Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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75W Reliable Dual Output Medical Grade **RPD-75 series**

ANSI/AAMI ES60601-1 EN60601-1 IEC60601-1

Medical 2xMOPP BF rated

Features

- 5"×3" compact size
- Medical safety approved (2 x MOPP) accroding to ANSI/AAMI ES60601-1 and IEC/EN60601-1
- Suitable for BF application with appropriate system consideration
- Free air convection for rated power and 23.5CFM forced air convection for peak load
- EMI class B for class Ⅰ configuration
- Extremely low leakage current
- Protections: Short circuit / Overload / Over voltage
- Lifetime > 140K hours
- 3 years warranty

Applications

- Oral irrigator
- Hemodialysis machine
- Medical computer monitors
- Sleep apnea devices

Description

RPD-75 is a 75W highly reliable green PCB type medical power supply with a high power density on the 5” by 3” footprint. It accepts 90~264VAC input and offers dual output voltages .
RPD-75 is able to be used for Class Ⅰ (with FG) system design. The extremely low leakage current is less than 150μA. In addition, it conforms to international medical regulations (2*MOPP) and EMC EN55011.

Model Encoding

RPD- 75 A

- A — Output voltage
- 75 — Rated wattage
- RPD- — Series name

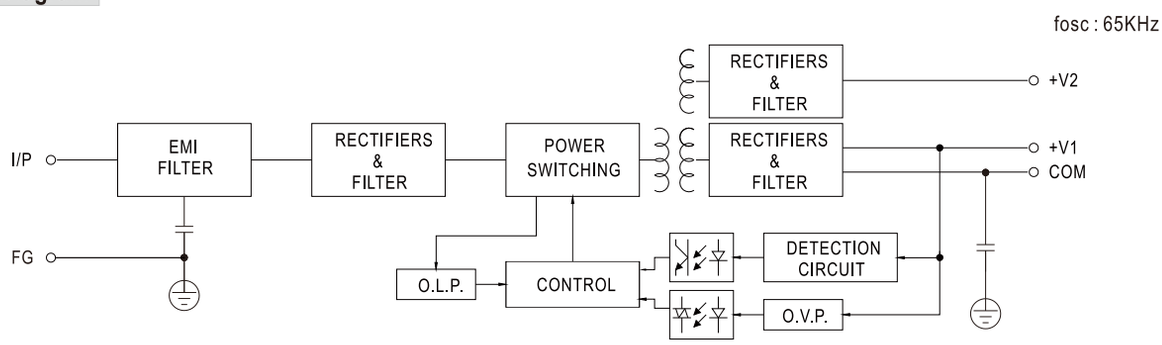
SPECIFICATION

MODEL		RPD-75A		RPD-75B	
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2
	DC VOLTAGE	5V	12V	5V	24V
	RATED CURRENT	7A	3A	5A	2A
	CURRENT RANGE	1 ~ 9.5A	0.3 ~ 4A	1 ~ 6.8A	0.2 ~ 2.7A
	RATED POWER	71W		73W	
	PEAK LOAD (23.5CFM)	95.5W		98.8W	
	RIPPLE & NOISE (max.) Note.2	80mVp-p	120mVp-p	80mVp-p	120mVp-p
	VOLTAGE ADJ. RANGE	CH1: 4.75 ~ 5.5V		CH1: 4.75 ~ 5.5V	
	VOLTAGE TOLERANCE Note.3	±2.0%	±6.0%	±2.0%	±6.0%
	LINE REGULATION	±0.5%	±1.0%	±0.5%	±1.0%
	LOAD REGULATION	±1.5%	±3.0%	±1.5%	±3.0%
	SETUP, RISE TIME	500ms, 30ms/230VAC 500ms, 30ms/115VAC at full load			
	HOLD UP TIME (Typ.)	90ms/230VAC 20ms/115VAC at full load			
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	77%		79%	
	AC CURRENT (Typ.)	1.5A/115VAC 1A/230VAC			
	INRUSH CURRENT (Typ.)	COLD START 25A/115VAC 50A/230VAC			
	LEAKAGE CURRENT Note.4	Earth leakage current < 150μA/264VAC , Touch current < 100μA/264VAC			
PROTECTION	OVERLOAD	140 ~ 180% rated output power			
		Protection type : Hiccup mode, recovers automatically after fault condition is removed			
	OVER VOLTAGE	Ch1: 5.7 ~ 6.8V			
		Protection type : Shut down o/p voltage, re-power on to recover			
ENVIRONMENT	WORKING TEMP.	-20 ~ +70℃ (Refer to "Derating Curve")			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH non-condensing			
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes			
	OPERATING ALTITUDE Note.5	3000 meters			
SAFETY & EMC (Note 8)	SAFETY STANDARDS	IEC60601-1, EAC TP TC 004, UL ANSI/AAMI ES60601-1, CAN/CSA-C22.2 No. 60601-1:14 - Edition 3 approved, TUV EN60601-1 approved			
	ISOLATION LEVEL	Primary-Secondary:2xMOPP, Primary-Earth:1xMOPP			
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH			
	EMC EMISSION	**Parameter**	**Standard**	**Test Level / Note**	
		Conducted emission	EN55011 (CISPR11)	Class B	
		Radiated emission	EN55011 (CISPR11)	Class B	
		Harmonic current	EN61000-3-2	Class A	
		Voltage flicker	EN61000-3-3	-----	
	EMC IMMUNITY	EN60601-1-2			
		Parameter	**Standard**	**Test Level / Note**	
		ESD	EN61000-4-2	Level 4, 15KV air ; Level 4, 8KV contact	
		RF field susceptibility	EN61000-4-3	Level 3, 10V/m(80MHz~2.7GHz) Table 9, 9~28V/m(385MHz~5.78GHz)	
		EFT bursts	EN61000-4-4	Level 3, 2KV	
		Surge susceptibility	EN61000-4-5	Level 4, 4KV/Line-FG ; 2KV/Line-Line	
		Conducted susceptibility	EN61000-4-6	Level 3, 10V	
		Magnetic field immunity	EN61000-4-8	Level 4, 30A/m	
		Voltage dip, interruption	EN61000-4-11	100% dip 1 periods, 30% dip 25 periods, 100% interruptions 250 periods	
OTHERS	MTBF	569.9K hrs min. MIL-HDBK-217F (25℃)			
	DIMENSION (L*W*H)	127*76.2*31mm or 5" * 3" *1.22" inch			
	PACKING	0.25Kg; 63pcs/17.3Kg/1.46CUFT			

