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RSP-200 series

200W Single Output with PFC Function

Dimension

L	*	W	*	H
215	*	115	*	30 mm
8.46	*	4.53	*	1.18 inch

User's Manual



TPTC004 IEC61558-1/2-16
(for 12V or higher models)
IEC62368-1

EN61558-1/2-16
(for 12V or higher models)



Features

- Universal AC input / Full range
- Built-in active PFC function
- High efficiency up to 90%
- Cooling by free air convection
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Optional conformal coating
- 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-200 is a 200W single output enclosed type AC/DC power supply. This series operates for 88~264VAC 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 - 200 - 5

Output voltage (2.5V/3.3V/4V/5V/7.5V/12V/13.5V/15V/24V/27V/36V/48V)
Output wattage
Series name



SPECIFICATION

MODEL		RSP-200-2.5	RSP-200-3.3	RSP-200-4	RSP-200-5	RSP-200-7.5	RSP-200-12	
OUTPUT	DC VOLTAGE	2.5V	3.3V	4V	5V	7.5V	12V	
	RATED CURRENT	40A	40A	40A	40A	26.7A	16.7A	
	CURRENT RANGE	0 ~ 40A	0 ~ 40A	0 ~ 40A	0 ~ 40A	0 ~ 26.7A	0 ~ 16.7A	
	RATED POWER	100W	132W	160W	200W	200.25W	200.4W	
	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-p	100mVp-p	150mVp-p	150mVp-p	150mVp-p	
	VOLTAGE ADJ. RANGE	2.35 ~ 2.85V	2.97 ~ 3.8V	3.7 ~ 4.3V	4.5 ~ 5.5V	6 ~ 9V	10 ~ 13.2V	
	VOLTAGE TOLERANCE Note.3	± 2.0%	± 2.0%	± 2.0%	± 2.0%	± 2.0%	± 1.0%	
	LINE REGULATION	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.3%	
	LOAD REGULATION	± 1.5%	± 1.5%	± 1.0%	± 1.0%	± 1.0%	± 0.5%	
	SETUP, RISE TIME	1500ms, 50ms/230VAC 3000ms, 50ms/115VAC at full load						
	HOLD UP TIME (Typ.)	8ms at full load 230VAC /115VAC						
INPUT	VOLTAGE RANGE Note.4	88 ~ 264VAC	124 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz						
	POWER FACTOR (Typ.)	PF>0.95/230VAC PF>0.98/115VAC at full load						
	EFFICIENCY (Typ.)	79.5%	81.5%	84%	85.5%	89%	89%	
	AC CURRENT (Typ.)	2A/115VAC	1.1A/230VAC			2.5A/115VAC	1.3A/230VAC	
	INRUSH CURRENT (Typ.)	20A/115VAC	40A/230VAC					
	LEAKAGE CURRENT	<1mA / 240VAC						
PROTECTION	OVERLOAD	105 ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed						
	OVER VOLTAGE	2.88 ~ 3.5V	3.8 ~ 4.62V	4.5 ~ 5.6V	5.75 ~ 7V	9.4 ~ 10.9V	13.8 ~ 16.2V	
		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						
ENVIRONMENT	WORKING TEMP.	-30 ~ +70℃ (Refer to "Derating Curve")						
	WORKING HUMIDITY	20 ~ 90% RH non-condensing						
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH						
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 45℃)						
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes						
SAFETY & EMC (Note 5)	SAFETY STANDARDS	UL62368-1,TUV BS EN/EN62368-1, EAC TP TC 004, CCC GB4943.1,BSMI CNS14336-1, AS/NZS 60950.1, Dekra EN 61558-1/2-16,IEC 61558-1/2-16(for 12V or higher models) 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℃ / 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						
OTHERS	MTBF	2078.1K hrs min. Telcordia SR-332 (Bellcore) ; 224.5K hrs min. MIL-HDBK-217F (25℃)						
	DIMENSION	215*115*30mm (L*W*H)						
	PACKING	0.72Kg; 15pcs/11.8Kg/0.67CUFT						
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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. Derating may be needed under low input voltages. Please check the derating curve for more details. 5. The power supply is considered a component which will be installed into a 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 http://www.meanwell.com) 6. For charging related applications, please consult Mean Well for details. 7. Strongly recommended that external output capacitance should not exceed 5000uF. (Only for: RSP-200-2.5/-3.3/-4/-5/-7.5/-12/-13.5/-15) 8. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/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							



