

Dimension

L	*	W	*	H
179	*	99	*	30 mm
7.05	*	3.90	*	1.18 inch



User's Manual


 R33100
RoHS
CNS14336-1

RoHS



AS/NZS62368-1

CNS14336-1



UL62368-1



CNS14336-1



FCC



CNS14336-1



BS EN/EN62368-1 GB4943.1 TPTC004 IEC62368-1

BS EN/EN61558-1

BS EN/EN61558-2-16


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

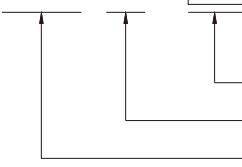
- Factory control or automation apparatus
- Test and measurement instrument
- Laser related machine
- Burn-in facility
- RF application

GTIN CODE

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

RSP-100 is a 100W 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



100W Single Output with PFC Function

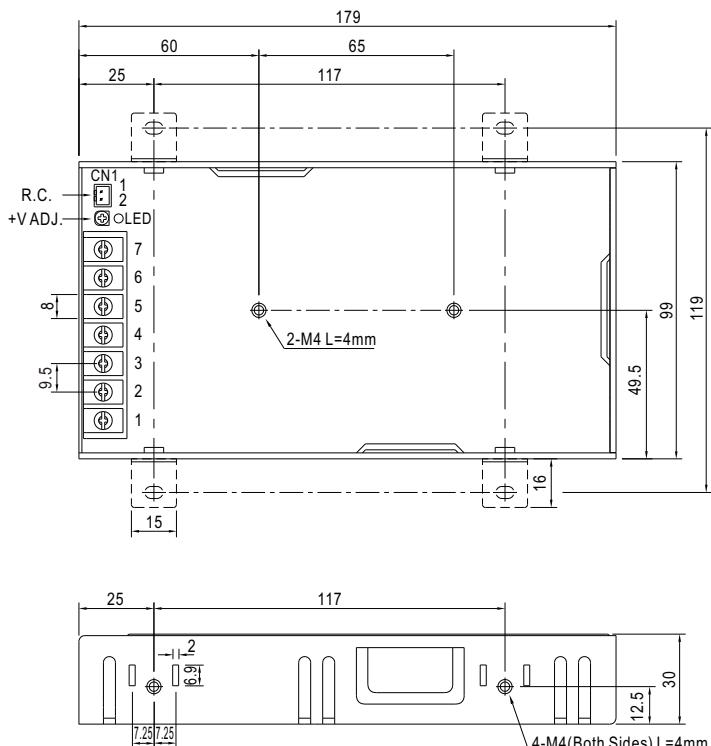
RSP-100 series

SPECIFICATION

MODEL	RSP-100-3.3	RSP-100-5	RSP-100-7.5	RSP-100-12	RSP-100-13.5	RSP-100-15	RSP-100-24	RSP-100-27	RSP-100-48															
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	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%														
INPUT	SETUP, RISE TIME	600ms, 30ms at full load																						
	HOLD UP TIME (Typ.)	16ms at full load																						
PROTECTION	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																						
FUNCTION	LEAKAGE CURRENT	<2mA / 240VAC																						
	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														
ENVIRONMENT	OVER TEMPERATURE	Protection type : Shut down o/p voltage, re-power on to recover																						
	OVER VOLTAGE CATEGORY	Shut down o/p voltage, recovers automatically after temperature goes down																						
SAFETY & EMC (Note 4)	REMOTE CONTROL	CN1: < 0 ~ 0.8VDC POWER ON , 4 ~ 10VDC POWER OFF																						
	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																						
OTHERS	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 refer 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																						
NOTE	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	2325.2K hrs min. Telcordia SR-332 (Bellcore) ; 288.5K hrs min. MIL-HDBK-217F (25°C)																						
	DIMENSION	179*99*30mm (L*W*H)																						
	PACKING	0.52Kg; 24pcs/14.5Kg/0.81CUFT																						
	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 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) 5. Strongly recommended that external output capacitance should not exceed 5000uF. (Only for: RSP-100-3.3/-5/-7.5) 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). ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx																							

■ Mechanical Specification

Case No.227A Unit:mm



Terminal Pin No. Assignment

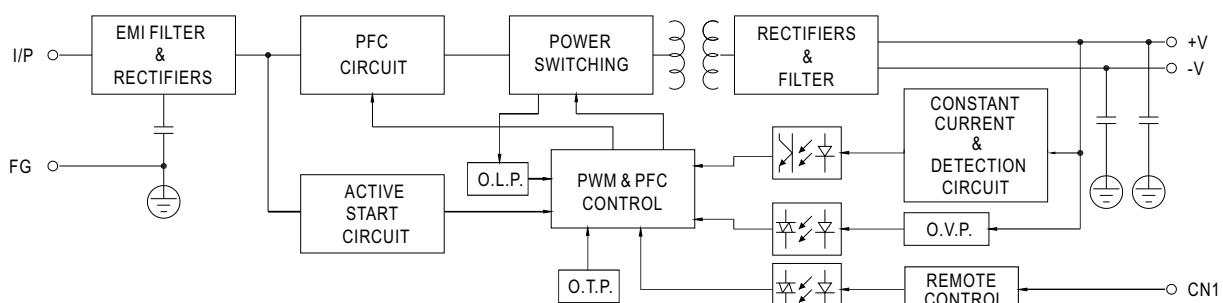
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5	DC OUTPUT -V
2	AC/N	6,7	DC OUTPUT +V
3	FG \pm		

Remote ON/OFF(CN1): JST S2B-XH or equivalent(optional)

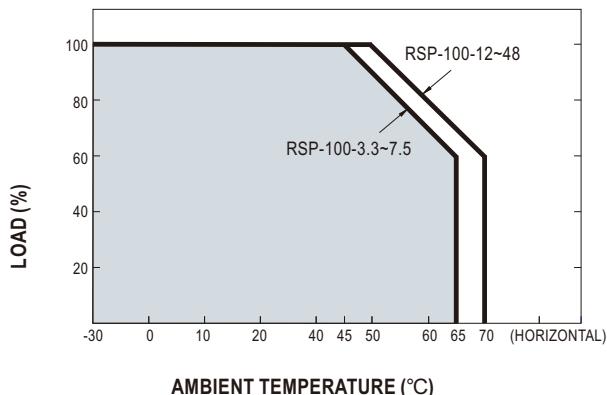
Pin No.	Assignment	Mating Housing	Terminal
1	RC+	JST XHP or equivalent	JST SXH-001T-P0.6 or equivalent
2	RC-		

 PFC fosc : 100KHz
 PWM fosc : 100KHz

■ Block Diagram



■ Derating Curve



■ Output Derating VS Input Voltage

