



SPV-300 300W
Single Output with
PFC Function



MEAN WELL SPV-300 300W Single Output with PFC Function Owner's Manual

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MEAN WELL SPV-300 300W Single Output with PFC Function



Product Usage Instructions

- Ensure the power supply is disconnected before installation. Connect the input terminals to the AC power source following the specified voltage range. Connect the output terminals to the intended load.
- The output voltage can be adjusted programmable from 20% to 110% using a 1~5.5VDC external control signal. Ensure proper calibration based on your application requirements.
- The power supply features a built-in remote ON-OFF control for convenient operation. Follow the user manual to understand the remote control functionality and wiring.
- The built-in fan speed control helps in maintaining optimal operating temperatures. Monitor the fan speed and adjust as needed to ensure efficient cooling.
- The power supply offers protection against short circuits, overload, over-voltage, and over-temperature. Familiarize yourself with these protections and take necessary precautions during usage.

FAQ

- **Q:** How do I know if the power supply is operating within the specified voltage range?
- **A:** You can use a multimeter to measure the output voltage and ensure it falls within the specified range of 88 ~ 264VAC.
- **Q:** Can I connect multiple loads to the power supply?
- **A:** It is recommended to connect only one load per power supply to prevent overloading and ensure stable operation.
- **Q:** What should I do in case of a short circuit?
- **A:** If a short circuit occurs, immediately disconnect the power supply from the mains and troubleshoot the issue before reconnecting.

Features

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC Fan

- Output voltage programmable from 20~110% by 1~5.5VDC external control signal
- Built-in remote ON-OFF control
- Built-in fan speed control
- Fixed switching frequency at 100KHz
- 3 years warranty

GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

SPECIFICATION

MODEL		SPV-300-12	SPV-300-24	SPV-300-48
OUTPUT	DC VOLTAGE	12V	24V	48V
	RATED CURRENT	25A	12.5A	6.25A
	CURRENT RANGE	0 ~ 25A	0 ~ 12.5A	0 ~ 6.25A
	RATED POWER	300W	300W	300W
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	10.8 ~ 13.2V	20 ~ 26.4V	41 ~ 52.8V
	VOLTAGE TOLERANCE Note.3	± 1.0%	± 1.0%	± 1.0%
	LINE REGULATION	± 0.3%	± 0.2%	± 0.2%
	LOAD REGULATION	± 0.5%	± 0.5%	± 0.5%
	SETUP, RISE TIME	800ms, 50ms/230VAC 2500ms, 50ms/115VAC at full load		
	HOLD UP TIME (Typ.)	16ms/230VAC 16ms/115VAC at full load		
INPUT	VOLTAGE RANGE Note.5	88 ~ 264VAC 124 ~ 370VDC		
	FREQUENCY RANGE	47 ~ 63Hz		
	POWER FACTOR (Typ.)	PF>0.95/230VAC PF>0.98/115VAC at full load		
	EFFICIENCY (Typ.)	83.5%	85%	86.5%
	AC CURRENT (Typ.)	3.6A/115VAC 1.8A/230VAC		
	INRUSH CURRENT (Typ.)	20A/115VAC 45A/230VAC		
PROTECTION	OVERLOAD	105 ~ 135% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed		
	OVER VOLTAGE	13.8 ~ 16.2V	27.6 ~ 32.4V	57.6 ~ 67.2V
		Protection type : Shut down o/p voltage, re-power on to recover		
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down		
FUNCTION	REMOTE CONTROL	4 ~ 10VDC power off, <0 ~ 0.8VDC power on		
	OUTPUT VOLTAGE TRIM	2.4 ~ 13.2V	4.8 ~ 26.4V	9.6 ~ 52.8V
ENVIRONMENT	WORKING TEMP.	-20 ~ +65°C (Refer to "Derating Curve")		
	WORKING HUMIDITY	20 ~ 90% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing		
	TEMP. COEFFICIENT	± 0.03%/°C (0 ~ 50°C)		
SAFETY EMC (Note 4)	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes		
	SAFETY STANDARDS	UL60950-1, TUV BS EN/EN60950-1, EAC TP TC 004 approved		
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC		
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH		
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020		
OTHERS	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, light industry level, EAC TP TC 020		
	MTBF	2116.3K hrs min. Telcordia SR-332 (Bellcore) ; 210.6K hrs min. MIL-HDBK-217F (25°C)		
	DIMENSION	215*115*50mm (L*W*H)		
	PACKING	1.1Kg; 12pcs/14Kg/0.92CUFT		

