



# 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



### ■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

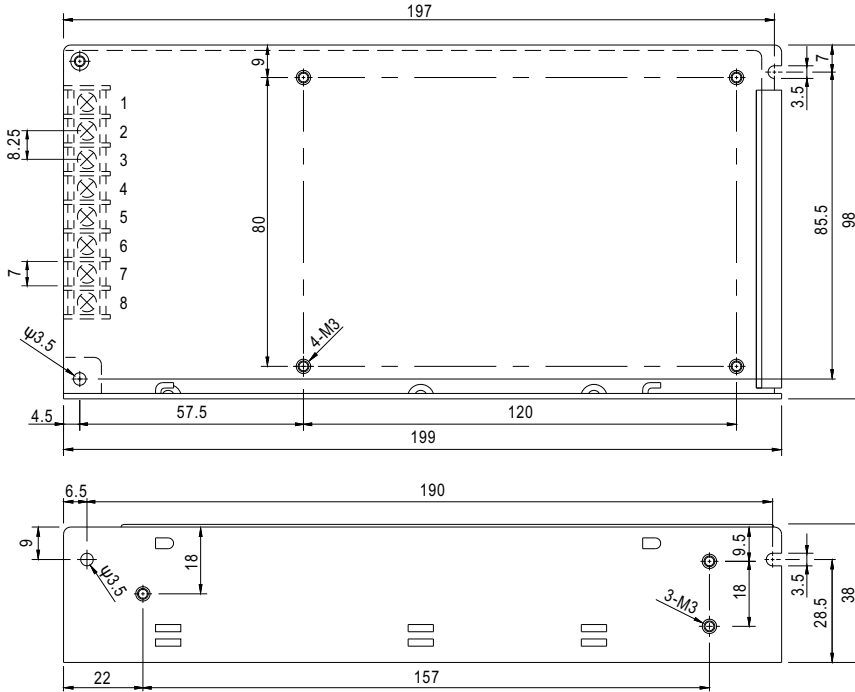


### SPECIFICATION

MODEL	RQ-125B				RQ-125C				RQ-125D			
	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
<b>OUTPUT</b>												
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 <small>Note.3</small>	0 ~ 12A	0 ~ 4.5A	0 ~ 1A	0 ~ 1A	0 ~ 12A	0 ~ 4A	0 ~ 1A	0 ~ 1A	0 ~ 12A	0 ~ 4A	0 ~ 2.5A	0 ~ 1A
RATED POWER <small>Note.6</small>	120W				122.5W				124W			
RIPPLE & NOISE (max.) <small>Note.2</small>	80mVp-p	120mVp-p	80mVp-p	80mVp-p	80mVp-p	120mVp-p	80mVp-p	80mVp-p	80mVp-p	120mVp-p	150mVp-p	80mVp-p
VOLTAGE ADJ. RANGE	CH1: 4.75 ~ 5.5V				CH1: 4.75 ~ 5.5V				CH1: 4.75 ~ 5.5V			
VOLTAGE TOLERANCE <small>Note.3</small>	±2.0%	+10,-1%	+6,-10%	±5.0%	±2.0%	+10,-1%	+6,-10%	±5.0%	±2.0%	+10,-1%	±8.0%	±5.0%
LINE REGULATION <small>Note.4</small>	±0.5%	±1.0%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%	±1.0%
LOAD REGULATION <small>Note.5</small>	±1.0%	±3.0%	±6.0%	±2.0%	±1.0%	±3.0%	±6.0%	±2.0%	±1.0%	±3.0%	±6.0%	±2.0%
SETUP, RISE TIME	500ms, 20ms/230VAC				1200ms, 30ms/115VAC at full load							
HOLD UP TIME (Typ.)	25ms/230VAC				30ms/115VAC at full load							
<b>INPUT</b>												
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%			
AC CURRENT (Typ.)	3A/115VAC 2A/230VAC											
INRUSH CURRENT (Typ.)	COLD START 50A/230VAC											
LEAKAGE CURRENT	<2mA / 240VAC											
<b>PROTECTION</b>												
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											
<b>ENVIRONMENT</b>												
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											
VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes											
<b>SAFETY &amp; EMC (Note 7)</b>												
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, EAC TP TC 020											
<b>OTHERS</b>												
MTBF	2535.9K hrs min. Telcordia SR-332 (Bellcore) ; 377.7K hrs min. MIL-HDBK-217F (25°C)											
DIMENSION	199*98*38mm (L*W*H)											
PACKING	0.7Kg; 20pcs/14Kg/0.85CUFT											
<b>NOTE</b>	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation. (In order to meet tolerance, it is recommended that CH1 load &gt; 20% rated current for B, C type and CH1 load &gt; 10% rated current for D type.)</li> <li>4. Line regulation is measured from low line to high line at rated load.</li> <li>5. Load regulation is measured from 20% to 100% rated load, and other output at 60% rated load.</li> <li>6. Each output can work within current range. But total output power can't exceed rated output power.</li> <li>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>)</li> <li>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.</li> <li>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).</li> </ol> <p>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p>											