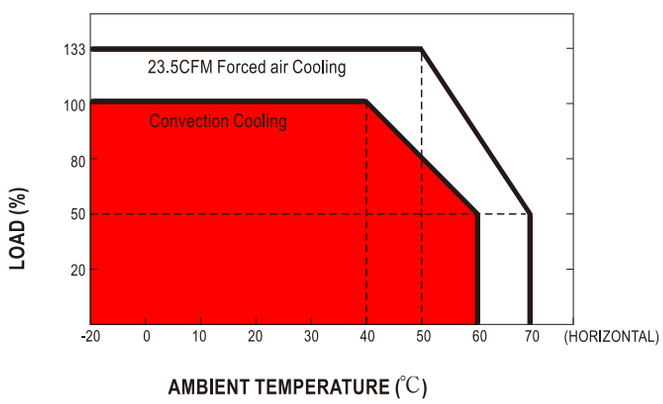
NOTE

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 0.1μf & 47μf parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. Touch current was measured from primary input to DC output.
5. 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).
6. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.
7. Heat Sink HS1,HS2,HS3 can not be shorted.
8. 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)

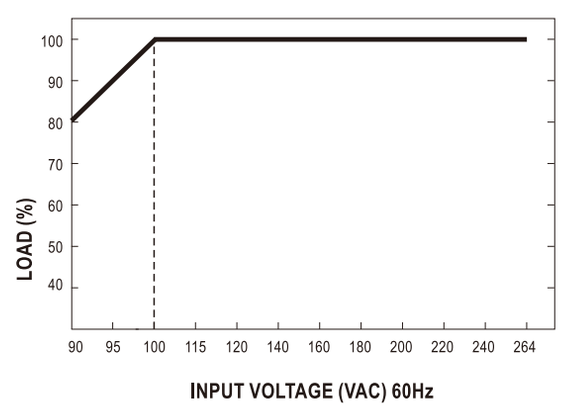
■ Block Diagram



■ Derating Curve



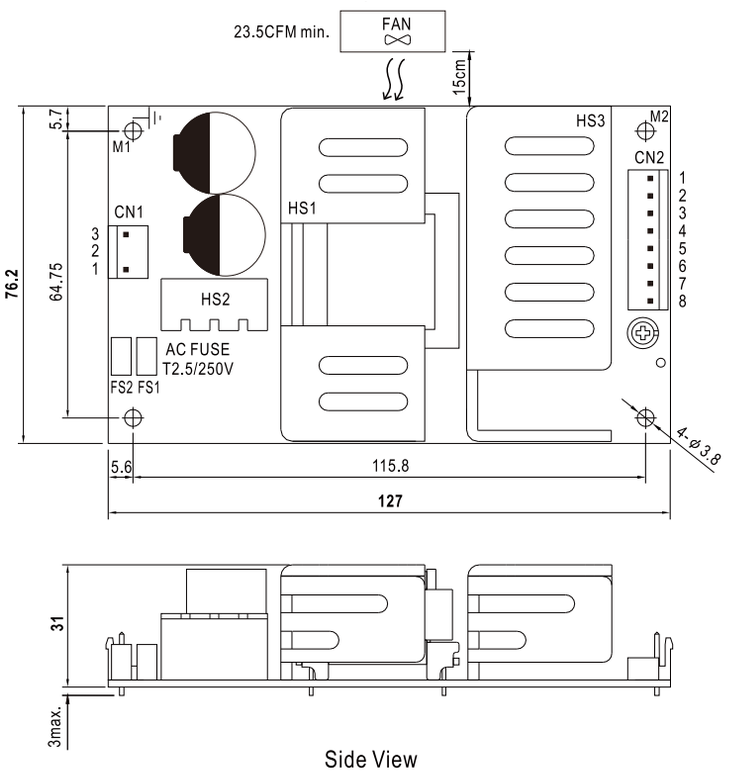
■ Output Derating VS Input Voltage



■ Mechanical Specification

Top View

Unit:mm



Side View

AC Input Connector (CN1) : JST B3P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	No Pin		
3	AC/L		

DC Output Connector (CN2) : JST B8P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2	V1	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3,4,5	COM		
6,7	V2		
8	NC		

⏚ : Grounding Required

⚠ 1.HS1,HS2,HS3 cannot be shorted.
2.M1 is safety ground. For better EMC performance,Please secure an electrical connection between M1,M2 and chassis grounding.

■ Installation Manual

Please refer to : http://www.meanwell.com/manual.html