NOTE

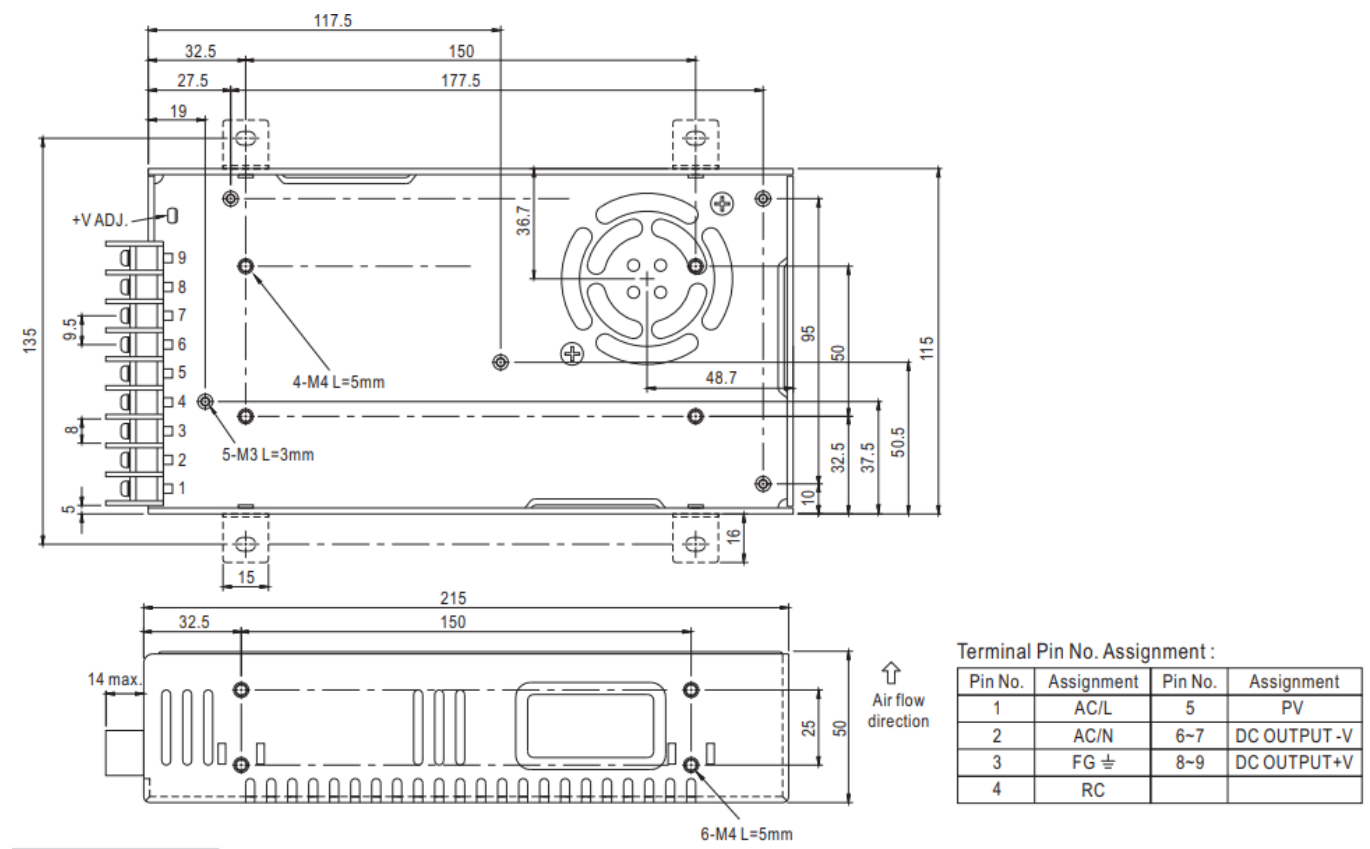
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load, and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation, and load regulation.
4. The power supply is considered a component that will be installed into the final equipment. All the EMC tests

are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to “EMI testing of component power supplies.” (as available on

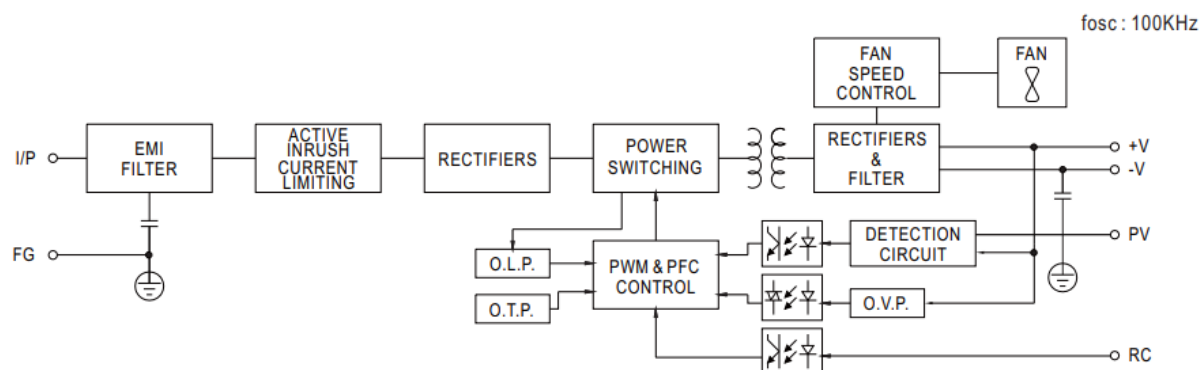
https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf)

