125W Dual Output Switching Power Supply

RD-125 series

■ Features :

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

SPECIFICATION

MODEL		RD-125A		RD-125B	
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2
	DC VOLTAGE	5V	12V	5V	24V
	RATED CURRENT	7.7A	7.7A	4.6A	4.6A
	CURRENT RANGE Note.6	2 ~ 15A	0.5 ~ 10A	2 ~ 10A	0.4 ~ 5A
	RATED POWER Note.6	130.9W		133.4W	
	RIPPLE & NOISE (max.) Note.2	80mVp-p	120mVp-p	80mVp-p	120mVp-p
	VOLTAGE ADJ. RANGE	CH1: 4.75 ~ 5.5V		CH1: 4.75 ~ 5.5V	
	VOLTAGE TOLERANCE Note.3	±5.0%	±7.0%	±5.0%	±7.0%
	LINE REGULATION Note.4	±1.0%	±2.0%	±1.0%	±2.0%
	LOAD REGULATION Note.5	±3.0%	±4.0%	±3.0%	±4.0%
	SETUP, RISE TIME	500ms, 20ms/230VAC 1200ms, 30ms/115VAC at full load			
	HOLD TIME (Typ.)	36ms/230VAC 30ms/115VAC at full load			
INPUT	VOLTAGE RANGE	88 ~ 132VAC / 176 ~ 264VAC selected by switch 248 ~ 373VDC(Withstand 300VAC surge for 5sec. Without damage)			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY(Typ.)	82%		85%	
	AC CURRENT (Typ.)	3A/115VAC 2A/230VAC			
	INRUSH CURRENT (Typ.)	COLD START 40A/230VAC			
	LEAKAGE CURRENT	<2mA / 240VAC			
PROTECTION	OVER LOAD	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℃ (Refer to output load derating curve)			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)on +5V output			
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes			
SAFETY & EMC (Note 7)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 Approved			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC			
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B			
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3			
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61000-6-2 (EN50082-2) heavy industry level, criteria A			
OTHERS	MTBF	232.4Khrs min. MIL-HDBK-217F (25℃)			
	DIMENSION	199*98*38mm (L*W*H)			
	PACKING	0.7Kg; 20pcs/15Kg/0.8CUFT			
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. 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. The final equipment must be re-confirmed that it still meets EMC directives. 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.				

125W Dual Output Switching Power Supply

RD-125 series

■ Features :

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

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.6	1 ~ 7A	0.4 ~ 5A	1 ~ 7A	0.2 ~ 2.5A	0.5 ~ 4A	0.2 ~ 2.5A
	RATED POWER Note.6	133.2W		138W		144W	
	RIPPLE & 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	±2.0%	+8,-5%	±2.0%	+8,-5%	±1.0%	±4.0%
	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%	±3.0%
	SETUP, RISE TIME	500ms, 20ms/230VAC 1200ms, 30ms/115VAC at full load					
	HOLD TIME (Typ.)	36ms/230VAC 30ms/115VAC at full load					
INPUT	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 40A/230VAC					
	LEAKAGE CURRENT	<2mA / 240VAC					
PROTECTION	OVER LOAD	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	
		Protection type : Hiccup mode, recovers automatically after fault condition is removed					
ENVIRONMENT	WORKING TEMP.	-25 ~ +70℃ (Refer to output load derating curve)					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)on +5V output					
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes					
SAFETY & EMC (Note 7)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 Approved					
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC					
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC					
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B					
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3					
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61000-6-2 (EN50082-2) heavy industry level, criteria A					
OTHERS	MTBF	218.2Khrs min. MIL-HDBK-217F (25℃)					
	DIMENSION	199*98*38mm (L*W*H)					
	PACKING	0.7Kg; 20pcs/15Kg/0.8CUFT					

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. 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. The final equipment must be re-confirmed that it still meets EMC directives.
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.

125W Dual Output Switching Power Supply

RD-125 series

■ Features :

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

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.6	0.5 ~ 5A	1 ~ 7A	0.3 ~ 2.5A	1 ~ 7A	0.3 ~ 2.5A	0.5 ~ 4A
	RATED POWER Note.6	133.2W		138W		144W	
	RIPPLE & 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%
	SETUP, RISE TIME	500ms, 20ms/230VAC 1200ms, 30ms/115VAC at full load					
	HOLD TIME (Typ.)	36ms/230VAC 30ms/115VAC at full load					
INPUT	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 40A/230VAC					
	LEAKAGE CURRENT	<2mA / 240VAC					
PROTECTION	OVER LOAD	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	
		Protection type : Hiccup mode, recovers automatically after fault condition is removed					
ENVIRONMENT	WORKING TEMP.	-25 ~ +70℃ (Refer to output load derating curve)					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)on +5V output					
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	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC					
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OTHERS	MTBF	232.4Khrs min. MIL-HDBK-217F (25℃)					
	DIMENSION	199*98*38mm (L*W*H)					
	PACKING	0.7Kg; 20pcs/15Kg/0.8CUFT					

