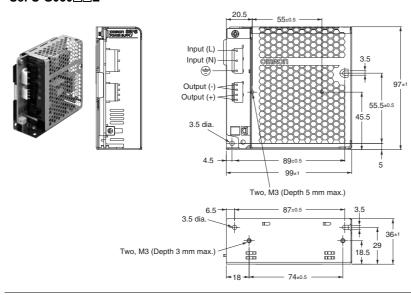
Panel mounting holes dimensions

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

S8FS-G050□□CD



S8FS-G050□□E



Panel mounting holes dimensions

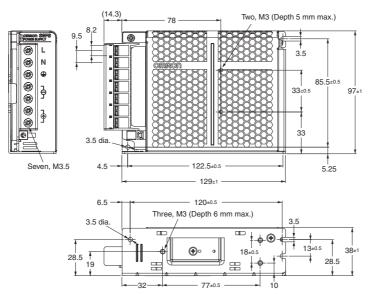
	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Side Mounting	Two, M3	Two, 3.5 dia. 55±0.5 →
Bottom Mounting	Two, M3	Two, 3.5 dia.



100W

S8FS-G100□□C



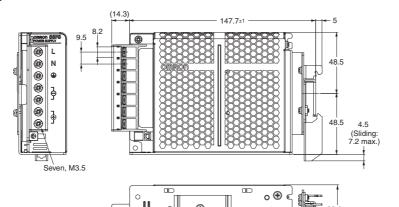


Panel mounting holes dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Side Mounting	Two, M3	Two, 3.5 dia.
Bottom Mounting	13±0.5 Three, M3	Three, 3.5 dia.

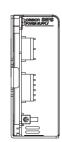
S8FS-G100□□CD

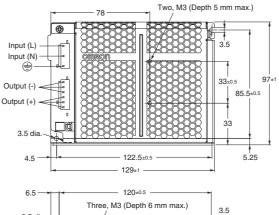


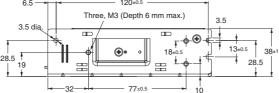


S8FS-G100□□E









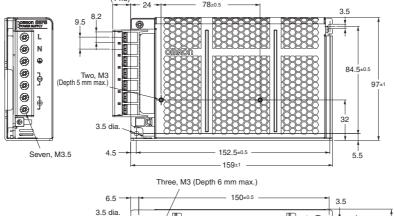
Panel mounting holes dimensions

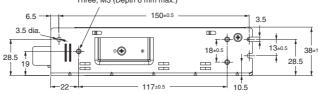
	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Side Mounting	Two, M3	Two, 3.5 dia. 33±0.5
Bottom Mounting	Three, M3 13±0.5	Three, 3.5 dia.

150W

S8FS-G150□□C





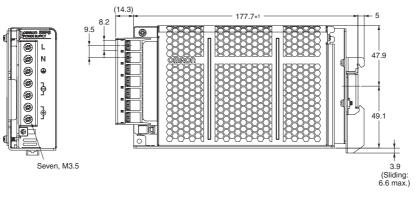


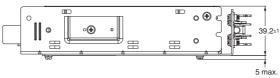
Panel mounting holes dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Side Mounting	Two, M3	Two, 3.5 dia.
Bottom Mounting	Three, M3 13=0.5	Three, 3.5 dia.

S8FS-G150□□CD

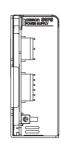


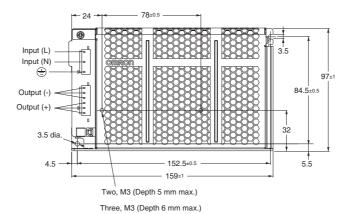


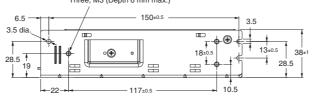


S8FS-G150□□E







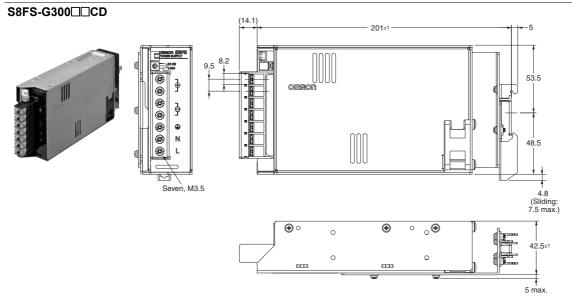


Panel mounting holes dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Side Mounting	Two, M3	Two, 3.5 dia.
Bottom Mounting	Three, M3 13±0.5	Three, 3.5 dia. 117=0.5 18:05