- Derating may be needed under low input voltages. Please check the derating curve for more details.
- The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).
- Product Liability Disclaimer

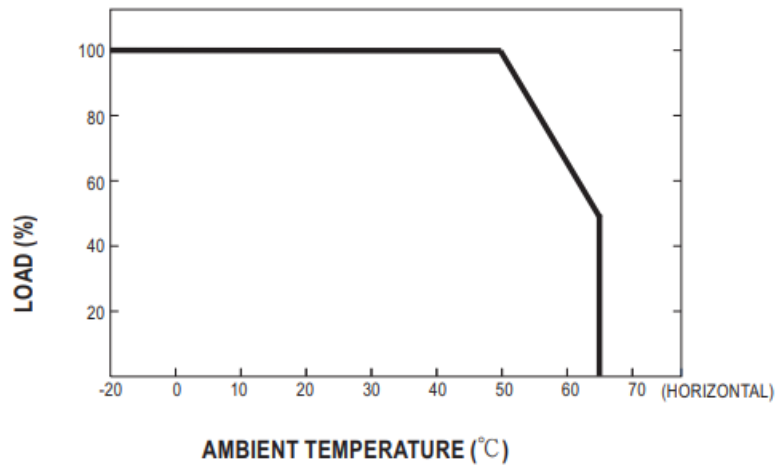
Mechanical Specification



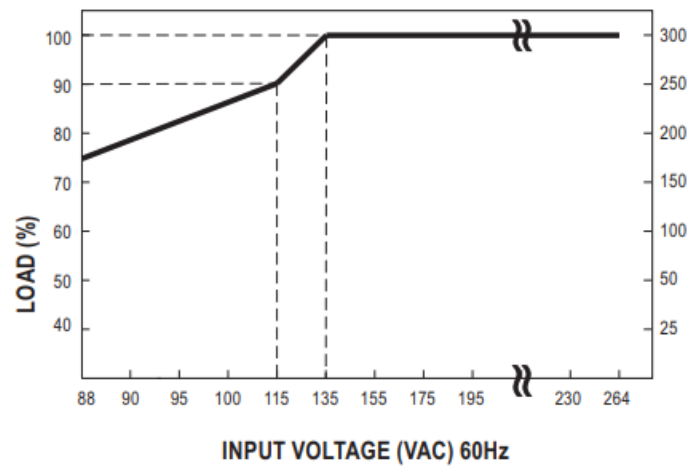
Block Diagram



Derating Curve

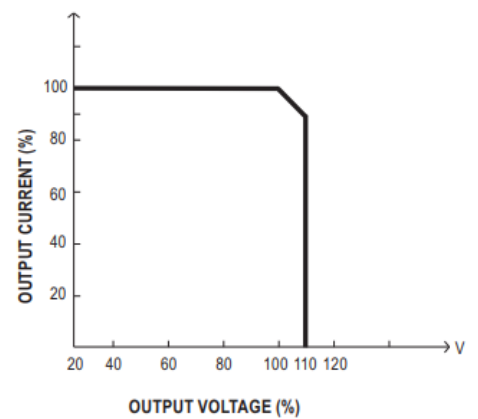
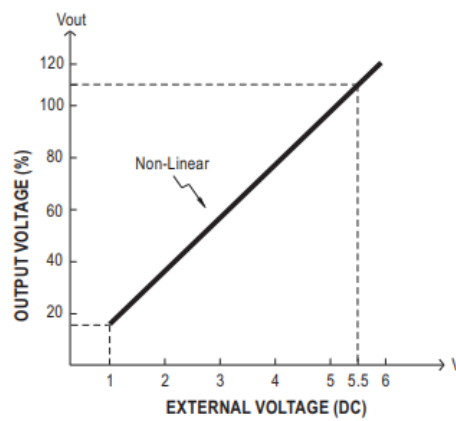
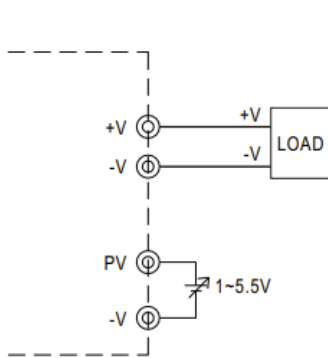


Static Characteristics



Function Manual


External Voltage Control



CONTACT

- Arrow.com.
- For detailed information, please refer to <https://www.meanwell.com/serviceDisclaimer.aspx>

Documents / Resources



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SPV-300 300W Single Output With PFC Function, SPV-300, 300W Single Output With PFC Function, Output With PFC Function, With PFC Function, PFC Function, Function

References

- [△ TÜV Rheinland - Home | US | TÜV Rheinland](#)
- [User Manual](#)

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