



125W Dual Output Switching Power Supply

RD-125 series



■ Features :

- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- All using 105°C long life electrolytic capacitors
- Withstand 300VAC surge input for 5 second
- High operating temperature up to 70°C
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- 3 years warranty

User's Manual



SPECIFICATION

MODEL	RD-125A		RD-125B			
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1		
	DC VOLTAGE	5V	12V	5V		
	RATED CURRENT	7.7A	7.7A	4.6A		
	CURRENT RANGE	Note.3 0 ~ 12A	0 ~ 10A	0 ~ 10A		
	RATED POWER	Note.6 130.9W		133.4W		
	ripple & noise (max.)	Note.2 80mVp-p	120mVp-p	80mVp-p		
	VOLTAGE ADJ. RANGE	CH1: 4.75 ~ 5.5V		CH1: 4.75 ~ 5.5V		
	VOLTAGE TOLERANCE	Note.3 ±5.0%	±7.0%	±5.0%		
	LINE REGULATION	Note.4 ±1.0%	±2.0%	±1.0%		
	LOAD REGULATION	Note.5 ±3.0%	±4.0%	±3.0%		
INPUT	SETUP, RISE TIME	500ms, 20ms/230VAC		1200ms, 30ms/115VAC at full load		
	HOLD UP TIME (Typ.)	25ms/230VAC	30ms/115VAC at full load			
PROTECTION	VOLTAGE RANGE	88 ~ 132VAC / 176 ~ 264VAC selected by switch				
	FREQUENCY RANGE	47 ~ 63Hz				
	EFFICIENCY (Typ.)	82%		85%		
	AC CURRENT (Typ.)	3A/115VAC	2A/230VAC			
	INRUSH CURRENT (Typ.)	COLD START 50A/230VAC				
	LEAKAGE CURRENT	<2mA / 240VAC				
PROTECTION	OVERLOAD	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed				
	OVER VOLTAGE	CH1: 5.75 ~ 6.75V Protection type : Hiccup mode, recovers automatically after fault condition is removed				
ENVIRONMENT	WORKING TEMP.	-25 ~ +70°C (Refer to "Derating Curve")				
	WORKING HUMIDITY	20 ~ 90% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH				
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C) on CH1 output				
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes				
SAFETY & EMC (Note 7)	SAFETY STANDARDS	UL62368-1, TUV BS EN/EN62368-1, 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				
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN61000-6-2 (BS EN/EN50082-2), heavy industry level, criteria A, EAC TP TC 020				
OTHERS	MTBF	232.4Khrs min. MIL-HDBK-217F (25°C)				
	DIMENSION	199*98*38mm (L*W*H)				
	PACKING	0.7Kg; 20pcs/15Kg/0.85CUFT				
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.(In order to meet tolerance, it is recommended that CH1 load >15% rated current.) 4. Line regulation is measured from low line to high line at rated load. 5. Load regulation is measured from 20% to 100% rated load, and other output at 60% rated load. 6. Each output can work within current range. But total output power can't exceed rated output power. 7. 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) 8. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to increase of the set up time. 9. 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					



