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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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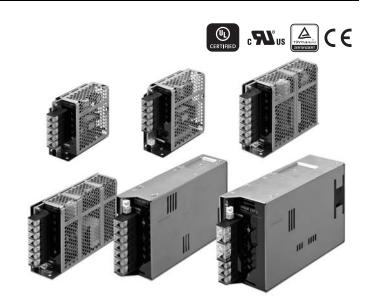
Switch Mode Power Supply S8FS-G (15/30/50/100/150/300/600-W Models)

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 50178) EMI: Class B (EN 61204-3)

No need for control circuit transformers for which the Machinery Directive is specified. (EN/IEC 61558-2-16) * Refer to pages 4 to 10 for certified models.

 Greater Usability The Terminal Block Cover prevents screws from dropping out and the Front Cover prevents ingress of foreign matter.



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

Lineup

Output voltage	Power rating								
Output voltage	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-	$G \square \square \square$				-		
	1	2	3	4	5	6	7

i. Power Ratings	2. Output voitage	
015: 15 W	05: 5 V	
030: 30 W	12: 12 V	
050: 50 W *1	15: 15 V	
100· 100 W *2	24: 24 V	-

150: 150 W ***3** 48: 48 V 300: 300 W

600: 600 W

3. Configuration

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

None: Screw terminal block Connectors *4

5. Option (2) *5 None: None

Parallel operation

7. Option (4) *7 None: None

Extended hold time

6. Option (3) *6 None: None

Remote control

^{*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.

Ordering Information

List of Models

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

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 W		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 W		15 V	2.4 A		S8FS-G03015C
		24 V	1.5 A		S8FS-G03024C
	100 +- 040 \/40	5 V	8 A * 1		S8FS-G05005C
50 M	100 to 240 VAC (Permissible range	12 V	4.3 A		S8FS-G05012C
50 W	85 to 264 VAC, 80 to 370 VDC) *4	15 V	3.5 A	None	S8FS-G05015C
		24 V	2.2 A		S8FS-G05024C
		5 V	16 A * 2		S8FS-G10005C
		12 V	8.5 A		S8FS-G10012C
		15 V	7 A		S8FS-G10015C
		24 V	4.5 A		S8FS-G10024C
		5 V	21 A * 3	1	S8FS-G15005C
		12 V	13 A		S8FS-G15012C
150 W		15 V	10 A		S8FS-G15015C
		24 V	6.5 A		S8FS-G15024C
		48 V	3.3 A		S8FS-G15048C
	100 to 240 VAC	12 V	25 A		S8FS-G30012C
300 W	(Permissible range	15 V	20 A		S8FS-G30015C
300 W	85 to 264 VAC,	24 V	14 A		S8FS-G30024C
	120 to 370 VDC)	48 V	7 A	Voc	S8FS-G30048C
	100 to 240 VAC	12 V	50 A	Yes	S8FS-G60012C
600 W	(Permissible range	15 V	40 A		S8FS-G60015C
000 W	85 to 264 VAC,	24 V	27 A		S8FS-G60024C
	120 to 350 VDC)	48 V	13 A		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	Tes	S8FS-G60024C-H

With Cover/Direct Mounting (Connector type)

Power ratings	Input voltage	Output voltage (VDC)	Output current	Built-in fan	Model
15 W	400 1- 040 1/40		0.65 A		S8FS-G01524CE
30 W	100 to 240 VAC (Permissible range		1.5 A		S8FS-G03024CE
50 W	85 to 264 VAC,	24 V	2.2 A	None	S8FS-G05024CE
100 W	80 to 370 VDC) *4		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.

With Cover/DIN Rail Mounting

ower ratings	Input voltage	Output voltage (VDC)	Output current	Built-in fan	Model
		5 V	3 A		S8FS-G01505CD
45 14/		12 V	1.3 A		S8FS-G01512CD
15 W		15 V	1 A		S8FS-G01515CD
		24 V	0.65 A		S8FS-G01524CD
		5 V	6 A		S8FS-G03005CD
20 W		12 V	3 A		S8FS-G03012CE
30 W		15 V	2.4 A		S8FS-G03015CD
		24 V	1.5 A		S8FS-G03024CE
		5 V	8 A * 1		S8FS-G05005CE
50 W	100 to 240 VAC (Permissible range	12 V	4.3 A		S8FS-G05012CE
	85 to 264 VAC,	15 V	3.5 A	None	S8FS-G05015CE
	80 to 370 VDC) *4	24 V	2.2 A		S8FS-G05024CE
100 W		5 V	16 A * 2		S8FS-G10005CE
		12 V	8.5 A		S8FS-G10012CE
		15 V	7 A		S8FS-G10015CE
		24 V	4.5 A		S8FS-G10024CE
		5 V	21 A * 3		S8FS-G15005CD
		12 V	13 A		S8FS-G15012CD
150 W		15 V	10 A		S8FS-G15015CD
		24 V	6.5 A		S8FS-G15024CE
		48 V	3.3 A		S8FS-G15048CD
	100 to 040 VAC	12 V	25 A		S8FS-G30012CD
200 W	100 to 240 VAC (Permissible range	15 V	20 A		S8FS-G30015CD
300 W	85 to 264 VAC, 120 to 370 VDC)	24 V	14 A		S8FS-G30024CD
	120 (0 370 VDC)	48 V	7 A	Yes	S8FS-G30048CD
	100 to 240 VAC	12 V	50 A	res	S8FS-G60012CD
600 W	(Permissible range	15 V	40 A		S8FS-G60015CD
000 W	85 to 264 VAC, 120 to 350 VDC)	24 V	27 A		S8FS-G60024CD
	120 (0 330 VDC)	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	Vac	S8FS-G30024CD-H
600 W	100 to 240 VAC (Permissible range 85 to 264 VAC, 120 to 350 VDC)	24 V	27 A	Yes	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.