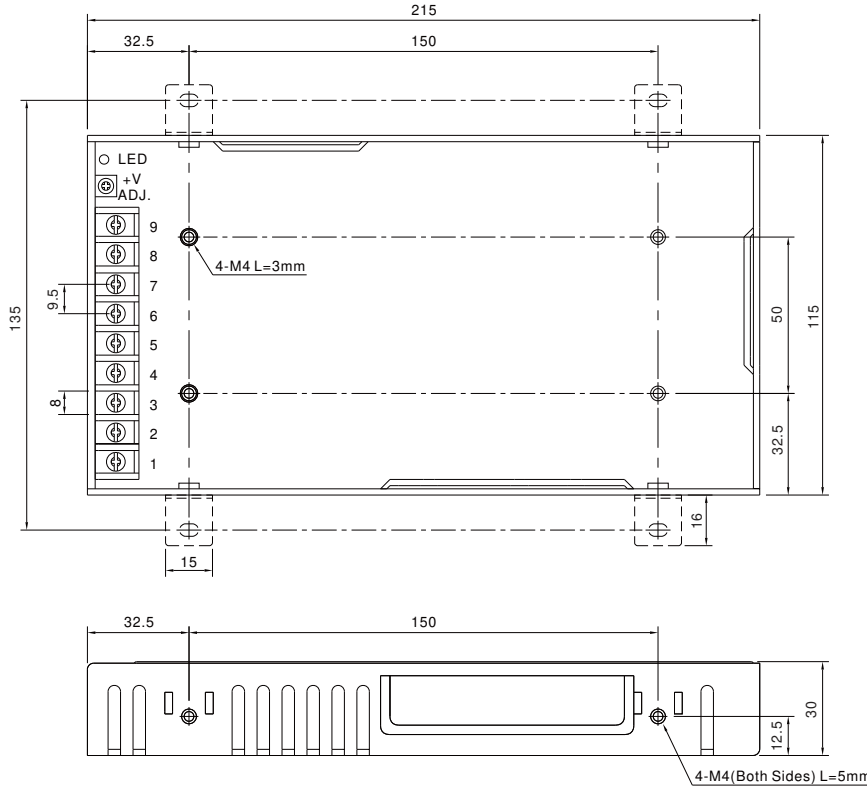
SPECIFICATION

MODEL		RSP-200-13.5	RSP-200-15	RSP-200-24	RSP-200-27	RSP-200-36	RSP-200-48
OUTPUT	DC VOLTAGE	13.5V	15V	24V	27V	36V	48V
	RATED CURRENT	14.9A	13.4A	8.4A	7.5A	5.56A	4.2A
	CURRENT RANGE	0 ~ 14.9A	0 ~ 13.4A	0 ~ 8.4A	0 ~ 7.5A	0 ~ 5.56A	0 ~ 4.2A
	RATED POWER	201.15W	201W	201.6W	202.5W	200.16W	201.6W
	RIPPLE & NOISE (max.) <small>Note.2</small>	150mVp-p	150mVp-p	150mVp-p	200mVp-p	220mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	12 ~ 15V	13.5 ~ 18V	20 ~ 26.4V	26 ~ 31.5V	32.4 ~ 39.6V	41 ~ 56V
	VOLTAGE TOLERANCE <small>Note.3</small>	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%
	LINE REGULATION	± 0.3%	± 0.3%	± 0.2%	± 0.2%	± 0.2%	± 0.2%
	LOAD REGULATION	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%
	SETUP, RISE TIME	1500ms, 50ms/230VAC 3000ms, 50ms/115VAC at full load					
HOLD UP TIME (Typ.)	8ms at full load 230VAC /115VAC						
INPUT	VOLTAGE RANGE <small>Note.4</small>	88 ~ 264VAC	124 ~ 370VDC				
	FREQUENCY RANGE	47 ~ 63Hz					
	POWER FACTOR (Typ.)	PF>0.95/230VAC PF>0.98/115VAC at full load					
	EFFICIENCY (Typ.)	89%	89.5%	89.5%	89%	90%	90%
	AC CURRENT (Typ.)	2.5A/115VAC 1.3A/230VAC					
	INRUSH CURRENT (Typ.)	20A/115VAC 40A/230VAC					
	LEAKAGE CURRENT	<1mA / 240VAC					
PROTECTION	OVERLOAD	105 ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	15.7 ~ 18.4V	18.8 ~ 21.8V	27.6 ~ 32.4V	32.9 ~ 38.3V	41.4 ~ 48.6V	58.4 ~ 68V
		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					
