



## 125W Dual Output Switching Power Supply

## RID-125 series



## ■ Features :

- Isolated output & GND for CH1,CH2
- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- High reliability
- 3 years warranty

## SPECIFICATION



MODEL	RID-125-1224		RID-125-1248		RID-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					
	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 $\pm 2.0\%$	$+8,-5\%$	$\pm 2.0\%$	$+8,-5\%$	$\pm 1.0\%$	$\pm 4.0\%$				
	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 $\pm 1.0\%$	$\pm 5.0\%$	$\pm 1.0\%$	$\pm 5.0\%$	$\pm 1.0\%$	$\pm 3.0\%$				
INPUT	SETUP, RISE TIME	500ms, 20ms/230VAC 1200ms, 30ms/115VAC at full load									
	HOLD UP TIME (Typ.)	36ms/230VAC	30ms/115VAC at full load								
PROTECTION	VOLTAGE RANGE	88 ~ 132VAC / 176 ~ 264VAC selected by switch 248 ~ 373VDC(300VAC peak 5sec. No damage)									
	FREQUENCY RANGE	47 ~ 63Hz									
	EFFICIENCY(Typ.)	85%		85%		86%					
	AC CURRENT (Typ.)	3A/115VAC	2A/230VAC								
	INRUSH CURRENT (Typ.)	COLD START 40A/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					
	WORKING TEMP.	-20 ~ +70°C (Refer to output load derating curve)									
	WORKING HUMIDITY	20 ~ 90% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH									
SAFETY & EMC (Note 7)	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									
	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									
OTHERS	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									
NOTE	MTBF	218.2Khrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	199*98*38mm (L*W*H)									
	PACKING	0.7Kg; 20pcs/15Kg/0.8CUFT									
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. 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 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

RID-125 series



## ■ Features :

- Isolated output & GND for CH1,CH2
- AC input range selectable by switch
- Withstand 300VAC surge input for 5 seconds
- Protections: Short circuit / Overload / Over voltage
- 170% peak load for CH1
- All using 105°C long life electrolytic capacitors
- Withstand 5G vibration test
- LED indicator for power on
- 100% full load burn-in test
- High reliability
- 3 years warranty