Specifications

		Power rating	15 W				
Item		Output voltage	5 V 12 V 15 V 2				
		100 VAC input	80% typ.	84% typ.	84% typ.	85% typ.	
Efficiency *		200 VAC input	80% typ.	84% typ.	84% typ.		
Linelettey &		·	· · · · · · · · · · · · · · · · · · ·			86% typ.	
	Voltogo venera di	230 VAC input	80% typ.	84% typ.	84% typ.	86% typ.	
	Voltage range *		Single phase, 85 to 26		,		
	Frequency *	T	50/60 Hz (47 to 450 Hz	2)			
	Current *	100 VAC input	0.32 A typ.				
		200 VAC input	0.2 A typ.				
Input	Power factor						
	Leakage current *	100 VAC input	0.5 mA max.				
	Leakage Current &	200 VAC input	1 mA max.				
	Inrush current *	100 VAC input	14 A typ.				
	(for a cold start at	200 VAC input	28 A typ.				
	25°C)	·	5.	1	1		
	Rated Output Currer		3 A	1.3 A	1 A	0.65 A	
	Voltage adjustment	range *	-10% to 15% (with V.A	.DJ)			
	Ripple & Noise voltage *	100 to 240 VAC input	40 mVp-p max.	40 mVp-p max.	40 mVp-p max.	60 mVp-p max.	
	Input variation influe	ence *	0.5% max.				
O	Load variation influe	ence *	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 *	200 VAC input	1,000 ms max.				
		100 VAC input	15 ms typ.	14 ms typ.	15 ms typ.	15 ms typ.	
	Hold time *	200 VAC input	75 ms typ.	70 ms typ.	75 ms typ.	70 ms typ.	
	Overload protection	•	Yes, automatic reset	70 ms typ.	75 ms typ.	70 ms typ.	
	Overload protection		· · · · · · · · · · · · · · · · · · ·	roted cutout voltage	navior about off (about off th	so input valtage and turn a	
	Overvoitage protection *		the input again)	rated output voitage,	power shut on (shut on tr	ne input voltage and turn o	
Overheat protection		No No					
Additional	-		Yes (For up to two Pov	ver Sunnline external	diodes are required \		
unctions	•	•			• • • • • • • • • • • • • • • • • • • •	ad \	
	Parallel operation			operation is possible, e	external diodes are requir	ea.)	
	Remote sensing		No No				
	Remote control		No				
	Output indicator		Yes (LED: Green)				
			,	<u>'</u>	s and output terminals) co		
Insulation	Withstand voltage		·	•	s and PE terminals) curre		
			1 kVAC for 1 min. (bety	veen all output termina	als and PE terminals) cur	rent cutoff 20 mA	
	Insulation resistance	e	100 M Ω min. (between	all output terminals ar	nd all input terminals/PE t	erminals) at 500 VDC	
	Ambient operating to	emperature	-20 to 70°C (Derating i	s required according t	o the temperature.) (with	no condensation or icing)	
	Storage temperature	•	-25 to 75°C (with no co	ondensation or icing)			
Environment	Ambient operating h	numidity	90% max. (Storage hui	midity: 90% max.)			
	Vibration resistance	·	, ,		litude for 2 h each in X, Y	, and Z directions	
	Shock resistance		150 m/s ² , 3 times each	· · · · · · · · · · · · · · · · · · ·			
	MTBF		135,000 hrs min.				
Reliability	Life expectancy *		10 years min.				
	Dimensions (W×H×E))	Refer to <i>Dimensions</i> on page 19.				
	Weight	1	250 g				
Construction			<u> </u>				
	Cooling fan		No				
	Degree of protection						
	Harmonic current en	1	Conforms to EN 61000		01		
	EMI *	Conducted Emissions	Conforms to EN 61204	· · · · · · · · · · · · · · · · · · ·			
		Radiated Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B				
	EMS		Conforms to EN 61204	-3 high severity levels			
Standards	Safety Standards			-1 (Recognition, OVCl excluding models with 1, No.62368-1 (exclud ,000 m], OVCII [> 2,00 EC 62368-1 (OVCII [≤ 1558-2-16	II [≤ 3,000 m], Pol2) connector option) ing models with connecto 00 m and ≤ 3,000 m], Pol2		
	Marine Standards		No				
	SEMI		Conforms to F47-0706	(200 VAC input)			
D () D (and Eupations on pa					

^{*} Refer to Ratings, Characteristics, and Functions on page 11.

		Power rating	30 W					
Item		Output voltage	5 V 12 V 15 V 24 V					
		100 VAC input	81% typ.	84% typ.	86% typ.	86% typ.		
Efficiency *		200 VAC input	81% typ.	86% typ.	88% typ.	88% typ.		
Linescriby 4		230 VAC input	81% typ.	86% typ.	88% typ.	89% typ.		
	Voltage range *	200 TAO IIIput	,,	264 VAC, 80 to 370 VDC		oo /o typ.		
	Frequency *		50/60 Hz (47 to 450	· · · · · · · · · · · · · · · · · · ·				
	Troquency 4	100 VAC input	0.72 A typ.	7112)				
	Current *	200 VAC input	0.43 A typ.					
	Power factor	200 1710 111941						
Input	1 Giror ruotor	100 VAC input	0.5 mA max.					
	Leakage current *	200 VAC input	1 mA max.					
	Inrush current *	100 VAC input	14 A typ.					
	(for a cold start at	•						
	25°C)	200 VAC input	28 A typ.					
	Rated Output Curre		6 A	3 A	2.4 A	1.5 A		
	Voltage adjustment	range *	-10% to 15% (with	V.ADJ)				
	Ripple & Noise	100 to 240 VAC input	50 mVp-p max.	60 mVp-p max.	50 mVp-p max.	60 mVp-p max.		
	voltage * Input variation influ	ence *	0.5% max.					
	Load variation influ		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 *	200 VAC input	1,000 ms max.					
		100 VAC input	11 ms typ.	10 ms typ.	11 ms typ.	10 ms typ.		
	Hold time *	200 VAC input	60 ms typ.	50 ms typ.	50 ms typ.	55 ms typ.		
	Overload protection	1	Yes, automatic rese	et				
	Overvoltage protection *		Yes, 120% or highe	r of rated output voltage,	power shut off (shut off th	ne input voltage and turn		
			the input again)	· · · · · · · · · · · · · · · · · · ·	· 			
Additional unctions Overheat protection Series operation	1	No						
	Series operation		Yes (For up to two I	Power Supplies, external	diodes are required.)			
idilotions	Parallel operation	arallel 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. (I	petween all input terminal	s and output terminals) co	urrent cutoff 20 mA		
Insulation	Withstand voltage		2 kVAC for 1 min. (I	petween all input terminal	s and PE terminals) curre	ent cutoff 20 mA		
			1 kVAC for 1 min. (I	petween all output termina	als and PE terminals) cur	rent cutoff 20 mA		
	Insulation resistance	e	100 MΩ min. (between	een all output terminals ar	nd all input terminals/PE t	erminals) at 500 VDC		
	Ambient operating t	temperature	-20 to 70°C (Derati	ng is required according t	o the temperature.) (with	no condensation or icing		
	Storage temperature	е	-25 to 75°C (with n	condensation or icing)				
Environment	Ambient operating I	humidity	90% max. (Storage	humidity: 90% max.)				
	Vibration resistance	9	· ·	nax., 0.375-mm half amp		, and Z directions		
	Shock resistance		· · ·	ach in ±X, ±Y, ±Z directio	ns			
Reliability	MTBF		135,000 hrs min.					
, ,	Life expectancy *		10 years min.					
	Dimensions (W×H×I	D)	Refer to Dimension	s on page 19.				
Construction	Weight		250 g					
	Cooling fan		No					
	Degree of protection							
	Harmonic current er	missions	Conforms to EN 61000-3-2					
	EMI *	Conducted Emissions		204-3 Class B, EN 55011				
		Radiated Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B					
	EMS		Conforms to EN 61:	204-3 high severity levels				
Standards	Safety Standards			UL 508 (Listing, excluding models with connector option) UL 60950-1, UL 62368-1 (Recognition, OVCII [\leq 3,000 m], Pol2) CSA C22.2 No.107.1 (excluding models with connector option) CSA C22.2 No.60950-1, No.62368-1 (excluding models with connector option) EN 50178 (OVCIII [\leq 2,000 m], OVCII [\approx 2,000 m and \leq 3,000 m], Pol2) EN/IEC 60950-1, EN/IEC 62368-1 (OVCIII [\leq 3,000 m], Pol2) Conforms to EN/IEC 61558-2-16 Conforms to PELV (EN/IEC 60204-1)				
	Marine Standards		No					
	SEMI			706 (200 VAC input)				
h Defeate Det		and Functions on na		TO (EUG FAO IIIPUL)				

^{*} Refer to Ratings, Characteristics, and Functions on page 11.