ENVIRONMENT	WORKING TEMP.	-30 ~ +70℃ (Refer to "Derating Curve")					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 45℃)					
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	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					
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	DIMENSION	215*115*30mm (L*W*H)					
	PACKING	0.72Kg; 15pcs/11.8Kg/0.67CUFT					
NOTE	<div>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.</div> <div>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.</div> <div>3. Tolerance : includes set up tolerance, line regulation and load regulation.</div> <div>4. Derating may be needed under low input voltages. Please check the derating curve for more details.</div> <div>5. 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)</div> <div>6. For charging related applications, please consult Mean Well for details.</div> <div>7. Strongly recommended that external output capacitance should not exceed 5000uF. (Only for: RSP-200-2.5/-3.3/-4/-5/-7.5/-12/-13.5/-15)</div> <div>8. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).</div> <div>※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</div>						

Mechanical Specification

Case No.207B

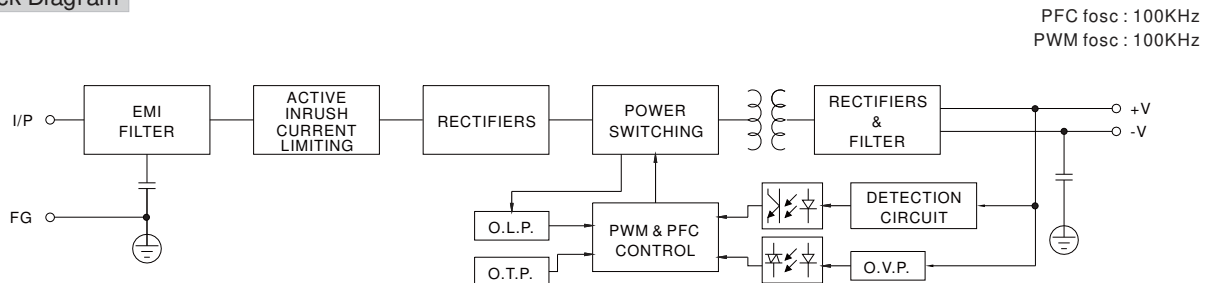
Unit:mm



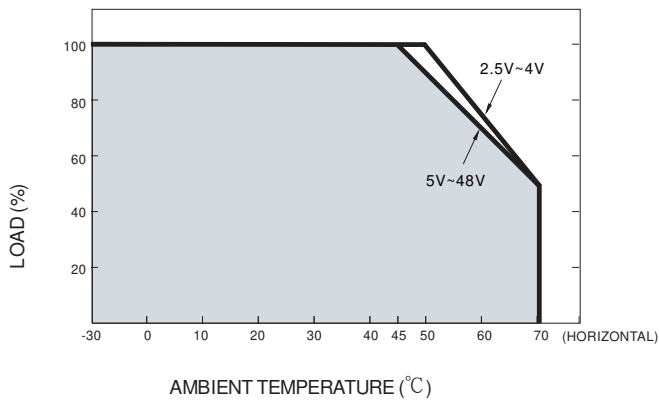
Terminal Pin No. Assignment :

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4~6	DC OUTPUT -V
2	AC/N	7~9	DC OUTPUT +V
3	FG \perp		

Block Diagram



Derating Curve



Static Characteristics

