MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

OMRON

S8VS-03024/ED2

30-WATT DIN-RAIL POWER SUPPLY

Used with the applicable OMRON S8VS configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

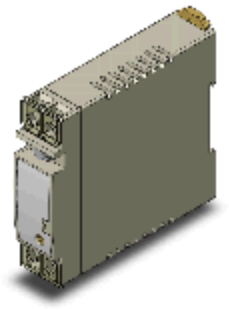
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Switch Mode Power Supply (15/30/60/90/120/180/240/480-W Models)

S8VS-03024



Image

Switch Mode Power Supply, Capacity 30 W, Output voltage 24 V, Class 2 Output, Screw terminal block

Power rating	30 W
Output voltage	24 VDC
Rated input voltage	100 to 240 VAC
Construction	Covered type
Connection	Terminal blocks
Terminal type	Screw terminal

Specifications

As of July 25, 2024

Power rating		30 W
Output voltage		24 VDC
Efficiency		85 % typ. (at 100 VAC input) 86 % typ. (at 200 VAC input)
Input	**Rated input voltage**	100 to 240 VAC
	Allowable input voltage variable range	85 to 264 VAC 80 to 370 VDC
	Frequency	50/60Hz (47 to 450 Hz)
	Rated input current	0.9 A max., 0.66 A typ. (at 100 VAC input) 0.6 A max., 0.4 A typ. (at 200 VAC input)
	Leakage current	0.5 mA max. (at 100 VAC input) 1.0 mA max. (at 200 VAC input)
	Inrush current (cold start at 25 ℃)	17.5 A max., 14 A typ. (at 100 VAC input) 35 A max., 28 A typ. (at 200 VAC input)
Output	**Rated output current**	1.3 A
	Output voltage variable range	-10 to +15 % With V.ADJ
	Ripple	150 mV max.
	Static input variation influence	0.5 % max. (at 100% load)
	Static load variation influence	1.5 % max. (at rated input, 0 to 100% load)
	Ambient temperature variation influence	0.05 %/℃ max.
	Start up time	560 ms typ. (at 100 VAC input) 400 ms typ. (at 200 VAC input)

	Hold time	31 ms typ. (at 100 VAC input) 140 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
	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)
	Undervoltage alarm	Indication: Yes (color: red)
Insulation	**Dielectric strength**	Between all input terminals and all output terminals: 3 kVAC for 1 min, Detection current: 20 mA Between all input terminals and PE terminals: 2 kVAC for 1 min, Detection current: 20 mA Between all output terminals and PE terminals: 1 kVAC for 1 min, Detection 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, 0.375 mm single amplitude in each 3 directions for 2 hours
	Shock resistance	150 m/s^2, in each 6 directions 3 times
	Ambient temperature (Operating)	-10 to 60 ℃
	Ambient temperature (Storage)	-25 to 65 ℃
	Ambient humidity (Operating)	25 to 85 %
	Ambient humidity (Storage)	25 to 90 %
Reliability	**Life expectancy**	10 years (at rated input, a load rate of 50% load, under the temperature of 40 ℃, standard mounting)
Construction	**Construction**	Covered type
	Connection	Terminal blocks
	Terminal type	Screw terminal
	Mounting	DIN track mounting
	Attachment	Terminal block cover
	Weight (Main)	180 g max.

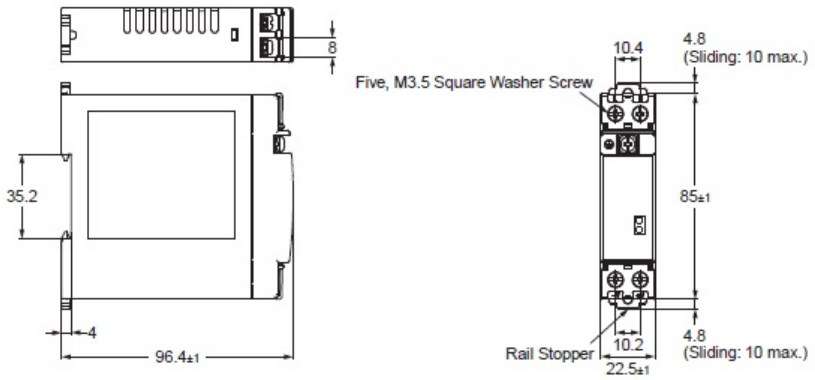
Note

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.

As of July 25, 2024

Dimension

As of July 25, 2024



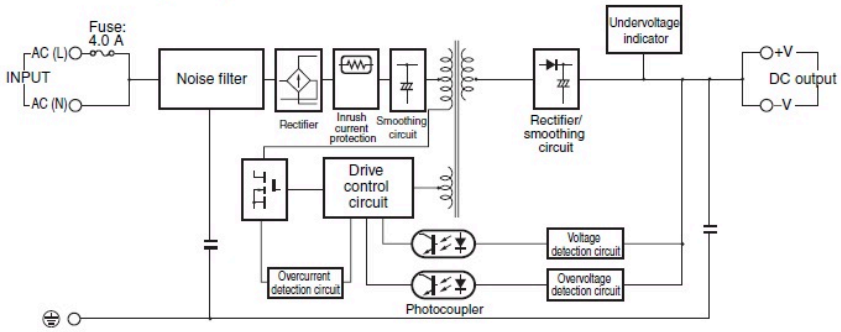
As of July 25, 2024

Connection diagram

As of July 25, 2024

Block diagram

S8VS-030□□ (30 W)

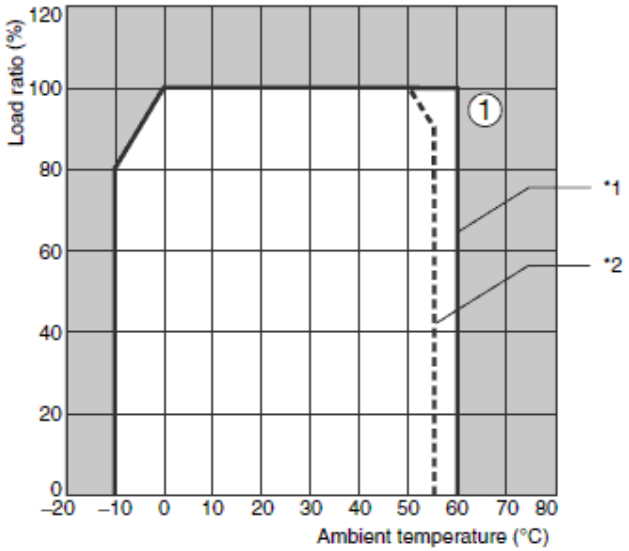


As of July 25, 2024

Derating curve

As of July 25, 2024

S8VS-03024



*1 Standard mounting
*2 Face-up mounting/Horizontal mounting

Note: 1. Internal parts may occasionally deteriorate or be damaged. Do not use the Power Supply in areas outside the derating curve (i.e., the area shown by shading ① in the above graph).

2. If there is a derating problem, use forced air-cooling.

3. Provide a space of at least 20 mm when using standard mounting and horizontal mounting. If 20 mm is not available, make sure that the space is at least 10 mm. In this case, reduce the corresponding derating curve by 5°C.

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