		Power rating	50 W							
Item		Output voltage	5 V	12 V	15 V	24 V				
		100 VAC input	81% typ.	84% typ.	86% typ.	86% typ.				
Efficiency *		200 VAC input	82% typ.	86% typ.	88% typ.	89% typ.				
, ,		230 VAC input	82% typ.	86% typ.	88% typ.	89% typ.				
	Voltage range *			264 VAC, 80 to 370 VDC		50 / 1 Jp.				
	Frequency *		50/60 Hz (47 to 450							
	. requestey t	100 VAC input	1.1 A typ.	/						
	Current *	200 VAC input	0.62 A typ.							
	Power factor									
Input		100 VAC input	0.5 mA max.							
	Leakage current *	200 VAC input	1 mA max.							
	Inrush current *	100 VAC input	14 A typ.							
	(for a cold start at	-								
	25°C)	200 VAC input	28 A typ.	<u> </u>	T					
	Rated Output Currer		8 A	4.3 A	3.5 A	2.2A				
	Voltage adjustment	range *	-10% to 15% (with	V.ADJ)						
	Ripple & Noise voltage *	100 to 240 VAC input	40 mVp-p max.	40 mVp-p max.	40 mVp-p max.	60 mVp-p max.				
	Input variation influe		0.5% max.							
Output	Load variation influe	ence *	1.0% max.							
σαιραί	Temperature variation influence	100 to 240 VAC input	0.05%/°C max.							
	Startup time *	100 VAC input	1,000 ms max.							
	July time 4	200 VAC input	1,000 ms max.							
	Hold time ≭	100 VAC input	14 ms typ.	11 ms typ.	10 ms typ.	10 ms typ.				
	Hold tille 本	200 VAC input	75 ms typ.	60 ms typ.	60 ms typ.	55 ms typ.				
	Overload protection		Yes, automatic rese	et	<u>, </u>					
	Overvoltage protect	ion *	Yes, 120% or higher the input again)	r of rated output voltage,	power shut off (shut off th	ne input voltage and turn				
	Selies Operation		No							
Additional			Yes (For up to two	Power Supplies, external	diodes are required.)					
unctions	Parallel operation		No (However, back	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. (petween all input terminal	s and output terminals) c	urrent cutoff 20 mA				
	With stand soltans		2 kVAC for 1 min. (petween all input terminal	s and PE terminals) curre	ent cutoff 20 mA				
Insulation	Withstand voltage		1 kVAC for 1 min. (petween all output termina	als and PE terminals) cur	rent cutoff 20 mA				
			500 VAC for 1 min.	(between all output termi	nals and RC terminals) co	urrent cutoff 20 mA				
	Insulation resistance	e	100 MΩ min. (betw	een all output terminals a	nd all input terminals/PE t	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 n	o 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 amp	litude for 2 h each in X, Y	, and Z directions				
	Shock resistance		150 m/s², 3 times each in ±X, ±Y, ±Z directions							
	Shock resistance		135,000 hrs min.							
Reliability	MTBF	MTBF				10 years min.				
Reliability	MTBF Life expectancy *									
Reliability		D)		s on page 20.						
<u> </u>	Life expectancy *	0)	10 years min.	s on page 20.						
<u> </u>	Life expectancy * Dimensions (W×H×E	0)	10 years min. Refer to <i>Dimension</i>	s on page 20.						
	Life expectancy * Dimensions (W×H×E Weight	,	10 years min. Refer to <i>Dimension</i> 300 g	s on page 20.						
	Life expectancy * Dimensions (W×H×E Weight Cooling fan	1	10 years min. Refer to <i>Dimension</i> 300 g No	. 0						
<u> </u>	Life expectancy * Dimensions (W×H×E Weight Cooling fan Degree of protection Harmonic current er	1	10 years min. Refer to <i>Dimension</i> 300 g No Conforms to EN 61	. 0	Class B					
<u> </u>	Life expectancy * Dimensions (W×H×E Weight Cooling fan Degree of protection	n nissions	10 years min. Refer to Dimension 300 g No Conforms to EN 61 Conforms to EN 61	000-3-2						
<u> </u>	Life expectancy * Dimensions (W×H×E Weight Cooling fan Degree of protection Harmonic current er	n nissions Conducted Emissions	10 years min. Refer to Dimension 300 g No Conforms to EN 61 Conforms to EN 61	000-3-2 204-3 Class B, EN 55011	Class B					
Construction	Life expectancy * Dimensions (W×H×I Weight Cooling fan Degree of protection Harmonic current er EMI *	n nissions Conducted Emissions	10 years min. Refer to Dimension 300 g No Conforms to EN 61 Conforms to EN 61 Conforms to EN 61 UL 508 (Listing, ext UL 60950-1, UL 62 CSA C22.2 No.609 EN 50178 (OVCIII	000-3-2 204-3 Class B, EN 55011 204-3 Class B, EN 55011 204-3 high severity levels cluding models with conne 368-1 (Recognition, OVCI 1.1 (excluding models with 62 2,000 m], OVCII [> 2,00 N/IEC 62368-1 (OVCII [≤ C 61558-2-16	Class B ector option) II [≤ 3,000 m], Pol2) connector option) ing models with connecto 00 m and ≤ 3,000 m], Pol2					
Reliability Construction Standards	Life expectancy * Dimensions (W×H×E Weight Cooling fan Degree of protection Harmonic current er EMI *	n nissions Conducted Emissions	10 years min. Refer to Dimension 300 g No Conforms to EN 61 Conforms to EN 61 Conforms to EN 61 Conforms to EN 61 UL 508 (Listing, exu UL 60950-1, UL 62 CSA C22.2 No.609 EN 50178 (OVCIII EN/IEC 60950-1, E Conforms to EN/IEC	000-3-2 204-3 Class B, EN 55011 204-3 Class B, EN 55011 204-3 high severity levels cluding models with conne 368-1 (Recognition, OVCI 1.1 (excluding models with 62 2,000 m], OVCII [> 2,00 N/IEC 62368-1 (OVCII [≤ C 61558-2-16	Class B ector option) II [≤ 3,000 m], Pol2) connector option) ing models with connecto 00 m and ≤ 3,000 m], Pol2					

^{*} Refer to Ratings, Characteristics, and Functions on page 11.