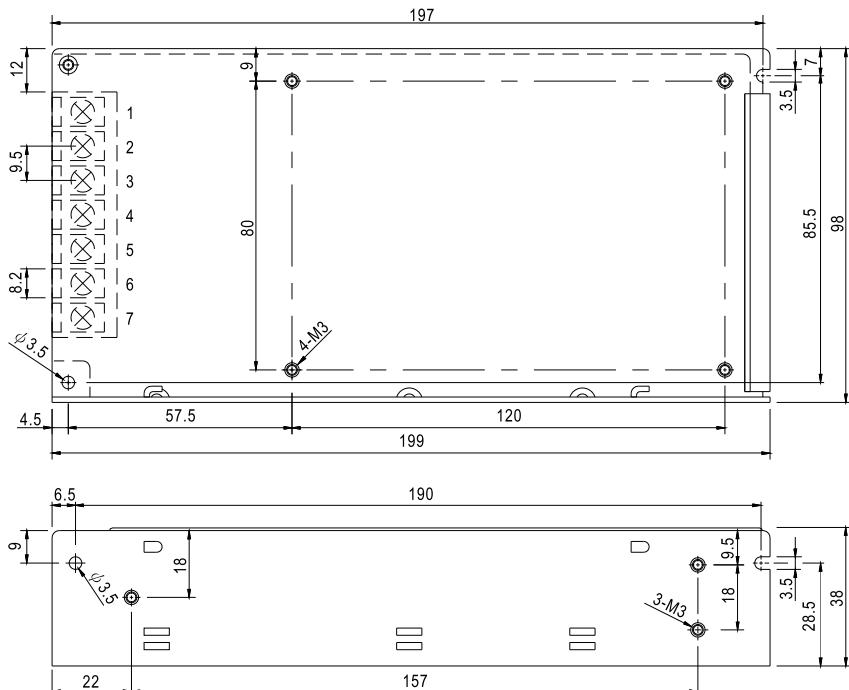
CBCE

## SPECIFICATION

MODEL	RID-125-1205		RID-125-2405	
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1
	DC VOLTAGE	12V	5V	24V
	RATED CURRENT	9.2A	3A	4.6A
	CURRENT RANGE	Note.6 2 ~ 10.5A	0 ~ 3A	2 ~ 5.3A
	PEAK LOAD	Note.9 15.6A	3A	7.8A
	RATED POWER	125.4W		125.4W
	RIPLPE & NOISE (max.)	Note.2 120mVp-p	80mVp-p	120mVp-p
	VOLTAGE ADJ. RANGE	CH1: 11.4 ~ 13.2V		CH1: 22.8 ~ 26.4V
	VOLTAGE TOLERANCE	Note.3 $\pm 2.0\%$	$\pm 3.0\%$	$\pm 2.0\%$
	LINE REGULATION	Note.4 $\pm 0.5\%$	$\pm 0.5\%$	$\pm 0.5\%$
	LOAD REGULATION	Note.5 $\pm 1.0\%$	$\pm 2.0\%$	$\pm 1.0\%$
	SETUP, RISE TIME	500ms, 20ms/230VAC 1200ms, 30ms/115VAC at full load		
INPUT	HOLD UP TIME (Typ.)	35ms/230VAC	30ms/115VAC at full load	
	VOLTAGE RANGE	88 ~ 132VAC / 176 ~ 264VAC selected by switch		
	FREQUENCY RANGE	47 ~ 63Hz		
	EFFICIENCY(Typ.)	80%		83%
	AC CURRENT (Typ.)	3A/115VAC	2A/230VAC	
	INRUSH CURRENT (Typ.)	COLD START 40A/230VAC		
PROTECTION	LEAKAGE CURRENT	<2mA / 240VAC		
	OVERLOAD	>165% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed		
	OVER VOLTAGE	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°C (Refer to output load 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		
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		
OTHERS	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61000-6-2 (EN50082-2), heavy industry level, criteria A		
	MTBF	218.2Khrs min. MIL-HDBK-217F (25°C)		
	DIMENSION	199*98*38mm (L*W*H)		
NOTE	PACKING	0.7Kg; 20pcs/15Kg/0.8CUFT		
	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. 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. 9. 10% duty cycle maximum within every second. Average output power should not exceed the rated power.			

## ■ Mechanical Specification

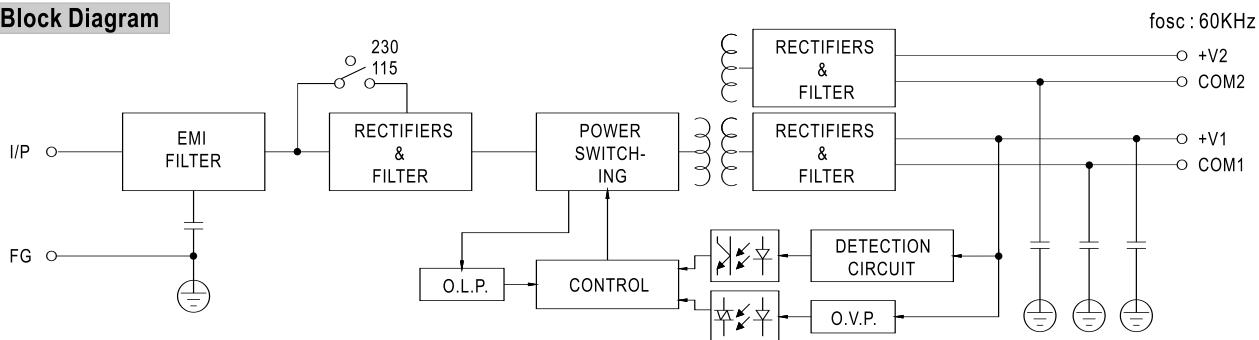
Case No. 902A Unit:mm



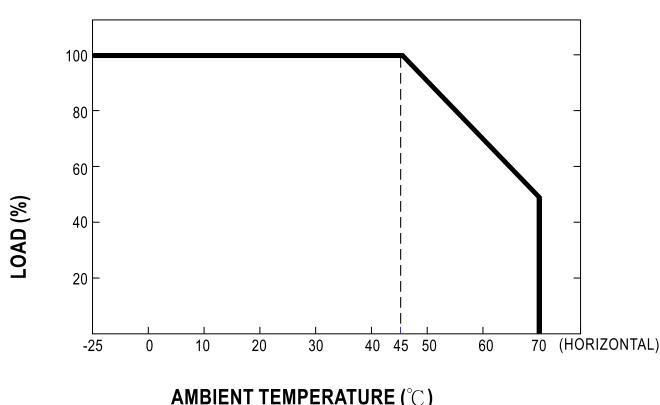
## Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	5	DC OUTPUT +V2
2	AC/N	6	DC OUTPUT COM1
3	FG $\pm$	7	DC OUTPUT +V1
4	DC OUTPUT COM2		

## ■ Block Diagram



## ■ Derating Curve



## ■ Static Characteristics

