



## ■ Features

- 5"×3" compact size
- 320W convection, 500W force air
- 550W peak power (3sec.)
- Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1 and IEC/EN60601-1
- EMI for both Class I & Class II configuration
- -30~+70°C wide range operating temperature
- No load power consumption < 0.5W by PS\_ON control
- High efficiency up to 94%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- 5Vdc standby output, 12Vdc fan supply, Power Good, Power Fail and remote sense
- Operating altitude up to 4000 meters (Note.5)
- LED indicator for power on
- 3 years warranty

## ■ Applications

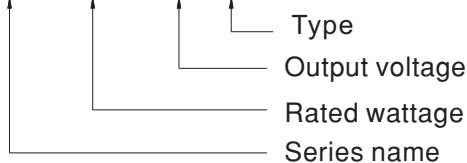
- Oral irrigator
- Hemodialysis machine
- Medical computer monitors
- Sleep apnea devices
- Pump machine
- Electric bed

## ■ Description

RPS-500 is a 500W 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-500 (blank type only) is able to be used for both Class I (with FG) and Class II (no FG) system design. The extremely low leakage current is less than 220µA. 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-500 series also offers the enclosed style models( -C / TF / SF )

## ■ Model Encoding

**RPS - 500 - 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



# 500W 5"×3" Reliable Green Medical Power Supply **RPS-500** series

## SPECIFICATION

MODEL		RPS-500-12	RPS-500-15	RPS-500-18	RPS-500-24	RPS-500-27	RPS-500-36	RPS-500-48		
OUTPUT	DC VOLTAGE	12V	15V	18V	24V	27V	36V	48V		
	RATED CURRENT Note.7	Blank	25CFM	41.6A	33.3A	27.8A	20.8A	18.5A	13.9A	10.4A
			Convection	26.7A	21.3A	17.8A	13.4A	11.9A	8.9A	6.7A
		- C	25CFM	41.6A	33.3A	27.8A	20.8A	18.5A	13.9A	10.4A
			Convection	25.8A	20.7A	17.2A	12.9A	11.5A	8.6A	6.5A
	- TF/SF	Built-in fan	41.6A	33.3A	27.8A	20.8A	18.5A	13.9A	10.4A	
	RATED POWER Note.7	Blank	25CFM	499.2W	499.5W	500.4W	499.2W	499.5W	500.4W	499.2W
			Convection	320.4W	319.5W	320.4W	321.6W	321.3W	320.4W	321.6W
		- C	25CFM	499.2W	499.5W	500.4W	499.2W	499.5W	500.4W	499.2W
			Convection	309.6W	310.5W	309.6W	309.6W	310.5W	309.6W	312W
- TF/SF	Built-in fan	499.2W	499.5W	500.4W	499.2W	499.5W	500.4W	499.2W		
PEAK POWER(3sec.)	550W									
RIPPLE & NOISE (max.)	Note.2	200mVp-p	200mVp-p	200mVp-p	200mVp-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%	±2.0%	±1.0%	±1.0%		
LINE REGULATION	±0.5%									
LOAD REGULATION	±1.0%									
SETUP, RISE TIME	1000ms, 30ms/230VAC 1500ms, 30ms/115VAC at full load									
HOLD UP TIME (Typ.)	10ms/230VAC 10ms/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%	92%	92.5%	93%	93.5%	94%	94%		
	AC CURRENT (Typ.)	5.8A/115VAC 2.9A/230VAC								
	INRUSH CURRENT (Typ.)	COLD START 40A/115VAC 80A/230VAC								
	LEAKAGE CURRENT (max.)	Note.5	Earth leakage current <220μA/264VAC 50Hz , Touch current < 100μA/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.)								
	12V 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.	-40 ~ +85°C								
	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							