		Power rating	100 W					
Item		Output voltage	5 V 12 V 15 V 24 V					
iteiii								
Efficiency #		100 VAC input 200 VAC input	79% typ.	84% typ.	85% typ.	87% typ.		
Efficiency *		230 VAC input	81% typ. 81% typ.	86% typ. 86% typ.	87% typ. 87% typ.	89% typ.		
	Voltage range *	230 VAC IIIput				89% typ.		
	Frequency *		Single phase, 85 to 264 VAC, 80 to 370 VDC 50/60 Hz (47 to 450 Hz)					
	rrequerity *	100 VAC input	2.1 A typ.) nz)				
	Current *	100 VAC input 200 VAC input	1.2 A typ.					
	Power factor	200 VAC IIIput	1.2 A typ.					
Input	Power factor	100 VAC input	0.5 mA max.					
	Leakage current *	100 VAC input						
	Inrush current *	200 VAC input	1 mA max.					
	(for a cold start at	100 VAC input	14 A typ.					
	25°C)	200 VAC input	28 A typ.					
	Rated Output Curre	nt	16 A	8.5 A	7 A	4.5 A		
	Voltage adjustment	range *	-10% to 15% (with	V.ADJ)				
	Ripple & Noise	100 to 240 VAC input	70 mVp-p max.	90 mVp-p max.	100 mVp-p max.	80 mVp-p max.		
	voltage *	•		30 mvp-p max.	100 III V p-p IIIax.	oo mvp-p max.		
	Input variation influ		0.5% max.					
Output	Load variation influe	ence *	1.0% max.					
	Temperature	100 to 240 VAC input	0.05%/°C max.					
	variation influence	-						
	Startup time *	100 VAC input	1,000 ms max.					
		200 VAC input	1,000 ms max.	T	T	1		
	Hold time *	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 rese					
	Overvoltage protect	ion *		er of rated output voltage,	power shut off (shut off the	e input voltage and turn		
			the input again)					
Additional	Overheat protection	1	No					
functions	Series operation			Power Supplies, external	· · · · · · · · · · · · · · · · · · ·			
	Parallel operation		,	up operation is possible, e	external diodes are require	ed.)		
	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 terminal	s and output terminals) cu	rrent cutoff 20 mA		
			2 kVAC for 1 min. (between all input terminal	s and PE terminals) curre	nt cutoff 20 mA		
Insulation	Withstand voltage		,	between all output termina	als and PE terminals) curr	ent cutoff 20 mA		
			Only Remote contro					
				(between all output termin				
	Insulation resistance	e		een all output terminals ar				
	Ambient operating t	emperature	 –20 to 70°C (Derati condensation or ici 	ng is required according to	the temperature. Refer to	Engineering Data) (with		
	Storage temperature	•		o condensation or icing)				
Environment	Ambient operating h		,	humidity: 90% max.)				
	Vibration resistance		, ,	max., 0.375-mm half ampl	itude for 2 h asch in V V	and 7 directions		
	Shock resistance			, ,		and Z uncollons		
	MTBF		150 m/s², 3 times each in ±X, ±Y, ±Z directions					
Reliability			135,000 hrs min.					
	Life expectancy *	N	10 years min.					
	Dimensions (W×H×I	(ر	Refer to <i>Dimensions</i> on page 21.					
Construction	Weight		400 g					
OUIISH GCHOIL	Cooling fan		No					
oonstruction	D	1						
oonsi uction	Degree of protection			000-3-2				
	Degree of protection Harmonic current er	nissions	Conforms to EN 61					
		missions Conducted Emissions	Conforms to EN 61	204-3 Class B, EN 55011				
	Harmonic current er	nissions	Conforms to EN 61 Conforms to EN 61	204-3 Class B, EN 55011				
	Harmonic current er	missions Conducted Emissions	Conforms to EN 61 Conforms to EN 61	· · · · · · · · · · · · · · · · · · ·				
	Harmonic current er	missions Conducted Emissions	Conforms to EN 61 Conforms to EN 61 Conforms to EN 61 UL 508 (Listing, exc	204-3 Class B, EN 55011 204-3 high severity levels cluding models with conne	Class B	trol option)		
Consulation	Harmonic current er	missions Conducted Emissions	Conforms to EN 61 Conforms to EN 61 Conforms to EN 61 UL 508 (Listing, ex UL 508 (Recognition	204-3 Class B, EN 55011 204-3 high severity levels cluding models with conne n, models with remote con	Class B ector option or remote control option)	trol option)		
Standards	Harmonic current er	missions Conducted Emissions	Conforms to EN 61 Conforms to EN 61 Conforms to EN 61 UL 508 (Listing, ex UL 508 (Recognitio UL 60950-1, UL 62	204-3 Class B, EN 55011 204-3 high severity levels cluding models with conne	Class B actor option or remote control option) I [≤ 3,000 m], Pol2)	. ,		
	Harmonic current er	missions Conducted Emissions	Conforms to EN 61 Conforms to EN 61 Conforms to EN 61 UL 508 (Listing, ex UL 508 (Recognitio UL 60950-1, UL 62 CSA C22.2 No.107 CSA C22.2 No.6095	204-3 Class B, EN 55011 204-3 high severity levels cluding models with conne n, models with remote cor 368-1 (Recognition, OVCI 1.1 (excluding models with 0-1, No.62368-1 (excluding	Class B actor option or remote connector option) I [≤ 3,000 m], Pol2) connector option or remo	te control option) tion or remote control opti		
	Harmonic current er EMI * EMS	missions Conducted Emissions	Conforms to EN 61 Conforms to EN 61 Conforms to EN 61 UL 508 (Listing, ex UL 508 (Recognitio UL 60950-1, UL 62 CSA C22.2 No.107 CSA C22.2 No.6095 EN 50178 (OVCIII	204-3 Class B, EN 55011 204-3 high severity levels cluding models with conne n, models with remote co 368-1 (Recognition, OVCI 1 (excluding models with 0-1, No.62368-1 (excluding ≤ 2,000 m], OVCII [> 2,000	Class B sector option or remote connector option) I [≤ 3,000 m], Pol2) connector option or remo I models with connector option on and ≤ 3,000 m], Pol2	te control option) tion or remote control opti		
	Harmonic current er EMI * EMS	missions Conducted Emissions	Conforms to EN 61 Conforms to EN 61 Conforms to EN 61 UL 508 (Listing, ex UL 508 (Recognitic UL 60950-1, UL 62 CSA C22.2 No.107 CSA C22.2 No.6095 EN 50178 (OVCIII) EN/IEC 60950-1, E	204-3 Class B, EN 55011 204-3 high severity levels cluding models with conne n, models with remote cor 368-1 (Recognition, OVCI .1 (excluding models with 0-1, No.62368-1 (excluding 2,000 m], OVCII [> 2,00 N/IEC 62368-1 (OVCII [≤	Class B sector option or remote connector option) I [≤ 3,000 m], Pol2) connector option or remo I models with connector option on and ≤ 3,000 m], Pol2	te control option) tion or remote control opti		
	Harmonic current er EMI * EMS	missions Conducted Emissions	Conforms to EN 61 Conforms to EN 61 Conforms to EN 61 UL 508 (Listing, ex UL 508 (Recognitio UL 60950-1, UL 62 CSA C22.2 No.107 CSA C22.2 No.6095 EN 50178 (OVCIII	204-3 Class B, EN 55011 204-3 high severity levels cluding models with conne n, models with remote cot 368-1 (Recognition, OVCI .1 (excluding models with 0-1, No.62368-1 (excluding ≤ 2,000 m], OVCII [> 2,00 N/IEC 62368-1 (OVCII [≤ C 61558-2-16	Class B sector option or remote connector option) I [≤ 3,000 m], Pol2) connector option or remo I models with connector option on and ≤ 3,000 m], Pol2	te control option) tion or remote control opti		
	Harmonic current er EMI * EMS	missions Conducted Emissions	Conforms to EN 61 Conforms to EN 61 Conforms to EN 61 UL 508 (Listing, exit) UL 508 (Recognitic UL 60950-1, UL 62 CSA C22.2 No.107 CSA C22.2 No.6095 EN 50178 (OVCIII) EN/IEC 60950-1, E Conforms to EN/IE	204-3 Class B, EN 55011 204-3 high severity levels cluding models with conne n, models with remote cot 368-1 (Recognition, OVCI .1 (excluding models with 0-1, No.62368-1 (excluding ≤ 2,000 m], OVCII [> 2,00 N/IEC 62368-1 (OVCII [≤ C 61558-2-16	Class B sector option or remote connector option) I [≤ 3,000 m], Pol2) connector option or remo I models with connector option on and ≤ 3,000 m], Pol2	te control option) tion or remote control opti		

^{*} Refer to Ratings, Characteristics, and Functions on page 11.