300W

S8FS-G300□□C Two, M4 (Depth 5 mm max.) Panel mounting holes dimensions Using the screw holes in the Power Supply ₩ ₩ Two, 4.5 dia. Side **®** Mounting — 64±0.5 — (A) Four, 4.5 dia. 50.5 **Bottom** 20±0.5 Mounting 74±0.5 (14.1) Seven, M3.5 (3.5) 170±1 60 74±0.5 • 0 **① ①** 20±0.5 12 Four, M4 (Depth 5 mm max.)

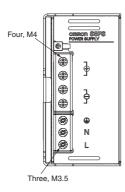


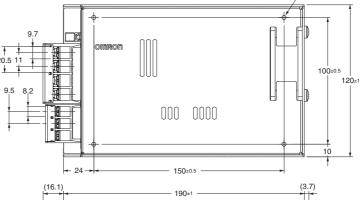
Note: Use a Front-mounting Bracket (S82Y-FSG-30F) when the DIN Rail is not strong enough for your usage environment.

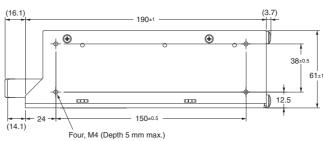
600W

S8FS-G600□□C

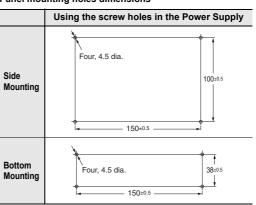








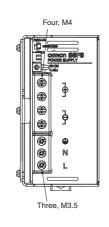
Panel mounting holes dimensions

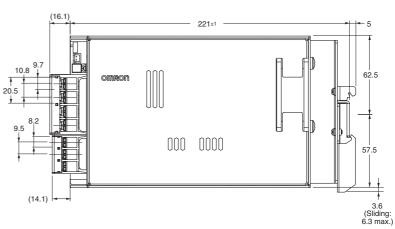


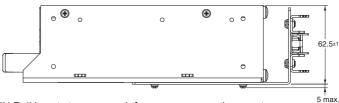
Four, M4 (Depth 5 mm max.)

S8FS-G600□□CD









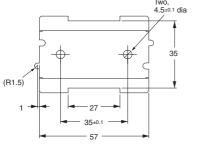
Note: Use a Front-mounting Bracket (S82Y-FSG-60F) when the DIN Rail is not strong enough for your usage environment.

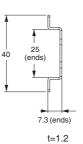
Mounting Brackets (Order Separately)

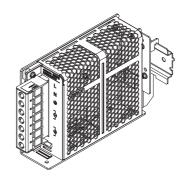
Use the Front-mounting Brackets together with DIN Rail-mounting Power Supplies (S8FS-G CD). Purchase a DIN Rail mounting bracket separately to mount direct mounting models (S8FS-G CDC) on a DIN Rail.

Power rating	Mounting direction	Model
15 W, 30 W, 50 W 100 W, 150 W and 300 W	Front-mounting	S82Y-FSG-30F
600 W	Front-mounting	S82Y-FSG-60F

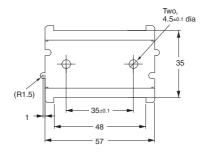
S82Y-FSG-30F

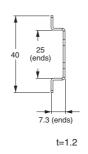


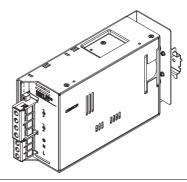




S82Y-FSG-60F







Note: Replacement brackets from the S8JX-N, S8JX-P, and S8VM series are available. Use these brackets for a front mounting configuration using direct mounting models.

