

Features

- 5"×3" compact size
- Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1 and IEC/EN60601-1
- Suitable for BF application with appropriate system configuration
- 250W convection, 400W force air
- EMI Class B for Class I & Class A for Class II configuration
- No load power consumption < 0.5W by PS-ON control
- 5Vdc standby output, 12Vdc fan supply, Power Good, Power Fail and remote sense
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Operating altitude up to 4000 meters
- 3 years warranty

Applications

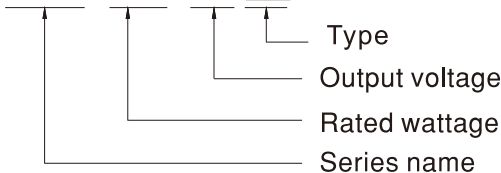
- Oral irrigator
- Hemodialysis machine
- Medical computer monitors
- Sleep apnea devices
- Pump machine
- Electric bed

Description

RPS-400 is a 400W highly reliable green PCB type medical power supply with a high power density on the 5" by 3" footprint. It accepts 80~264VAC input and offers various output voltages between 12V and 48V. The working efficiency is up to 94% and the extremely low no load power consumption is down below 0.5W. RPS-400 is able to be used for both Class I (with FG) or Class II (no FG) system design. The extremely low leakage current is less than 160 μA. In addition, it conforms to international medical regulations (2*MOPP) and EMC EN55011, perfectly fitting all kinds of BF rated "patient contact" medical system equipment. RPS-400 series also offers the enclosed style models(-C / TF /SF)

Model Encoding

RPS - 400 - 12 - C



Type	Description	Note
Blank	PCB Type	In stock
C	Enclosed casing Type	In stock
TF	Enclosed Type with fan on the top	In stock
SF	Enclosed Type with fan on the side	In stock



SPECIFICATION

MODEL		RPS-400-12 <input type="checkbox"/>	RPS-400-15 <input type="checkbox"/>	RPS-400-18 <input type="checkbox"/>	RPS-400-24	RPS-400-27 <input type="checkbox"/>	RPS-400-36 <input type="checkbox"/>	RPS-400-48 <input type="checkbox"/>	
OUTPUT	DC VOLTAGE	12V	15V	18V	24V	27V	36V	48V	
	CURRENT	25CFM	33.3A	26.7A	22.3A	16.7A	14.9A	11.2A	8.4A
		Convection	20.8A	16.7A	13.9A	10.5A	9.3A	7A	5.3A
	RATED POWER	25CFM	399.6W	400.5W	401.4W	400.8W	402.3W	403.2W	403.2W
		Convection	249.6W	250.5W	250.2W	252W	251.1W	252W	254.4W
	RIPPLE & NOISE (max.) Note.2	120mVp-p	120mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p	
	VOLTAGE ADJ. RANGE(main output)	11.4~12.6V	14.3~15.8V	17.1~18.9V	22.8~25.2V	25.6 ~ 28.4V	34.2 ~37.8V	45.6 ~50.4V	
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	±3.0%	±2.0%	±1.0%	±1.0%	±1.0%	
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
SETUP, RISE TIME	1000ms, 30ms/230VAC 1500ms, 30ms/115VAC at full load								
HOLD UP TIME (Typ.)	16ms/230VAC 16ms/115VAC at full load								
INPUT	VOLTAGE RANGE Note.4	80 ~ 264VAC		113 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz							
	POWER FACTOR	PF>0.94/230VAC PF>0.98/115VAC at full load							
	EFFICIENCY (Typ.)	91.5%	92%	93%	93%	93.5%	94%	94%	
	AC CURRENT (Typ.)	4.2A/115VAC		2.1A/230VAC					
	INRUSH CURRENT (Typ.)	COLD START 35A/115VAC		70A/230VAC					
	LEAKAGE CURRENT (max.) Note.5	Earth leakage current <200μA/264VAC 50Hz , Touch current < 70μA/264VAC							
PROTECTION	OVERLOAD	105 ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed							
	OVER VOLTAGE	13.2 ~ 15.6V	16.5 ~ 19.5V	19.8 ~23.4V	26.4 ~ 31.2V	29.7 ~ 35.1V	39.6 ~ 46.8V	52.8 ~ 62.4V	
	OVER TEMPERATURE	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down							
FUNCTION	5V STANDBY	5Vsb : 5V@0.6A without fan, 1A with fan 25CFM ; Tolerance ±2%, ripple : 120mVp-p(max.)							
	FAN SUPPLY	12V@0.5A for driving fan ; Tolerance ±10%							
	PS-ON INPUT SIGNAL	Power on: PS-ON = "Hi" or " > 2 ~ 5V" ; Power off: PS-ON = "Low" or " < 0 ~ 0.5V"							
	POWER GOOD / POWER FAIL	500ms>PG>10ms ; The TTL signal goes high with 10ms to 500ms delay after power set up ; The TTL signal goes low at least 1ms before Vo below 90% of rated value							
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")							
	WORKING HUMIDITY	20 ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing							
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)							
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes							
OPERATING ALTITUDE Note.6	4000 meters								