



## 125W Quad Output Switching Power Supply

## RQ-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



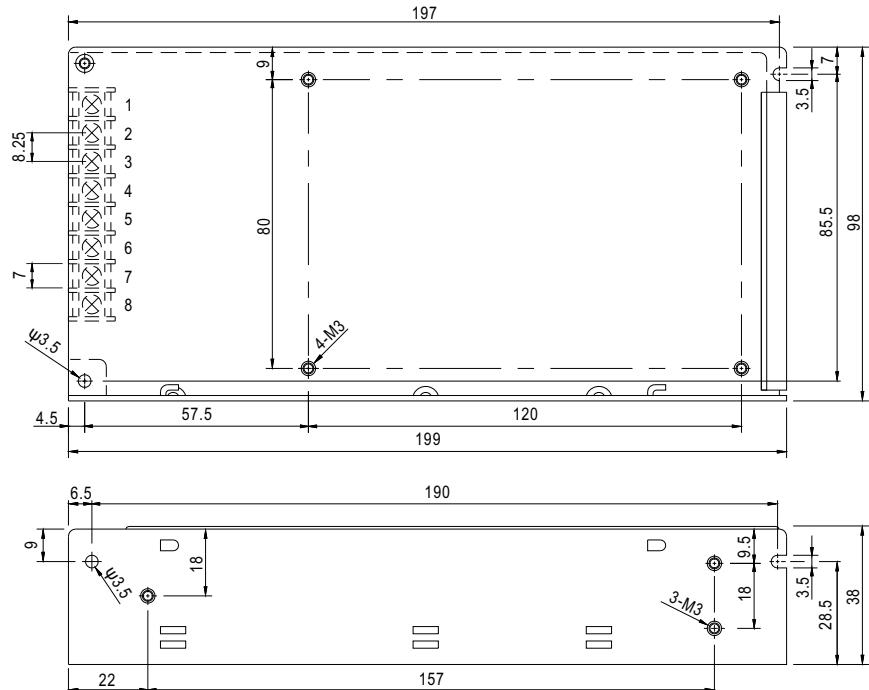
## SPECIFICATION



MODEL	RQ-125B				RQ-125C				RQ-125D				
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
	DC VOLTAGE	5V	12V	-5V	-12V	5V	15V	-5V	-15V	5V	12V	24V	-12V
	RATED CURRENT	11A	4.5A	1A	0.5A	10A	4A	1A	0.5A	8A	2.5A	2A	0.5A
	CURRENT RANGE	Note.3	0 ~ 12A	0 ~ 4.5A	0 ~ 1A	0 ~ 1A	0 ~ 12A	0 ~ 4A	0 ~ 1A	0 ~ 1A	0 ~ 12A	0 ~ 4A	0 ~ 2.5A
	RATED POWER	Note.6	120W				122.5W				124W		
	RIPPLE & NOISE (max.)	Note.2	80mVp-p	120mVp-p	80mVp-p	80mVp-p	80mVp-p	120mVp-p	80mVp-p	80mVp-p	80mVp-p	120mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE		CH1: 4.75 ~ 5.5V				CH1: 4.75 ~ 5.5V				CH1: 4.75 ~ 5.5V		
	VOLTAGE TOLERANCE	Note.3	±2.0%	+10,-1%	+6,-10%	±5.0%	±2.0%	+10,-1%	+6,-10%	±5.0%	±2.0%	+10,-1%	±8.0%
	LINE REGULATION	Note.4	±0.5%	±1.0%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%
	LOAD REGULATION	Note.5	±1.0%	±3.0%	±6.0%	±2.0%	±1.0%	±3.0%	±6.0%	±2.0%	±1.0%	±3.0%	±6.0%
INPUT	SETUP, RISE TIME		500ms, 20ms/230VAC		1200ms, 30ms/115VAC		at full load						
	HOLD UP TIME (Typ.)		25ms/230VAC		30ms/115VAC		at full load						
	VOLTAGE RANGE		88 ~ 132VAC / 176 ~ 264VAC		selected by switch		248 ~ 373VDC		(Withstand 300VAC surge for 5sec. Without damage)				
	FREQUENCY RANGE		47 ~ 63Hz										
	EFFICIENCY (Typ.)		77%			78%			80%				
PROTECTION	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: 5.75 ~ 6.75V										
SAFETY & EMC (Note 7)			Protection type : Hiccup mode, recovers automatically after fault condition is removed										
	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 +5V output										
OTHERS	VIBRATION		10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes										
	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										
NOTE	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										
	MTBF		203.1Khrs min. MIL-HDBK-217F (25°C)										
	DIMENSION		199*98*38mm (L*W*H)										
NOTE	PACKING		0.7Kg; 20pcs/14Kg/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 > 20% rated current for B, C type and CH1 load > 10% rated current for D type.)											
	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 <a href="http://www.meanwell.com">http://www.meanwell.com</a> )											
	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 <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>											