Refer to the data sheet (Cat. No.: T216-E1, T217-E1, and T218-E1) for more information.

Terminal cover (Order Separately)

Power rating	Applicable models	Terminal Cover model number
15 W	S8FS-G015□□□	
30 W	S8FS-G030□□□	S82Y-FSG-C5P
50 W	S8FS-G050□□□	
100 W	S8FS-G100□□□	
150 W	S8FS-G150□□□	S82Y-FSG-C7P
300 W	S8FS-G300□□□	
600 W	S8FS-G600□□□	S82Y-FSG-C7P-L (Input Output)

Note: A Terminal Block Cover is provided with the Power Supply as a standard accessory. You can purchase another one if your Cover is damaged or lost.

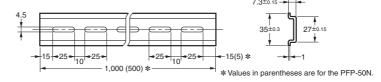
DIN Rail (Order Separately)

(Unit: mm)

Mounting Rail (Material: Aluminum)

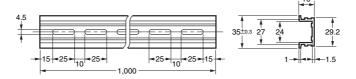
PFP-100N PFP-50N





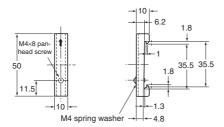
Mounting Rail (Material: Aluminum) PFP-100N2





End Plate PFP-M

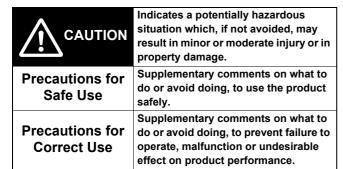




Note: If there is a possibility that the Unit will be subject to vibration or shock, use a steel DIN Rail. Otherwise, metallic filings may result from aluminum abrasion.

Safety Precautions

Refer to Safety Precautions for All Power Supplies. Warning Indications



Meaning of Product Safety Symbols



Used to warn of the risk of electric shock under specific conditions.



Used to warn of the risk of minor injury caused by high temperatures.



Use to indicate prohibition when there is a risk of minor injury from electrical shock or other source if the product is disassembled.



Used for general mandatory action precautions for which there is no specified symbol.

/!\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.

M3.5: 0.74 to 1.13N·m M4: 1.08 to 1.32N·m



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 –25 to 75°C and a humidity of 90% max.
- Make sure to use the Power Supply within the derating curve, as this may damage the product. Ambient temperature, input voltage and altitude affect the derating.
- Use the Power Supply at a humidity of 90% max.
- Do not use 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. In particular, install the Power Supply as far away as possible from contractors or other devices that are a vibration source.
- Install the Power Supply well away from any sources of strong, high-frequency noise and surge.

Mounting

 Take adequate measures to ensure proper heat dissipation to increase the long-term reliability of the Power Supply.
 Be sure to allow convection in the atmosphere around devices when mounting

Do not use in locations where the ambient temperature exceeds the range of the derating curve.

The S8FS-G015 to S8FS-G150 are cooled by natural convection. Mount them so that air convection will occur around them.

The S8FS-G300 and S8FS-G600 are cooled by forced airflow. Do not allow the ventilation holes to be blocked. The effectiveness of cooling would be reduced.

- 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 and be broken due to adverse heat radiation. Do not loosen the screws on the Power Supply.
- If you mount the Power Supply with the holes provided on the chassis, do not exceed the depth given in the dimensional diagrams.

Use the following tightening torques.

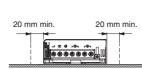
M3 screws: 0.48 to 0.59 N·m M4 screws: 1.08 to 1.32 N·m

Mounting

<Standard mounting> S8FS-G015□□□ to 150□□□ Bottom mounting

20 mm min. 20 mm min.

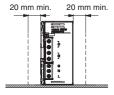
Side (horizontal orientation) mounting

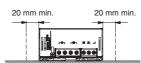


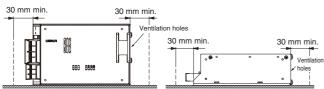
S8FS-G300 and S8FS-G600

Bottom mounting

Side (horizontal orientation) mounting

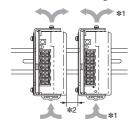






Note: Use a metal plate as the mounting surface.

