

RPS-200 Series

200W Single Output Green Medical Type



Case: 8913DK
103.4 x 62 x 40 mm
PCB type.101.6 x 50.8 x 29mm

Features

- 4" x 2" miniature size
- Universal AC input / Full range
- Built-in active PFC function
- Medical safety approved (2 x MOPP between primary to secondary)
- Suitable for BF application with appropriate system consideration
- Low Leakage current <190µA
- EMI Class B for both Class I (with FG) and Class II (without FG) configuration
- No load power consumption <0.5W
- High Efficiency up to 94%
- Protections: Short circuit / Overload / Over voltage/ Over Temperature
- Cooling by free air convection for 140W and 200W with 10CFM forced air
- Built-in 12V/0.5A fan supply
- LED indicator for power on
- 3 years warranty



Specification

	Voltage	80 ~ 264VAC 113 ~ 370VDC					
	Frequency	47 ~ 63 Hz					
	Power Factor	PF >0.94/230VAC PF>0.98/115 VAC at full load					
	Efficiency	93%	93%	94%	94%	94%	
INPUT	AC Current (Typ.)	2A/115VAC		1A/230VAC			
	Inrush Current (Typ.)	Cold start 30A/115VAC		60A/230VAC			
	Leakage Current (max)	Earth leakage current <190µA/264VAC, Touch current <100µA/264VAC					
	Model Number	RPS-200-12 <input type="checkbox"/>	RPS-200-15 <input type="checkbox"/>	RPS-200-24 <input type="checkbox"/>	RPS-200-27 <input type="checkbox"/>	RPS-200-48 <input type="checkbox"/>	
	DC Voltage	12V	15V	24V	27V	48V	
	Current	10CFM	16.7A	13.4A	8.4A	7.5A	4.2A
		Convection	11.7A	9.4A	5.9A	5.3A	3A
	Rated Power	10CFM	200.4W	201W	201.6W	202.5W	201.6W
		Convection	140.4W	141W	141.6W	143.1W	144W
OUTPUT	R&N	100mVp-p	100mVp-p	150mVp-p	150mVp-p	200mVp-p	
	Voltage Adj. Range	11.4 ~ 12.6V	14.3 ~ 15.8V	22.8 ~ 25.2V	25.6 ~ 28.4V	45.6 ~ 50.4V	
	Voltage Tolerance	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	
	Line Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	Load Regulation	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	Setup, Rise Time	700ms, 30ms/230VAC 700ms, 30ms/115VAC at full load					
	Hold Up Time	12ms/230VAC 12ms/115VAC at full load					
		Overload	110 ~ 140% rated output power				
			Protection type: hiccup mode, recovers automatically after fault condition is removed				
	PROTECTION	Over Voltage	13.2 ~ 15.6V	16.5 ~ 19.5V	26.4 ~ 31.2V	29.7 ~ 35V	52.8 ~ 62.4V
		Protection type: Shutdown o/p voltage, re-power on to recover					
Over Temperature		Protection type: Shut down o/p voltage, re-power on to recover					
FUNCTION	Fan Supply	12V@0.5A for driving a fan; tolerance +15% ~ -15%					
	Working Temperature	-30 ~ +70°C (Refer to Derating Curve)					
	Working Humidity	20 ~ 90% RH non-condensing					
ENVIRONMENT	Storage Temperature	-40 ~ +85°C, 10 ~ 95% RH					
	Temp. Coefficient	±0.03%/°C (0-50°C)					
	Vibration	10 ~ 500Hz, 2G 10 min./1cycle, period for 60min. each along X, Y, Z axes					
	Safety Standards	ANSI/AAMI ES60601-1, TUV EN60601-1, IEC60601-1 approved					
	Isolation Level	Primary-Secondary: 2xMOPP, Primary-Earth: 1xMOPP, Secondary-Earth: 1 MOPP					
SAFETY & EMC	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:100M Ohms / 500VDC / 25°C / 70% RH					
	EMC Emission	Compliance to EN55011, (CISPR11) class B, EN61000-3-2,-3					
	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN60601-1-2 medical level, criteria A					
OTHERS	MTBF	500.2K hrs min. MIL-HDBK-217 (25°C)					
	Packing	PCB: 0.19kg; 72pcs/14.7Kg/0.82CUFT; Enclosed type: 0.3Kg; 60pcs/19Kg/1.12CUFT					

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load, 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz by using a 12" twisted pair-wire terminated with a 0.1µf & 47µf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation, load regulation.
4. Derating may be needed under low input voltages. Please check the derating curve for more details.
5. Touch current was measured from primary input to DC output.
6. The power supply is considered as a component which will be installed into final equipment. 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'.

