



## E-Star Power Development Co., Ltd. (E-STAR)

1F., No.40, Juren Ln., Sec. 2, Sanmin Rd., Banciao Dist., New Taipei City  
22069, Taiwan (R.O.C.)

Phone : 886-2-2957 5580 Fax : 886-2-2957 7473

### 125W Enclosed type Dual output power supply > RID-125



#### ■ 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
- 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

#### 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.3	0 ~ 7A	0 ~ 5A	0~ 7A	0 ~ 2.5A	0 ~ 4A	0 ~ 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%	±8.0%	±2.0%	±8.0%	±1.0%	±6.0%
	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 UP TIME (Typ.)		36ms/230VAC      30ms/115VAC at full load					
INPUT	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 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: 13.8 ~ 16.2V		CH1: 13.8 ~ 16.2V		CH1: 27.6 ~ 32.4V	
ENVIRONMENT		Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	WORKING TEMP.	-20 ~ +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 ~ 50℃) on CH1 output					
SAFETY & EMC (Note 7)	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes					
	SAFETY STANDARDS	UL62368-1, TUV 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℃ / 70% RH					
	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020					
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), heavy industry level, criteria A, EAC TP TC 020					
	MTBF	218.2Khrs min.    MIL-HDBK-217F (25℃)					
	DIMENSION	199*98*38mm (L*W*H)					
NOTE	PACKING	0.7Kg; 20pcs/15Kg/0.85CUFT					
		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.(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." 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℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).					



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## 125W Enclosed type Dual output power supply > RID-125



