



85W Quad Output Switching Power Supply

RQ-85 series



■ Features :

- 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
- 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

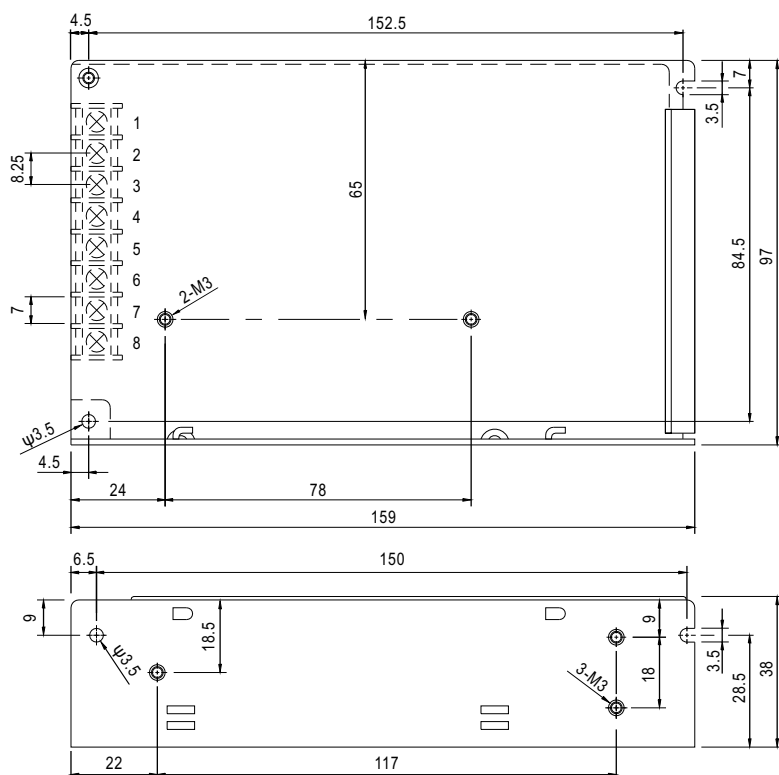


SPECIFICATION

MODEL		RQ-85B				RQ-85C				RQ-85D				
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	7A	3.1A	0.5A	0.5A	7A	2.5A	0.5A	0.5A	6A	2A	1A	0.5A	
	CURRENT RANGE	Note.3 0 ~ 10A	0 ~ 4A	0 ~ 1A	0 ~ 1A	0 ~ 10A	0 ~ 4A	0 ~ 1A	0 ~ 1A	0 ~ 10A	0 ~ 4A	0 ~ 1.5A	0 ~ 1A	
	RATED POWER	Note.6 80.7W					82.5W					84W		
	RIPPLE & NOISE (max.)	Note.2 80mVp-p	120mVp-p	100mVp-p	80mVp-p	80mVp-p	120mVp-p	100mVp-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	Note.3 ±2.0%	+7,-3%	±8.0%	±5.0%	±2.0%	+3,-7%	±8.0%	±5.0%	±2.0%	+7,-3%	±8.0%	±5.0%	
	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%	±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%	±5.0%	±2.0%	
SETUP, RISE TIME	500ms, 20ms/230VAC				1200ms, 30ms/115VAC at full load									
HOLD UP TIME (Typ.)	100ms/230VAC				18ms/115VAC at full load									
INPUT	VOLTAGE RANGE	88 ~ 264VAC				125 ~ 373VDC (Withstand 300VAC surge for 5sec. Without damage)								
	FREQUENCY RANGE	47 ~ 63Hz												
	EFFICIENCY (Typ.)	76%					77%			78%				
	AC CURRENT (Typ.)	2.5A/115VAC				1.5A/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: 5.75 ~ 6.75V 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 +5V 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 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, criteria A, EAC TP TC 020												
OTHERS	MTBF	206.8Khrs min. MIL-HDBK-217F (25°C)												
	DIMENSION	159*97*38mm (L*W*H)												
	PACKING	0.6Kg; 24pcs/15.4Kg/0.83CUFT												
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. (In order to meet tolerance, it is recommended that CH1 load > 20% rated current for B,C type and CH1 load > 15% 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 http://www.meanwell.com) 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 https://www.meanwell.com/serviceDisclaimer.aspx													

Mechanical Specification

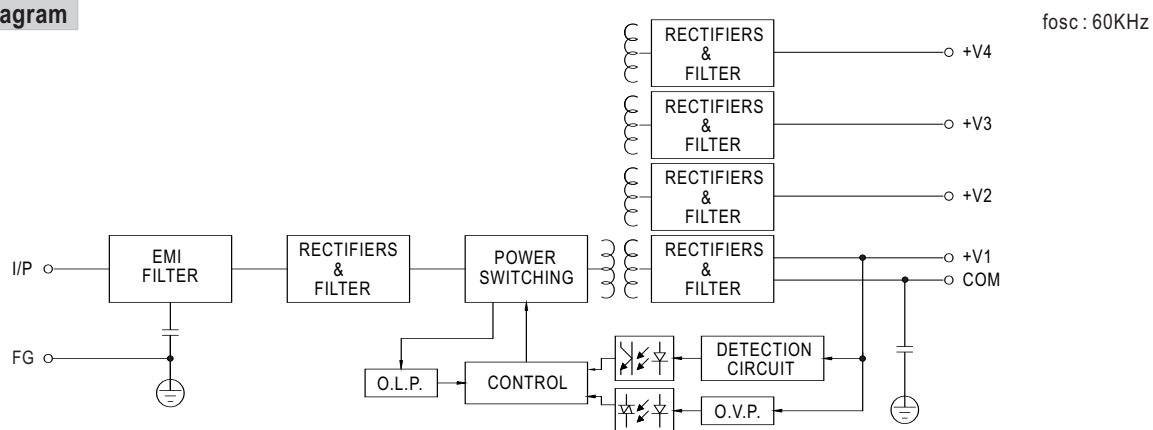
Case No. 901 Unit:mm



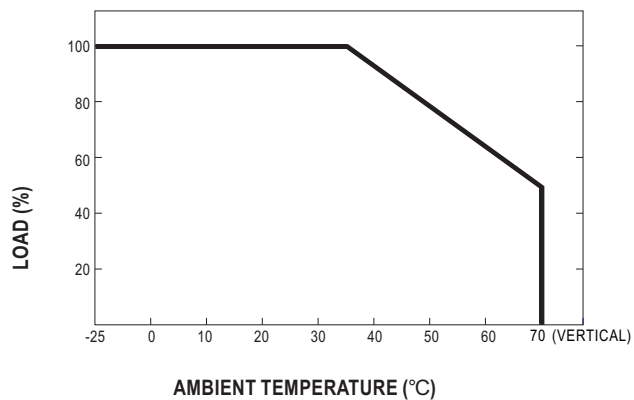
Terminal Pin No. Assignment

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