		Power rating			150 W			
Item		Output voltage	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.	
		230 VAC input	81% typ.	87% typ.	88% typ.	90% typ.	88% typ.	
	Voltage range *			to 264 VAC, 80 to 37		7.	31	
	Frequency *		50 /60 Hz (47 to 4					
		100 VAC input	3 A typ.					
	Current *	200 VAC input	1.8 A typ.					
Input	Power factor	-						
mpac		100 VAC input	0.5 mA max.					
	Leakage current *	200 VAC input	1 mA max.					
	Inrush current *	100 VAC input	14 A typ.					
	(for a cold start at	200 VAC input	28 A typ.					
	25°C)	·		40.4	140.4	1054	1004	
	Rated Output Curre		21 A	13 A	10 A	6.5 A	3.3 A	
	Voltage adjustment	range *	-10% to 15% (wit	tn V.ADJ)	1			
	Ripple & Noise voltage *	100 to 240 VAC input	100 mVp-p max.	110 mVp-p max.	80 mVp-p max.	110 mVp-p max.	120 mVp-p max	
	Input variation influ	ence *	0.5% max.					
	Load variation influ		1.0% max.					
Output	Temperature							
	variation influence	100 to 240 VAC input	0.05%/°C max.					
	Chautum timas de	100 VAC input	1,000 ms max.					
	Startup time *	200 VAC input	1,000 ms max.					
	Hold time *	100 VAC input	14 ms typ.	10 ms typ.	10 ms typ.	10 ms typ.	11 ms typ.	
	Hold tille 4	200 VAC input	80 ms typ.	55 ms typ.	55 ms typ.	55 ms typ.	55 ms typ.	
	Overload protection		Yes, automatic re	eset				
	Overvoltage protect	Overvoltage protection *		Yes, 120% or higher of rated output voltage, power shut off (shut off the input voltage and turn on				
	- ·		the input again)					
Additional	Overheat protection		No					
functions	Series operation		Yes (For up to two Power Supplies, external diodes are required.)					
	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					
	Withstand voltage		2 kVAC for 1 min.(between all input terminals and PE terminals) current cutoff 20 mA					
Insulation	withstand voitage		1 kVAC for 1 min.(between all output terminals and PE terminals) current cutoff 20 mA					
			Only Remote control 500 VAC for 1 min.(between all output terminals and RC terminals) current cutoff 20 mA					
	Insulation resistance	e	100 MΩ min.(between all output terminals and AC terminals) current cutoff 20 mA					
			-20 to 70°C (Derating is required according to the temperature. Refer to Engineering Data) (with no					
	Ambient operating t	Ambient operating temperature		cing)	g to the tempere		= = a.a./ (mill 1	
Facilities	Storage temperature	e	-25 to 75°C (with	no condensation or i	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					
Reliability	MTBF		135,000 hrs min.					
c.iability	Life expectancy *		10 years min.					
	Dimensions (W×H×I	D)	Refer to Dimension	ons on page 23.				
Construction	Weight		500 g					
- STIGHT WOULD!!	Cooling fan		No					
	Degree of protection	n						
	Harmonic current er		Conforms to EN 61000-3-2 (Applicable at 80% or less of the rated load.)					
	EMI *	Conducted Emissions		61204-3 Class B, EN				
	+	Radiated Emissions	Conforms to EN 6	61204-3 Class B, EN	55011 Class B			
	EMS		Conforms to EN 6	61204-3 high severity	levels			
						or remote control option	on)	
				UL 508 (Listing, excluding models with connector option or remote control option) UL 508 (Recognition, models with remote control option) UL 508 (Page 1				
				UL 60950-1, 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			UL 60950-1, UL 6 CSA C22.2 No.10	07.1 (excluding mode	Is with connector of	ption or remote contro		
Standards	Safety Standards		UL 60950-1, UL 6 CSA C22.2 No.10 CSA C22.2 No.60	07.1 (excluding mode 950-1, No.62368-1 (ex	Is with connector of cluding models with	ption or remote contro connector option or re		
Standards	Safety Standards		UL 60950-1, UL 6 CSA C22.2 No.10 CSA C22.2 No.60 EN 50178 (OVCII	07.1 (excluding mode 950-1, No.62368-1 (ex II [≤ 2,000 m], OVCII	Is with connector of cluding models with $[> 2,000 \text{ m}]$ and ≤ 3	ption or remote contro connector option or re ,000 m], Pol2)		
Standards	Safety Standards		UL 60950-1, UL 6 CSA C22.2 No.10 CSA C22.2 No.60 EN 50178 (OVCII EN/IEC 60950-1, Conforms to EN/I	07.1 (excluding mode 950-1, No.62368-1 (ex II [≤ 2,000 m], OVCII EN/IEC 62368-1 (O\ IEC 61558-2-16	Is with connector of cluding models with $[> 2,000 \text{ m}]$ and ≤ 3	ption or remote contro connector option or re ,000 m], Pol2)		
Standards	·		UL 60950-1, UL 6 CSA C22.2 No.10 CSA C22.2 No.60 EN 50178 (OVCII EN/IEC 60950-1, Conforms to EN/I Conforms to PEL	07.1 (excluding mode 950-1, No.62368-1 (ex II [≤ 2,000 m], OVCII EN/IEC 62368-1 (O\	Is with connector of cluding models with $[> 2,000 \text{ m}]$ and ≤ 3	ption or remote contro connector option or re ,000 m], Pol2)		
Standards	Safety Standards Marine Standards SEMI		UL 60950-1, ÜL 6 CSA C22.2 No.10 CSA C22.2 No.60 EN 50178 (OVCII EN/IEC 60950-1, Conforms to EN/I Conforms to PEL	07.1 (excluding mode 950-1, No.62368-1 (ex II [≤ 2,000 m], OVCII EN/IEC 62368-1 (O\ IEC 61558-2-16	Is with connector of cluding models with [> 2,000 m and ≤ 3 /CII [≤ 3,000 m], Po	ption or remote contro connector option or re ,000 m], Pol2)		

Note: Refer to Ratings, Characteristics, and Functions on page 11.