### ■ 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

### SPECIFICATION

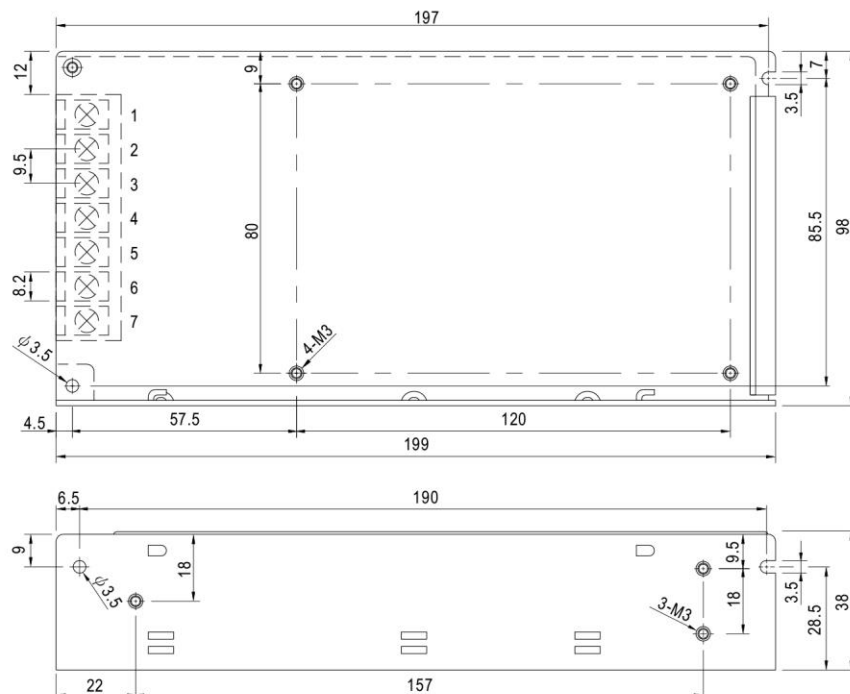


MODEL		RID-125-1205		RID-125-2405	
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2
	DC VOLTAGE	12V	5V	24V	5V
	RATED CURRENT	9.2A	3A	4.6A	3A
	CURRENT RANGE <small>Note.6</small>	0 ~ 10.5A	0 ~ 3A	0 ~ 5.3A	0 ~ 3A
	PEAK LOAD <small>Note.9</small>	15.6A	3A	7.8A	3A
	RATED POWER	125.4W		125.4W	
	RIPPLE & NOISE (max.) <small>Note.2</small>	120mVp-p	80mVp-p	120mVp-p	80mVp-p
	VOLTAGE ADJ. RANGE	CH1: 11.4 ~ 13.2V		CH1: 22.8 ~ 26.4V	
	VOLTAGE TOLERANCE <small>Note.3</small>	± 2.0%	± 3.0%	± 2.0%	± 3.0%
	LINE REGULATION <small>Note.4</small>	± 0.5%	± 0.5%	± 0.5%	± 0.5%
	LOAD REGULATION <small>Note.5</small>	± 1.0%	± 2.0%	± 1.0%	± 2.0%
	SETUP, RISE TIME	500ms, 20ms/230VAC      1200ms, 30ms/115VAC at full load			
HOLD UP TIME (Typ.)	35ms/230VAC      30ms/115VAC at full load				
INPUT	VOLTAGE RANGE	88 ~ 132VAC / 176 ~ 264VAC selected by switch      248 ~ 373VDC(300VAC peak 5sec., no damage)			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY(Typ.)	80%		83%	
	AC CURRENT (Typ.)	3A/115VAC      2A/230VAC			
	INRUSH CURRENT (Typ.)	COLD START 50A/230VAC			
	LEAKAGE CURRENT	<2mA / 240VAC			
PROTECTION	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 "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 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 EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020			
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), heavy industry level, criteria A, EAC TP TC 020			
	MTBF	218.2Khrs 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. 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." 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. 10. 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).				

## 125W Enclosed type Dual output power supply > RID-125

## ■ Mechanical Specification

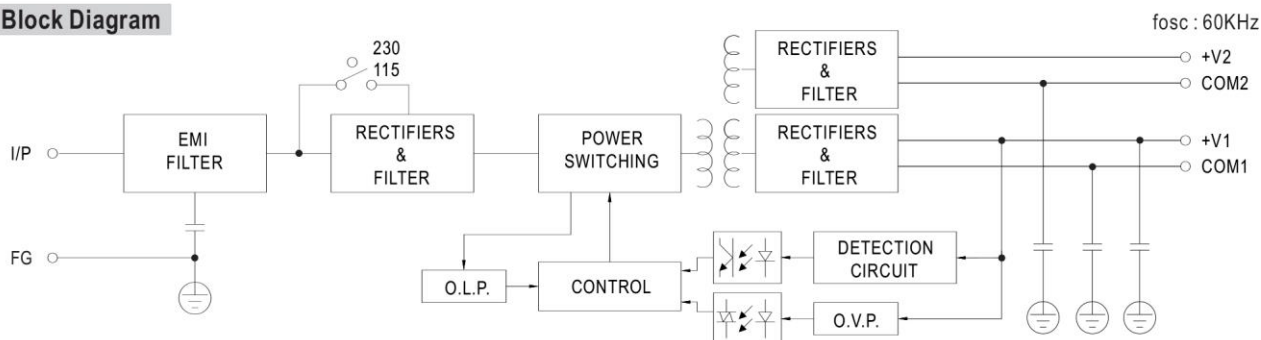
Case No. 902A    Unit:mm



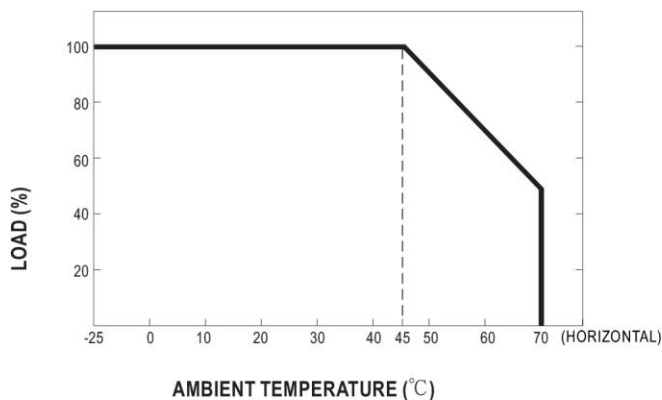
### Terminal Pin No. Assignment

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

### ■ Block Diagram



### Derating Curve



### ■ Static Characteristics

