

ANSI/AAMI ES60601-1



EN60601-1



IEC60601-1



Features

- 5"x3" 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 consideration
- 200W convection, 300W force air
- No load power consumption < 0.5W by PS-ON control
- Extremely low leakage current
- 5Vdc standby output, 12Vdc fan supply, Power Good, Power Fail and remote sense
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Typical Lifetime > 40K hours
- 3 years warranty

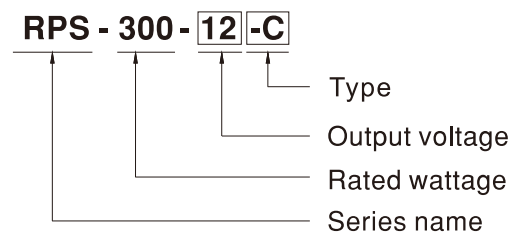
Applications

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

Description

RPS-300 is a 300W 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 various output voltages between 12V and 48V. The working efficiency is up to 93% and the extremely low no load power consumption is down below 0.5W. The extremely low leakage current is less than 150 μ A. 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-300 series also offers the enclosed style model (RPS-300-C).

Model Encoding



Type	Description	Note
Blank	PCB Type	In stock
C	Enclosed casing Type	In stock



SPECIFICATION

MODEL		RPS-300-12□	RPS-300-15□	RPS-300-24□	RPS-300-27□	RPS-300-48□	
OUTPUT	DC VOLTAGE	12V	15V	24V	27V	48V	
	RATED CURRENT (20.5CFM)	25A	20A	12.5A	11.12A	6.25A	
	CURRENT	Convection	0 ~ 16.67A	0 ~ 13.33A	0 ~ 8.33A	0 ~ 7.4A	0 ~ 4.17A
		20.5CFM	0 ~ 25A	0 ~ 20A	0 ~ 12.5A	0 ~ 11.12A	0 ~ 6.25A
	RATED POWER	Convection	200W	200W	200W	200W	200.2W
		20.5CFM	300W	300W	300W	300W	300W
	RIPPLE & NOISE (max.) Note.2	120mVp-p	120mVp-p	150mVp-p	200mVp-p	250mVp-p	
	VOLTAGE ADJ. RANGE (main output)	11.4 ~ 12.6V	14.25 ~ 15.75V	22.8 ~ 25.2V	25.65 ~ 28.35V	45.6 ~ 50.4V	
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	±2.0%	±2.0%	±2.0%	
	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	2500ms, 30ms/230VAC 3000ms, 30ms/115VAC at full load						
HOLD UP TIME (Typ.)	13ms/230VAC/115VAC at full load						
INPUT	VOLTAGE RANGE Note.4	90 ~ 264VAC 127 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz					
	POWER FACTOR (Typ.)	PF>0.93/230VAC		PF>0.98/115VAC at full load			
	EFFICIENCY (Typ.)	90%	90%	92.5%	93%	93%	
	AC CURRENT (Typ.)	3.5A/115VAC 1.8A/230VAC					
	INRUSH CURRENT (Typ.)	COLD START 35A/115VAC		70A/230VAC			
	LEAKAGE CURRENT(max.) Note.5	PCB Type: Earth leakage current <150μA / 264VAC, Touch current <70μA/264VAC Enclosed Type: Earth leakage current <200μA / 264VAC, Touch current <70μA/264VAC					
PROTECTION	OVERLOAD	105 ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	13.5 ~ 15V	16.2 ~ 18.5V	26 ~ 30V	29.5 ~ 33.5V	52 ~ 59.5V	
	OVER TEMPERATURE	Protection type : (TSW1) Shut down o/p voltage, recovers automatically after temperature goes down					
		Protection type : (TSW2) Shut down o/p voltage, re-power on to recover					
FUNCTION	5V STANDBY	5Vsb : 5V@0.6A without fan, 1A with fan 20.5CFM ; tolerance ± 2%, ripple : 150mVp-p(max.)					
	FAN SUPPLY	12V@0.5A for driving a fan ; Tolerance -15% ~ +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	2000 meters					