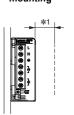
DIN rail mounting

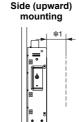


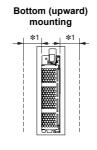
- *1. Convection of air.
- *2. 20 mm min.

<Other mounting types> *2 S8FS-G015□□□ to 150□□□

Side (vertical orientation) mounting



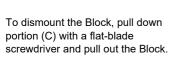


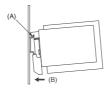


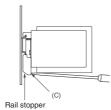
- ***1.**20 mm min.
- *2. Applicable to products produced from May 2018

<DIN Rail Mounting>

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.







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 150-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-G to prevent smoking or ignition caused by abnormal loads.

Terminals and Wiring (Screw terminal block type)

Terminals	Model	Recommendes Wire Gauges	
	S8FS-G015□□□	AWG12-22	
Input	S8FS-G030 to 100 to	AWG12-20	
	S8FS-G150 to 600 to	AWG12-16	
	S8FS-G01512□ to 01524□	AWG12-22	
	S8FS-G03024□	AVVG12-22	
	S8FS-G01505□		
	S8FS-G03012□, 03015□	AWG12-20	
	S8FS-G05015□, 05024□	AVVG12-20	
	S8FS-G15048□		
	S8FS-G05012□	AWG12-18	
	S8FS-G10024□	AVVG12-18	
	S8FS-G03005□		
Output	S8FS-G10015□	AWG12-16	
Output	S8FS-G15024□		
	S8FS-G30048□		
	S8FS-G05005□		
	S8FS-G10012□	AWG12-14	
	S8FS-G15015□		
	S8FS-G10005□		
	S8FS-G15005□, 15012□	AWG12	
	S8FS-G30012□ to 30024□		
	S8FS-G60015□ to 60048□	AWG10-12	
	S8FS-G60012□	AWG10	
Protective earth terminal	S8FS-G015□□□ to 600□□□	AWG12-14	

Note: The current capacity per output terminal is given in the following table.

S8FS-G015 to S8FS-G300 : 20 A

S8FS-G600□□: 30 A

Use two terminals together if the current flow is higher than the rated terminal current.

Terminals and Wiring (Connector type)

Terminals	Model	Recommendes Wire Gauges
Input	S8FS-G01524□E to 15024□E	AWG18
Output	S8FS-G01524□E to 15024□E	AWG18

Note: 1. The current capacity per output terminal is 5 A.

Use two or more terminals together if the current flow is higher than the rated terminal current.

- Do not insert and remove any connector more than 20 times.
- 3. Refer to Input and Output Connectors on page 15 for the model numbers of the input and output connectors.



Overcurrent Protection

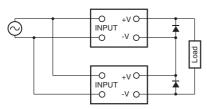
- Internal parts may possibly deteriorate or be damaged if a shortcircuited, overload, or boost load state continues during operation.
- Internal parts may possibly deteriorate or be damaged if the Power Supply is used for applications with frequent inrush current or overloading at the load end. Do not 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 operation.



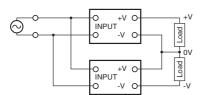
Note: 1. The diode is connected as shown in the figure. If the load is short-circuited, a reverse voltage will be generated inside the Power Supply. If this occurs the Power Supply may possibly deteriorate or be damaged. Always connect a diode as shown in the figure. Select a diode having the following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

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

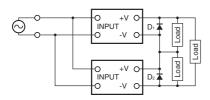
Although Power Supply having different specifications can be connected in series, the current flowing through connected in series, the current flowing through the load must not exceed the smaller rated output current.

<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. If positive and negative outputs are used, connect Power Supplies of the same series as in the following figure. Combinations with different output capacities or output voltages can be made. However, use the lower of the two rated 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 may operate in series.
 Therefore, connect bypass diodes (D1, D2) as shown in the following figure. If the list of models that support series connection of outputs says that an external diode is not required, an external diode is also not required for positive/negative outputs.