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SPECIFICATION



MODEL	RD-125-1224		RD-125-1248		RD-125-2448				
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2	CH1	CH2		
	DC VOLTAGE	12V	24V	12V	48V	24V	48V		
	RATED CURRENT	3.7A	3.7A	2.3A	2.3A	2A	2A		
	CURRENT RANGE	Note.3 0 ~ 7A	0 ~ 5A	0 ~ 7A	0 ~ 2.5A	0 ~ 4A	0 ~ 2.5A		
	RATED POWER	Note.6 133.2W		138W		144W			
	RIPLPE & NOISE (max.)	Note.2 120mVp-p	200mVp-p	120mVp-p	240mVp-p	200mVp-p	240mVp-p		
	VOLTAGE ADJ. RANGE	CH1: 11.4 ~ 13.2V		CH1: 11.4 ~ 13.2V		CH1: 22.8 ~ 26.4V			
	VOLTAGE TOLERANCE	Note.3 $\pm 2.0\%$	$\pm 8.0\%$	$\pm 2.0\%$	$\pm 8.0\%$	$\pm 1.0\%$	$\pm 6.0\%$		
	LINE REGULATION	Note.4 $\pm 0.5\%$	$\pm 1.0\%$	$\pm 0.5\%$	$\pm 1.0\%$	$\pm 0.5\%$	$\pm 1.0\%$		
	LOAD REGULATION	Note.5 $\pm 1.0\%$	$\pm 5.0\%$	$\pm 1.0\%$	$\pm 5.0\%$	$\pm 1.0\%$	$\pm 5.0\%$		
INPUT	SETUP, RISE TIME	500ms, 20ms/230VAC		1200ms, 30ms/115VAC at full load					
	HOLD UP TIME (Typ.)	25ms/230VAC	30ms/115VAC at full load						
PROTECTION	VOLTAGE RANGE	88 ~ 132VAC / 176 ~ 264VAC selected by switch					248 ~ 373VDC(Withstand 300VAC surge for 5sec. Without damage)		
	FREQUENCY RANGE	47 ~ 63Hz							
	EFFICIENCY (Typ.)	85%		86%		86%			
	AC CURRENT (Typ.)	3A/115VAC	2A/230VAC						
	INRUSH CURRENT (Typ.)	COLD START 50A/230VAC							
	LEAKAGE CURRENT	<2mA / 240VAC							
ENVIRONMENT	OVERLOAD	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed							
	OVER VOLTAGE	CH1: 13.8 ~ 16.2V		CH1: 13.8 ~ 16.2V		CH1: 27.6 ~ 32.4V			
SAFETY & EMC (Note 7)	WORKING TEMP.	-25 ~ +70°C (Refer to "Derating Curve")							
	WORKING HUMIDITY	20 ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH							
	TEMP. COEFFICIENT	$\pm 0.03\%/\text{°C}$ (0 ~ 50°C) on CH1 output							
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes							
OTHERS	SAFETY STANDARDS	UL62368-1, TUV BS EN/EN62368-1, 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							
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN61000-6-2 (BS EN/EN50082-2), heavy industry level, criteria A, EAC TP TC 020							
NOTE	MTBF	218.2Khrs min. MIL-HDBK-217F (25°C)							
	DIMENSION	199*98*38mm (L*W*H)							
	PACKING	0.7Kg; 20pcs/15Kg/0.85CUFT							
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.(In order to meet tolerance, it is recommended that CH1 load > 5% rated current.) 4. Line regulation is measured from low line to high line at rated load. 5. Load regulation is measured from 20% to 100% rated load, and other output at 60% rated load. 6. Each output can work within current range. But total output power can't exceed rated output power. 7. 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) 8. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to increase of the set up time. 9. 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									



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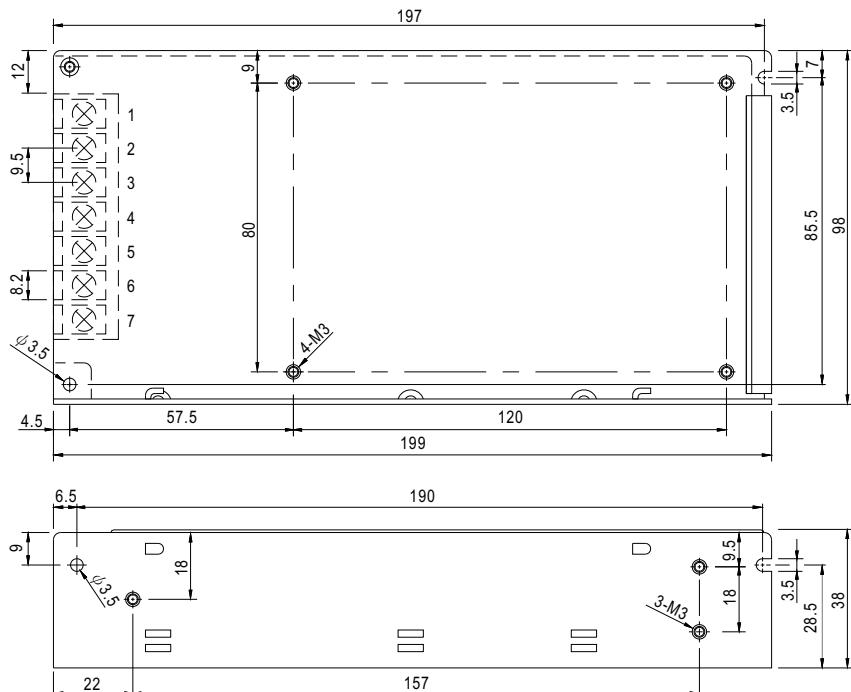
SPECIFICATION



