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Print

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

S8FS-G30012C



Image

Switch Mode Power Supply, Capacity 300 W, Output voltage 12 V, Covered/Direct mounting type, Screw terminal block

Power rating	300 W
Output voltage	12 VDC
Rated input voltage	100 to 240 VAC
Construction	Covered type
Connection	Terminal blocks
Terminal type	Screw terminal

Specifications

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Power rating		300 W
Output voltage		12 VDC
Efficiency		81 % typ. (at 100 VAC input) 85 % typ. (at 200 VAC input) 85 % typ. (at 230 VAC input)
Input	**Rated input voltage**	100 to 240 VAC
	Allowable input voltage variable range	85 to 264 VAC (Single-phase) 120 to 370 VDC
	Frequency	50/60Hz (47 to 63 Hz)
	Rated input current	4.2 A typ. (at 100 VAC input) 2.1 A typ. (at 200 VAC input)
	Power factor	0.9 min.
	Leakage current	0.5 mA max. (at 100 VAC input) 1 mA max. (at 200 VAC input)
	Inrush current (cold start at 25 ℃)	14 A typ. (at 100 VAC input) 28 A typ. (at 200 VAC input)
Output	**Rated output current**	25 A
	Output voltage variable range	-10 to +15 % (With V.ADJ)
	Ripple	140 mV(p-p) max.
	Static input variation influence	0.5 % max.
	Static load variation influence	1.0 % max.

	Ambient temperature variation influence	0.05 %/℃ max.
	Start up time	1000 ms max. (at 100 VAC input) 1000 ms max. (at 200 VAC input)
	Hold time	30 ms typ. (at 100 VAC input) 30 ms typ. (at 200 VAC input)
Additional functions	**Overload protection**	Yes, automatic reset
	Overvoltage protection	Yes, Shut off the input voltage and turn on the input again
	Overheat protection	Yes, Shut off the input voltage and turn on the input again
	Series operation	Yes (Up to 2 Power Supplies with external diode)
	Parallel operation	No (However, backup operation is possible, external diodes required.)
	Output indicator	Yes (color: green)
Insulation	**Dielectric strength**	Between all input terminals and all output terminals: 3 kVAC for 1 min, Cut-off current: 20 mA Between all input terminals and PE terminals: 2 kVAC for 1 min, Cut-off current: 20 mA Between all output terminals and PE terminals: 1 kVAC for 1 min, Cut-off current: 20 mA
	Insulation resistance	Between all output terminals and all input terminals/PE terminals: 100 MΩ min., at 500 VDC
Environment	**Vibration resistance**	10 to 55 Hz, 4.5 G max., 0.375 mm single amplitude in each 3 directions for 2 hours
	Shock resistance	150 m/s^2, in each 6 directions 3 times
	Altitude	3000 m max.
	Ambient temperature (Operating)	-20 to 70 ℃ (with no freezing or condensation)
	Ambient temperature (Storage)	-25 to 75 ℃ (with no freezing or condensation)
	Ambient humidity (Operating)	90 %RH max.
	Ambient humidity (Storage)	90 %RH max.
Reliability	**Life expectancy**	10 years min. (at rated input, a load rate of 50% load, under the temperature of 40 ℃ max., standard mounting)
Construction	**Construction**	Covered type
	Connection	Terminal blocks
	Terminal type	Screw terminal
	Mounting	Direct mounting
	Cooling fan	Cooling fan Yes
	Weight (Main)	700 g max.

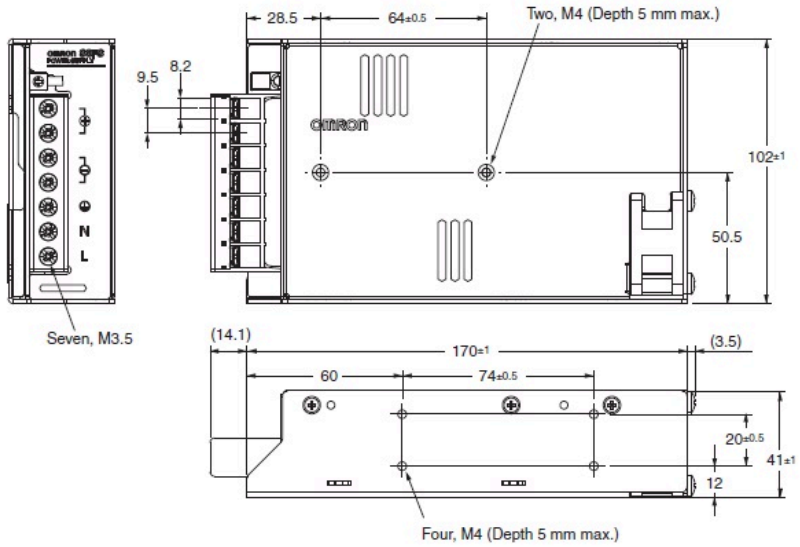
Note

Do not use the 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.

