



MEAN WELL RSP-100-3.3 100W Single Output with PFC Function Owner's Manual

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Features



- Universal AC input/ Full range
- Built-in active PFC function
- High efficiency up to 88%
- Cooling by free air convection
- Built-in remote ON-OFF control
- Protections: Short circuit/ Overload/ Over voltage / Over temperature
- LED indicator for power on
- 3 years warranty

Applications

- Factory control or automation apparatus
- Test and measurement instrument
- Laser related machine
- Burn-in facility
- RF application

GTIN CODE

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

Description

RSP-100 is a 1 OOW single output enclosed type AC/DC power supply. This series operates for 85~264VAC input voltage and offers the models with the DC output mostly demanded from the industry. Each model is cooled by free air convection , working for the temperature up to 70°C.

Model Encoding/ Order Information

RSP - 100 - 15

Output voltage (3.3V/5V/7.5V/12V/13.5V/15V/24V/27V/48V)

Output wattage

Series name

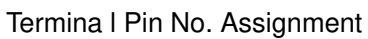
SPECIFICATION

MODEL		RSP-1 00-3.3	RSP-1 00-5	RSP-1 00-7.5	RSP-1 00-12	RSP-1 00-13.5	RSP-1 00-15	RSP-1 00-24	RSP-1 00-27	RSP-1 00-48
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	13.5V	15V	24V	27V	48V
	RATED CURRENT	20A	20A	13.5A	8.5A	7.5A	6.7A	4.2A	3.8A	2.1A
	CURRENT RANGE	0-20A	0-20A	0-13.5A	0 – 8.5A	0- 7.5A	0- 6.7A	0-4.2A	0- 3.8A	0-2.1A
	RATED POWER	66W	100W	101.25W	102W	101.25W	100.5W	100.8W	102.6W	100.8W
	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	150mVp-p	150mVp-p	250mVp-p
	VOLTAGE ADJ. RANGE	3.14-3.63V	4.75 – 5.5V	7.13-8.25V	11.4-13.2V	12.8 -14.9V	14.3-16.5V	22.8 – 26.4V	25.7- 29.7V	45.6 – 52.8V
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	600ms, 30ms at full load								
	HOLD UP TIME (Typ.)	16ms at full load								
INPUT	VOLTAGE RANGE	85- 264VAC 120- 370VDC								
	FREQUENCY RANGE	47- 63Hz								
	POWER FACTOR (Typ.)	PF>0.93/230VAC PF>0.98/115VAC at full load								
	EFFICIENCY (Typ.)	83%	86%	87%	86%	86.5%	87%	87%	87%	88%

	AC CURRENT (Typ.)	1.1A/115VAC 0.55A/230VAC								
	INRUSH CURRENT (Typ.)	COLD START 30A/230VAC								
	LEAKAGE CURRENT	<2mA / 240VAC								
PROTECTION	OVERLOAD	105 – 135% rated output power								
		Protection type: Constant current limiting, recovers automatically after fault condition is removed								
	OVER VOLTAGE	3.63 – 4.46V	5.5- 6.75V	8.25 – 10.13V	13.2-16.2V	14.85 - 18.23V	16.5- 20.25V	26.4 – 32.4V	29.7 – 36.45V	52.8 – 64.8V
		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	CN1: < 0-0.8VDC POWER ON, 4-10VDC POWER OFF								
ENVIRONMENT	WORKING TEMP.	-30 – +70°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	±0.05%/°C (0 – 50°C)								
	VIBRATION	10 – 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes								
	OVER VOLTAGE CATEGORY	III; According to EN61558, EN50178, EN60664-1, EN62477-1; altitude upto 2000 meters								
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL62368-1, TUV BS EN/EN62368-1, BS EN/EN61558-1, BS EN/EN61558-2-16, EAC TP TC 004, CCC GB4943.1, BSMI CNS14336-1 approved, Design referred to AS/NZS 62368.1								
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC 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, CNS13438, GB9254 Class B, GB17625.1								
	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								
OTHER	MTBF	2325.2K hrs min. Telcordia SR-332 (Bellcore); 288.5K hrs min. MIL-HDBK-217F (25°C)								