## ■ Mechanical Specification

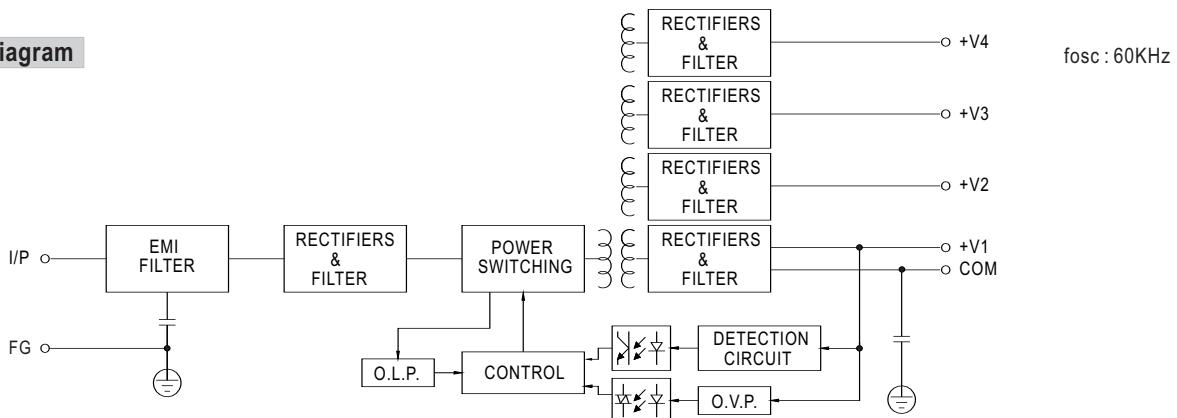
Case No. 902 Unit:mm



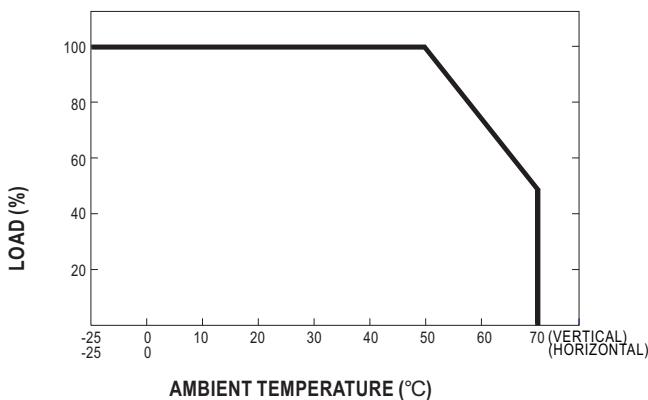
## Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	5	DC OUTPUT V3
2	AC/N	6	DC OUTPUT +V2
3	FG $\pm$	7	DC OUTPUT COM
4	DC OUTPUT -V4	8	DC OUTPUT +V1

## ■ Block Diagram



## ■ Derating Curve



## ■ Static Characteristics