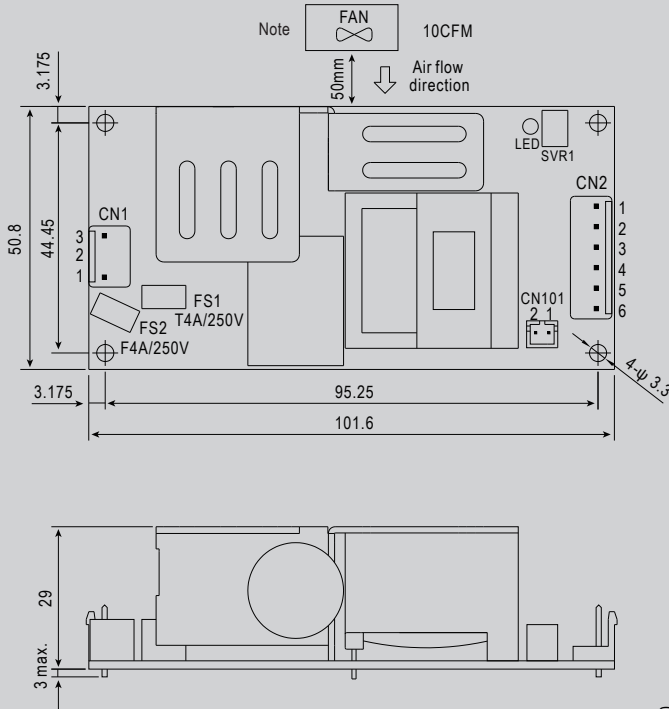
RPS-200 Series

200W Single Output Green Medical Type



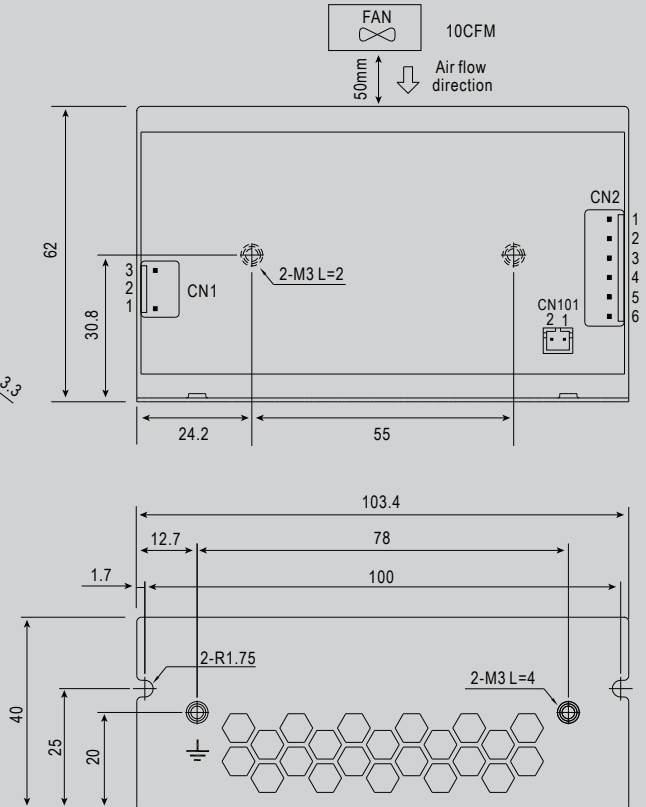
Mechanical Specification

PCB type



Enclosed type

Case No.245A Unit:mm



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

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

DC Output Connector (CN2) : JST B6P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2,3	+V	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
4,5,6	-V		

FAN Connector(CN101) : JST B2B-PH-K-S or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	DC COM	JST PHR-2 or equivalent	JST SPH-002T-P0.5S or equivalent
2	+12V		

Note : 1. The FAN supply is designed to serve as the source of the additive external fan for the cooling of the power supply, enabling the full load delivery and assuring the best life span of the product. Please do not use this FAN supply to drive other devices.

2. The PCB type(Blank type)model delivers EMI Class B for both conducted emission and radiated emission for the power supply, when configured into either Class I (with FG) or Class II (without FG) system.

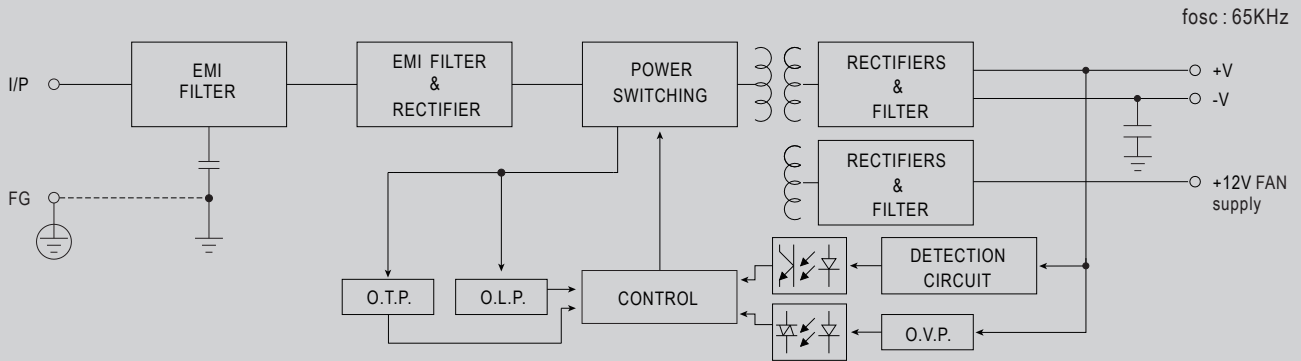
3. The Enclosed type(-C type) model is not suitable for the configuration within a Class II (without FG) system but is suggested to used within a Class I (with FG) system.

RPS-200 Series

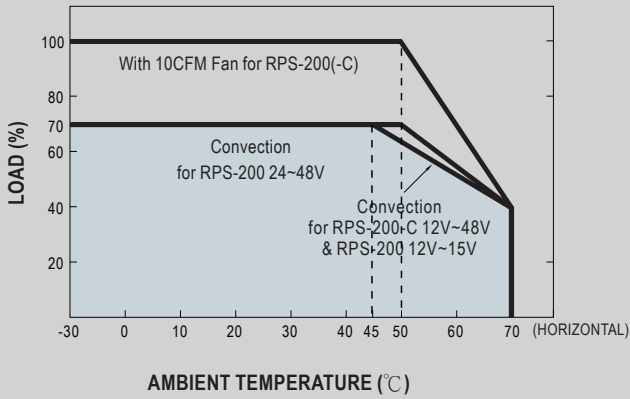
200W Single Output Green Medical Type



Block Diagram



Derating Curve



Static Characteristics