RS	DIMENSION	179'99'30mm (L'W'H)
	PACKING	0.52Kg; 24pcs/14.5Kg/0.81CUFT
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. The power supply is considered a component which will be installed into a final equipment. 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 http://www.meanwell.com)</p> <p>5. Strongly recommended that external output capacitance should not exceed 5000uF. (Only for: RSP-100-3.3/-5/-7.5)</p> <p>6. 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).</p> <p>Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p>	

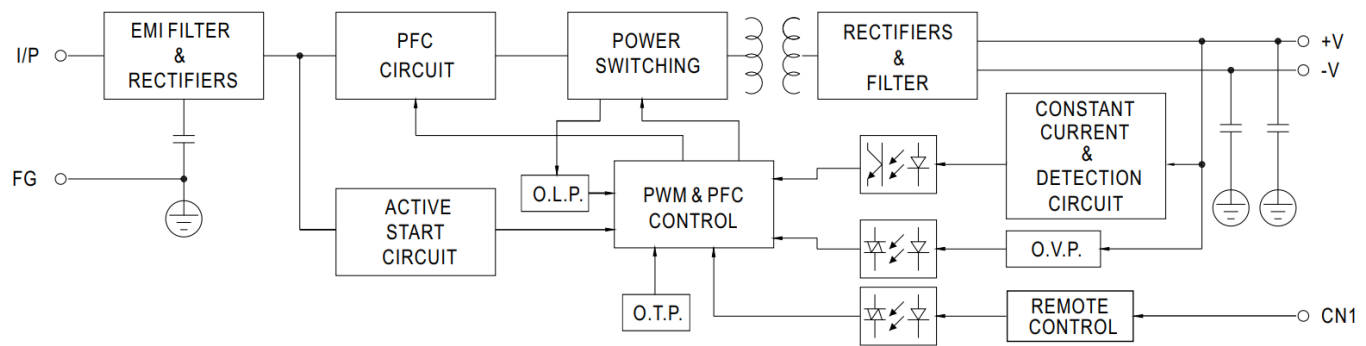
Mechanical Specification



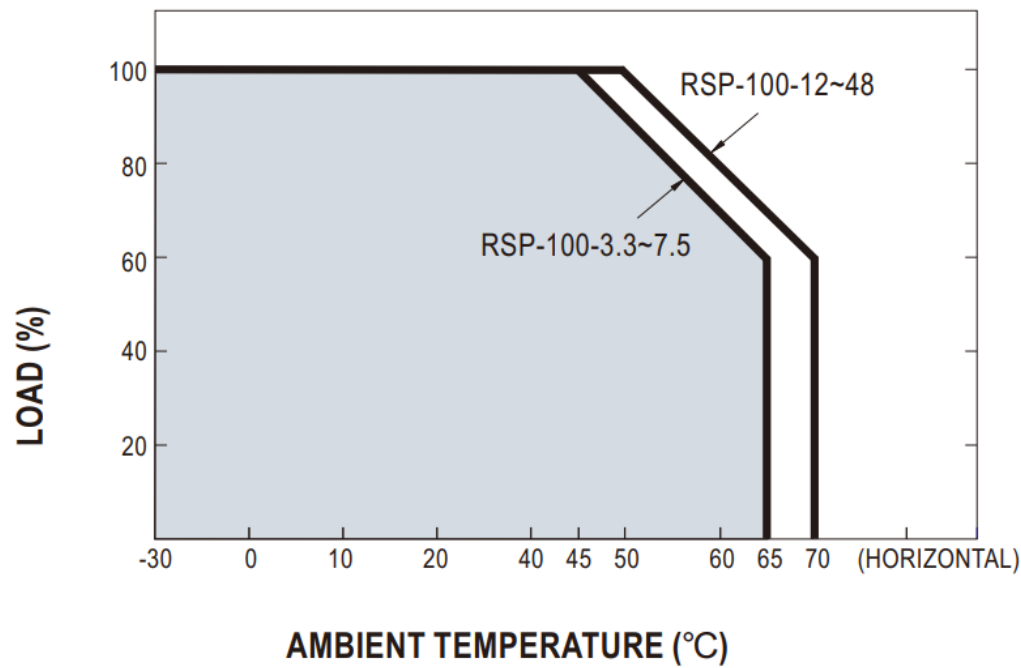
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5	DC OUTPUT-V
2	AC/N	6,7	DC OUTPUT+V
3	FG-1/2		