		Power rating	300 W				
Item		Output voltage	12 V	15 V	24 V	48 V	
		100 VAC input	81% typ.	81% typ.	82% typ.	82% typ.	
Efficiency *		200 VAC input	85% typ.	85% typ.	87% typ.	87% typ.	
indicately 4		230 VAC input	85% typ.	86% typ.	87% typ.	87% typ.	
	Voltage range *	230 VAO IIIput	· · · · · · · · · · · · · · · · · · ·		07 /6 typ.	07 /8 typ.	
	Frequency *		Single phase, 85 to 264 VAC, 120 to 370 VDC 50/60 Hz (47 to 63 Hz)				
	Trequency 4	100 VAC input					
	Current * 200 VAC input		4.2 A typ. 2.1 A typ.				
Input	Power factor	200 VAC IIIput	0.9 min.				
iliput	rowel lactor	100 VAC input	0.5 mA max.				
	Leakage current *	200 VAC input					
			1 mA max.				
	Inrush current * (for a cold start at 25°C)	100 VAC input	14 A typ.				
	,		28 A typ.	00.4	14.4	7.0	
	Rated Output Curre		25 A	20 A	14 A	7 A	
	Voltage adjustment		-10% to 15% (with V.A	1	450 \/	000 1/	
	- 11	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	ence *	1.0% max.				
	Temperature variation influence	100 to 240 VAC input	0.05%/°C max.				
Output	variation innactice	100 VAC input	1,000 ms max.				
	Startup time *	200 VAC input	1,000 ms max.				
		100 VAC input	30 ms typ.	30 ms typ.	30 ms typ. 40 ms typ. (Extended	30 ms typ.	
	Hold time *	100 VAC Input	oo ma typ.	oo ma typ.	hold time type)	oo ma typ.	
		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 protection * Overheat protection		Yes, 120% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input agai				
			Yes, power shut off (shut off the input voltage and turn on the input again)				
Additional	Series operation			er Supplies, external did	,		
functions	Parallel operation		` '	• • • • • • • • • • • • • • • • • • • •	ernal diodes are required.)		
	Remote sensing		No				
	Remote control		Yes (Only for models with remote control option)				
	Output indicator		Yes (LED: Green)				
	Output malcutor						
			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	The state of the s		Only Remote control				
			Only Remote control 500 VAC for 1 min. (between all output terminals and RC terminals) current cutoff 20 mA				
	Insulation resistance	e	100 M Ω min. (between all output terminals and all input terminals/PE terminals) at 500 VDC				
	Ambient operating t		-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 I		90% max. (Storage humidity: 90% max.)				
	Vibration resistance	<u>*</u>	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.	±A, ±1, ±£ directions			
Reliability	Life expectancy *		10 years min.				
	· · · · · · · · · · · · · · · · · · ·	n)	·				
	Dimensions (W×H×I	ام	Refer to Dimensions on page 25				
Construction	Weight		700 g				
	Cooling fan	_	Yes				
	Degree of protection						
	Harmonic current er	1	Conforms to EN 61000				
	EMI *	Conducted Emissions		-3 Class B, EN 55011 C			
		Radiated Emissions		-3 Class B, EN 55011 C	lass B		
	EMS		Conforms to EN 61204				
Standards	Safety Standards		UL 508 (Listing, excluding models with remote control option) UL 508 (Recognition, models with remote control option) UL 60950-1, UL 62368-1 (Recognition, OVCII [≤ 3,000 m], Pol2) CSA C22.2 No.107.1 (excluding models with remote control option) CSA C22.2 No.60950-1, No.62368-1 (excluding models with remote control option) EN 50178 (OVCIII [≤ 2,000 m], OVCII [> 2,000 m and ≤ 3,000 m], Pol2) EN/IEC 60950-1, EN/IEC 62368-1 (OVCII [≤ 3,000 m], Pol2) Conforms to EN/IEC 61558-2-16 Conforms to PELV (EN/IEC 60204-1)				
	Marine Standards		No	,			
	SEMI		Conforms to F47-0706	(200 VAC input)			

^{*} Refer to Ratings, Characteristics, and Functions on page 11.

		Power rating		60	00 W		
Item		Output voltage	12 V	15 V	24 V	48 V	
		100 VAC input	84% typ.	84% typ.	85% typ.	88% typ.	
Efficiency *		200 VAC input	88% typ.	88% typ.	89% typ.	92% typ.	
Line concy 4		230 VAC input	88% typ.	88% typ.	90% typ.	92% typ.	
	Voltage range *		Single phase, 85 to 264 VAC, 120 to 350 VDC				
			50 /60 Hz(47 to 63 Hz)	F VAC, 120 to 330 VDC			
	Frequency *		,				
	Current *	100 VAC input	7.7 A typ.				
		200 VAC input	3.8 A typ.				
Input	Power factor		0.9 min.				
	Leakage current *	100 VAC input	0.5 mA max.				
	Lounage ourroin v	200 VAC input	1 mA max.				
	Inrush current *	100 VAC input	14 A typ.				
	(for a cold start at 25°C)	200 VAC input	28 A typ.				
	Rated Output Curre	nt	50 A	40 A	27 A	13 A	
	Voltage adjustment	range *	-10% to 15% (with V.A	DJ)			
	Ripple & Noise voltage *	100 to 240 VAC input	170 mVp-p max.	170 mVp-p max.	280 mVp-p max.	340 mVp-p max.	
	Input variation influ	ence *	0.5% max.				
	Load variation influ		1.0% max.				
	Temperature						
	variation influence	100 to 240 VAC input	0.05%/°C max.				
Output		100 VAC input	1,000 ms max.				
	Startup time *	200 VAC input	1,000 ms max.				
		200 TAO IIIput	1,000 mo max.		30 ms typ.		
		100 VAC input	30 ms typ.	25 ms typ.	40 ms typ. (Extended	30 ms typ.	
	Hold time *	·]		hold time type)		
					30 ms typ.		
		200 VAC input	30 ms typ.	25 ms typ.	40 ms typ. (Extended	30 ms typ.	
					hold time type)		
	Overload protection Overvoltage protection *		Yes, automatic reset				
			Yes, 120% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input aga				
	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 Pow	er Supplies, external dio	des are required.)		
	Parallel operation		Yes (up to five Power S	Supplies, S8FS-G60024 (models with parallel opera	tion option) only).	
	Remote sensing		No				
	Remote control		Yes (Only Remote control)				
	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				
			500 VAC for 1 min. (between all output terminals and RC terminals) current cutoff 20 mA				
	Insulation resistance	<u>е</u>	,	· · · · · · · · · · · · · · · · · · ·			
	Ambient operating t		100 MΩ 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)				
	Storage temperature	•	, ,	<u> </u>	ie temperature.) (with no e	oriderisation or leng	
Environment			-25 to 75°C (with no condensation or icing)				
Environment	Ambient operating I		90% max. (Storage humidity: 90% max.) 10 to 55 Hz, 4.5 G max., 0.375-mm half amplitude for 2 h each in X, Y, and Z directions				
	Vibration resistance		10 to 55 Hz, 4.5 G max., 0.3/5-mm half amplitude for 2 h each in X, Y, and Z directions 150 m/s², 3 times each in ±X, ±Y, ±Z directions				
	Shock resistance			III ±X, ±Y, ±Z directions			
Reliability	MTBF		135,000 hrs min.				
•	Life expectancy *		10 years min.				
	Dimensions (W×H×I	D)	Refer to <i>Dimensions</i> on page 26.				
Construction	Weight		1,050 g				
23	Cooling fan		Yes				
	Degree of protection	n					
	Harmonic current er	missions	Conforms to EN 61000-3-2				
		Conducted Emissions	Conforms to EN 61204	-3 Class B, EN 55011 Cla	ass B		
	EMI *	Radiated Emissions					
	EMS		Conforms to EN 61204-3 Class B, EN 55011 Class B Conforms to EN 61204-3 high severity levels				
				ing models with remote of	ontrol ontion)		
				nodels with remote contro			
Ctandarda			UL 60950-1, UL 62368	-1 (Recognition, OVCII [≤	3,000 m], Pol2)		
Standards	Cofety Ct I			excluding models with rer		-1	
	Safety Standards			l, No.62368-1 (excluding 000 m], OVCII [> 2,000 r	models with remote control and < 3 000 ml. Pol2)	oi option)	
				000 mj, Oven (> 2,000 m :C 62368-1 (OVCII [≤ 3,0			
			Conforms to EN/IEC 61	558-2-16	a. /		
			Conforms to PELV (EN/IEC 60204-1)				
	Marine Standards		No				
	SEMI		Conforms to F47-0706	(200 VAC input)			
Defeate Det	inga Charactaristica	and Functions on pa	200 11	•			

^{*} Refer to Ratings, Characteristics, and Functions on page 11.

Ratings, Characteristics, and Functions

Efficiency			The value is when both rated output voltage and rated output current are satisfied.		
	Voltag Freque	e range ency	Do not use an inverter output for the Power Supply. Inverters with an output frequency of 50/60 Hz are available, but the rise in the internal temperature of the Power Supply may result in ignition or burning.		
	Currer	nt	The value is when both rated output voltage and rated output current are satisfied.		
Input	Leaka	ge current	The values are determined according to the Act on Power Supply Safety of Electrical Appliances and Materials.		
	1111111111	current	For a cold start at 25°C. Refer to the following figure.		
	Voltage adjustment range		If the output voltage adjuster (V. ADJ) is turned, the voltage will increase by more than +15% 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 current 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 <i>Overvoltage Protection</i> 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		
Stanuards	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 50178, EN/IEC 61558-2-16, and EN/IEC 60204-1 are safety standard targets. (The safety standards during a DC input are not acquired for the S8FS-G60048 \square .)