NOTE

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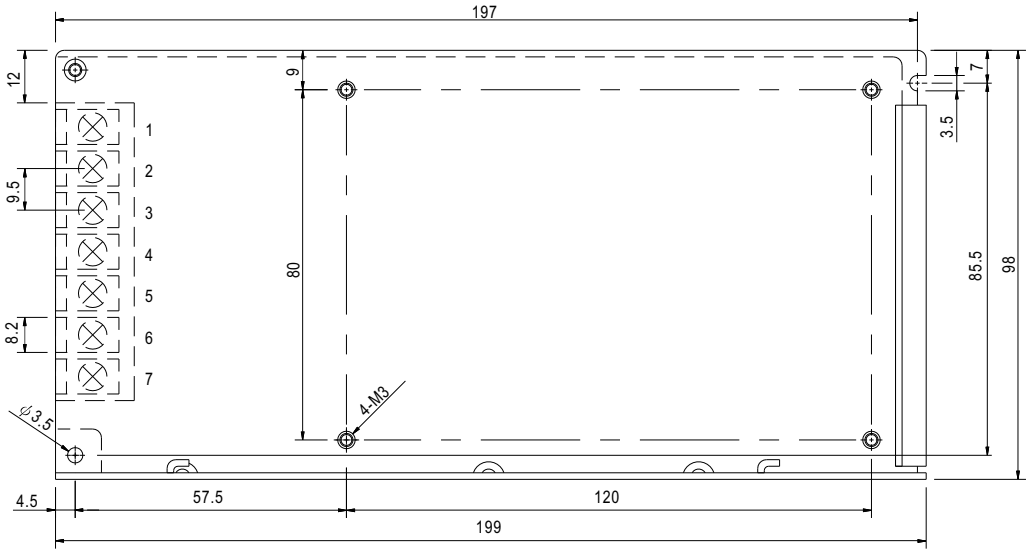
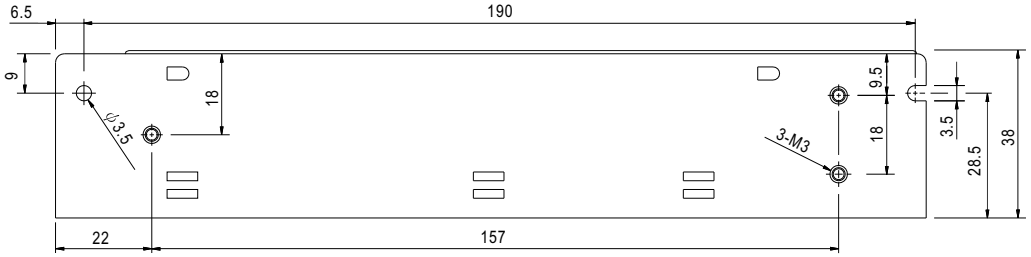
■ Mechanical Specification

Case No. 902A Unit:mm

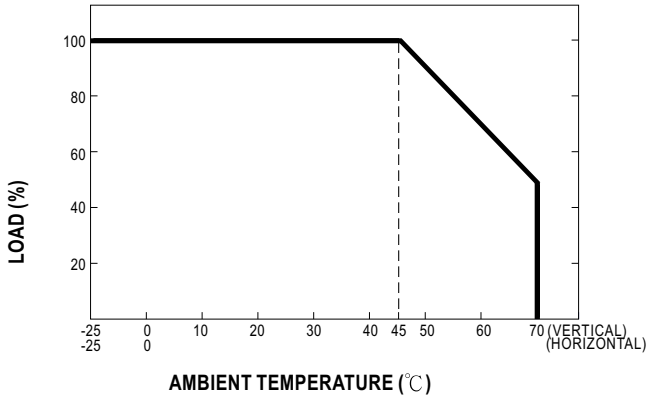
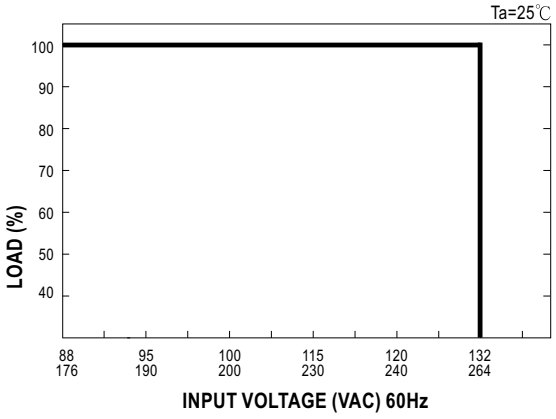




Terminal Pin. No Assignment

Pin No.	Assignment	Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4	DC OUTPUT COM	7	DC OUTPUT +V1
2	AC/N	5	DC OUTPUT +V2		
3	FG ⏚	6	DC OUTPUT COM		

■ Derating Curve



■ Static Characteristics