■ Mechanical Specification

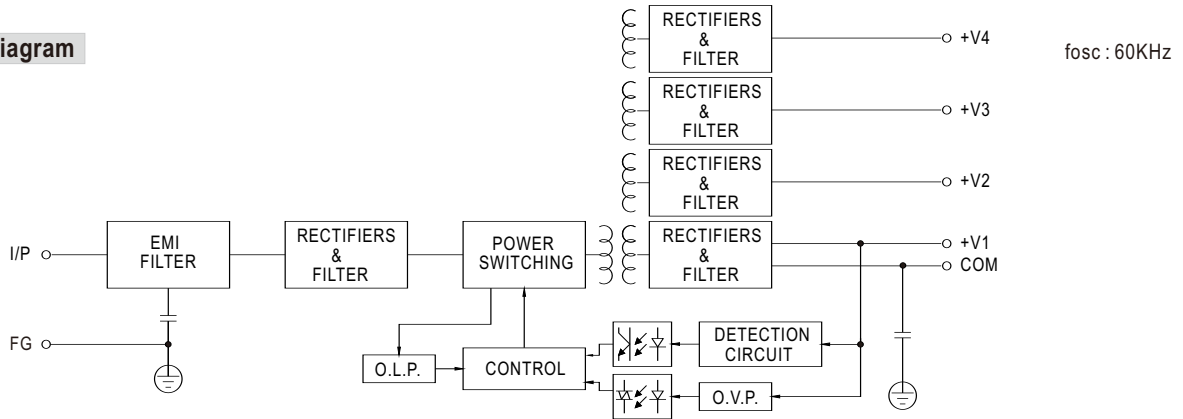
Case No. 902 Unit:mm



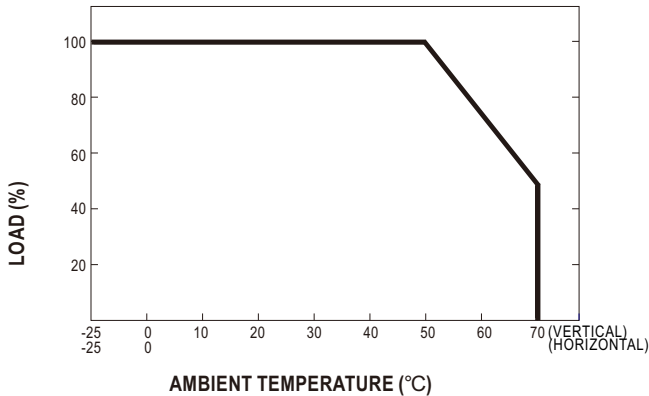
Terminal Pin No. Assignment

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

■ Block Diagram



■ Derating Curve



■ Static Characteristics