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  (320 VDC or above, 3 A)

S8FS-G050  (320 VDC or above, 4 A)

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

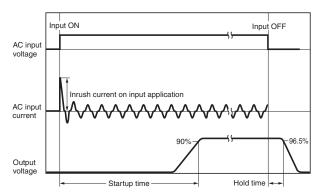
S8FS-G150  (320 VDC or above, 10 A)

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

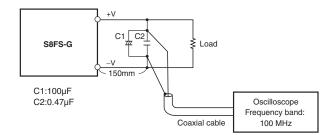


Note: The total inrush current of all of the Power Supplies will flow for parallel operation or backup operation.

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

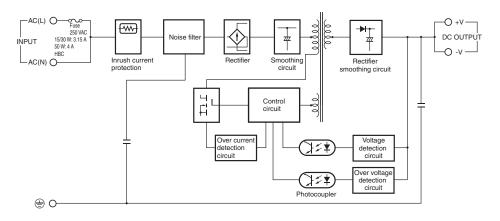
The specified standard for the ripple voltage noise was measured with a measurement circuit that is based on JEITA standard RC-9131A.



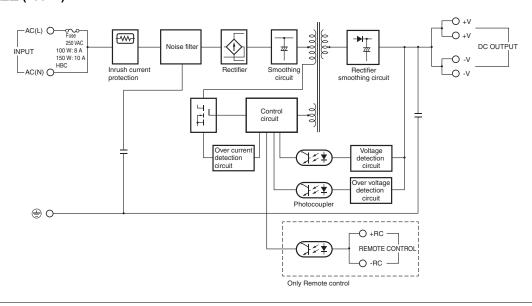
Connections

Block Diagrams

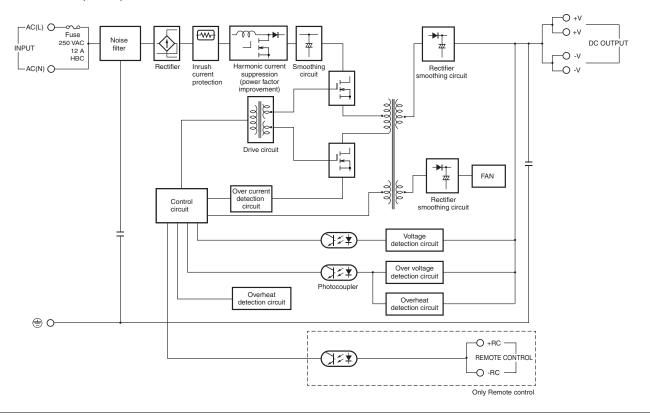
S8FS-G015□□□ (15 W) S8FS-G030□□□ (30 W) S8FS-G050□□□ (50 W)



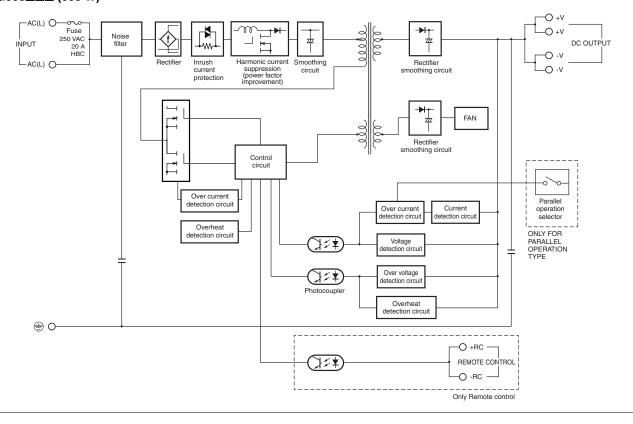
S8FS-G100□□□ (100 W) S8FS-G150□□□ (150 W)



S8FS-G300□□□ (300 W)



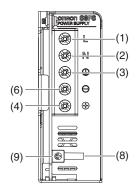
S8FS-G600□□□ (600 W)



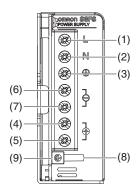
Construction and Nomenclature

Nomenclature

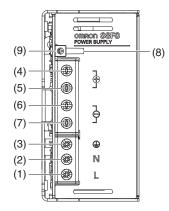




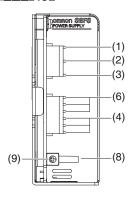
\$8FS-G100□□□ \$8FS-G150□□□



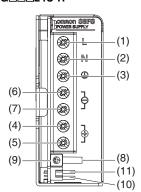
\$8FS-G300□□□ \$8FS-G600□□□



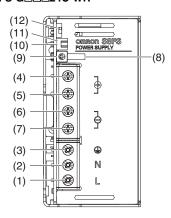
S8FS-G□□□24CE



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 terminais	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		Connect the load lines to these 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	nemote control terminals	wire 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 S8FS-G05024□E	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.

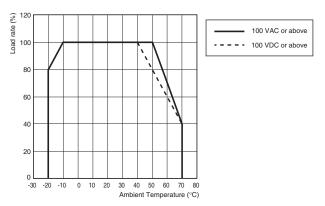
^{*2.} This is the protective earth terminal specified in the safety standards. Always ground this terminal.

Engineering Data

Derating Curves

Output Derating

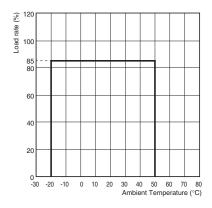
15 W, 30 W, 50 W, 100 W, and 150 W



- Note: 1. (For customers using the unit with an AC input)
 At a voltage below 100 VAC, reduce the load below the range of the derating curve shown above by the solid line, at the rate of 1.3%/V.s (40°C < Ambient temperature ≤ 70°C)
 - 2. (For customers using the unit with a DC input)
 At a voltage below 100 VDC, reduce the load below the range of the derating curve shown above by the dashed line, by multiplying with the coefficient 0.9.

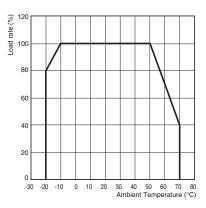
Parallel Operation

For Models with Parallel Operation Option



Note: At a voltage below 100 VAC, reduce the load at the rate of 1.3%/V.

300 W and 600 W

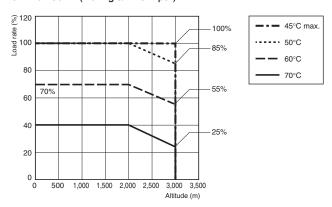


Note: At a voltage below 100 VAC, reduce the load at the rate of 1.3%/V

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

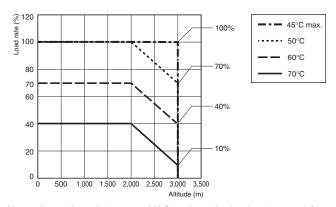
Between 2,000 and 3,000 m, derate the load according to the following derating curve.

15 W to 150 W (During an AC input)



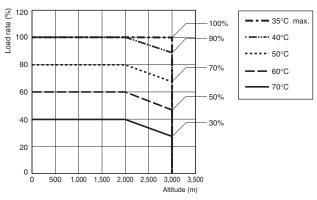
Note: At a voltage below 100 VAC, reduce the load at the rate of 1.3%/V. ($40^{\circ}C$ < Ambient temperature $\leq 70^{\circ}C$)

300 W and 600 W



Note: At a voltage below 100 VAC, reduce the load at the rate of 1.3%/V.

