400W Reliable Green Medical Power Supply

RPS-400 series

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

ECO 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 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

- -C: Type
- 12: Output voltage
- 400: Rated wattage
- RPS: Series name

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

MEAN WELL

400W Reliable Green Medical Power Supply

RPS-400 series

SPECIFICATION

MODEL			RPS-400-12□	RPS-400-15□	RPS-400-18□	RPS-400-24	RPS-400-27□	RPS-400-36□	RPS-400-48□
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
			Protection type : Shut down o/p voltage, re-power on to recover						
	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℃ (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, 60min. each along X, Y, Z axes						
	OPERATING ALTITUDE Note.6		4000 meters						