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Dimension

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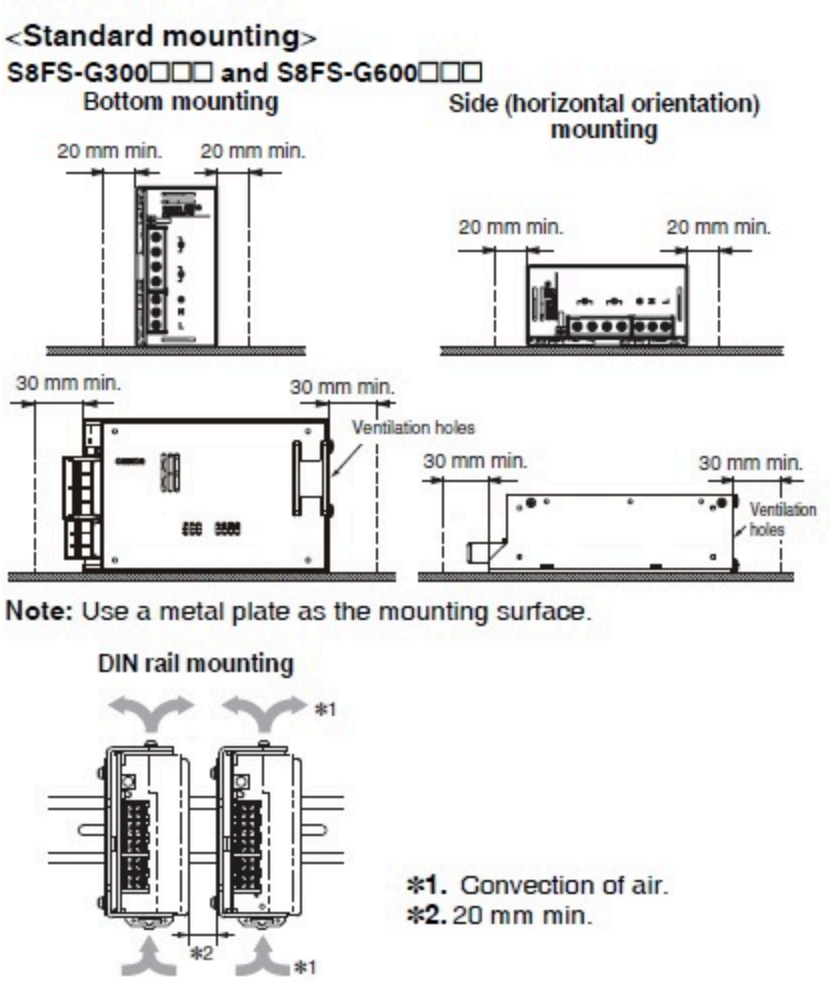


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Mounting

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Mounting state

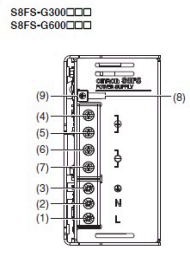


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Connection diagram

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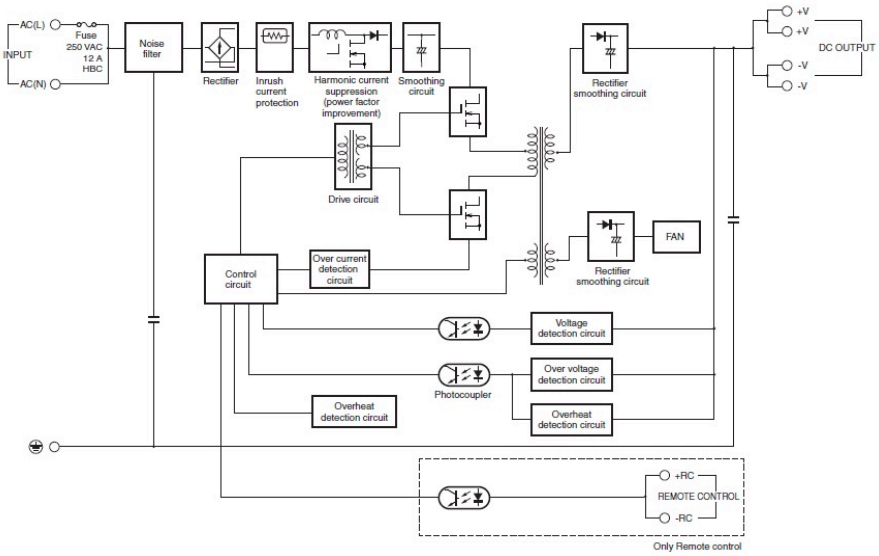
Terminal arrangement



No.	Terminal name	Name	Function
(1)	L	Input terminals	Connect the input lines to these terminals. *1
(2)	N		
(3)	PE	Protective Earth terminal (⏚)	Connect the ground line to this terminal. *2
(4)	+V1	DC output terminals	Connect the load lines to these terminals.
(5)	+V2		
(6)	-V1		
(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		
(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.
*2. This is the protective earth terminal specified in the safety standards. Always ground this terminal.

Block diagram



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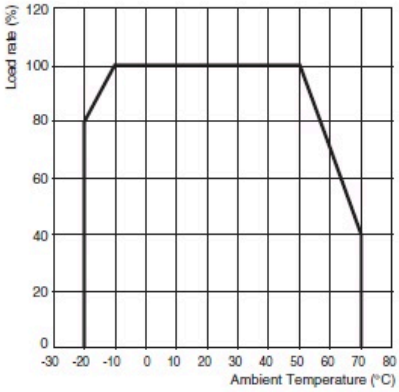
Derating curve

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Derating Curves

Output Derating

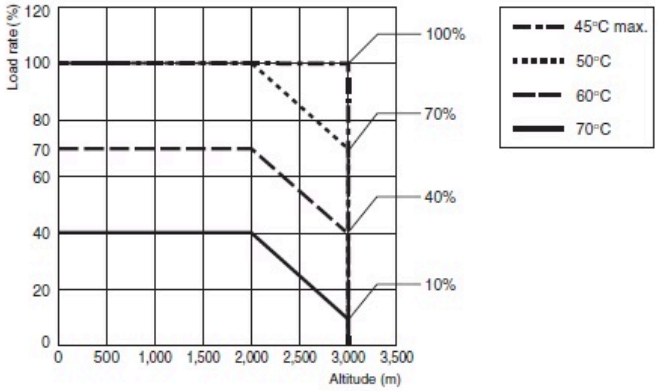
300 W and 600 W



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.

300 W and 600 W



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

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