15 W to 150 W (During a DC input)

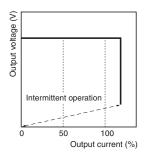


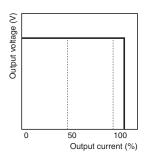
Note: At a voltage below 100 VDC, reduce the load by multiplying with the coefficient 0.9.

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.





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)

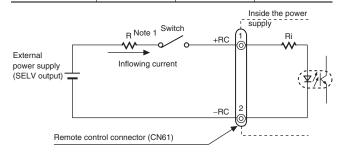
If the internal temperature of the Power Supply rises excessively as a result of fan failure or any other reason, the overheat protection circuit will be triggered to shut OFF the output voltage.

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.

Built-in	Voltage between	Inrush current	
resistance Ri (Ω)	Output ON	Output OFF	(mA)
780	4.5 to 12.5	0 to 0.5	20 max.



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.
 - 2. Reverse connection of the connector may cause damage on the internal parts.
 - 3. 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.		

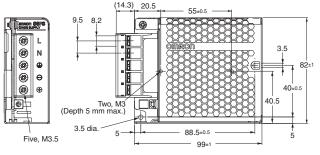
Dimensions (Unit: mm)

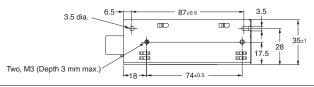
Power Supplies

15 W and 30 W

S8FS-G015□□C S8FS-G030□□C





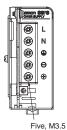


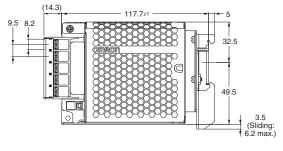
Panel mounting holes dimensions

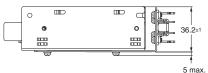
ranei mounting notes unitensions				
	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply		
Side Mounting	Two, M3 40±0.5	Two, 3.5 dia.		
Bottom Mounting	Two, M3	Two, 3.5 dia.		

S8FS-G015□□CD S8FS-G030□□CD



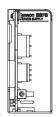


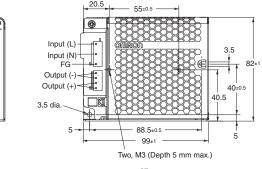


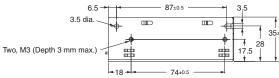


\$8FS-G015□□E \$8FS-G030□□E





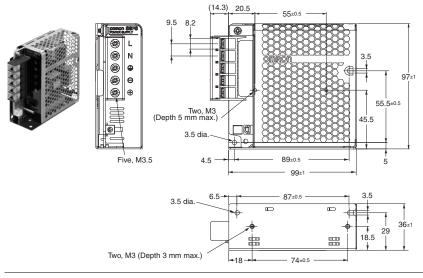




Panel mounting holes dimensions					
	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply			
Side Mounting	Two, M3 40±0.5	Two, 3.5 dia.			
Bottom Mounting	Two, M3	Two, 3.5 dia.			

50W

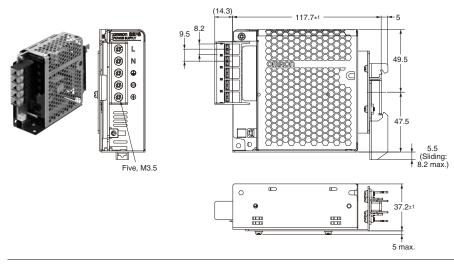
S8FS-G050□□C



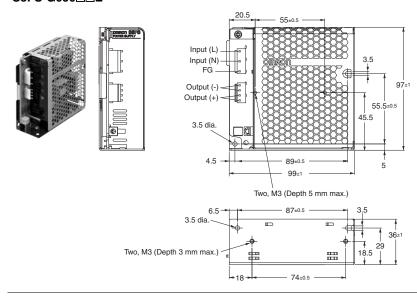
Panel mounting holes dimensions

	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



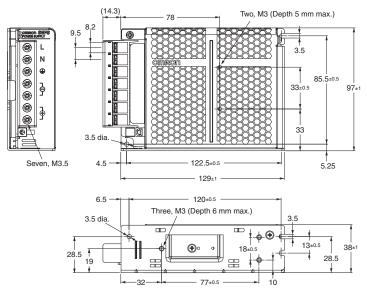
Panel mounting holes dimensions

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

100W

S8FS-G100□□C

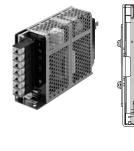


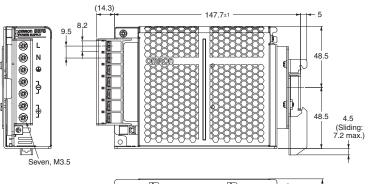


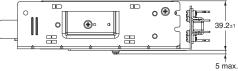
Panel mounting holes dimensions

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

S8FS-G100□□CD

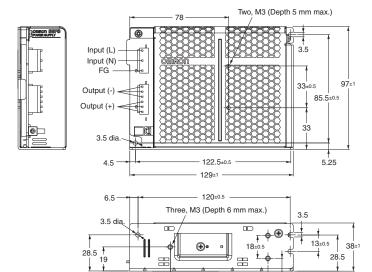






S8FS-G100□□E





77±0.5

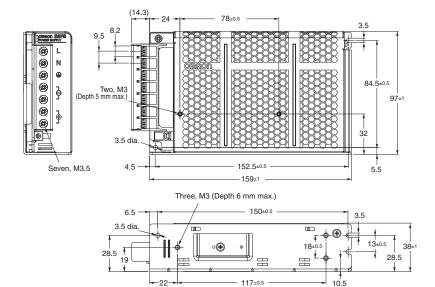
Panel mounting holes dimensions

	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	Three, 3.5 dia.

150W

S8FS-G150□□C



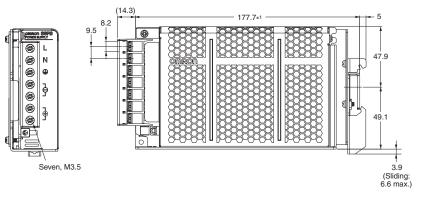


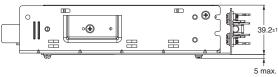
Panel mounting holes dimensions

	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. 9.5±0.5 117±0.5 18±0.5

S8FS-G150□□CD

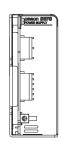


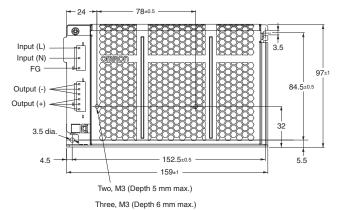


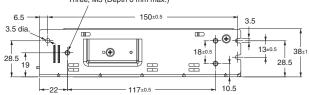


S8FS-G150□□E









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.

300W

S8FS-G300□□C Two, M4 (Depth 5 mm max.) 28.5 Panel mounting holes dimensions Using the screw holes in the Power Supply **⊗** Two, 4.5 dia. 102±1 Side Mounting — 64±0.5 — Four, 4.5 dia. 50.5 **Bottom** Mounting 74±0.5 Seven, M3.5 (3.5)170±1 60 74±0.5 • • **(** <u>•</u> 20±0.5 12 Four, M4 (Depth 5 mm max.)