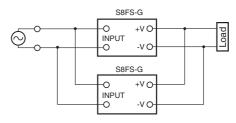


• Use the following information as a guide to the diode type, dialectic strength, and current.

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

Parallel Operation

Parallel operation is used when the output current from one Power Supply is insufficient for the load. Power Supplies are connected in parallel to increase the output current.



Power Supplies without the Parallel Operation Option

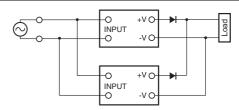
Parallel operation is not possible.

S8FS-G60024□-W□ (Models with the Parallel Operation Option)

Up to five Power Supplies can be connected in parallel operation. You must meet the following conditions to use parallel operation.

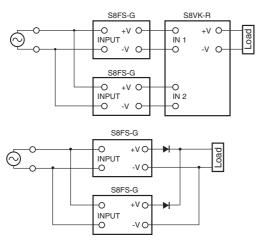
- The internal parts may occasionally deteriorate or be damaged. To operate in parallel, set the switch to the "PARALLEL" side.
- For parallel operation, always use Power Supplies with the same model number
- Use the output voltage adjusters (V. ADJ) to adjust the difference in the output voltages to 50 mV or less between Power Supplies that are used in parallel operation.
- The length and thickness of each wire connected to the load must be the same so that there is no difference in the voltage drop value between the load and the output terminals of each Power Supply.
- Drastic fluctuations in the load (including fluctuations that occur
 when starting and starting the load) may reduce the output voltage.
 If fluctuations in the output voltage that result from drastic
 fluctuations in the load would be a problem, connect external
 diodes as shown in the following diagram.
- Use the following information as a guide to the diode type, dialectic strength, and current.

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



Backup Operation

Backup operation is possible if you use two Power Supplies of the same model. Even if one Power Supplies fails, operation can be continued with the other Power Supply. Make sure that the maximum load does not exceed the capacity of one Power Supply. Connect the S8VK-R or external diodes as shown in the following figure for backup operation. Refer to the S8VK-R datasheet (Cat. No.: T059) for information on using the S8VK-R.



Use the following information as a guide to the diode type, dialectic strength, and current.

Туре	Schottky Barrier diode
Dielectric strength (V _{RRM})	Twice the output voltage or above
Forward current (I _F)	Twice the rated output current or above

In Case There Is No Output Voltage

There is a possibility that overload protection, overvoltage protection, or overheating protection are functioning. The internal protection may operate if a large amount of surge voltage, such as a lightning inrush, is applied to the input. In addition, other possible causes for some models include stoppage of the built-in fan and the remote control function (OFF). Check the following five points. If there is still no output voltage, contact your OMRON representative.

- Checking Overload Protection: Remove the load wires and check whether the load is in an overload state or is short-circuited.
- Checking Overvoltage or Internal Protection:
 Turn the power supply OFF, leave it OFF for at least three minutes, and then turn it ON again to see if this clears the condition.
- Checking Overheating Protection (300 W/600 W): Turn OFF the input power supply long enough for the Power Supply to cool sufficiently and then turn it ON again.
- Checking for Built-in Fan Stoppage (300 W/600 W): Check whether or not the built-in fan has stopped.
- Confirming Remote Control Operation (Power Supplies with Remote Control):
 - Check whether or not the +RC and -RC terminals are open. Connect the terminals as specified.

Charging a Battery

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

Built-in Fan Replacement

Audible Noise at Power ON

A harmonic current suppression circuit is built into the Power Supply. This circuit can create noise when the input is turned ON, but it will last only until the internal circuits stabilize and does not indicate any problem in the Power Supply.

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. (See note.)
- 2. Average load rate of 80% max. (See note.)
- 3. Mounting method: Standard mounting
- 4. Rated input voltage

Note: 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 Power Supply 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 or accidents that can be caused by using a Power Supply beyond its service live, 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, the Power Supply failures or accidents may occur.

We therefore recommend that you replace the Power Supply periodically to minimize product failures or 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.

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

MEMO

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.

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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.

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

Performance Data.

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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.

Note: Do not use this document to operate the Unit.

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