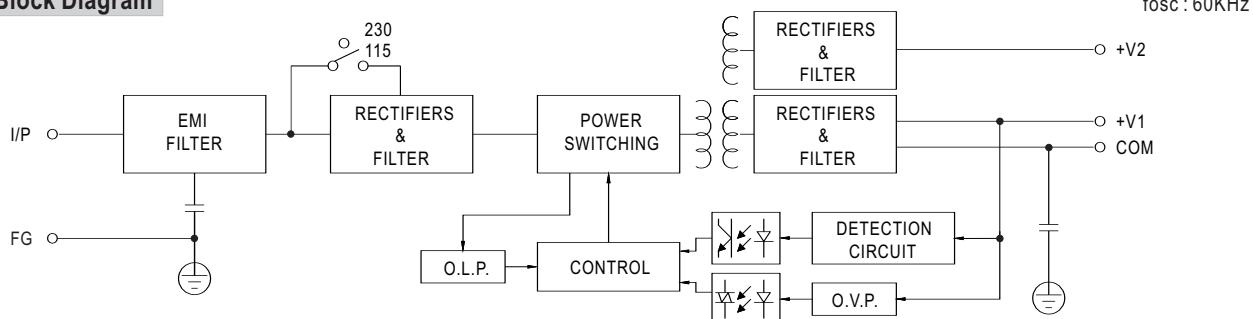
MODEL	RD-125-2412		RD-125-4812		RD-125-4824						
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2	CH1	CH2				
	DC VOLTAGE	24V	12V	48V	12V	48V	24V				
	RATED CURRENT	3.7A	3.7A	2.3A	2.3A	2A	2A				
	CURRENT RANGE Note.3	0 ~ 5A	0 ~ 7A	0 ~ 2.5A	0 ~ 7A	0 ~ 2.5A	0 ~ 4A				
	RATED POWER Note.6	133.2W		138W		144W					
	RIPLPE & NOISE (max.) Note.2	200mVp-p	120mVp-p	240mVp-p	120mVp-p	240mVp-p	240mVp-p				
	VOLTAGE ADJ. RANGE	CH1: 22.8 ~ 26.4V		CH1: 45.6 ~ 52.8V		CH1: 45.6 ~ 52.8V					
	VOLTAGE TOLERANCE Note.3	±2.0%	±10%	±2.0%	±10%	±1.0%	±8.0%				
	LINE REGULATION Note.4	±0.5%	±1.0%	±0.5%	±1.0%	±0.5%	±1.0%				
	LOAD REGULATION Note.5	±1.0%	±5.0%	±1.0%	±5.0%	±1.0%	±5.0%				
INPUT	SETUP, RISE TIME	500ms, 20ms/230VAC		1200ms, 30ms/115VAC at full load		115VAC at full load					
	HOLD UP TIME (Typ.)	25ms/230VAC		30ms/115VAC at full load							
PROTECTION	VOLTAGE RANGE	88 ~ 132VAC / 176 ~ 264VAC selected by switch			248 ~ 373VDC (Withstand 300VAC surge for 5sec. Without damage)						
	FREQUENCY RANGE	47 ~ 63Hz									
	EFFICIENCY (Typ.)	85%		86%		86%					
	AC CURRENT (Typ.)	3A/115VAC	2A/230VAC								
	INRUSH CURRENT (Typ.)	COLD START 50A/230VAC									
	LEAKAGE CURRENT	<2mA / 240VAC									
ENVIRONMENT	OVERLOAD	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed									
	OVER VOLTAGE	CH1: 27.6 ~ 32.4V		CH1: 55.2 ~ 64.8V		CH1: 55.2 ~ 64.8V					
SAFETY & EMC (Note 7)	WORKING TEMP.	-25 ~ +70°C (Refer to "Derating Curve")									
	WORKING HUMIDITY	20 ~ 90% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH									
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C) on CH1 output									
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes									
OTHERS	SAFETY STANDARDS	UL62368-1, TUV BS EN/EN62368-1, 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									
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN61000-6-2 (BS EN/EN50082-2), heavy industry level, criteria A, EAC TP TC 020									
NOTE	MTBF	232.4Khrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	199*98*38mm (L*W*H)									
	PACKING	0.7Kg; 20pcs/15Kg/0.85CUFT									
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.(In order to meet tolerance, it is recommended that CH1 load > 15% rated current.) 4. Line regulation is measured from low line to high line at rated load. 5. Load regulation is measured from 20% to 100% rated load, and other output at 60% rated load. 6. Each output can work within current range. But total output power can't exceed rated output power. 7. 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) 8. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to increase of the set up time. 9. 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

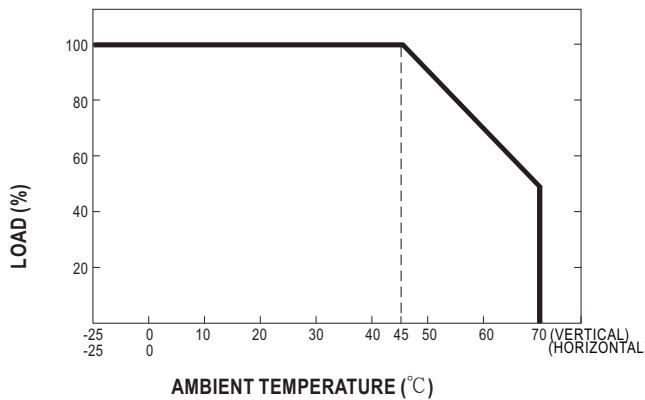
Case No. 902A Unit:mm



■ Block Diagram



■ Derating Curve



■ Static Characteristics