Remote ON/OFF(CN 1): JST S2B-XH or equivalent(optional)

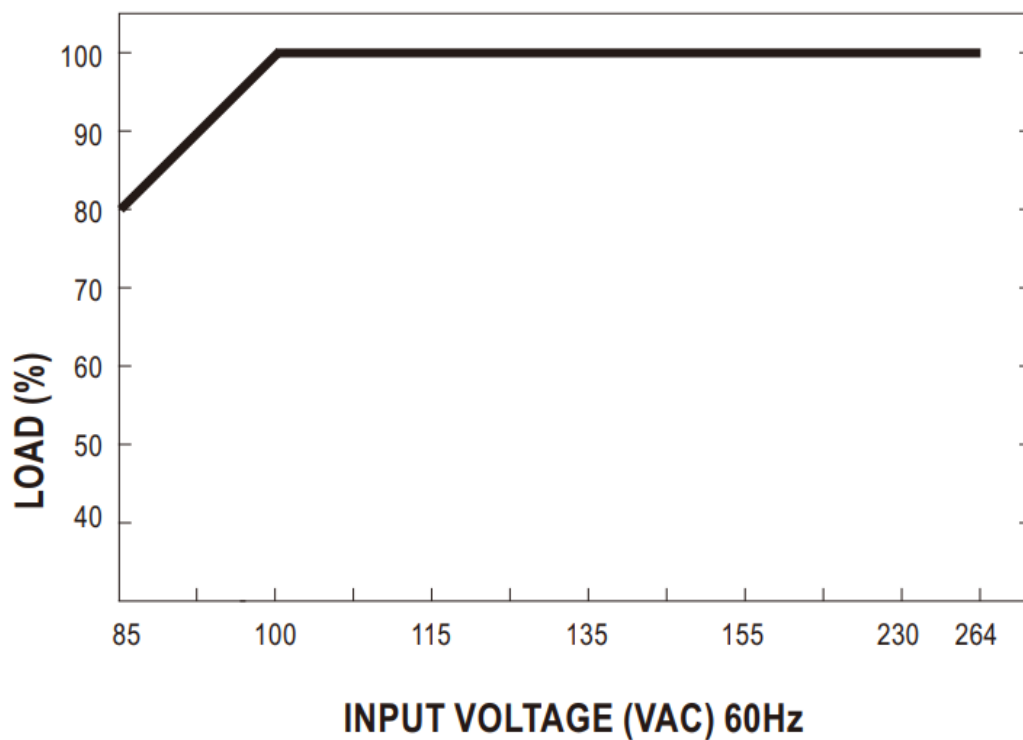
Pin No.	Assignment	Mating Housing	Terminal
1	RC+	JSTXHP or equivalent	JST SXH-00 1T-P0.6 or equivalent
2	RC-		



Derating Curve




Output Derating VS Input Voltage



Downloaded from [Arrow.com](https://www.arrow.com).



Documents / Resources

	MEAN WELL RSP-100-3.3 100W Single Output with PFC Function [pdf] Owner's Manual RSP-100-3.3 100W Single Output with PFC Function, RSP-100-3.3, 100W Single Output with PFC Function, Single Output with PFC Function, Output with PFC Function, PFC Function, Function
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References

- [MEAN WELL Switching Power Supply Manufacturer](#)